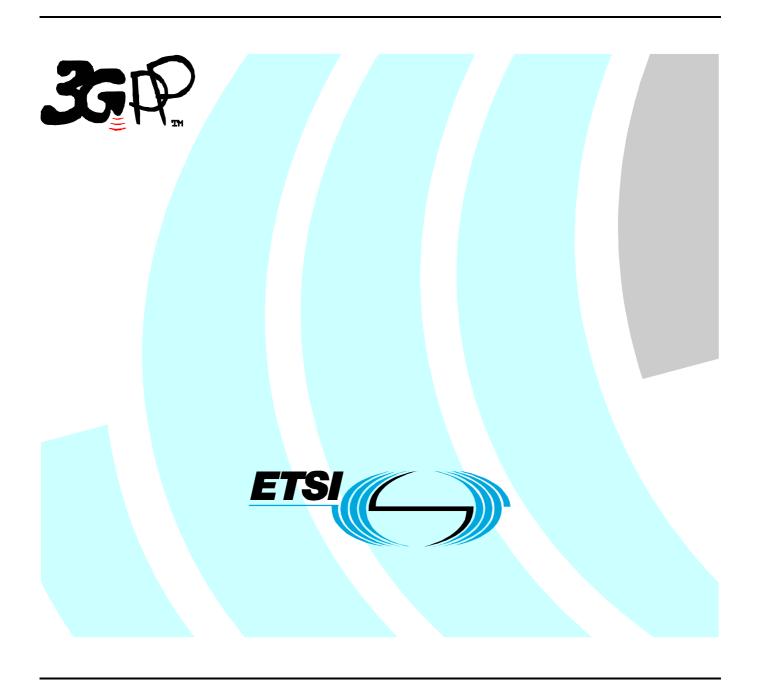
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Foreword

This Technical Specification has been produced by the 3GPP.

The contents of the present document are subject to continuing work within the TSG and may change following formal TSG approval. Should the TSG modify the contents of this TS, it will be re-released by the TSG with an identifying change of release date and an increase in version number as follows:

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- x the first digit:
 - 1 presented to TSG for information;
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- y the second digit is incremented for all changes of substance, i.e. technical enhancements, corrections, updates, etc.
- z the third digit is incremented when editorial only changes have been incorporated in the document.

1 Scope

The present document specifies the radio network layer signalling protocol called Node B Application Part (NBAP) specification to be used for Control Plane over Iub Interface.

2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document in the same Release as the present document.
- [1] 3GPP TS 25.401: "UTRAN Overall Description". [2] 3GPP TS 25.426: "UTRAN Iur and Iub Interface Data Transport & Transport Signalling for DCH Data Streams". CCITT Recommendation X.731 (01/92): "Information Technology – Open Systems [3] Interconnection – Systems Management: State Management function". 3GPP TS 25.215: "Physical layer - Measurements (FDD)". [4] 3GPP TS 25.225: "Physical layer – Measurements (TDD)". [5] [6] 3GPP TS 25.430: "UTRAN Iub General Aspect and Principle". 3GPP TS 25.211: "Physical channels and mapping of transport channels onto physical channels [7] (FDD)". 3GPP TS 25.212: "Multiplexing and channel coding (FDD)". [8] 3GPP TS 25.213: "Spreading and modulation (FDD)". [9] [10] 3GPP TS 25.214: "Physical layer procedures (FDD)". ITU-T Recommendation X.691, (12/97) "Information technology - ASN.1 encoding rules -[11] Specification of Packed Encoding Rules (PER)".
- [12] ITU-T Recommendation X.680, (12/97) "Information Technology - Abstract Syntax Notation One (ASN.1):Specification of basic notation".
- ITU-T Recommendation X.681, (12/97) "Information Technology Abstract Syntax Notation One [13] (ASN.1): Information object specification".
- [14] 3GPP TS 25.104: "UTRA (BS) FDD; Radio Transmission and Reception".
- 3GPP TS 25.105: "UTRA (BS) TDD; Radio Transmission and Reception". [15]
- 3GPP TS 25.427: "UTRAN Iur/Iub Interface User Plane Protocol for DCH Data Stream". [16]
- 3GPP TS 25.402: "Synchronisation in UTRAN Stage2". [17]
- 3GPP TS 25.331: "RRC Protocol Specification". [18]

[19]	3GPP TS 25.221: "Physical channels and mapping of transport channels onto physical channels[TDD]".
[20]	3GPP TS 25.223: "Spreading and modulation (TDD)".
[21]	3GPP TS 25.224: "Physical Layer Procedures (TDD)".
[22]	3GPP TS 25.133: "Requirements for support of Radio Resource management (FDD)".
[23]	3GPP TS 25.123: "Requirements for support of Radio Resource management (TDD)".
[24]	3GPP TS 25.435: "UTRAN Iub Interface: User Plane Protocols for Common Transport Channel Data Streams".
[25]	3GPP TS 25.302: "Services Provided by the Physical Layer".
[26]	3GPP TR 25.921: "Guidelines and Principles for Protocol Description and Error Handling".
[27	ICD-GPS-200: "Navstar GPS Space Segment/Navigation User Interface".
[28]	RTCM-SC104: "RTCM Recommended Standards for Differential GNSS Service (v.2.2)".

3 Definitions, Symbols and Abbreviations

3.1 Definitions

For the purposes of the present document, the following terms and definitions apply.

CRNC Communication Context: The CRNC Communication Context contains the necessary information for the CRNC for communication with a specific UE. The CRNC Communication Context is identified by the CRNC Communication Context ID.

Elementary Procedure: The NBAP protocol consists of Elementary Procedures (EPs). An Elementary Procedure is a unit of interaction between the CRNC and the Node B.

An EP consists of an initiating message and possibly a response message.

Two kinds of EPs are used:

- Class 1: Elementary Procedures with response (success or failure).
- Class 2: Elementary Procedures without response.

For Class 1 EPs, the types of responses can be as follows:

Successful

- A signalling message explicitly indicates that the elementary procedure has been successfully completed with the receipt of the response.

Unsuccessful

- A signalling message explicitly indicates that the EP failed.

Class 2 EPs are considered always successful.

Node B Communication Context: The Node B Communication Context contains the necessary information for the Node B for communication with a specific UE. The Node B Communication Context is created by the Radio Link Setup procedure and deleted by the Radio Link Deletion procedure when deleting the last Radio Link within the Node B Communication Context. The Node B Communication Context is identified by the Node B Communication Context ID.

Prepared Reconfiguration: A Prepared Reconfiguration exists when the Synchronised Radio Link Reconfiguration Preparation procedure has been completed successfully. The Prepared Reconfiguration does not exist any more after

either of the procedures Synchronised Radio Link Reconfiguration Commit or Synchronised Radio Link Reconfiguration Cancellation has been completed.

3.2 Symbols

Void.

3.3 Abbreviations

For the purposes of the present document, the following abbreviations apply:

A-GPS Assisted GPS

AICH Acquisition Indicator Channel

AP-AICH Access Preamble Acquisition Indicator Channel

ASN.1 Abstract Syntax Notation One
BCCH Broadcast Control Channel
CCPCH Common Control Physical Cla

CCPCH Common Control Physical Channel

CFN Connection Frame Number

CM Compressed Mode
CPCH Common Packet Channel
CPICH Common Pilot Channel

CRNC Controlling Radio Network Controller
CSICH CPCH Status Indicator Channel

DCH Dedicated Channel
DGPS Differential GPS
DL Downlink

DPCCH Dedicated Physical Control Channel
DPCH Dedicated Physical Channel
DPDCH Dedicated Physical Data Channel
DSCH Downlink Shared Channel

FACH Forward Access Channel FDD Frequency Division Duplex

FP Frame Protocol

GPS Global Positioning System
IPDL Idle Periods in the DownLink
ISCP Interference Signal Code Power

L1 Layer 1 L2 Layer 2

MIB Master Information Block NBAP Node B Application Part O&M Operation and Maintenance

PCCPCH Primary Common Control Physical Channel

PCH Paging Channel

PCPCH Physical Common Packet Channel PDSCH Physical Downlink Shared Channel

PICH Paging Indication Channel
PUSCH Physical Uplink Shared Channel
RACH Random Access Channel

RL Radio Link RLS Radio Link Set

RNC Radio Network Controller RRC Radio Resource Control SB Scheduling Block

SCCPCH Secondary Common Control Physical Channel

SCH Synchronisation Channel
SCTD Space Code Transmit Diversity
SIB System Information Block
SRNC Serving Radio Network Controller

SSDT Site Selection Diversity Transmission STTD Space Time Transmit Diversity

TDD Time Division Duplex

TFC Transport Format Combination

TFCI Transport Format Combination Indicator
TFCS Transport Format Combination Set

TFS Transport Format Set
TPC Transmit Power Control

TSTD Time Switched Transmit Diversity

UARFCN UTRA Absolute Radio Frequency Channel Number

UE User Equipment

UL Uplink

UMTS Universal Mobile Telecommunications System

USCH Uplink Shared Channel

UTRA Universal Terrestrial Radio Access

UTRAN Universal Terrestrial Radio Access Network

4 General

4.1 Procedure Specification Principles

The principle for specifying the procedure logic is to specify the functional behaviour of the Node B exactly and completely. The CRNC functional behaviour is left unspecified. The Reset procedure is an exception from this principle.

The following specification principles have been applied for the procedure text in subclause 8:

- The procedure text discriminates between:
 - 1) Functionality which "shall" be executed

The procedure text indicates that the receiving node "shall" perform a certain function Y under a certain condition. If the receiving node supports procedure X but cannot perform functionality Y requested in the REQUEST message of a Class 1 EP, the receiving node shall respond with the message used to report unsuccessful outcome for this procedure, containing an appropriate cause value.

2) Functionality which "shall, if supported" be executed

The procedure text indicates that the receiving node "shall, if supported," perform a certain function Y under a certain condition. If the receiving node supports procedure X, but does not support functionality Y, the receiving node shall proceed with the execution of the EP, possibly informing the requesting node about the not supported functionality.

- Any required inclusion of an optional IE in a response message is explicitly indicated in the procedure text. If the procedure text does not explicitly indicate that an optional IE shall be included in a response message, the optional IE shall not be included. For requirements on including *Criticality Diagnostics* IE, see section 10. For examples on how to use the *Criticality Diagnostics* IE, see Annex C.

4.2 Forwards and Backwards Compatibility

The forwards and backwards compatibility of the protocol is assured by a mechanism in which all current and future messages, and IEs or groups of related IEs, include Id and criticality fields that are coded in a standard format that will not be changed in the future. These parts can always be decoded regardless of the standard version.

4.3 Specification Notations

For the purposes of the present document, the following notations apply:

- [FDD] This tagging of a word indicates that the word preceding the tag "[FDD]" applies only to FDD. This tagging of a heading indicates that the heading preceding the tag "[FDD]" and the section following the heading applies only to FDD.
- [TDD] This tagging of a word indicates that the word preceding the tag "[TDD]" applies only to TDD, including 3.84Mcps TDD and 1.28Mcps TDD. This tagging of a heading indicates that the heading preceding the tag "[TDD]" and the section following the heading applies only to TDD, including 3.84Mcps TDD and 1.28Mcps TDD.
- [3.84Mcps TDD] This tagging of a word indicates that the word preceding the tag "[3.84Mcps TDD]" applies only to 3.84Mcps TDD. This tagging of a heading indicates that the heading preceding the tag "[3.84Mcps TDD]" and the section following the heading applies only to 3.84Mcps TDD.
- [1.28Mcps TDD] This tagging of a word indicates that the word preceding the tag "[1.28Mcps TDD]" applies only to 1.28Mcps TDD. This tagging of a heading indicates that the heading preceding the tag "[1.28Mcps TDD]" and the section following the heading applies only to 1.28Mcps TDD.
- [FDD ...] This tagging indicates that the enclosed text following the "[FDD " applies only to FDD.

 Multiple sequential paragraphs applying only to FDD are enclosed separately to enable insertion of TDD specific (or common) paragraphs between the FDD specific paragraphs.
- [TDD ...] This tagging indicates that the enclosed text following the "[TDD " applies only to TDD, including 3.84Mcps TDD and 1.28Mcps TDD. Multiple sequential paragraphs applying only to TDD are enclosed separately to enable insertion of FDD specific (or common) paragraphs between the TDD specific paragraphs.
- [3.84Mcps TDD ...] This tagging indicates that the enclosed text following the "[3.84Mcps TDD " applies only to 3.84Mcps TDD. Multiple sequential paragraphs applying only to 1.28Mcps TDD are enclosed separately to enable insertion of FDD and TDD specific (or common) paragraphs between the 3.84Mcps TDD specific paragraphs.
- [1.28Mcps TDD ...] This tagging indicates that the enclosed text following the "[1.28Mcps TDD " applies only to 1.28Mcps TDD. Multiple sequential paragraphs applying only to 1.28Mcps TDD are enclosed separately to enable insertion of FDD and TDD specific (or common) paragraphs between the 1.28Mcps TDD specific paragraphs.
- Procedure When referring to an elementary procedure in the specification the Procedure Name is written with the first letters in each word in upper case characters followed by the word "procedure", e.g. Radio Link Setup procedure.
- Message When referring to a message in the specification the MESSAGE NAME is written with all letters in upper case characters followed by the word "message", e.g. RADIO LINK SETUP REQUEST message.
- IE When referring to an information element (IE) in the specification the *Information Element Name* is written with the first letters in each word in upper case characters and all letters in Italic font followed by the abbreviation "IE", e.g. *Transport Format Set* IE.
- Value of an IE When referring to the value of an information element (IE) in the specification the "Value" is written as it is specified in subclause 9.2 enclosed by quotation marks, e.g. "Abstract Syntax Error (Reject)" or "SSDT Active in the UE".

5 NBAP Services

5.1 Parallel Transactions

Unless explicitly indicated in the procedure description, at any instance in time one protocol peer shall have a maximum of one ongoing dedicated NBAP procedure related to a certain Node B Communication Context.

6 Services Expected from Signalling Transport

NBAP requires an assured in-sequence delivery service from the signalling bearer, and notification if the assured in-sequence delivery service is no longer available.

7 Functions of NBAP

The NBAP protocol provides the following functions:

- Cell Configuration Management. This function gives the CRNC the possibility to manage the cell configuration information in a Node B.
- Common Transport Channel Management. This function gives the CRNC the possibility to manage the configuration of Common Transport Channels in a Node B.
- System Information Management. This function gives the CRNC the ability to manage the scheduling of System Information to be broadcast in a cell.
- Resource Event Management. This function gives the Node B the ability to inform the CRNC about the status of Node B resources.
- Configuration Alignment. This function gives the CRNC and the Node B the possibility to verify and enforce that both nodes have the same information on the configuration of the radio resources.
- Measurements on Common Resources. This function allows the CRNC to initiate measurements on common resources in the Node B. The function also allows the Node B to report the result of the measurements.
- Radio Link Management. This function allows the CRNC to manage radio links using dedicated resources in a Node B
- Radio Link Supervision. This function allows the CRNC to report failures and restorations of a Radio Link.
- Compressed Mode Control [FDD]. This function allows the CRNC to control the usage of compressed mode in a Node B.
- Measurements on Dedicated Resources. This function allows the CRNC to initiate measurements on dedicated resources in the Node B. The function also allows the Node B to report the result of the measurements.
- DL Power Drifting Correction [FDD]. This function allows the CRNC to adjust the DL power level of one or more Radio Links in order to avoid DL power drifting between the Radio Links.
- Reporting of General Error Situations. This function allows reporting of general error situations, for which function specific error messages have not been defined.
- Physical Shared Channel Management [TDD]. This function allows the CRNC to manage physical resources in the Node B belonging to Shared Channels (USCH/DSCH).
- DL Power Timeslot Correction [TDD]. This function enables the Node B to apply an individual offset to the transmission power in each timeslot according to the downlink interference level at the UE.
- Cell Synchronisation [3.84Mcps TDD]. This function allows the synchronisation of cells or Node Bs via the air interface.

- Information Exchange. This function allows the CRNC to initiate information provision from the Node B. The function also allows the Node B to report the requested information.

The mapping between the above functions and NBAP elementary procedures is shown in the table below.

Table 1: Mapping between functions and NBAP elementary procedures

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		d) Information Exchange Failure

8 NBAP Procedures

8.1 Elementary Procedures

NBAP procedures are divided into common procedures and dedicated procedures.

- NBAP common procedures are procedures that request initiation of a Node B Communication Context for a specific UE in Node B or are not related to a specific UE. NBAP common procedures also incorporate logical O&M [1] procedures.
- NBAP dedicated procedures are procedures that are related to a specific Node B Communication Context in Node B. This Node B Communication Context is identified by a Node B Communication Context identity.

The two types of procedures may be carried on separate signalling links.

In the following tables, all EPs are divided into Class 1 and Class 2 EPs:

Table 2: Class 1

Elementary	Message	Successful Outcome	Unsuccessful Outcome
Procedure		Response message	Response message
Cell Setup	CELL SETUP REQUEST	CELL SETUP RESPONSE	CELL SETUP FAILURE
Cell Reconfiguration	CELL RECONFIGURATION REQUEST	CELL RECONFIGURATION RESPONSE	CELL RECONFIGURATION FAILURE
Cell Deletion	CELL DELETION REQUEST	CELL DELETION RESPONSE	
Common Transport Channel Setup	COMMON TRANSPORT CHANNEL SETUP REQUEST	COMMON TRANSPORT CHANNEL SETUP RESPONSE	COMMON TRANSPORT CHANNEL SETUP FAILURE
Common Transport Channel Reconfiguration	COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST	COMMON TRANSPORT CHANNEL RECONFIGURATION RESPONSE	COMMON TRANSPORT CHANNEL RECONFIGURATION FAILURE
Common Transport Channel Deletion	COMMON TRANSPORT CHANNEL DELETION REQUEST	COMMON TRANSPORT CHANNEL DELETION RESPONSE	
Physical Shared Channel Reconfigure [TDD]	PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST	PHYSICAL SHARED CHANNEL RECONFIGURATION RESPONSE	PHYSICAL SHARED CHANNEL RECONFIGURATION FAILURE
Audit Block Resource	AUDIT REQUEST BLOCK RESOURCE REQUEST	AUDIT RESPONSE BLOCK RESOURCE RESPONSE	AUDIT FAILURE BLOCK RESOURCE FAILURE
Radio Link Setup	RADIO LINK SETUP REQUEST	RADIO LINK SETUP RESPONSE	RADIO LINK SETUP FAILURE
System Information Update	SYSTEM INFORMATION UPDATE REQUEST	SYSTEM INFORMATION UPDATE RESPONSE	SYSTEM INFORMATION UPDATE FAILURE
Common Measurement Initiation	COMMON MEASUREMENT INITIATION REQUEST	COMMON MEASUREMENT INITIATION RESPONSE	COMMON MEASUREMENT INITIATION FAILURE
Radio Link Addition	RADIO LINK ADDITION REQUEST	RADIO LINK ADDITION RESPONSE	RADIO LINK ADDITION FAILURE
Radio Link Deletion	RADIO LINK DELETION REQUEST	RADIO LINK DELETION RESPONSE	
Synchronised Radio Link Reconfiguration Preparation	RADIO LINK RECONFIGURATION PREPARE	RADIO LINK RECONFIGURATION READY	RADIO LINK RECONFIGURATION FAILURE
Unsynchronised Radio Link Reconfiguration	RADIO LINK RECONFIGURATION REQUEST	RADIO LINK RECONFIGURATION RESPONSE	RADIO LINK RECONFIGURATION FAILURE
Dedicated Measurement Initiation	DEDICATED MEASUREMENT INITIATION REQUEST	DEDICATED MEASUREMENT INITIATION RESPONSE	DEDICATED MEASUREMENT INITIATION FAILURE
Reset	RESET REQUEST	RESET RESPONSE	
Cell Synchronisation Initiation [3.84Mcps TDD]	CELL SYNCHRONISATION INITIATION REQUEST	CELL SYNCHRONISATION INITIATION RESPONSE	CELL SYNCHRONISATION INITIATION FAILURE
Cell Synchronisation Reconfiguration [3.84 Mcps TDD]	CELL SYNCHRONISATION RECONFIGURATION REQUEST	CELL SYNCHRONISATION RECONFIGURATION RESPONSE	CELL SYNCHRONISATION RECONFIGURATION FAILURE
Cell Synchronisation Adjustment [3.84Mcps TDD]	CELL SYNCHRONISATION ADJUSTMENT REQUEST	CELL SYNCHRONISATION ADJUSTMENT RESPONSE	CELL SYNCHRONISATION ADJUSTMENT FAILURE
Information Exchange Initiation	INFORMATION EXCHANGE INITIATION REQUEST	INFORMATION EXCHANGE INITIATION RESPONSE	INFORMATION EXCHANGE INITIATION FAILURE

Table 3: Class 2

Flamentam Bases done	M	
Elementary Procedure	Message	
Resource Status Indication	RESOURCE STATUS INDICATION	
Audit Required	AUDIT REQUIRED INDICATION	
Common Measurement Reporting	COMMON MEASUREMENT	
	REPORT	
Common Measurement	COMMON MEASUREMENT	
Termination	TERMINATION REQUEST	
Common Measurement Failure	COMMON MEASUREMENT	
	FAILURE INDICATION	
Synchronised Radio Link	RADIO LINK RECONFIGURATION	
Reconfiguration Commit	COMMIT	
Synchronised Radio Link	RADIO LINK RECONFIGURATION	
Reconfiguration Cancellation	CANCEL	
Radio Link Failure	RADIO LINK FAILURE INDICATION	
Radio Link Restoration	RADIO LINK RESTORE INDICATION	
Dedicated Measurement Reporting	DEDICATED MEASUREMENT	
. •	REPORT	
Dedicated Measurement	DEDICATED MEASUREMENT	
Termination	TERMINATION REQUEST	
Dedicated Measurement Failure	DEDICATED MEASUREMENT	
	FAILURE INDICATION	
Downlink Power Control [FDD]	DL POWER CONTROL REQUEST	
Compressed Mode Command	COMPRESSED MODE COMMAND	
[FDD]		
Unblock Resource	UNBLOCK RESOURCE INDICATION	
Error Indication	ERROR INDICATION	
Downlink Power Timeslot Control	DL POWER TIMESLOT CONTROL	
[TDD]	REQUEST	
Radio Link Pre-emption	RADIO LINK PREEMPTION	
	REQUIRED INDICATION	
Cell Synchronisation Reporting	CELL SYNCHRONISATION	
[3.84Mcps TDD]	REPORT	
Cell Synchronisation Termination	CELL SYNCHRONISATION	
[3.84Mcps TDD]	TERMINATION REQUEST	
Cell Synchronisation Failure	CELL SYNCHRONISATION	
[3.84Mcps TDD]	FAILURE INDICATION	
Information Reporting	INFORMATION REPORT	
Information Exchange Termination	INFORMATION EXCHANGE	
	TERMINATION REQUEST	
Information Exchange Failure	INFORMATION EXCHANGE	
	FAILURE INDICATION	

8.2 NBAP Common Procedures

8.2.1 Common Transport Channel Setup

8.2.1.1 General

This procedure is used for establishing the necessary resources in Node B, regarding Secondary CCPCH, PICH, PRACH, PCPCH [FDD], AICH [FDD], AP_AICH [FDD], CD/CA-ICH [FDD], FACH, PCH, RACH, FPACH[1.28Mcps TDD] and CPCH [FDD].

8.2.1.2 Successful Operation

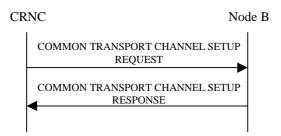


Figure 1: Common Transport Channel Setup procedure, Successful Operation

The procedure is initiated with a COMMON TRANSPORT CHANNEL SETUP REQUEST message sent from the CRNC to the Node B using the Node B Control Port.

One message can configure only one of the following combinations:

- [FDD one Secondary CCPCH, and FACHs, PCH and PICH related to that Secondary CCPCH], or
- [TDD one CCTrCH consisting of Secondary CCPCHs and FACHs, PCH with the corresponding PICH related to that group of Secondary CCPCHs], or
- one [1.28Mcps TDD or more] PRACH, one RACH and one AICH [FDD] and one FPACH[1.28Mcps TDD] related to that PRACH.
- [FDD-PCPCHs, one CPCH, one AP_AICH and one CD/CA-ICH related to that group of PCPCHs.]

Secondary CCPCH:

[FDD - When the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains the *Secondary CCPCH* IE, the Node B shall configure and activate the indicated Secondary CCPCH according to the COMMON TRANSPORT CHANNEL SETUP REQUEST message.]

[TDD - When the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains the *Secondary CCPCH* IE, the Node B shall configure and activate the indicated Secondary CCPCH(s) according to the COMMON TRANSPORT CHANNEL SETUP REQUEST message.]

[TDD - FACHs and PCH may be mapped onto a CCTrCH which may consist of several Secondary CCPCHs]

If the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains the *FACH Parameters* IE, the Node B shall configure and activate the indicated FACH(s) according to the COMMON TRANSPORT CHANNEL SETUP REQUEST message.

If the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains the *PCH Parameters* IE, the Node B shall configure and activate the concerned PCH and the associated PICH according to the COMMON TRANSPORT CHANNEL SETUP REQUEST message.

[1.28Mcps TDD – If the *PCH Power* IE is included in the *PCH Parameters* IE of the COMMON TRANSPORT CHANNEL SETUP REQUEST, the Node B shall use this value as the power at which the PCH shall be transmitted.]

PRACH:

When the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains the *PRACH* IE, the Node B shall configure and activate the indicated PRACH and the associated RACH [FDD – and the associated AICH] according to the COMMON TRANSPORT CHANNEL SETUP REQUEST message.

[1.28Mcps TDD – FPACH]:

If the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains the *FPACH* IE, the Node B shall configure and activate the indicated FPACH according to the COMMON TRANSPORT CHANNEL SETUP REQUEST message.

[FDD-PCPCHs]:

When the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains the *CPCH Parameters* IE, the Node B shall configure and activate the indicated CPCH and the associated PCPCH(s), AP-AICH and CD/CA-ICH according to the COMMON TRANSPORT CHANNEL SETUP REQUEST message.

If the COMMON TRANSPORT CHANNEL SETUP REQUEST message includes *CD Signatures* IE, the Node B may use only the given CD signatures on CD/CA-ICH. Otherwise, the Node B may use all the CD signatures on CD/CA-ICH.

If the COMMON TRANSPORT CHANNEL SETUP REQUEST message includes *CD Sub Channel Numbers* IE, the Node B may use only the given CD Sub Channels on CD/CA-ICH. Otherwise, the Node B may use all the CD Sub Channels on CD/CA-ICH.

If the COMMON TRANSPORT CHANNEL SETUP REQUEST message includes *Channel Request Parameters* IE, the Node B shall use the parameters to distinguish the PCPCHs.

If the COMMON TRANSPORT CHANNEL SETUP REQUEST message includes *AP Sub Channel Number* IE in *Channel Request Parameters* IE, the Node B shall use only these AP sub channel number to distinguish the configured PCPCH. Otherwise all AP subchannel numbers are used to distinguish the configured PCPCH.

If the COMMON TRANSPORT CHANNEL SETUP REQUEST message includes *AP Sub Channel Number* IE in *SF Request Parameters* IE, the Node B shall use only these AP sub channel number to distinguish the requested Spreading Factors. Otherwise all AP subchannel numbers are used to distinguish the configured Spreading Factor.

General:

After successfully configuring the requested common transport channels and the common physical channels, the Node B shall store the value of *Configuration Generation ID* IE and it shall respond with the COMMON TRANSPORT CHANNEL SETUP RESPONSE message with the *Common Transport Channel ID* IE, the *Binding ID* IE and the *Transport Layer Address* IE for the configured common transport channels.

After a successful procedure and once the transport bearers are established, the configured common transport channels and the common physical channels shall adopt the state Enabled [6] in the Node B and the common physical channels exist on the Uu interface.

8.2.1.3 Unsuccessful Operation

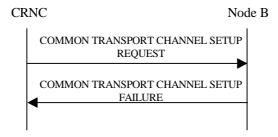


Figure 2: Common Transport Channel Setup procedure, Unsuccessful Operation

If the Node B is not able to support all or part of the configuration, it shall reject the configuration of all the channels in the COMMON TRANSPORT CHANNEL SETUP REQUEST message. The channels in the COMMON TRANSPORT CHANNEL SETUP REQUEST message shall remain in the same state as prior to the procedure. The *Cause* IE shall be set to an appropriate value. The value of *Configuration Generation ID* IE from the COMMON TRANSPORT CHANNEL SETUP REQUEST message shall not be stored.

If the configuration was unsuccessful, the Node B shall respond with a COMMON TRANSPORT CHANNEL SETUP FAILURE message.

Typical cause values are as follows:

Radio Network Layer Cause

- Cell not available
- Power level not supported

- Node B Resources unavailable
- Requested Tx Diversity Mode not supported
- UL SF not supported
- DL SF not supported
- Common Transport Channel Type not supported

Transport Layer Cause

Transport Resources Unavailable

Miscellaneous Cause

- O&M Intervention
- Control processing overload
- HW failure

8.2.1.4 Abnormal Conditions

If the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains the *Secondary CCPCH* IE, and that IE contains [FDD – neither the *FACH Parameters* IE nor the *PCH Parameters* IE] [TDD – neither the *FACH* IE nor the *PCH* IE], the Node B shall reject the procedure using the COMMON TRANSPORT CHANNEL SETUP FAILURE message.

[FDD – If the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains the *CD Sub Channel Numbers* IE, but the *CD Signatures* IE is not present, then the Node B shall reject the procedure using the COMMON TRANSPORT CHANNEL SETUP FAILURE message.]

[TDD – If the FACH CCTrCH Id IE or the PCH CCTrCH Id IE does not equal the SCCPCH CCTrCH Id IE, the Node B shall regard the Common Transport Channel Setup procedure as having failed and the Node B shall send the COMMON TRANSPORT CHANNEL SETUP FAILURE message to the CRNC.]

[TDD – If the *TDD Physical Channel Offset* IE, the *Repetition Period* IE, and the *Repetition Length* IE are not equal for each SCCPCH configured within the CCTrCH, the Node B shall regard the Common Transport Channel Setup procedure as having failed and the Node B shall send the COMMON TRANSPORT CHANNEL SETUP FAILURE message to the CRNC.]

[1.28Mcps TDD – If the *Common Transport Channel ID* IE, and the *Transport Format Set* IE are not equal for each RACH configured in PRACH, the Node B shall regard the Common Transport Channel Setup procedure as having failed and the Node B shall send the COMMON TRANSPORT CHANNEL SETUP FAILURE message to the CRNC.]

If the state is already Enabled or Disabled [6] for at least one channel in the COMMON TRANSPORT CHANNEL SETUP REQUEST message which is received, the Node B shall reject the configuration of all channels with the *Cause* IE set to "Message not compatible with receiver state".

8.2.2 Common Transport Channel Reconfiguration

8.2.2.1 General

This procedure is used for reconfiguring common transport channels and/or common physical channels, while they still might be in operation.

8.2.2.2 Successful Operation

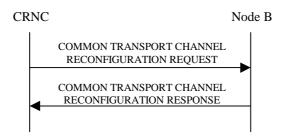


Figure 3: Common Transport Channel Reconfiguration, Successful Operation

The procedure is initiated with a COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message sent from the CRNC to the Node B using the Node B Control Port.

One message can configure only one of the following combinations:

- [FDD FACHs, one PCH and/or one PICH related to one Secondary CCPCH], or
- [TDD one CCTrCH consisting of Secondary CCPCHs and FACHs, PCH with the corresponding PICH related to that group of Secondary CCPCHs], or
- one RACH and/or one AICH[FDD])] and/or one FPACH[1.28Mcps TDD] related to one PRACH, or
- [FDD one CPCH and/or one AP-AICH and/or one CD/CA-ICH related to one CPCH].

SCCPCH:

[TDD - If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the *SCCPCH Power* IE, the Node B shall reconfigure the power that the indicated S-CCPCH shall use.]

FACH:

If the FACH Parameters IE is present, the Node B shall reconfigure the indicated FACH(s).

[FDD - If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the *Max FACH Power* IE, the Node B shall reconfigure the maximum power that the indicated FACH may use.]

[1.28Mcps TDD - If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the *Max FACH Power* IE, the Node B shall reconfigure the maximum power that the indicated FACH may use.]

If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the *ToAWS* IE, the Node B shall reconfigure the time of arrival window startpoint that the indicated FACH shall use.

If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the *ToAWE* IE, the Node B shall reconfigure the time of arrival window endpoint that the indicated FACH shall use.

PCH:

If the PCH Parameters IE is present, the Node B shall reconfigure the indicated PCH.

[FDD - If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the *PCH Power* IE, the Node B shall reconfigure the power that the PCH shall use.]

[1.28Mcps TDD - If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the *PCH Power* IE, the Node B shall reconfigure the power that the PCH shall use.]

If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the *ToAWS* IE, the Node B shall reconfigure the time of arrival window startpoint that the PCH shall use.

If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the *ToAWE* IE, the Node B shall reconfigure the time of arrival window endpoint that the PCH shall use.

PICH:

If the PICH Parameters IE is present, the Node B shall reconfigure the indicated PICH.

If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the *PICH Power* IE, the Node B shall reconfigure the power that the PICH shall use.

[FDD - PRACH]:

If the PRACH Parameters IE is present, the Node B shall reconfigure the indicated PRACH(s).

If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the *Preamble Signatures* IE, the Node B shall reconfigure the preamble signatures that the indicated PRACH shall use.

If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the *Allowed Slot Format Information* IE, the Node B shall reconfigure the slot formats that the indicated PRACH shall use.

If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the *RACH Sub Channel Numbers* IE, the Node B shall reconfigure the sub channel numbers that the indicated PRACH shall use.

[FDD - AICH]:

If the AICH Parameters IE is present, the Node B shall reconfigure the indicated AICH(s).

If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the *AICH Power* IE, the Node B shall reconfigure the power that the indicated AICH shall use.

[FDD - CPCH]:

If the CPCH Parameters IE is present, the Node B shall reconfigure the indicated CPCH.

If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the *UL SIR* IE, the Node B shall reconfigure the UL SIR for the UL power control for the indicated CPCH.

If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the *Initial DL Transmission Power* IE, the Node B shall reconfigure the Initial DL Transmission Power for the indicated CPCH.

If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the *Maximum DL Power* IE, the Node B shall apply this value to the new configuration of the indicated CPCH and never transmit with a higher power on any DL PCPCHs once the new configuration is being used.

If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the *Minimum DL Power* IE, the Node B shall apply this value to the new configuration of the indicated CPCH and never transmit with a lower power on any DL PCPCHs once the new configuration is being used.

[FDD - AP-AICH]:

If the AP-AICH Parameters IE is present, the Node B shall reconfigure the indicated AP-AICH.

If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the *AP-AICH Power* IE, the Node B shall reconfigure the power that the AP-AICH shall use.

If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the *CSICH Power* IE, the Node B shall reconfigure the power that the CSICH shall use.

[FDD-CD/CA-ICH]:

If the CD/CA-ICH Parameters IE is present, the Node B shall reconfigure the indicated CD/CA-ICH.

If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the *CD/CA-AICH Power* IE, the Node B shall reconfigure the power that the CD/CA-AICH shall use.

[1.28Mcps TDD - FPACH]:

If the FPACH Parameters IE is included, the Node B shall reconfigure the indicated FPACH.

If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the *Max FPACH Power* IE, the Node B shall reconfigure the power that the FPACH shall use.

General:

After a successful procedure, the channels will have adopted the new configuration in the Node B. The channels in the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message shall remain in the same state as prior to the procedure. The Node B shall store the value of *Configuration Generation ID* IE and the Node B shall respond with the COMMON TRANSPORT CHANNEL RECONFIGURATION RESPONSE message.

8.2.2.3 Unsuccessful Operation

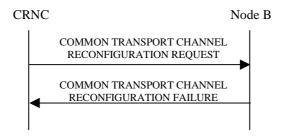


Figure 4: Common Transport Channel Reconfiguration procedure, Unsuccessful Operation

If the Node B is not able to support all or part of the configuration, it shall reject the configuration of all the channels in the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message. The channels in the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message shall remain in the same state as prior to the procedure. The *Cause* IE shall be set to an appropriate value. The value of *Configuration Generation ID* IE from the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message shall not be stored.

If the configuration was unsuccessful, the Node B shall respond with the COMMON TRANSPORT CHANNEL RECONFIGURATION FAILURE message.

Typical cause values are as follows:

Radio Network Layer Cause

- Cell not available
- Power level not supported
- Node B Resources unavailable

Transport Layer Cause

- Transport Resources Unavailable

Miscellaneous Cause

- O&M Intervention
- Control processing overload
- HW failure

8.2.2.4 Abnormal Conditions

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8.2.3 Common Transport Channel Deletion

8.2.3.1 General

This procedure is used for deleting common physical channels and common transport channels.

8.2.3.2 Successful Operation

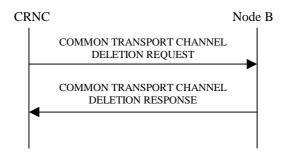


Figure 5: Common Transport Channel Deletion procedure, Successful Operation

The procedure is initiated with a COMMON TRANSPORT CHANNEL DELETION REQUEST message sent from the CRNC to the Node B using the Node B Control Port.

Secondary CCPCH:

If the *Common Physical Channel ID* IE contained in the COMMON TRANSPORT CHANNEL DELETION REQUEST message indicates a Secondary CCPCH, the Node B shall delete the indicated channel and the FACHs and PCH supported by that Secondary CCPCH. If there is a PCH that is deleted, the PICH associated with that PCH shall also be deleted.

PRACH:

If the *Common Physical Channel ID* IE contained in the COMMON TRANSPORT CHANNEL DELETION REQUEST message indicates a PRACH, the Node B shall delete the indicated channel and the RACH supported by the PRACH. [FDD - The AICH associated with the RACH shall also be deleted.]

[FDD - PCPCHs]:

If the *Common Physical Channel ID* IE contained in the COMMON TRANSPORT CHANNEL DELETION REQUEST message indicates one of the PCPCHs for a CPCH, the Node B shall delete all PCPCHs associated with the indicated channel and the CPCH supported by these PCPCHs. The AP-AICH and CD/CA-ICH associated with the CPCH shall also be deleted.

General:

[TDD – If the requested common physical channel is a part of a CCTrCH, all common transport channels and all common physical channels associated with this CCTrCH shall be deleted.]

After a successful procedure, the channels are deleted in the Node B. The channels in the COMMON TRANSPORT CHANNEL DELETION REQUEST message shall be set to state Not Existing ref. [6]. The Node B shall store the received value of the *Configuration Generation ID* IE and respond with the COMMON TRANSPORT CHANNEL DELETION RESPONSE message.

8.2.3.3 Unsuccessful Operation

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8.2.3.4 Abnormal Conditions

If the C-ID in the COMMON TRANSPORT CHANNEL DELETION REQUEST message is not existing in the Node B or the Common Physical Channel ID does not exist in the Cell, the Node B shall respond with the COMMON TRANSPORT CHANNEL DELETION RESPONSE message.

8.2.4 Block Resource

8.2.4.1 General

The Node B initiates this procedure to request the CRNC to prohibit the usage of the specified logical resources.

The logical resource that can be blocked is a cell.

8.2.4.2 Successful Operation

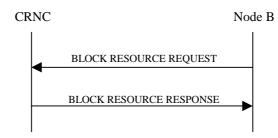


Figure 6: Block Resource procedure, Successful Operation

The procedure is initiated with a BLOCK RESOURCE REQUEST message sent from the Node B to the CRNC using the Node B Control Port.

Upon reception of the BLOCK RESOURCE REQUEST message, the CRNC shall prohibit the use of the indicated logical resources according to the *Blocking Priority Indicator* IE.

If the *Blocking Priority Indicator* IE in the BLOCK RESOURCE REQUEST message indicates "High Priority", the CRNC shall prohibit the use of the logical resources immediately.

If the *Blocking Priority Indicator* IE in the message indicates "Normal Priority", the CRNC shall prohibit the use of the logical resources if the resources are idle or immediately upon expiry of the shutdown timer specified by the *Shutdown Timer* IE in the BLOCK RESOURCE REQUEST message. New traffic shall not be allowed to use the logical resources while the CRNC waits for the resources to become idle and once the resources are blocked.

If the *Blocking Priority Indicator* IE in the BLOCK RESOURCE REQUEST message indicates "Low Priority", the CRNC shall prohibit the use of the logical resources when the resources become idle. New traffic shall not be allowed to use the logical resources while the CRNC waits for the resources to become idle and once the resources are blocked.

If the resources are successfully blocked, the CRNC shall respond with a BLOCK RESOURCE RESPONSE message. Upon reception of the BLOCK RESOURCE RESPONSE message, the Node B may disable [3.84Mcps TDD - SCH], [FDD - the Primary SCH, the Secondary SCH, the Primary CPICH, if present the Secondary CPICH(s)], [1.28Mcps TDD – DwPCH] and the Primary CCPCH. The other logical resources in the cell shall be considered as blocked.

Reconfiguration of logical resources and change of System Information can be done, even when the logical resources are blocked.

Interactions with the Unblock Resource procedure:

If the UNBLOCK RESOURCE INDICATION message is received by the CRNC while a Block Resource procedure on the same logical resources is in progress, the CRNC shall cancel the Block Resource procedure and proceed with the Unblock Resource procedure.

If the BLOCK RESOURCE RESPONSE message or the BLOCK RESOURCE FAILURE message is received by the Node B after the Node B has initiated an Unblock Resource procedure on the same logical resources as the ongoing Block Resource procedure, the Node B shall ignore the response to the Block Resource procedure.

8.2.4.3 Unsuccessful Operation

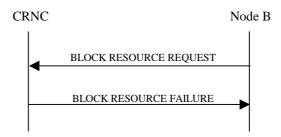


Figure 7: Block Resource procedure, Unsuccessful Operation

The CRNC may reject the request to block the logical resources, in which case the logical resources will remain unaffected and the CRNC shall respond to the Node B with the BLOCK RESOURCE FAILURE message. Upon reception of the BLOCK RESOURCE FAILURE message, the Node B shall leave the logical resources in the state that they were in prior to the start of the Block Resource procedure.

Typical cause values are as follows:

Miscellaneous Cause

- O&M Intervention
- Control processing overload
- HW failure

Radio Network Layer Cause

- Priority transport channel established

8.2.4.4 Abnormal Conditions

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8.2.5 Unblock Resource

8.2.5.1 General

The Node B initiates this procedure to indicate to the CRNC that logical resources are now unblocked.

The logical resource that can be unblocked is a cell.

8.2.5.2 Successful Operation



Figure 8: Unblock Resource procedure, Successful Operation

The procedure is initiated with an UNBLOCK RESOURCE INDICATION message sent from the Node B to the CRNC using the Node B Control Port. The Node B shall enable [TDD - SCH], [FDD - the Primary SCH, the Secondary SCH, the Primary CPICH, the Secondary CPICH(s) (if present)], [1.28Mcps TDD – DwPCH] and the Primary CCPCH that had been disabled due to the preceding Block Resource procedure before sending the UNBLOCK RESOURCE

INDICATION message. Upon reception of the UNBLOCK RESOURCE INDICATION message, the CRNC may permit the use of the logical resources.

All physical channels and transport channels associated to the cell that is unblocked are also unblocked.

8.2.5.3 Abnormal Conditions

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8.2.6 Audit Required

8.2.6.1 General

The Node B initiates this procedure to request the CRNC to perform an audit of the logical resources at the Node B. This procedure is used to indicate a possible misalignment of state or configuration information.

8.2.6.2 Successful Operation



Figure 9: Audit Required procedure, Successful Operation

The procedure is initiated with an AUDIT REQUIRED INDICATION message sent from the Node B to the CRNC using the Node B Control Port.

If the Node B cannot ensure alignment of the state or configuration information, it should initiate the Audit Required procedure.

Upon receipt of the AUDIT REQUIRED INDICATION message, the CRNC should initiate the Audit procedure.

8.2.6.3 Abnormal Conditions

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8.2.7 Audit

8.2.7.1 General

This procedure is executed by the CRNC to perform an audit of the configuration and status of the logical resources in the Node B. A complete audit of a Node B is performed by one or more Audit procedures, together performing an audit sequence. The audit may cause the CRNC to re-synchronise the Node B to the status of logical resources known by the CRNC, that the Node B can support.

8.2.7.2 Successful Operation

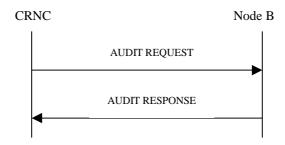


Figure 10: Audit procedure, Successful Operation

The procedure is initiated with an AUDIT REQUEST message sent from the CRNC to the Node B using the Node B Control Port.

If the *Start of Audit Sequence* IE in the AUDIT REQUEST message is set to "start of audit sequence" a new audit sequence is started, any ongoing audit sequence shall be aborted and the Node B shall provide (part of the) audit information. If the *Start of Audit Sequence* IE is set to "not start of audit sequence", the Node B shall provide (part of) the remaining audit information not already provided during this audit sequence.

If the information provided in the AUDIT RESPONSE message completes the audit sequence, the Node B shall set the *End Of AuditSequence Indicator* IE in the AUDIT RESPONSE message to "End of Audit Sequence". If not all audit information has been provided yet as part of the ongoing audit sequence, the Node B shall set the *End Of AuditSequence Indicator* IE in the AUDIT RESPONSE message to "Not End of Audit Sequence".

Information Provided In One Audit Sequence.

The Node B shall include one *Local Cell Information* IE for each local cell present in the Node B. The Node B shall include the *Maximum DL Power Capability* IE, the *Minimum Spreading Factor* IE and the *Minimum DL Power Capability* IE when any of those values are known by the Node B.

[TDD - The Node B shall include the *Reference Clock availability* IE to indicate the availability of a Reference clock connected to the Local Cell.]

If the Node B internal resources are pooled for a group of cells, the Node B shall include one *Local Cell Group Information* IE containing the Node B internal resource capacity and the consumption laws per group of cells. If the *UL Capacity Credit* IE is not present in the *Local Cell Group Information* IE, then the internal resource capabilities of the Node B for the Local Cell Group are modelled as shared resources between Uplink and Downlink.

The Node B shall include, for each local cell present in the Node B, the Node B internal resource capability and consumption laws within the *Local Cell Information* IE. If the *UL Capacity Credit* IE is not present in the *Local Cell Information* IE, then the internal resource capabilities of the local cell are modelled as shared resources between Uplink and Downlink. If the Local Cell utilises Node B internal resource capabilities that are pooled for several Local Cell(s), the *Local Cell Group ID* IE shall contain the identity of the used Local Cell Group.

The Node B shall include one *Cell Information* IE for each cell in the Node B and information about all common transport channels and all common physical channels for each cell. If a *Configuration Generation ID* IE for a cell can not be trusted, the Node B shall set this *Configuration Generation ID* IE = "0".

The Node B shall also include one *Communication Control Port Information* IE for each Communication Control Port in the Node B.

8.2.7.3 Unsuccessful Operation

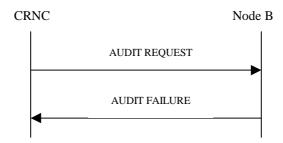


Figure 10A: Audit procedure, Unsuccessful Operation

If the Node B cannot perform an audit of the configuration and status of the logical resources, it shall send an AUDIT FAILURE message with the *Cause* IE set to an appropriate value.

8.2.7.4 Abnormal Conditions

If the Node B receives the AUDIT REQUEST message with the *Start of Audit Sequence* IE set to "not start of audit sequence" and there is no ongoing audit sequence, the Node B shall send the AUDIT FAILURE message with the appropriate cause value.

8.2.8 Common Measurement Initiation

8.2.8.1 General

This procedure is used by a CRNC to request the initiation of measurements on common resources in a Node B.

8.2.8.2 Successful Operation

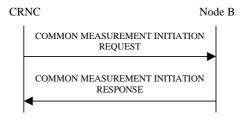


Figure 11: Common Measurement Initiation procedure, Successful Operation

The procedure is initiated with a COMMON MEASUREMENT INITIATION REQUEST message sent from the CRNC to the Node B using the Node B Control Port.

Upon reception, the Node B shall initiate the requested measurement according to the parameters given in the request. Unless specified below, the meaning of the parameters are given in other specifications.

[TDD - If the [3.84Mcps TDD – *Time Slot* IE] [1.28Mcps TDD – *Time Slot LCR* IE] is present in the COMMON MEASUREMENT INITIATION REQUEST message, the measurement request shall apply to the requested time slot individually.]

[FDD - If the *Spreading Factor* IE is present in the COMMON MEASUREMENT INITIATION REQUEST message, the measurement request shall apply to the PCPCHs whose minimum allowed spreading factor (Min UL Channelisation Code Length) is equal to the value of the *Spreading Factor* IE.

If the *Common Measurement Type* IE is not set to "SFN-SFN Observed Time Difference" and the *SFN Reporting Indicator* IE is set to "FN Reporting Required", the *SFN* IE shall be included in the COMMON MEASUREMENT

REPORT message or in the COMMON MEASUREMENT RESPONSE message, the latter only in the case the *Report Characteristics* IE is set to "On Demand". The reported SFN shall be the SFN at the time when the measurement value was reported by the layer 3 filter, referred to as point C in the measurement model [25]. If the *Common Measurement Type* IE is set to "SFN-SFN Observed Time Difference" and the *SFN Reporting Indicator* IE is ignored.

Common measurement type

If the *Common Measurement Type* IE is set to "SFN-SFN Observed Time Difference", then the Node B shall initiate the SFN-SFN Observed Time Difference measurements between the reference cell identified by *C-ID* IE and the neighbouring cells identified by the *UTRAN Cell Identifier(UC-Id)* IE in the *Neighbouring Cell Measurement Information* IE.

Report characteristics

The Report Characteristics IE indicates how the reporting of the measurement shall be performed. See also Annex B.

If the *Report Characteristics* IE is set to "On-Demand" and if the *SFN* IE is not provided, the Node B shall return the result of the requested measurement immediately. If the *SFN* IE is provided, it indicates the frame for which the measurement value shall be provided. The provided measurement value shall be the one reported by the layer 3 filter, referred to as point C in the measurement model [25].

If the *Report Characteristics* IE is set to "Periodic", the Node B shall periodically initiate a Common Measurement Reporting procedure for this measurement, with the requested report frequency. If the *Common Measurement Type* IE is set to "SFN-SFN Observed Time Difference", all the available measurement results shall be reported in the *Successful Neighbouring Cell SFN-SFN Observed Time Difference Measurement Information* IE in the *SFN-SFN Measurement Value Information* IE and the Node B shall indicate in the *Unsuccessful Neighbouring Cell SFN-SFN Observed Time Difference Measurement Information* IE all the remaining neighbouring cells with no measurement result available in the Common Measurement Reporting procedure. If the *SFN* IE is provided, it indicates the frame for which the first measurement value of a periodic reporting shall be provided. The provided measurement value shall be the one reported by the layer 3 filter, referred to as point C in the measurement model [25].

If the *Report Characteristics* IE is set to "Event A", the Node B shall initiate the Common Measurement Reporting procedure when the measured entity rises above the requested threshold and stays there for the requested hysteresis time. If the *Measurement Hysteresis Time* IE is not included, the Node B shall use the value zero for the hysteresis time.

If the *Report Characteristics* IE is set to "Event B", the Node B shall initiate the Common Measurement Reporting procedure when the measured entity falls below the requested threshold and stays there for the requested hysteresis time. If the *Measurement Hysteresis Time* IE is not included, the Node B shall use the value zero for the hysteresis time.

If the *Report Characteristics* IE is set to "Event C", the Node B shall initiate the Common Measurement Reporting procedure when the measured entity rises by an amount greater than the requested threshold within the requested time. After having reported this type of event, the next C event reporting for the same measurement cannot be initiated before the rising time specified by the *Measurement Change Time* IE has elapsed since the previous event reporting.

If the *Report Characteristics* IE is set to "Event D", the Node B shall initiate the Common Measurement Reporting procedure when the measured entity falls by an amount greater than the requested threshold within the requested time. After having reported this type of event, the next D event reporting for the same measurement cannot be initiated before the falling time specified by the *Measurement Change Time* IE has elapsed since the previous event reporting.

If the *Report Characteristics* IE is set to "Event E", the Node B shall initiate the Common Measurement Reporting procedure when the measured entity rises above the 'Measurement Threshold 1' and stays there for the 'Measurement Hysteresis Time' (Report A). When the conditions for Report A are met and the *Report Periodicity* IE is provided, the Node B shall initiate the Common Measurement Reporting procedure periodically. If the conditions for Report A have been met and the measured entity falls below the 'Measurement Threshold 2' and stays there for the 'Measurement Hysteresis Time', the Node B shall initiate the Common Measurement Reporting procedure (Report B) as well as terminating any corresponding periodic reporting. If the *Measurement Threshold 2* IE is not present, the Node B shall use the value of the *Measurement Threshold 1* IE instead. If the *Measurement Hysteresis Time* IE is not included, the Node B shall use the value zero as hysteresis times for both Report A and Report B.

If the *Report Characteristics* IE is set to "Event F", the Node B shall initiate the Common Measurement Reporting procedure when the measured entity falls below the 'Measurement Threshold 1' and stays there for the 'Measurement Hysteresis Time' (Report A). When the conditions for Report A are met and the *Report Periodicity* IE is provided the Node B shall also initiate the Common Measurement Reporting procedure periodically. If the conditions for Report A have been met and the measured entity rises above the 'Measurement Threshold 2' and stays there for the 'Measurement Hysteresis Time', the Node B shall initiate the Common Measurement Reporting procedure (Report B) as well as

terminating any corresponding periodic reporting. If the *Measurement Threshold 2* IE is not present, the Node B shall use the value of the *Measurement Threshold 1* IE instead. If the *Measurement Hysteresis Time* IE is not included, the Node B shall use the value zero as hysteresis times for both Report A and Report B.

If the *Report Characteristics* IE is set to "On Modification" and if the *SFN* IE is not provided, the Node B shall report the result of the requested measurement immediately. If the *SFN* IE is provided, it indicates the frame for which the measurement value shall be provided. The provided measurement value shall be the one reported by the layer 3 filter, referred to as point C in the measurement model [25]. Then, the Node B shall initiate the Common Measurement Reporting procedure in accordance to the following conditions:

- 1. If the Common Measurement Type IE is set to "UTRAN GPS Timing of Cell Frames for UE Positioning":
 - If the $T_{UTRAN-GPS}$ Change Limit IE is included in the $T_{UTRAN-GPS}$ Measurement Threshold Information IE, the Node B shall each time a new measurement result is received after point C in the measurement model [25], calculate the change of $T_{UTRAN-GPS}$ value (F_n). The Node B shall initiate the Common Measurement Reporting procedure and set n equal to zero when the absolute value of F_n rises above the threshold indicated by the $T_{UTRAN-GPS}$ Change Limit IE. The change of $T_{UTRAN-GPS}$ value (F_n) is calculated according to the following:

$$F_n = 0 \text{ for } n = 0$$

$$F_n = (M_n - M_{n-1}) \text{ mod } 37158912000000 - ((SFN_n - SFN_{n-1}) \text{ mod } 4096) *10*3.84*10^3*16 + F_{n-1} \text{ for } n > 0$$

 F_n is the change of the $T_{UTRAN-GPS}$ value expressed in unit [1/16 chip] when n measurement results have been received after the first Common Measurement Reporting at initiation or after the last event was triggered.

 M_n is the latest measurement result received after point C in the measurement model [25], measured at SFN_n.

 M_{n-1} is the previous measurement result received after point C in the measurement model [25], measured at SFN_{n-1}.

 M_1 is the first measurement result received after point C in the measurement model [25], after the first Common Measurement Reporting at initiation or after the last event was triggered.

 M_0 is equal to the value reported in the first Common Measurement Reporting at initiation or in the Common Measurement Reporting when the event was triggered.

- If the *Predicted T_{UTRAN-GPS} Deviation Limit* IE is included in the *T_{UTRAN-GPS} Measurement Threshold Information* IE, the Node B shall each time a new measurement result is received after point C in the measurement model [25], update the P_n and F_n The Node B shall initiate the Common Measurement Reporting procedure and set n equal to zero when F_n rises above the threshold indicated by the *Predicted T_{UTRAN-GPS} Deviation Limit* IE. The P_n and F_n are calculated according to the following:

```
\begin{split} P_n &= b \ for \ n = 0 \\ P_n &= ((a/16) * ((SFN_n - SFN_{n-1}) \ mod \ 4096)/100 + ((SFN_n - SFN_{n-1}) \ mod \ 4096) * 10*3.84*10^3*16 + P_{n-1}) \\ mod \ 37158912000000 \qquad for \ n > 0 \\ F_n &= min((M_n - P_n) \ mod \ 37158912000000) \qquad for \ n > 0 \end{split}
```

 P_n is the predicted $T_{UTRAN-GPS}$ value when n measurement results have been received after the first Common Measurement Reporting at initiation or after the last event was triggered.

a is the last reported T_{UTRAN-GPS} Drift Rate value.

b is the last reported $T_{UTRAN-GPS}$ value.

 F_n is the deviation of the last measurement result from the predicted $T_{\rm UTRAN\text{-}GPS}$ value (P_n) when n measurements have been received after the first Common Measurement Reporting at initiation or after the last event was triggered.

 M_n is the latest measurement result received after point C in the measurement model [25], measured at SFN_n.

 M_I is the first measurement result received after point C in the measurement model [25], after the first Common Measurement Reporting at initiation or after the last event was triggered.

The $T_{UTRAN-GPS}$ Drift Rate is determined by the Node B in an implementation-dependent way after point B in the measurement model [26].

- 2. If the Common Measurement Type IE is set to "SFN-SFN Observed Time Difference":
 - If the SFN-SFN Change Limit IE is included in the SFN-SFN Measurement Threshold Information IE, the Node B shall each time a new measurement result is received after point C in the measurement model [25], calculate the change of SFN-SFN value (F_n). The Node B shall initiate the Common Measurement Reporting procedure in order to report the particular SFN-SFN measurement which has triggred the event and set n equal to zero when F_n rises above the threshold indicated by the SFN-SFN Change Limit IE. The change of the SFN-SFN value is calculated according to the following:

$$F_n=0$$
 for $n=0$
[FDD - $F_n = (M_n-a) \mod 614400$ for $n>0$]
[TDD - $F_n = (M_n-a) \mod 40960$ for $n>0$]

 F_n is the change of the SFN-SFN value expressed in unit [1/16 chip] when n measurement results have been received after the first Common Measurement Reporting at initiation or after the last event was triggered.

a is the last reported SFN-SFN.

 M_n is the latest measurement result received after point C in the measurement model [25], measured at SFN_n.

 M_I is the first measurement result received after point C in the measurement model [25] after the first Common Measurement Reporting at initiation or after the last event was triggered.

- If the Predicted SFN-SFN Deviation Limit IE is included in the SFN-SFN Measurement Threshold Information IE, the Node B shall each time a new measurement result is received after point C in the measurement model [25], update the P_n and F_n. The Node B shall initiate the Common Measurement Reporting procedure in order to report the particular SFN-SFN measurement which has triggered the event and set n equal to zero when the F_n rises above the threshold indicated by the Predicted SFN-SFN Deviation Limit IE. The P_n and F_n are calculated according to the following:

```
\begin{split} P_n = &b \ for \ n = 0 \\ [\text{FDD -} P_n = ((a/16) * ((SFN_n - SFN_{n-1}) \ mod \ 4096)/100 + P_{n-1}) \ mod \ 614400 \quad for \ n > 0] \\ [\text{FDD -} F_n = & \min((M_n - P_n) \ mod \ 614400, \ (P_n - M_n) \ mod \ 614400) \quad for \ n > 0] \\ [\text{TDD -} P_n = ((a/16) * (15*(SFN_n - SFN_{n-1}) mod \ 4096 + (TS_n - TS_{n-1}))/1500 + P_{n-1}) \ mod \ 40960 \quad for \ n > 0] \\ [\text{TDD -} F_n = & \min((M_n - P_n) \ mod \ 40960, \ (P_n - M_n) \ mod \ 40960) \quad for \ n > 0] \end{split}
```

 P_n is the predicted SFN-SFN value when n measurement results have been received after the first Common Measurement Reporting at initiation or after the last event was triggered.

a is the last reported SFN-SFN Drift Rate value.

b is the last reported SFN-SFN value.

abs denotes the absolute value.

 F_n is the deviation of the last measurement result from the predicted SFN-SFN value (P_n) when n measurements have been received after the first Common Measurement Reporting at initiation or after the last event was triggered.

 M_n is the latest measurement result received after point C in the measurement model [25], measured at [TDD - the Time Slot TS_n of] the Frame SFN_n.

 M_I is the first measurement result received after point C in the measurement model [25] after the first Common Measurement Reporting at initiation or after the last event was triggered.

The SFN-SFN Drift Rate is determined by the Node B in an implementation-dependent way after point B in the measurement model [26].

If the *Report Characteristics* IE is not set to "On Demand", the Node B is required to perform reporting for a common measurement object, in accordance with the conditions provided in the COMMON MEASUREMENT INITIATION REQUEST message, as long as the object exists. If no common measurement object(s) for which a measurement is defined exists anymore, the Node B shall terminate the measurement locally, i.e. without reporting this to the CRNC.

If at the start of the measurement, the reporting criteria are fulfilled for any of Event A, Event B, Event E or Event F, the Node B shall initiate the Common Measurement Reporting procedure immediately, and then continue with the measurements as specified in the COMMON MEASUREMENT INITIATION REQUEST message.

Higher layer filtering

The *Measurement Filter Coefficient* IE indicates how filtering of the measurement values shall be performed before measurement event evaluation and reporting.

The averaging shall be performed according to the following formula.

$$F_n = (1-a) \cdot F_{n-1} + a \cdot M_n$$

The variables in the formula are defined as follows:

 F_n is the updated filtered measurement result

 F_{n-1} is the old filtered measurement result

 M_n is the latest received measurement result from physical layer measurements, the unit used for M_n is the same unit as the reported unit in the COMMON MEASUREMENT INITIATION RESPONSE, COMMON MEASUREMENT REPORT messages or the unit used in the event evaluation (i.e. same unit as for Fn)

 $a = 1/2^{(k/2)}$, where k is the parameter received in the *Measurement Filter Coefficient IE*. If the *Measurement Filter Coefficient IE* is not present, a shall be set to 1 (no filtering)

In order to initialise the averaging filter, F_0 is set to M_1 when the first measurement result from the physical layer measurement is received.

Common measurement accuracy

If the *Common Measurement Type* IE is set to "UTRAN GPS Timing of Cell Frames for UE Positioning", then the Node B shall use the *UTRAN GPS Timing Measurement Accuracy Class* IE included in the *Common Measurement Accuracy* IE according to the following:

- If the *UTRAN GPS Timing Measurement Accuracy Class* IE indicates "Class A", then the Node B shall perform the measurement with highest supported accuracy within the accuracy classes A, B and C.
- If the *UTRAN GPS Timing Measurement Accuracy Class* IE indicates "Class B", then the Node B shall perform the measurement with highest supported accuracy within the accuracy classes B and C.
- If the *UTRAN GPS Timing Measurement Accuracy Class* IE indicates "Class C", then the Node B shall perform the measurements with the accuracy according to class C.

Response message

If the Node B was able to initiate the measurement requested by the CRNC, it shall respond with the COMMON MEASUREMENT INITIATION RESPONSE message sent over the Node B Control Port. The message shall include the same Measurement ID that was used in the measurement request. Only in the case where the *Report Characteristics* IE is set to "On Demand" or "On Modification", the COMMON MEASUREMENT INITIATION RESPONSE message shall contain the measurement result and also the *Common Measurement Achieved Accuracy* IE if the *Common Measurement Type* IE is set to "UTRAN GPS Timing of Cell Frames for UE Positioning".

If the Common Measurement Type IE is set to "SFN-SFN Observed Time Difference" and the Report Characteristics IE is set to "On Demand" or "On Modification", all the available measurement results shall be reported in the Successful Neighbouring Cell SFN-SFN Observed Time Difference Measurement Information IE in the SFN-SFN Measurement Value Information IE and the Node B shall indicate in the Unsuccessful Neighbouring Cell SFN-SFN Observed Time Difference Measurement Information IE all the remaining neighbouring cells with no measurement result available in the COMMON MEASUREMENT INITIATION RESPONSE message. For all available measurement results, the Node B shall include in the Successful Neighbouring Cell SFN-SFN Observed Time Difference Measurement Information IE the SFN-SFN Quality IE and the SFN-SFN Drift Rate Quality IE, if available.

If the *Common Measurement Type* IE is set to "UTRAN GPS Timing of Cell Frames for UE Positioning" and the *Report Characteristics* IE is set to "On Demand" or "On Modification", the Node B shall include in the $T_{UTRAN-GPS}$ *Measurement Value Information* IE the $T_{UTRAN-GPS}$ *Quality* IE and the $T_{UTRAN-GPS}$ *Drift Rate Quality* IE, if available.

8.2.8.3 Unsuccessful Operation



Figure 12: Common Measurement Initiation procedure, Unsuccessful Operation

If the requested measurement cannot be initiated, the Node B shall send a COMMON MEASUREMENT INITIATION FAILURE message over the Node B Control Port. The message shall include the same Measurement ID that was used in the COMMON MEASUREMENT INITIATION REQUEST message and the *Cause* IE set to an appropriate value.

Typical cause values are as follows:

Radio Network Layer Cause

- Measurement not supported for the object.
- Measurement Temporarily not Available

8.2.8.4 Abnormal Conditions

If the Common Measurement Type received in the *Common Measurement Type* IE is not defined in ref. [4] or [5] to be measured on the Common Measurement Object Type received in the COMMON MEASUREMENT INITIATION REQUEST message, the Node B shall regard the Common Measurement Initiation procedure as failed.

[TDD - If the Common Measurement Type requires the Time Slot Information but the [3.84Mcps TDD - *Time Slot IE*] [1.28Mcps TDD - *Time Slot LCR* IE] is not present in the COMMON MEASUREMENT INITIATION REQUEST message, the Node B shall regard the Common Measurement Initiation procedure as failed.]

If the COMMON MEASUREMENT INITIATION REQUEST message contains the *SFN-SFN Measurement Threshold Information* IE (in the *Measurement Threshold* IE contained in the *Report Characteristics* IE) and it does not contain at least one IE, the Node B shall reject the procedure using the COMMON MEASUREMENT INITIATION FAILURE message.

If the COMMON MEASUREMENT INITIATION REQUEST message contains the $T_{UTRAN-GPS}$ Measurement Threshold Information IE (in the Measurement Threshold IE contained in the Report Characteristics IE) and it does not contain at least one IE, the Node B shall reject the procedure using the COMMON MEASUREMENT INITIATION FAILURE message.

If the *Common Measurement Type* IE is set to "SFN-SFN Observed Time Difference", but the *Neighbouring Cell Measurement Information* IE is not received in the COMMON MEASUREMENT INITIATION REQUEST message, the Node B shall regard the Common Measurement Initiation procedure as failed.

If the Common Measurement Type IE is set to "UTRAN GPS Timing of Cell Frames for UE Positioning", but the $T_{UTRAN-GPS}$ Measurement Accuracy Class IE in the Common Measurement Accuracy IE is not received in the COMMON MEASUREMENT INITIATION REQUEST message, the Node B shall regard the Common Measurement Initiation procedure as failed.

The allowed combinations of the Common Measurement Type and Report Characteristics Type are shown in the table below marked with "X". For not allowed combinations, the Node B shall regard the Common Measurement Initiation procedure as failed.

Table 4: Allowed Common Measurement Type and Report Characteristics Type combinations

Common Measurement Type	Report Characteristics Type								
	On Demand	Periodic	Event A	Event B	Event C	Event D	Event E	Event F	On Modification
Received Total Wide Band Power	Х	X	X	X	X	Х	Х	X	
Transmitted Carrier Power	Х	Х	X	Х	Х	Х	X	Х	
Acknowledged PRACH Preambles	Х	Х	Х	Х	Х	Х	Х	Х	
UL Timeslot ISCP	Х	Х	Х	Х	Χ	Χ	Χ	Χ	
Acknowledged PCPCH Access Preambles	X	X	X	X	X	X	X	X	
Detected PCPCH Access Preambles	Х	Х	Х	Х	Х	Х	Х	Х	
UTRAN GPS Timing of Cell Frames for UE Positioning	X	X							X
SFN-SFN Observed Time Difference	X	X							X

If the *SFN* IE is included in the COMMON MEASUREMENT INITIATION REQUEST message and the *Report Characteristics* IE is other than "Periodic", "On Demand" or "On Modification", the Node B shall regard the Common Measurement Initiation procedure as failed.

8.2.9 Common Measurement Reporting

8.2.9.1 General

This procedure is used by the Node B to report the result of measurements requested by the CRNC with the Common Measurement Initiation procedure.

8.2.9.2 Successful Operation



Figure 13: Common Measurement Reporting procedure, Successful Operation

If the requested measurement reporting criteria are met, the Node B shall initiate the Common Measurement Reporting procedure. The COMMON MEASUREMENT REPORT message shall use the Node B Control Port.

The *Measurement ID* IE shall be set to the Measurement ID provided by the CRNC when initiating the measurement with the Common Measurement Initiation procedure.

If the achieved measurement accuracy does not fulfil the given accuracy requirement (see ref.[22] and [23]), the *Common Measurement Value Information* IE shall indicate Measurement not Available.

For measurements included in the Successful Neighbouring Cell SFN-SFN Observed Time Difference Measurement Information IE, the Node B shall include the SFN-SFN Quality IE and the SFN-SFN Drift Rate Quality IE if available.

If the Common Measurement Type provided by RNC when initiating the measurement with the Common Measurement Initiation procedure was "UTRAN GPS Timing of Cell Frames for UE Positioning", then the Node B shall include in the $T_{UTRAN-GPS}$ Measurement Value Information IE the $T_{UTRAN-GPS}$ Quality IE and the $T_{UTRAN-GPS}$ Drift Rate Quality IE, if available.

8.2.9.3 Abnormal Conditions

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8.2.10 Common Measurement Termination

8.2.10.1 General

This procedure is used by the CRNC to terminate a measurement previously requested by the Common Measurement Initiation procedure.

8.2.10.2 Successful Operation



Figure 14: Common Measurement Termination procedure, Successful Operation

This procedure is initiated with a COMMON MEASUREMENT TERMINATION REQUEST message, sent from the CRNC to the Node B using the Node B Control Port.

Upon reception, the Node B shall terminate reporting of common measurements corresponding to the received *Measurement ID* IE.

8.2.10.3 Abnormal Conditions

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8.2.11 Common Measurement Failure

8.2.11.1 General

This procedure is used by the Node B to notify the CRNC that a measurement previously requested by the Common Measurement Initiation procedure can no longer be reported.

8.2.11.2 Successful Operation



Figure 15: Common Measurement Failure procedure, Successful Operation

This procedure is initiated with a COMMON MEASUREMENT FAILURE INDICATION message, sent from the Node B to the CRNC using the Node B Control Port, to inform the CRNC that a previously requested measurement can no longer be reported. The Node B has locally terminated the indicated measurement.

8.2.11.3 Abnormal Conditions

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8.2.12 Cell Setup

8.2.12.1 General

This procedure is used to set up a cell in the Node B. The CRNC takes the cell, identified via the *C-ID* IE, into service and uses the resources in the Node B identified via the *Local Cell ID* IE.

8.2.12.2 Successful Operation

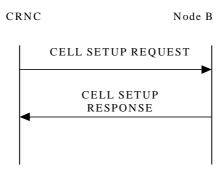


Figure 16: Cell Setup procedure, Successful Operation

The procedure is initiated with a CELL SETUP REQUEST message sent from the CRNC to the Node B using the Node B Control Port. Upon Reception, the Node B shall reserve the necessary resources and configure the new cell according to the parameters given in the message.

[FDD - If the CELL SETUP REQUEST message includes one or more *Secondary CPICH Information* IE, the Node B shall configure and activate the Secondary CPICH(s) in the cell according to received configuration data.]

The *Maximum Transmission Power* IE value shall be stored in the Node B and, at any instance of time, the total maximum output power in the cell shall not be above this value.

[FDD - If the *Closed Loop Timing Adjustment Mode* IE is included in the CELL SETUP REQUEST message, the value shall be stored in the Node B and applied when closed loop Feed-Back mode diversity is used on DPCH.]

[TDD - If the *Reference SFN Offset* IE is included in the CELL SETUP REQUEST message, the Node B where a reference clock is connected shall consider the SFN derived from the synchronisation port and the reference offset for reference time setting. All other Node Bs shall ignore the *Reference SFN Offset* IE if included.]

[FDD – If the *IPDL Parameter Information* IE is included in the CELL SETUP REQUEST message, the parameters defining IPDL shall be stored in the Node B and applied according to the *IPDL Indicator* IE value. If the *Burst Mode Parameters* IE is included in the *IPDL FDD Information* IE, the IPDL shall be operated in burst mode according to ref [10].]

[3.84Mcps TDD - If the *IPDL Parameter Information* IE containing *IPDL TDD parameters* IE is included in the CELL SETUP REQUEST message, the parameters defining IPDL in 3.84Mcps TDD mode shall be stored in the Node B and applied according to the *IPDL Indicator* IE value. If the *Burst Mode Parameters* IE is included in the *IPDL TDD Information* IE, the IPDL shall be operated in burst mode according to ref [21].]

When the cell is successfully configured, the Node B shall store the *Configuration Generation ID* IE value and send a CELL SETUP RESPONSE message as a response.

[FDD - When the cell is successfully configured, the CPICH(s), Primary SCH, Secondary SCH, Primary CCPCH and BCH exist.][3.84Mcps TDD - When the cell is successfully configured, the SCH, Primary CCPCH and BCH exist and the switching-points for the 3.84Mcps TDD frame structure are defined.] [1.28Mcps TDD - When the cell is successfully configured, the DwPCH, Primary CCPCH and BCH exist and the switching-points for the 1.28Mcps TDD frame structure are defined.] The cell and the channels shall be set to the state Enabled [6].

8.2.12.3 Unsuccessful Operation

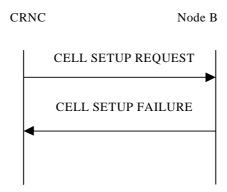


Figure 17: Cell Setup procedure: Unsuccessful Operation

If the Node B cannot set up the cell according to the information given in CELL SETUP REQUEST message, the CELL SETUP FAILURE message shall be sent to the CRNC.

In this case, the cell is Not Existing in the Node B. The Configuration Generation ID shall not be changed in the Node B.

The Cause IE shall be set to an appropriate value.

Typical cause values are as follows:

Radio Network Layer Cause

- S-CPICH not supported
- Requested Tx Diversity Mode not supported
- Power level not supported
- Node B Resources unavailable
- IPDL not supported

Miscellaneous Cause

- O&M Intervention
- Control processing overload
- HW failure

8.2.12.4 Abnormal Conditions

If the state of the cell already is Enabled or Disabled [6] when the CELL SETUP REQUEST message is received in the Node B, it shall reject the configuration of the cell and all channels in the CELL SETUP REQUEST message by sending a CELL SETUP FAILURE message with the *Cause* IE set to "Message not compatible with receiver state".

8.2.13 Cell Reconfiguration

8.2.13.1 General

This procedure is used to reconfigure a cell in the Node B.

8.2.13.2 Successful Operation

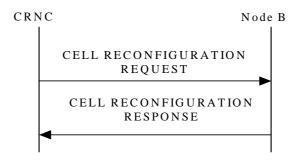


Figure 18: Cell Reconfiguration procedure, Successful Operation

The procedure is initiated with a CELL RECONFIGURATION REQUEST message sent from the CRNC to the Node B using the Node B Control Port. Upon Reception, the Node B shall reconfigure the cell according to the parameters given in the message.

[FDD - If the CELL RECONFIGURATION REQUEST message includes the *Primary SCH Information* IE, the Node B shall reconfigure the Primary SCH power in the cell according to *Primary SCH Power* IE value.]

[FDD - If the CELL RECONFIGURATION REQUEST message includes the *Secondary SCH Information* IE, the Node B shall reconfigure the Secondary SCH power in the cell according to the *Secondary SCH Power* IE value.]

[FDD - If the CELL RECONFIGURATION REQUEST message includes the *Primary CPICH Information* IE, the Node B shall reconfigure the Primary CPICH power in the cell according to the *Primary CPICH Power* IE value. The Node B shall adjust all the transmitted power levels relative to the Primary CPICH power according to the new value.]

[FDD - If the CELL RECONFIGURATION REQUEST message includes one or more *Secondary CPICH Information* IE, the Node B shall reconfigure the power for each Secondary CPICH in the cell according to their *Secondary CPICH Power* IE value.]

[3.84Mcps TDD - If the CELL RECONFIGURATION REQUEST message includes the *SCH Information* IE, the Node B shall reconfigure the SCH power in the cell according to the *SCH Power* IE value.]

[TDD - If the CELL RECONFIGURATION REQUEST message includes the *Timing Advance Applied* IE, the Node B shall apply the necessary functions for Timing Advance in that cell including reporting of the Rx Timing Deviation measurement, according to the *Timing Advance Applied* IE value.]

[FDD - If the CELL RECONFIGURATION REQUEST message includes the *Primary CCPCH Information* IE, the Node B shall reconfigure the BCH power in the cell according to the *BCH Power* IE value.]

[TDD - If the CELL RECONFIGURATION REQUEST message includes the *Primary CCPCH Information* IE, the Node B shall reconfigure the P-CCPCH power in the cell according to the *PCCPCH Power* IE value. The Node B shall adjust all the transmitted power levels relative to the Primary CPPCH power according to the new value.]

If the CELL RECONFIGURATION REQUEST message includes the *Maximum Transmission Power* IE, the value shall be stored in the Node B and at any instance of time the total maximum output power in the cell shall not be above this value.

[3.84Mcps TDD - If the CELL RECONFIGURATION REQUEST message includes the *Time Slot Configuration* IE, the Node B shall reconfigure switching-point structure in the cell according to the *Time Slot* IE value.]

[1.28Mcps TDD - If the CELL RECONFIGURATION REQUEST message includes the *Time Slot Configuration LCR* IE, the Node B shall reconfigure switching-point structure in the cell according to the *Time Slot LCR* IE value.]

[TDD - If the CELL RECONFIGURATION REQUEST message includes any of the *DPCH/PUSCH/PRACH Constant Value* IEs, the Node B shall use these values when generating the appropriate SIB.]

[1.28Mcps TDD - If the CELL RECONFIGURATION REQUEST message includes the *DwPCH Information* IE, the Node B shall reconfigure the DwPCH power in the Cell according to the *DwPCH Power* IE]

[FDD – If the CELL RECONFIGURATION REQUEST message includes the *IPDL Parameter Information* IE with the *IPDL Indicator* IE set to the value "Active", the Node B shall apply the IPDL in that cell according to the latest received parameters defined by the *IPDL FDD Parameters* IE. If the *Burst Mode Parameters* IE is included in the *IPDL FDD Information* IE, the IPDL shall be operated in burst mode according to ref [10].]

[3.84Mcps TDD - If the CELL RECONFIGURATION REQUEST message includes the *IPDL Parameter Information* IE with the *IPDL Indicator* IE set to the value "Active", the Node B shall apply the IPDL in that cell according to the latest received downloaded parameters defined by the *IPDL TDD Parameters* IE. If the *Burst Mode Parameters* IE is included in the *IPDL TDD Information* IE, the IPDL shall be operated in burst mode according to ref [21].]

If the CELL RECONFIGURATION REQUEST message includes the *IPDL Parameter Information* IE with *the IPDL Indicator* IE set to the value "Inactive", the Node B shall deactivate the ongoing IPDL.

When the cell is successfully reconfigured, the Node B shall store the new *Configuration Generation ID* IE value and send a CELL RECONFIGURATION RESPONSE message as a response.

If the CELL RECONFIGURATION REQUEST message includes the *Synchronisation Configuration* IE, the Node B shall reconfigure the indicated parameters in the cell according to the value of the *N_INSYNC_IND*, *N_OUTSYNC_IND* and *T_RLFAILURE* IEs. When the parameters in the *Synchronisation Configuration* IE affect the thresholds applied to a RL set, the Node B shall immediately apply the new thresholds. When applying the new thresholds, the Node B shall not change the state or value of any of the timers and counters for which the new thresholds apply.

8.2.13.3 Unsuccessful Operation

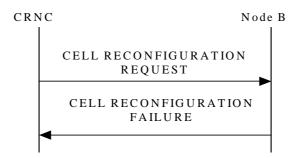


Figure 19: Cell Reconfiguration procedure: Unsuccessful Operation

If the Node B cannot reconfigure the cell according to the information given in CELL RECONFIGURATION REQUEST message, the CELL RECONFIGURATION FAILURE message shall be sent to the CRNC.

In this case, the Node B shall keep the old configuration of the cell and the Configuration Generation ID shall not be changed in the Node B.

The Cause IE shall be set to an appropriate value.

Typical cause values are as follows:

Radio Network Layer Cause

- Power level not supported
- Node B Resources unavailable
- IPDL not supported

Miscellaneous Cause

- O&M Intervention
- Control processing overload
- HW failure

8.2.13.4 Abnormal Conditions

If the *IPDL Indicator* IE set to the value "Active" is included in the CELL RECONFIGURATION REQUEST message and there is active IPDL ongoing in the Node B, the Node B shall respond with the CELL RECONFIGURATION FAILURE message with the cause value "IPDL already activated".]

If the *IPDL Indicator* IE set to the value "Active" is included in the CELL RECONFIGURATION REQUEST message and there is no IPDL stored in the Node B defining the IPDL, the Node B shall respond with the CELL RECONFIGURATION FAILURE message with the cause value "IPDL parameters not available".]

8.2.14 Cell Deletion

8.2.14.1 General

This procedure is used to delete a cell in the Node B.

8.2.14.2 Successful Operation

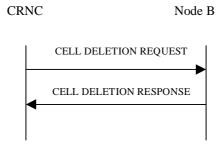


Figure 20: Cell Deletion procedure, Successful Operation

The procedure is initiated with a CELL DELETION REQUEST message sent from the CRNC to the Node B using the Node B Control Port. Upon reception, the Node B shall remove the cell and any remaining common and dedicated channels within the cell. The states for the cell and the deleted common channels shall be set to Not Existing [6]. The Node B shall remove all Radio Links from the Cell and all Node B Communication Contexts that as a result do not have a Radio Link. The Node B shall also initiate release of the user plane transport bearers for the removed common and dedicated channels.

When the cell is deleted, the Node B shall send a CELL DELETION RESPONSE message as a response.

8.2.14.3 Unsuccessful Operation

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8.2.14.4 Abnormal Conditions

If the CELL DELETION REQUEST message includes a *C-ID* IE value that is not existing in the Node B shall respond with the CELL DELETION RESPONSE message.

8.2.15 Resource Status Indication

8.2.15.1 General

This procedure is used in the following cases:

- 1. When a Local Cell becomes Existing at the Node B.
- 2. When a Local Cell is to be deleted in Node B, i.e. becomes Not Existing.
- 3. When the capabilities of the Local Cell change at the Node B.
- 4. When a cell has changed its capability and/or its resource operational state at the Node B.
- 5. When common physical channels and/or common transport channels have changed their capabilities at the Node B.
- 6. When a Communication Control Port has changed its resource operational state at the Node B.
- 7. When a Local Cell Group has changed its resource capability at the Node B.

Each of the above cases shall trigger a Resource Status Indication procedure and the RESOURCE STATUS INDICATION message shall contain the logical resources affected for that case and the cause value when applicable.

8.2.15.2 Successful Operation



Figure 21: Resource Status Indication procedure, Successful Operation

The procedure is initiated with a RESOURCE STATUS INDICATION message sent from the Node B to the CRNC using the Node B Control Port.

Local Cell Becomes Existing:

When a Local Cell becomes Existing at the Node B, the Node B shall make it available to the CRNC by sending a RESOURCE STATUS INDICATION message containing a "No Failure" Indication, the *Local Cell ID* IE and the *Add/Delete Indicator* IE set equal to "Add".

When the capacity credits and consumption laws are shared between several Local Cells, the Node B includes the *Local Cell Group ID* IE for the Local Cell. If the *Local Cell Group Information* IE has not already been reported in a previous RESOURCE STATUS INDICATION message, the Node B shall include the capacity credits and the consumption laws in the *Local Cell Group Information* IE.

If the Local Cell IE contains both the DL or Global Capacity Credit IE and the UL Capacity Credit IE, then the internal resource capabilities of the Local Cell are modelled independently in the Uplink and Downlink direction. If the UL Capacity Credit IE is not present, then the internal resource capabilities of the Local Cell are modelled as shared resources between Uplink and Downlink. If the Local Cell Group Information IE contains both the DL or Global Capacity Credit IE and the UL Capacity Credit IE, then the internal resource capabilities of the Local Cell Group are modelled independently in the Uplink and Downlink direction. If the UL Capacity Credit IE is not present, then the internal resource capabilities of the Local Cell Group are modelled as shared resources between Uplink and Downlink.

Local Cell Deletion:

When a Local Cell is to be deleted in the Node B, i.e. becomes Not Existing, the Node B shall withdraw the Local Cell from the CRNC by sending a RESOURCE STATUS INDICATION message containing a "No Failure" Indication, the *Local Cell ID* IE and the *Add/Delete Indicator* IE set to "Delete". The Node B shall not withdraw a previously configured cell at the Node B that the CRNC had configured using the Cell Setup procedure, until the CRNC has deleted that cell at the Node B using the Cell Delete procedure.

Capability Change of a Local Cell:

When the capabilities of a Local Cell change at the Node B, the Node B shall report the new capability by sending a RESOURCE STATUS INDICATION message containing a "Service Impacting" Indication and the *Local Cell ID* IE.

The Node B shall include the Minimum DL Power Capability IE when it is known by the Node B.

If the maximum DL power capability of the Local Cell has changed, the new capability shall be indicated in the *Maximum DL Power Capability* IE.

If the DL capability for supporting the minimum spreading factor has changed, the new capability shall be indicated in the *Minimum Spreading Factor* IE.

[TDD - If the availability of the Reference clock connected to a Local Cell has changed, the new availability condition shall be indicated in the *Reference Clock Availability* IE.]

The *Cause* IE in the RESOURCE STATUS INDICATION message shall be set to the appropriate value. If the internal resource capabilities of the Local Cell are affected, it shall be reported in the following way:

- If the internal resource capabilities of the Local Cell are modelled as shared resources between Uplink and Downlink, the new capacity shall be reported in the *DL or Global Capacity Credit* IE.
- If the internal resource capabilities of the Local Cell are modelled independently in the Uplink and Downlink direction, then the *DL or Global Capacity Credit* IE and the *UL Capacity Credit* IE shall be present in the RESOURCE STATUS INDICATION.

If the Capacity Consumption Law for Common Channels has changed for the Local Cell, the new law shall be reported by the Node B in the *Common Channels Capacity Consumption Law* IE.

If the Capacity Consumption Law for Dedicated Channels has changed for the Local Cell, the new law shall be reported by the Node B in the *Dedicated Channels Capacity Consumption Law* IE.

Capability Change of a Cell:

When the capabilities and/or resource operational state of a cell changes at the Node B, the Node B shall report the new capability and/or resource operational state by sending a RESOURCE STATUS INDICATION message containing a "Service Impacting" Indication, the *Resource Operational State* IE and the *Availability Status* IE. The *Cause* IE in the RESOURCE STATUS INDICATION message shall be set to the appropriate value.

Capability Change of a Common Physical Channel and/or Common Transport Channel:

The Node B shall not delete any common or dedicated channels due to the cell being "Disabled". For all affected common and dedicated channels, the Node B shall report the impact to the CRNC with the relevant procedures.

When the capabilities and/or resource operational state of common physical channels and/or common transport channels have changed, the Node B shall report the new capability and/or resource operational state by sending a RESOURCE STATUS INDICATION message containing a "Service Impacting" Indication, the *Resource Operational State* IE and the *Availability Status* IE set to appropriate values for the affected channel(s). The *Cause* IE in the RESOURCE STATUS INDICATION message shall be set to the appropriate value.

When a power value for a common physical channel and/or a common transport channel becomes beyond the supported power value range due to a change in capability in the Node B, it shall be reported to the CRNC in the RESOURCE STATUS INDICATION message, with the *Resource Operational State* IE set to "Enabled", the *Availability Status* IE set to "Degraded" and the *Cause* IE set to "Power level not supported". Affected channels shall use the nearest power value that is supported.

Capability Change of a Communication Control Port:

When the resource operational state of a Communication Control Port has changed, the Node B shall report the new resource operational state by sending a RESOURCE STATUS INDICATION message containing a "Service

Impacting" Indication and the *Communication Control Port ID* IE. The *Cause* IE in the RESOURCE STATUS INDICATION message shall be set to the appropriate value.

Capability Change of a Local Cell Group:

When the resource capabilities of a Local Cell Group change at the Node B, the Node B shall report the new capability by sending a RESOURCE STATUS INDICATION message containing a "Service Impacting" Indication and the *Local Cell Group Information* IE reporting the change. The *Cause* IE in the RESOURCE STATUS INDICATION message shall be set to an appropriate value. If the RESOURCE STATUS INDICATION message contains both the *DL or Global Capacity Credit* IE and the *UL Capacity Credit* IE, then the internal resource capabilities of the Node B are modelled independently in the Uplink and Downlink direction. If the *UL Capacity Credit* IE is not present, then the internal resource capabilities of the Node B are modelled as shared resources between Uplink and Downlink.

If the Capacity Consumption Law for Common Channels has changed for the Local Cell Group, the new law shall be reported by the Node B in the *Common Channels Capacity Consumption Law* IE.

If the Capacity Consumption Law for Dedicated Channels has changed for the Local Cell Group, the new law shall be reported by the Node B in the *Dedicated Channels Capacity Consumption Law* IE.

General:

When the RESOURCE STATUS INDICATION message is used to report an error, only one cause value for all reported objects can be sent in one message. When the RESOURCE STATUS INDICATION message is used to clear errors, only all errors for one object can be cleared per message. It is not possible to clear one out of several errors for one object.

8.2.15.3 Abnormal Conditions

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8.2.16 System Information Update

8.2.16.1 General

The System Information Update procedure performs the necessary operations in order for the Node B to apply the correct scheduling of and/or to include the appropriate contents to the system information segments broadcast on the BCCH.

8.2.16.2 Successful Operation

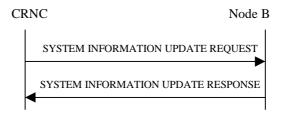


Figure 22: System Information Update procedure, Successful Operation

The procedure is initiated with a SYSTEM INFORMATION UPDATE REQUEST message sent from the CRNC to the Node B using the Node B Control Port.

The Node B shall consider the requested updates to the BCCH schedule in the same order as the MIB/SB/SIB information is included in the SYSTEM INFORMATION UPDATE REQUEST message.

If the SYSTEM INFORMATION UPDATE REQUEST message includes the *BCCH Modification Time* IE, the updates to the BCCH schedule (possibly consisting of IB occurrence additions, IB occurrence deletions and IB occurrence contents updates) indicated in the SYSTEM INFORMATION UPDATE REQUEST message shall be applied by the Node B at the first time instance starting from the SFN value set by the *BCCH Modification Time* IE. If no *BCCH Modification Time* IE is included, the updates to the BCCH schedule shall be applied as soon as possible.

Information Block addition

If the SYSTEM INFORMATION UPDATE REQUEST message includes segments of a certain MIB/SB/SIB, the Node B shall assume that all segments for that Information Block are included in the message and ordered with increasing Segment Index (starting from 0). For each included segment, segment type information and *IB SG POS* IE are also given in the SYSTEM INFORMATION UPDATE REQUEST message.

The Node B shall determine the correct cell system frame number(s) (SFN) for transmission of the segments of system information, from the scheduling parameters provided in the SYSTEM INFORMATION UPDATE REQUEST message. The SFN for transmitting the segments shall be determined by the *IB SG REP* IE and *IB SG POS* IE such that:

- SFN mod IB_SG_REP = IB_SG_POS

If the SYSTEM INFORMATION UPDATE REQUEST message contains Master Information Block (MIB) segments in addition to SIB or SB segments, the MIB segments shall first be sent in the physical channel by the Node B. Once these MIB segments have been sent in the physical channel, the updated SB/SIB segments shall then be sent in the physical channel.

Only if the inclusion of each new IB segment in the BCCH schedule leads to a valid segment combination according to [18], the Node B shall accept the system information update.

If the *SIB Originator* IE value is set to "Node B", the Node B shall create the SIB segment of the SIB type given by the *IB Type* IE and autonomously update the SIB segment and apply the scheduling and repetition as given by the *IB SG REP* IE and *IB SG POS* IE.

SIBs originating from the Node B can only be SIBs containing information that the Node B can obtain on its own.

Information Block deletion

If an IB Deletion is indicated in an instance of *MIB/SB/SIB information* IE in the SYSTEM INFORMATION UPDATE REQUEST message, the Node B shall delete the IB indicated by the *IB Type* IE and *IB OC ID* IE from the transmission schedule on BCCH.

Information Block update

If the SYSTEM INFORMATION UPDATE REQUEST message contains segments for an IB without *IB SG REP* IE and *IB SG POS* IE and there is already an IB in the BCCH schedule with the same IB Type and IB OC ID which is not requested to be deleted from the BCCH schedule by an IB deletion indicated in a *MIB/SB/SIB information* IE repetition present in the SYSTEM INFORMATION UPDATE REQUEST message before the IB segments are included, then the Node B shall only update the contents of the IB segments without any modification in segment scheduling.

If the Node B successfully completes the updating of the physical channel scheduling cycle according to the parameters given in the SYSTEM INFORMATION UPDATE REQUEST message, it shall respond to the CRNC with a SYSTEM INFORMATION UPDATE RESPONSE message.

8.2.16.3 Unsuccessful Operation

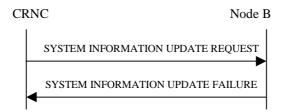


Figure 23: System Information Update procedure: Unsuccessful Operation

If the Node B is unable to update the physical channel scheduling cycle according to all the parameters given in the SYSTEM INFORMATION UPDATE REQUEST message, it shall respond with a SYSTEM INFORMATION UPDATE FAILURE message with an appropriate cause value.

The Node B shall not incorporate any of the requested changes into the physical channel scheduling cycle, and the previous system information configuration shall remain intact.

Typical cause values are:

Radio Network Layer Cause

- SIB Origination in Node B not Supported

Miscellaneous Cause

- Hardware failure
- Control Processing overload
- O&M Intervention

8.2.16.4 Abnormal Conditions

The Node B shall reject, with the cause value "SIB origination in Node B not supported", requests for Node B originated system information blocks that make use of a value tag.

The Node B shall reject the requested update with cause value "BCCH scheduling error" if:

- After having handled a certain MIB/SB/SIB information IE repetition, an illegal BCCH schedule results;
- If a MIB/SB/SIB Information IE repetition includes an IB SG REP IE or an IB SG POS IE and there is already an IB in the BCCH schedule with the same IB Type and IB OC ID which is not requested to be deleted from the BCCH schedule by an IB deletion indicated in a MIB/SB/SIB information IE repetition present in the SYSTEM INFORMATION UPDATE REQUEST message before the IB addition is indicated. This rule shall apply even if the scheduling instructions in IB SG REP IE and IB SG POS IE were the same as the current scheduling instructions for the concerned IB:
- If a *MIB/SB/SIB Information* IE repetition includes no *IB SG REP* IE and *IB SG POS* IE and there is no IB in the BCCH schedule with the same IB Type and IB OC ID;
- If a *MIB/SB/SIB Information* IE repetition includes no *IB SG REP* IE and *IB SG POS* IE and there is already an IB in the BCCH schedule with the same IB Type and IB OC ID but it is requested to be deleted from the BCCH schedule by an IB deletion indicated in a *MIB/SB/SIB information* IE repetition present in the SYSTEM INFORMATION UPDATE REQUEST message before the IB addition is indicated.

8.2.17 Radio Link Setup

8.2.17.1 General

This procedure is used for establishing the necessary resources for a new Node B Communication Context in the Node B.

[FDD – The Radio Link Setup procedure is used to establish one or more radio links. The procedure establishes one or more DCHs on all radio links, and in addition, it can include the establishment of one or more DSCHs on one radio link.]

[TDD – The Radio Link Setup procedure is used to establish one radio link including one or more transport channels. The transport channels can be a mix of DCHs, DSCHs, and USCHs, including also combinations where one or more transport channel types are not present.]

8.2.17.2 Successful Operation



Figure 24: Radio Link Setup procedure, Successful Operation

The procedure is initiated with a RADIO LINK SETUP REQUEST message sent from the CRNC to the Node B using the Node B Control Port.

Upon reception of the RADIO LINK SETUP REQUEST message, the Node B shall reserve necessary resources and configure the new Radio Link(s) according to the parameters given in the message.

The Node B shall prioritise resource allocation for the RL(s) to be established according to Annex A.

Transport Channels Handling:

DCH(s):

[TDD – If the *DCH Information* IE is present, the Node B shall configure the new DCH(s) according to the parameters given in the message.]

If the RADIO LINK SETUP REQUEST message includes a *DCH Information* IE with multiple *DCH Specific Info* IEs, then the Node B shall treat the DCHs in the *DCH Information* IE as a set of co-ordinated DCHs. The Node B shall include these DCHs in the new configuration only if it can include all of them in the new configuration.

[FDD – For DCHs which do not belong to a set of co-ordinated DCHs with the *QE-Selector* IE set to "selected", the Transport channel BER from that DCH shall be the base for the QE in the UL data frames. If no Transport channel BER is available for the selected DCH, the Physical channel BER shall be used for the QE, ref. [16]. If the *QE-Selector* IE is set to "non-selected", the Physical channel BER shall be used for the QE in the UL data frames, ref. [16].]

For a set of co-ordinated DCHs, the Transport channel BER from the DCH with the *QE-Selector* IE set to "selected" shall be used for the QE in the UL data frames, ref. [16]. [FDD - If no Transport channel BER is available for the selected DCH, the Physical channel BER shall be used for the QE, ref. [16]. If all DCHs have *QE-Selector* IE set to "non-selected", the Physical channel BER shall be used for the QE, ref. [16]].

The Node B shall use the included *UL FP Mode* IE for a DCH or a set of co-ordinated DCHs as the FP Mode in the Uplink of the user plane for the DCH or the set of co-ordinated DCHs in the configuration.

The Node B shall use the included *ToAWS* IE for a DCH or a set of co-ordinated DCHs as the Time of Arrival Window Start Point in the user plane for the DCH or the set of co-ordinated DCHs in the configuration.

The Node B shall use the included *ToAWE* IE for a DCH or a set of co-ordinated DCHs as the Time of Arrival Window End Point in the user plane for the DCH or the set of co-ordinated DCHs in the configuration.

The received *Frame Handling Priority* IE specified for each Transport Channel should be used when prioritising between different frames in the downlink on the radio interface in congestion situations within the Node B once the new RL(s) has been activated.

[FDD – The *Diversity Control Field* IE indicates for each RL (except the first RL in the message) whether the Node B shall combine the concerned RL or not.

- If the Diversity Control Field IE is set to "May", the Node B shall decide for either of the alternatives.
- If the *Diversity Control Field* IE is set to "Must", the Node B shall combine the RL with one of the other RL.
- If the *Diversity Control Field* IE is set to "Must not", the Node B shall not combine the RL with any other existing RL.

Diversity combining is applied to Dedicated Transport Channels (DCH), i.e. it is not applied to the DSCHs. When a new RL is to be combined, the Node B shall choose which RL(s) to combine it with.]

[FDD – In the RADIO LINK SETUP RESPONSE message, the Node B shall indicate for each RL with the Diversity Indication in the *RL Information Response* IE whether the RL is combined or not.

- [FDD In case of not combining with a RL previously listed in the RADIO LINK SETUP RESPONSE message or for the first RL in the RADIO LINK SETUP RESPONSE message, the Node B shall include in the *DCH Information Response* IE in the RADIO LINK SETUP RESPONSE message the *Binding ID* IE and *Transport Layer Address* IE for the transport bearer to be established for each DCH of this RL.]
- [FDD Otherwise in case of combining, the *RL ID* IE indicates (one of) the RL(s) previously listed in this RADIO LINK SETUP RESPONSE message with which the concerned RL is combined.]

[TDD – The Node B shall include in the *DCH Information Response* IE in the RADIO LINK SETUP RESPONSE message the *Binding ID* IE and *Transport Layer Address* IE for the transport bearer to be established for each DCH of this RL.]

In the case of a set of co-ordinated DCHs, the *Binding ID* IE and the *Transport Layer Address* IE shall be included in the RADIO LINK SETUP RESPONSE for only one of the DCHs in the set of co-ordinated DCHs.

DSCH(s):

If the *DSCH Information* IE is present, the Node B shall configure the new DSCH(s) according to the parameters given in the message.

[FDD – If the RADIO LINK SETUP REQUEST message includes the *TFC12 Bearer Information* IE then the Node B shall support the establishment of a transport bearer on which the DSCH TFCI Signaling control frames shall be received. The Node B shall manage the time of arrival of these frames according to the values of ToAWS and ToAWE specified in the IEs. The *TFC12 Bearer Information Response* IE containing the *Binding ID* IE and the *Transport Layer Address* IE for the new bearer to be set up for this purpose shall be returned in the RADIO LINK SETUP RESPONSE message.]

The Node B shall include in the *DSCH Information Response* IE in the RADIO LINK SETUP RESPONSE the *Binding ID* IE and the *Transport Layer Address* IE for the transport bearer to be established for each DSCH of this RL.

[TDD - USCH(s)]:

[TDD – If the *USCH Information* IE is present, the Node B shall configure the new USCH(s) according to the parameters given in the message.]

[TDD – If the *USCH Information* IE is present, the Node B shall include in the *USCH Information Response* IE in the RADIO LINK SETUP RESPONSE message the *Binding ID* IE and the *Transport Layer Address* IE for the transport bearer to be established for each USCH of this RL.]

Physical Channels Handling:

[FDD – Compressed Mode]:

[FDD – If the RADIO LINK SETUP REQUEST message includes the *Transmission Gap Pattern Sequence Information* IE, the Node B shall store the information about the Transmission Gap Pattern Sequences to be used in the Compressed Mode Configuration. This Compressed Mode Configuration shall be valid in the Node B until the next Compressed Mode Configuration is configured in the Node B or the Node B Communication Context is deleted.]

[FDD – If the *Downlink compressed mode method* IE in one or more Transmission Gap Pattern Sequence is set to "SF/2" in the RADIO LINK SETUP REQUEST message, the Node B shall use or not the alternate scrambling code as indicated for each DL Channelisation Code in the *Transmission Gap Pattern Sequence Code Information* IE.]

[FDD – If the RADIO LINK SETUP REQUEST message includes the *Transmission Gap Pattern Sequence Information* IE and the *Active Pattern Sequence Information* IE, the Node B shall use the information to activate the indicated Transmission Gap Pattern Sequence(s) in the new RL. The received *CM Configuration Change CFN* refers to the latest passed CFN with that value The Node B shall treat the received *TGCFN* IEs as follows:]

- [FDD If any received *TGCFN* IE has the same value as the received *CM Configuration Change CFN* IE, the Node B shall consider the concerned Transmission Gap Pattern Sequence as activated at that CFN.]
- [FDD If any received *TGCFN* IE does not have the same value as the received *CM Configuration Change CFN* IE but the first CFN after the CM Configuration Change CFN with a value equal to the *TGCFN* IE has already passed, the Node B shall consider the concerned Transmission Gap Pattern Sequence as activated at that CFN.]
- [FDD For all other Transmission Gap Pattern Sequences included in the Active Pattern Sequence
 Information IE, the Node B shall activate each Transmission Gap Pattern Sequence at the first CFN after
 the CM Configuration Change CFN with a value equal to the TGCFN IE for the Transmission Gap
 Pattern Sequence.]

[FDD – DL Code Information]:

[FDD – When more than one DL DPDCH is assigned per RL, the segmented physical channel shall be mapped on to DL DPDCHs according to [8]. When *p* number of DL DPDCHs are assigned to each RL, the first pair of DL Scrambling Code and FDD DL Channelisation Code Number corresponds to "*PhCH number 1*", the second to "*PhCH number 2*", and so on until the *pth* to "*PhCH number p*".]

[TDD - PDSCH RL ID]:

[TDD – If the *PDSCH RL ID* IE is included in RADIO LINK SETUP REQUEST message, the Node B shall use the PDSCH RL ID as an identifier for the PDSCH and/or PUSCH in this radio link.]

General:

[FDD – If the *Propagation Delay* IE is included, the Node B may use this information to speed up the detection of L1 synchronisation.]

[FDD – The *UL SIR Target* IE included in the message shall be used by the Node B as initial UL SIR target for the UL inner loop power control.]

[1.28Mcps TDD – The *UL SIR Target* IE included in the message shall be used by the Node B as initial UL SIR target for the UL inner loop power control according [19] and [21].]

[FDD – If the received *Limited Power Increase* IE is set to "Used", the Node B shall, if supported, use Limited Power Increase according to ref. [10] subclause 5.2.1 for the inner loop DL power control.]

[FDD – If the *TFCI Signalling Mode* IE within the RADIO LINK SETUP REQUEST message indicates that there shall be a hard split on the TFCI field but the *TFCI2 Bearer Information* IE is not included in the message, then the Node B shall transmit the TFCI2 field with zero power.]

[FDD - If the *TFCI Signalling Mode* IE within the RADIO LINK SETUP REQUEST message indicates that there shall be a hard split on the TFCI and the *TFCI2 Bearer Information* IE is included in the message, then the Node B shall transmit the TFCI2 field with zero power until Synchronization is achieved on the TFCI2 transport bearer and the first valid DSCH TFCI Signalling control frame is received on this bearer (see ref. [24]).]

[1.28Mcps TDD - If the *UL CCTrCH Information* IE includes the *TDD TPC UL Step Size* IE, the Node B shall configure the uplink TPC step size according to the parameters given in the message.]

Radio Link Handling:

[FDD – Transmit Diversity]:

[FDD – When the *Diversity Mode* IE is set to "STTD", "Closedloop mode1" or "Closedloop mode2", the Node B shall activate/deactivate the Transmit Diversity for each Radio Link in accordance with the Transmit Diversity Indication IE]

DL Power Control:

[FDD – The Node B shall start the DL transmission using the initial DL power specified in the message on each DL DPCH of the RL until either UL synchronisation on the Uu interface is achieved for the RLS or Power Balancing is activated. No inner loop power control or balancing shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[10], subclause 5.2.1.2) and the power control procedure (see subclause 8.3.7), but shall always be kept within the maximum and minimum limit specified in the RADIO LINK SETUP REQUEST message. During compressed mode, the δP_{curr} , as described in ref.[10] subclause 5.2.1.3, shall be added to the maximum DL power for the associated compressed frame.]

[FDD - If the *DPC Mode* IE is present in the RADIO LINK SETUP REQUEST message, the Node B shall apply the DPC mode indicated in the message and be prepared that the DPC mode may be changed during the life time of the RL. If the *DPC Mode* IE is not present in the RADIO LINK SETUP REQUEST message, DPC mode 0 shall be applied (see ref. [10]).]

[TDD – The Node B shall start the DL transmission using the initial DL power specified in the message on each DL DPCH and on each Time Slot of the RL until the UL synchronisation on the Uu interface is achieved for the RL. No inner loop power control shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[22], subclause 4.2.3.3), but shall always be kept within the maximum and minimum limit specified in the RADIO LINK SETUP REQUEST message.]

[TDD – If the [3.84Mcps TDD – *DL Time Slot ISCP Info* IE] or [1.28Mcps TDD – *DL Timeslot ISCP LCR* IE] is present, the Node B shall use the indicated value when deciding the initial DL TX Power for each timeslot as specified in [21], i.e. it shall reduce the DL TX power in those downlink timeslots of the radio link where the interference is low, and increase the DL TX power in those timeslots where the interference is high, while keeping the total downlink power in the radio link unchanged].

[FDD – If the received *Inner Loop DL PC Status* IE is set to "Active", the Node B shall activate the inner loop DL power control for all RLs. If *Inner Loop DL PC Status* IE is set to "Inactive", the Node B shall deactivate the inner loop DL power control for all RLs according to ref. [10].]

[1.28Mcps TDD – Uplink Synchronisation Parameters LCR]:

[1.28Mcps TDD - If the RADIO LINK SETUP REQUEST message contains the *Uplink Synchronisation Parameters LCR* IE, the Node B shall use the indicated values of *Uplink Synchronisation Stepsize* IE and *Uplink Synchronisation Frequency* IE when evaluating the timing of the UL synchronisation.]

General:

[FDD – If the RADIO LINK SETUP REQUEST message includes the SSDT Cell Identity IE and the S-Field Length IE, the Node B shall activate SSDT, if supported, using the SSDT Cell Identity IE and SSDT Cell Identity Length IE.]

[FDD – Irrespective of SSDT activation, the Node B shall include in the RADIO LINK SETUP RESPONSE message an indication concerning the capability to support SSDT on this RL. Only if the RADIO LINK SETUP REQUEST message requested SSDT activation and the RADIO LINK SETUP RESPONSE message indicates that the SSDT capability is supported for this RL, SSDT is activated in the Node B.]

[FDD - If the RADIO LINK SETUP REQUEST message includes the *SSDT Cell Identity for EDSCHPC* IE, the Node B shall activate enhanced DSCH power control, if supported, using the *SSDT Cell Identity For EDSCHPC* IE and *SSDT Cell Identity Length* IE as well as *Enhanced DSCH PC* IE in accordance with ref. [10] subclause 5.2.2. If the RADIO LINK SETUP REQUEST message includes both *SSDT Cell Identity* IE and *SSDT Cell Identity For EDSCHPC* IE, then the Node B shall ignore the value in *SSDT Cell Identity For EDSCHPC* IE]

The Node B shall start reception on the new RL(s) after the RLs are successfully established.

[FDD – Radio Link Set Handling]:

[FDD – The *First RLS Indicator* IE indicates if the concerned RL shall be considered part of the first RLS established towards this UE. The *First RLS Indicator* IE shall be used by the Node B together with the value of the *DL TPC Pattern 01 Count* IE which the Node B has received in the Cell Setup procedure, to determine the initial TPC pattern in the DL of the concerned RL and all RLs which are part of the same RLS, as described in [10], section 5.1.2.2.1.2.]

[FDD – For each RL not having a common generation of the TPC commands in the DL with another RL, the Node B shall assign the *RL Set ID* IE included in the RADIO LINK SETUP RESPONSE message a value that uniquely identifies the RL Set within the Node B Communication Context.]

[FDD – For all RLs having a common generation of the TPC commands in the DL with another RL, the Node B shall assign the *RL Set ID* IE included in the RADIO LINK SETUP RESPONSE message the same value. This value shall uniquely identify the RL Set within the Node B Communication Context.]

[FDD – The UL out-of-sync algorithm defined in [10] shall, for each of the established RL Set(s), use the maximum value of the parameters N_OUTSYNC_IND and T_RLFAILURE that are configured in the cells supporting the radio links of the RL Set. The UL in-sync algorithm defined in [10] shall, for each of the established RL Set(s), use the minimum value of the parameters N_INSYNC_IND, that are configured in the cells supporting the radio links of the RL Set.]

Response Message:

If the RLs are successfully established, the Node B shall respond with a RADIO LINK SETUP RESPONSE message.

After sending the RADIO LINK SETUP RESPONSE message, the Node B shall continuously attempt to obtain UL synchronisation on the Uu interface. [FDD – The Node B shall start transmission on the DL DPDCH(s) of the new RL as specified in [16].] [TDD – The Node B shall start transmission on the new RL immediately as specified in [16].]

8.2.17.3 Unsuccessful Operation



Figure 25: Radio Link Setup procedure: Unsuccessful Operation

If the establishment of at least one radio link is unsuccessful, the Node B shall respond with a RADIO LINK SETUP FAILURE message. The message contains the failure cause in the *Cause* IE.

[FDD – If some radio links were established successfully, the Node B shall indicate this in the RADIO LINK SETUP FAILURE message in the same way as in the RADIO LINK SETUP RESPONSE message. In this case, the Node B shall include the *Communication Control Port Id* IE in the RADIO LINK SETUP FAILURE message.]

Typical cause values are as follows:

Radio Network Layer Cause

- Combining not supported
- Combining Resources not available
- Requested Tx Diversity Mode not supported
- Number of DL codes not supported
- Number of UL codes not supported
- UL SF not supported

- DL SF not supported
- Dedicated Transport Channel Type not supported
- Downlink Shared Channel Type not supported
- Uplink Shared Channel Type not supported
- CM not supported
- DPC mode change not supported

Transport Layer Cause

- Transport Resources Unavailable

Miscellaneous Cause

- O&M Intervention
- Control processing overload
- HW failure

8.2.17.4 Abnormal Conditions

[FDD – If the RADIO LINK SETUP REQUEST message contains the *Active Pattern Sequence Information* IE, but the *Transmission Gap Pattern Sequence Information* IE is not present, then the Node B shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

If more than one DCH of a set of co-ordinated DCHs has the *QE-Selector* IE set to "selected" [TDD – or no DCH of a set of co-ordinated DCHs has the *QE-Selector* IE set to "selected"], the Node B shall regard the Radio Link Setup procedure as failed and shall respond with a RADIO LINK SETUP FAILURE message.

If the RADIO LINK SETUP REQUEST message includes a *DCH Information* IE with multiple *DCH Specific Info* IEs, and if the DCHs in the *DCH Information* IE do not have the same *Transmission Time Interval* IE in the *Semi-static Transport Format Information* IE, then the Node B shall reject the procedure using the RADIO LINK SETUP FAILURE message.

8.2.18 Physical Shared Channel Reconfiguration [TDD]

8.2.18.1 General

This procedure is used for handling PDSCH Sets and PUSCH Sets in the Node B, i.e.

- Adding new PDSCH Sets and/or PUSCH Sets,
- Modifying these, and
- Deleting them.

8.2.18.2 Successful Operation

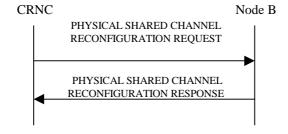


Figure 26: Physical Shared Channel Reconfiguration: Successful Operation

The procedure is initiated with a PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message sent from the CRNC to the Node B using the Node B Control Port.

If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes an *SFN* IE, the Node B shall activate the new configuration on that specified SFN.

PDSCH/PUSCH Addition

If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes any PDSCH sets or PUSCH sets to be added, the Node B shall add these new sets to its PDSCH/PUSCH configuration.

PDSCH/PUSCH Modification

If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes any PDSCH sets or PUSCH sets to be modified, and includes any of [3.84Mcps TDD - *DL/UL Code Information IE, Midamble Shift And Burst Type IE, Time Slot IE*], [1.28Mcps TDD - *DL/UL Code Information LCR IE, Midamble Shift LCR IE, Time Slot LCR IE*], TDD Physical Channel Offset IE, Repetition Period IE, Repetition Length IE or TFCI Presence IE, the Node B shall apply these as the new values, otherwise the old values specified for this set are still applicable.

PDSCH/PUSCH Deletion

If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes any PDSCH sets or PUSCH sets to be deleted, the Node B shall delete these sets from its PDSCH/PUSCH configuration.

In the successful case, the Node B shall add, modify and delete the PDSCH Sets and PUSCH Sets in the Common Transport Channel data base, as requested in the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message, and shall make these available to all the current and future DSCH and USCH transport channels. The Node B shall respond with the PHYSICAL SHARED CHANNEL RECONFIGURATION RESPONSE message.

[1.28Mcps TDD – Uplink Synchronisation Parameters LCR]:

[1.28Mcps TDD - If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message contains the *Uplink Synchronisation Parameters LCR* IE, the Node B shall use the indicated values of *Uplink Synchronisation Stepsize* IE and *Uplink Synchronisation Frequency* IE when evaluating the timing of the UL synchronisation.]

8.2.18.3 Unsuccessful Operation

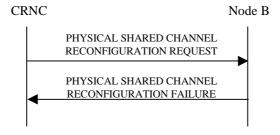


Figure 27: Physical Shared Channel Reconfiguration procedure: Unsuccessful Opreration

If the Node B is not able to support all parts of the configuration, it shall reject the configuration of all the channels in the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message. The *Cause* IE shall be set to an appropriate value either a single general cause value or PDSCH and PUSCH set specific cause values for each set that caused a failure within the *Unsuccessful Shared DL Channel Set* IE for PDSCH sets or *Unsuccessful Shared UL Channel Set* IE for PUSCH sets.

If the configuration was unsuccessful, the Node B shall respond with the PHYSICAL SHARED CHANNEL RECONFIGURATION FAILURE message.

Typical cause values are as follows:

Radio Network Layer Cause

- Cell not available
- Node B Resources unavailable

Transport Layer Cause

- Transport Resources Unavailable

Miscellaneous Cause

- O&M Intervention
- Control processing overload
- HW failure

8.2.18.4 Abnormal Conditions

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8.2.19 Reset

8.2.19.1 General

The purpose of the Reset procedure is to align the resources in the CRNC and the Node B in the event of an abnormal failure. The CRNC or the Node B may initiate the procedure.

8.2.19.2 Successful Operation

8.2.19.2.1 Reset Initiated by the CRNC

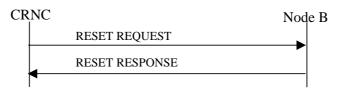


Figure 27A Reset procedure (CRNC to Node B), Successful Operation

The procedure is initiated with a RESET REQUEST message sent from the CRNC to the Node B using the Node B Control Port.

If the *Reset Indicator* IE is set to "Communication Context", the Node B shall remove all the indicated Node B Communication Contexts (typically identified by a *Node B Communication Context ID* IE) and all the radio resources allocated for these Node B Communication Contexts. The Node B shall also initiate release of the user plane transport bearers that were involved in these Contexts. After clearing all related resources, the Node B shall return the RESET RESPONSE message to the CRNC.

If the *Reset Indicator* IE is set to "Communication Control Port", the Node B shall remove all the Node B Communication Contexts controlled via the indicated Communication Control Port(s) and all the radio resources allocated for these Node B Communication Contexts. The Node B shall also initiate release of the user plane transport bearers that were involved in these Contexts. After clearing all related resources, the Node B shall return the RESET RESPONSE message to the CRNC.

If the *Reset Indicator* IE is set to "Node B", the Node B shall remove all the Node B Communication Contexts within the Node B and all the radio resources allocated for these Node B Communication Contexts. The Node B shall also initiate release of the user plane transport bearers that were involved in these Contexts. After clearing all related resources, the Node B shall return the RESET RESPONSE message to the CRNC.

8.2.19.2.2 Reset Initiated by the Node B

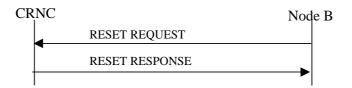


Figure 27B Reset procedure (Node B to CRNC), Successful Operation

The procedure is initiated with a RESET REQUEST message sent from the Node B to the CRNC using the Node B Control Port.

If the *Reset Indicator* IE is set to "Communication Context", for all indicated CRNC Communication Contexts (indicated by a *CRNC Communication Context ID* IE), the CRNC shall remove the information related to this Node B and all the radio resources allocated in the CRNC. The CRNC shall also initiate release of the user plane transport bearers towards the Node B involved in the indicated CRNC Communication Contexts. After clearing all related resources, the CRNC shall return the RESET RESPONSE message to the Node B.

If the *Reset Indicator* IE is set to "Communication Control Port", for all the CRNC Communication Contexts controlled via the indicated Communication Control Port(s), the CRNC shall remove the information related to this Node B and all the radio resources allocated in the CRNC. The CRNC shall also initiate release of the user plane transport bearers towards the Node B involved in the CRNC Communication Contexts controlled via the indicated Communication Control Port(s). After clearing all related resources, the CRNC shall return the RESET RESPONSE message to Node B.

If the *Reset Indicator* IE is set to the "Node B", for all the CRNC Communication Contexts related to this Node B, the CRNC shall remove the information related to this Node B and all the radio resources allocated in the CRNC. The CRNC shall also initiate release of the user plane transport bearers towards the Node B involved in the CRNC Communication Contexts related to this Node B. After clearing all related resources, the CRNC shall return the RESET RESPONSE message to Node B.

8.2.19.3 Unsuccessful Operation

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8.2.19.4 Abnormal Conditions

If the RESET REQUEST message is received any ongoing procedure related to a CRNC Communication Context in the CRNC or Node B Communication Context in the Node B indicated (explicitly or implicitly) in the message shall be aborted.

8.2.20 Cell Synchronisation Initiation [3.84Mcps TDD]

8.2.20.1 General

This procedure is used by a CRNC to request the transmission of cell synchronisation bursts and/or to start measurements on cell synchronisation bursts in a Node B.

8.2.20.2 Successful Operation

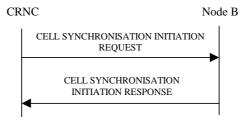


Figure 27C Cell Synchronisation Initiation procedure, Successful Operation

The procedure is initiated with a CELL SYNCHRONISATION INITIATION REQUEST message sent from the CRNC to the Node B using the Node B Control Port.

Upon reception, the Node B shall initiate the requested transmission according to the parameters given in the request and start the measurement on cell synchronisation bursts if requested.

Cell Sync Burst Transmission Initiation

When the Cell Sync Burst Transmission Initiation Information is present, the Node B shall configure the transmission of the cell synchronisation burst according to the parameters given in the CELL SYNCHRONISATION INITIATION REQUEST message. The *SFN* IE indicates the frame number when the cell shall start transmitting cell synchronisation bursts.

When the Cell Sync Burst Transmission Initiation Information is present and the "Frequency Acquisition" is indicated within the *Synchronisation Report Type* IE, the Node B shall first perform only frequency locking on received cell synchronisation bursts. Transmission of the indicated cell synchronisation bursts shall be started only if the frequency locking is performed successfully and "Frequency Acquisition completed" is reported to the RNC.

Cell Sync Burst Measurement characteristics

When the Cell Sync Burst Measurement Initiation Information is present, the Node B shall initiate measurements on the indicated cell synchronisation burst.

If the *SFN* IE is present, the Node B shall after measurement of the indicated cell synchronisation burst adjust the frame number of the indicated cell according to the SFN of the CELL SYNCHRONISATION INITIATION REQUEST message. This adjustment shall only apply to the late entrant cell at the late entrant phase.

Synchronisation Report characteristics

The *Synchronisation Report Characteristics* IE indicates how the reporting of the cell synchronisation burst measurement shall be performed. Whenever the Cell Synchronisation Initiation procedure is initiated, only the "Frequency Acquisition completed" or "Frame related" report characteristic type shall apply.

If the *Synchronisation Report Characteristics Type* IE is set to "Frequency Acquisition completed", the Node B shall signal completion of frequency acquisition to the RNC when locking is completed.

If the *Synchronisation Report Characteristics Type* IE is set to "Frame related", the Node B shall report the result of the cell synchronisation burst measurement after every measured frame.

If the *Cell Sync Burst Arrival Time* IE is included in *the Cell Sync Burst Information* IE of the *Synchronisation Report Characteristics* IE, it indicates to the Node B the reference time at which the reception of the cell synchronisation burst of a neighbouring cell is expected.

If the *Cell Sync Burst Timing Threshold* IE is included in *the Cell Sync Burst Information* IE of the *Synchronisation Report Characteristics* IE, the Node B shall use this threshold as a trigger for the CELL SYNCHRONISATION REPORT message.

Response message

If the Node B was able to initiate the cell synchronisation burst transmission and/or measurement requested by the CRNC it shall respond with the CELL SYNCHRONISATION INITIATION RESPONSE message sent over the Node B Control Port.

8.2.20.3 Unsuccessful Operation

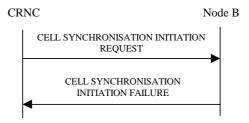


Figure 27D Cell Synchronisation Initiation procedure, Unsuccessful Operation

If the requested transmission or measurement on cell synchronisation bursts cannot be initiated, the Node B shall send a CELL SYNCHRONISATION INITIATION FAILURE message over the Node B control port. The message shall include the *Cause* IE set to an appropriate value.

Typical cause values are as follows:

Radio Network Layer Cause

- Cell Synchronisation not supported
- Power level not supported
- Measurement Temporarily not Available
- Frequency Acquisition not supported

Miscellaneous Cause

- O&M Intervention
- HW failure

8.2.20.4 Abnormal Conditions

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8.2.21 Cell Synchronisation Reconfiguration [3.84Mcps TDD]

8.2.21.1 General

This procedure is used by a CRNC to reconfigure the transmission of cell synchronisation bursts and/or to reconfigure measurements on cell synchronisation bursts in a Node B.

8.2.21.2 Successful Operation

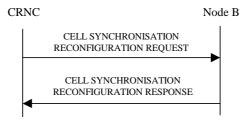


Figure 27E Cell Synchronisation Reconfiguration procedure, Successful Operation

The procedure is initiated with a CELL SYNCHRONISATION RECONFIGURATION REQUEST message sent from the CRNC to the Node B using the Node B Control Port.

Upon reception, the Node B shall reconfigure the cell synchronisation burst transmission and/or measurements according to the parameters given in the request.

Cell Sync Burst Schedule

Within the CELL SYNCHRONISATION RECONFIGURATION REQUEST message first the schedule for the steady state phase is fixed. I.e. the number of cycles per SFN period is defined with the same schedule. For each cycle, the number of repetitions is defined according to following equations:

Cycle length: 4096 / value of Number Of Cycles Per SFN Period IE

Repetition period: Cycle length / value of Number Of Repetitions Per Cycle Period IE

Cell Sync Frame number is calculated by:

SFN = floor((k-1) * Cycle length + (i-1)* Repetition period)

 $k = \{1, 2, 4, ... \text{ Number of cycle per SFN period}\}$

 $i = \{1, 2, 3, ... \text{ Cell Sync Frame number within cycle period}\}$

Cell Sync Burst Transmission Reconfiguration

When the Cell Sync Burst Transmission Reconfiguration Information is present, the Node B shall reconfigure the transmission of the cell synchronisation burst according to the parameters given in the CELL SYNCHRONISATION RECONFIGURATION REQUEST message.

If the CELL SYNCHRONISATION RECONFIGURATION REQUEST message includes the *Cell Sync Burst Code* IE, the Node B shall reconfigure the synchronisation code in the cell according to the *Cell Sync Burst Code* IE value.

If the CELL SYNCHRONISATION RECONFIGURATION REQUEST message includes the *Cell Sync Burst Code* shift IE, the Node B shall reconfigure the synchronisation code shift in the cell according to the *Cell Sync Burst Code* shift IE value.

If the CELL SYNCHRONISATION RECONFIGURATION REQUEST message includes the *DL Transmission Power* IE, the Node B shall reconfigure the Dl transmission power of the cell sync burst in the cell according to the *DL Transmission Power* IE value.

Cell Sync Burst Measurement Reconfiguration

When the Cell Sync Burst Measurement Reconfiguration Information is present, the Node B shall reconfigure the cell synchronisation burst measurements according the parameters given in the message.

If the CELL SYNCHRONISATION RECONFIGURATION REQUEST message includes the Cell Sync Burst Measurement Information the measurements shall apply on the individual cell synchronisation bursts on the requested Sync Frame number.

If the *Synchronisation Report Type* IE is provided, the measurement reporting shall apply according the parameter given in the message.

Synchronisation Report characteristics

The Synchronisation Report Characteristics IE indicates how the reporting of the cell synchronisation burst measurement shall be performed.

If the *Synchronisation Report Characteristics Type* IE is set to "Frame related", the Node B shall report the result of the cell synchronisation burst measurement after every measured frame.

If the *Synchronisation Report Characteristics Type* IE is set to "SFN period related", the Node B shall report the result of the cell synchronisation burst measurements after every SFN period.

If the *Synchronisation Report Characteristics Type* IE is set to "Cycle length related", the Node B shall report the result of the cell synchronisation burst measurements after every cycle length within the SFN period.

If the *Synchronisation Report Characteristics Type* IE is set to "Threshold exceeding", the Node B shall report the result of the cell synchronisation burst measurement when the cell synchronisation burst timing rises or falls more than the requested threshold value compared to the arrival time in synchronised state which is represented by the *Cell Sync Burst Arrival Time* IE.

If the *Cell Sync Burst Arrival Time* IE is included in *the Cell Sync Burst Information* IE of the *Synchronisation Report Characteristics* IE, it indicates to the Node B the reference time at which the reception of the cell synchronisation burst of a neighbouring cell is expected.

If the *Cell Sync Burst Timing Threshold* IE is included in *the Cell Sync Burst Information* IE of the *Synchronisation Report Characteristics* IE, the Node B shall use this new threshold as a trigger for the CELL SYNCHRONISATION REPORT message.

Response message

If the Node B was able to reconfigure the cell synchronisation burst transmission and/or measurement requested by the CRNC, it shall respond with the CELL SYNCHRONISATION RECONFIGURATION RESPONSE message sent over the Node B Control Port.

8.2.21.3 Unsuccessful Operation

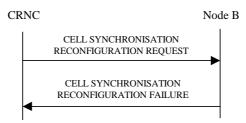


Figure 27F Cell Synchronisation Reconfiguration procedure, Unsuccessful Operation

If the Node B cannot reconfigure the requested transmission or measurement on cell synchronisation burst, the CELL SYNCHRONISATION RECONFIGURATION FAILURE message shall be sent to the CRNC. The message shall include the *Cause* IE set to an appropriate value.

Typical cause values are as follows:

Radio Network Layer Cause

- Cell Synchronisation not supported
- Power level not supported
- Measurement Temporarily not Available

Miscellaneous Cause

- O&M Intervention
- HW failure

8.2.21.4 Abnormal Conditions

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8.2.22 Cell Synchronisation Reporting [3.84Mcps TDD]

8.2.22.1 General

This procedure is used by a Node B to report the result of cell synchronisation burst measurements requested by the CRNC with the Cell Synchronisation Initiation or Cell Synchronisation Reconfiguration procedure.

8.2.22.2 Successful Operation



Figure 27G Cell Synchronisation Reporting procedure, Successful Operation

If the requested synchronisation measurement reporting criteria are met, the Node B shall initiate a Cell Synchronisation Reporting procedure. The CELL SYNCHRONISATION REPORT message shall use the Node B Control Port.

In the steady state phase when several cell synchronisation bursts shall be measured per Sync Frame number, the sequence of the reported measured values shall be the same as defined in the Cell Synchronisation Reconfiguration procedure.

If the achieved measurement accuracy does not fulfil the given accuracy requirement defined in [23], the Cell Sync Burst not available shall be reported.

8.2.22.3 Abnormal Conditions

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8.2.23 Cell Synchronisation Termination [3.84Mcps TDD]

8.2.23.1 General

This procedure is used by the CRNC to terminate a cell synchronisation burst transmission or measurement previously requested by the Cell Synchronisation Initiation procedure or Cell Synchronisation Reconfiguration procedure.

8.2.23.2 Successful Operation



Figure 27H Cell Synchronisation Termination procedure, Successful Operation

This procedure is initiated with a CELL SYNCHRONISATION TERMINATION REQUEST message, sent from the CRNC to the Node B using the Node B Control Port.

Upon reception, the Node B shall terminate transmission of cell synchronisation bursts or reporting of cell synchronisation burst measurements corresponding to the CSB Transmission Id or CSB Measurement Id.

8.2.23.3 Abnormal Conditions

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8.2.24 Cell Synchronisation Failure [3.84Mcps TDD]

8.2.24.1 General

This procedure is used by the Node B to notify the CRNC that a synchronisation burst transmission or synchronisation measurement procedure can no longer be supported.

8.2.24.2 Successful Operation



Figure 27I Cell Synchronisation Failure procedure, Successful Operation

This procedure is initiated with a CELL SYNCHRONISATION FAILURE INDICATION message, sent from the Node B to the CRNC using the Node B Control Port, to inform the CRNC that a previously requested transmission or measurement on cell synchronisation bursts can no longer be supported.

If the transmission of a cell synchronisation burst has failed, then the Node B shall include the *CSB Transmission Id* IE in the CELL SYNCHRONISATION FAILURE INDICATION message to uniquely identify the concerned cell synchronisation Burst Transmission.

If the measurement of a cell synchronisation burst has failed, then the Node B shall include the *CSB Measurement Id* IE in the CELL SYNCHRONISATION FAILURE INDICATION message to uniquely identify the concerned cell synchronisation Burst Measurement.

8.2.24.3 Abnormal Conditions

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8.2.25 Cell Synchronisation Adjustment [3.84Mcps TDD]

8.2.25.1 General

The purpose of Cell Synchronisation Adjustment procedure is to allow the CRNC to adjust the timing of the radio transmission of a cell within a Node B for time alignment.

8.2.25.2 Successful Operation

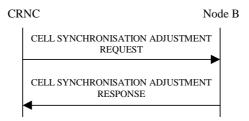


Figure 27J Cell Synchronisation Adjustment, Successful Operation

This procedure is initiated with a CELL SYNCHRONISATION ADJUSTMENT REQUEST message sent by the CRNC to the Node B using the Node B Control Port.

Upon reception, the Node B adjusts its timing according to the parameters given in the message.

If the CELL SYNCHRONISATION ADJUSTMENT REQUEST message includes the *Frame Adjustment Value* IE the Node B shall apply the frame adjustment in the cell according to the *Frame Adjustment value* IE value.

If the CELL SYNCHRONISATION ADJUSTMENT REQUEST message includes the *Timing Adjustment value* IE the Node B shall apply the timing adjustment in the cell according to the *Timing Adjustment value* IE value.

If the CELL SYNCHRONISATION ADJUSTMENT REQUEST message includes the *DL Transmission Power* IE, the Node B shall apply the transmission power of the cell synchronisation burst according to the *DL Transmission Power* IE value.

If the CELL SYNCHRONISATION ADJUSTMENT REQUEST message includes the *SFN* IE, the Node B shall apply the synchronisation adjustment starting with the SFN number indicated in the message.

When the cell synchronisation adjustment is successfully done by the Node B the Node B, shall respond with a CELL SYNCHRONISATION ADJUSTMENT RESPONSE message.

8.2.25.3 Unsuccessful Operation

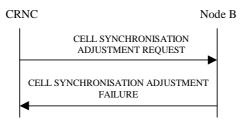


Figure 27K Cell Synchronisation Adjustment, Unsuccessful Operation

If the Node B cannot perform the indicated cell synchronisation adjustment due to hardware failure or other problem it shall send the CELL SYNCHRONISATION ADJUSTMENT FAILURE as a response.

Typical cause values are as follows:

Radio Network Layer Cause

- Cell Synchronisation Adjustment not supported
- Power level not supported

Miscellaneous Cause

- O&M Intervention
- HW failure

8.2.25.4 Abnormal Conditions

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8.2.26 Information Exchange Initiation

8.2.26.1 General

This procedure is used by a CRNC to request the initiation of information provisioning from a Node B.

8.2.26.2 Successful Operation

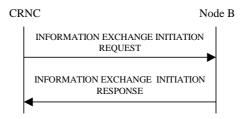


Figure 27L: Information Exchange Initiation procedure, Successful Operation

The procedure is initiated with the INFORMATION EXCHANGE INITIATION REQUEST message sent from the CRNC to the Node B using the Node B Control Port.

Upon reception, the Node B shall provide the requested information according to the *Information Type Item* IE. Unless specified below, the meaning of the parameters are given in other specifications.

Information Report Characteristics

The Information Report Characteristics IE indicates how the reporting of the information shall be performed.

If the *Information Report Characteristics* IE is set to "On Demand", the Node B shall report the requested information immediately.

If the *Information Report Characteristics* IE is set to "Periodic", the Node B shall immediately report the requested information and then shall periodically initiate the Information Reporting procedure for all the requested information, with the requested reporting frequency.

If the *Information Report Characteristics* IE is set to "On Modification", the Node B shall immediately report the requested information if available. If the requested information is not available at the moment of receiving the INFORMATION EXCHANGE INITIATION REQUEST message, but expected to become available after some acquisition time, the Node B shall initiate the Information Reporting procedure when the requested information becomes available. The Node B shall then initiate the Information Reporting procedure in accordance to the following conditions related to the *Information Type* IE:

- 1) If the *Information Type Item* IE is set to "DGPS Corrections", the Node B shall initiate the Information Reporting procedure when either the PRC has drifted from the previously reported value more than the threshold indicated in the *PRC Deviation* IE or a change has occurred in the IODE.
- 2) If the *Information Type Item* IE is set to "GPS Information" and the *GPS Information Item* IE includes "GPS Navigation Model & Time Recovery", the Node B shall initiate the Information Reporting procedure for this specific GPS Information Item when a change has occurred regarding either the IODC or the list of visible satellites, identified by the *SatID* IEs.
- 3) If the *Information Type Item* IE is set to "GPS Information" and the *GPS Information Item* IE includes "GPS Ionospheric Model", the Node B shall initiate the Information Reporting procedure for this specific GPS Information Item when any change has occurred.
- 4) If the *Information Type Item* IE is set to "GPS Information" and the *GPS Information Item* IE includes "GPS UTC Model", the Node B shall initiate the Information Reporting procedure for this specific GPS Information Item when a change has occurred in the t_{ot} or WN_t parameter.
- 5) If the *Information Type Item* IE is set to "GPS Information" and the *GPS Information Item* IE includes "GPS Almanac", the Node B shall initiate the Information Reporting procedure for this specific GPS Information Item when a change in the t_{oa} or WN_a parameter has occurred.
- 6) If the *Information Type Item* IE is set to "GPS Information" and the *GPS Information Item* IE includes "GPS Real-Time Integrity", the Node B shall initiate the Information Reporting procedure for this specific GPS Information Item when any change has occurred.
- 7) If any of the above *Information Type* IEs becomes temporarily unavailable, the Node B shall initiate the Information Reporting procedure for this specific Information Item by indicating "Information Not Available" in

the *Requested Data Value Information* IE. If the Information becomes available again, the Node B shall initiate the Information Reporting procedure for this specific Information.

Response message

If the Node B is able to initiate the information provision requested by the CRNC, it shall respond with the INFORMATION EXCHANGE INITIATION RESPONSE message sent over the Node B Control Port. The message shall include the same Information Exchange ID that was included in the INFORMATION EXCHANGE INITIATION REQUEST message. When the *Report Characteristics* IE is set to "On Modification" or "Periodic", the INFORMATION EXCHANGE INITIATION RESPONSE message shall contain the requested data if the data are available. When the *Report Characteristics* IE is set to "On Demand", the INFORMATION EXCHANGE INITIATION RESPONSE message shall contain the *Requested Data Value* IE.

8.2.26.3 Unsuccessful Operation



Figure 27M: Information Exchange Initiation procedure, Unsuccessful Operation

If the Information Type Item received in the *Information Type Item* IE indicates a type of information that cannot be provided, the Node B shall regard the Information Exchange Initiation procedure as failed.

If the requested information provision cannot be initiated, the Node B shall send the INFORMATION EXCHANGE INITIATION FAILURE message over the Node B Control Port. The message shall include the same Information Exchange ID that was used in the INFORMATION EXCHANGE INITIATION REQUEST message and the *Cause* IE set to an appropriate value.

Typical cause values are as follows:

Radio Network Layer Cause

- Information temporarily not available.
- Information Provision not supported for the object.

8.2.26.4 Abnormal Conditions

If the *Information Report Characteristics* IE is set to "On Modification", and the *Information Type Item* IE is set to "DGPS Corrections", but the *Information Threshold* IE is not received in the INFORMATION EXCHANGE INITIATION REQUEST message, the Node B shall regard the Information Exchange Initiation procedure as failed.

8.2.27 Information Reporting

8.2.27.1 General

This procedure is used by a Node B to report the information requested by the CRNC with the Information Exchange Initiation procedure.

8.2.27.2 Successful Operation



Figure 27N: Information Reporting procedure, Successful Operation

If the requested information reporting criteria are met, the Node B shall initiate the Information Reporting procedure. The INFORMATION REPORT message shall use the Node B Control Port. Unless specified below, the meaning of the parameters are given in other specifications.

The *Information Exchange ID* IE shall be set to the Information Exchange ID provided by the CRNC when initiating the Information Exchange with the Information Exchange Initiation procedure.

The Requested Data Value IE shall include at least one IE containing the data to be reported.

8.2.27.3 Abnormal Conditions

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8.2.28 Information Exchange Termination

8.2.28.1 General

This procedure is used by the CRNC to terminate the provision of information previously requested by the Information Exchange Initiation procedure.

8.2.28.2 Successful Operation



Figure 270: Information Exchange Termination procedure, Successful Operation

This procedure is initiated with an INFORMATION EXCHANGE TERMINATION REQUEST message sent from the CRNC to the Node B using the Node B Control Port.

Upon reception, the Node B shall terminate the provision of information corresponding to the Information Exchange ID.

8.2.28.3 Abnormal Conditions

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8.2.29 Information Exchange Failure

8.2.29.1 General

This procedure is used by the Node B to notify the CRNC that information previously requested by the Information Exchange Initiation procedure can no longer be reported.

8.2.29.2 Successful Operation



Figure 27P: Information Exchange Failure procedure, Successful Operation

This procedure is initiated with the INFORMATION EXCHANGE FAILURE INDICATION message sent from the Node B to the CRNC using the Node B Control Port to inform the CRNC that information previously requested by the Information Exchange Initiation procedure can no longer be reported. The message shall include the same Information Exchange ID that was used in the INFORMATION EXCHANGE INITIATION REQUEST message and the *Cause* IE set to an appropriate value.

8.3 NBAP Dedicated Procedures

8.3.1 Radio Link Addition

8.3.1.1 General

This procedure is used for establishing the necessary resources in the Node B for one or more additional RLs towards a UE when there is already a Node B Communication Context for this UE in the Node B.

The Radio Link Addition procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1.

8.3.1.2 Successful Operation

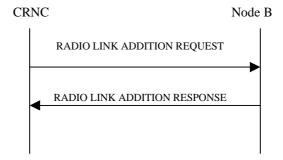


Figure: 28 Radio Link Addition procedure, Successful Operation

The procedure is initiated with a RADIO LINK ADDITION REQUEST message sent from the CRNC to the Node B using the Communication Control Port assigned to the concerned Node B Communication Context.

Upon reception, the Node B shall reserve the necessary resources and configure the new RL(s) according to the parameters given in the message. Unless specified below, the meaning of parameters is specified in other specifications.

The Node B shall prioritise resource allocation for the RL(s) to be established according to Annex A.

Physical Channels Handling:

[TDD – If the *UL DPCH Information* IE is present, the Node B shall configure the new UL DPCH(s) according to the parameters given in the message.]

[TDD – If the *DL DPCH Information* IE is present, the Node B shall configure the new DL DPCH(s) according to the parameters given in the message.]

[FDD - Compressed Mode]:

[FDD – If the RADIO LINK ADDITION REQUEST message includes the *Compressed Mode Deactivation Flag* IE with value "Deactivate", the Node B shall not activate any compressed mode pattern in the new RLs. In all the other cases (Flag set to "Maintain Active" or not present), the ongoing compressed mode (if existing) shall be applied also to the added RLs.]

[FDD- If the RADIO LINK ADDITION REQUEST message contains the *Transmission Gap Pattern Sequence Code Information* IE for any of the allocated DL Channelisation Codes, the Node B shall apply the alternate scrambling code as indicated for each DL Channelisation Code for which the *Transmission Gap Pattern Sequence Code Information* IE is set to "Code Change".]

[FDD – DL Code Information]:

[FDD – When more than one DL DPDCH are assigned per RL, the segmented physical channel shall be mapped on to DL DPDCHs according to ref. [8]. When *p* number of DL DPDCHs are assigned to each RL, the first pair of DL Scrambling Code and FDD DL Channelisation Code Number corresponds to "*PhCH number 1*", the second to "*PhCH number 2*", and so on until the *pth* to "*PhCH number p*".]

[TDD - CCTrCH Handling]:

[TDD – If the *UL CCTrCH Information* IE is present, the Node B shall configure the new UL CCTrCH(s) according to the parameters given in the message.]

[1.28Mcps TDD - If the *UL CCTrCH Information* IE includes the *TDD TPC UL Step Size* IE, the Node B shall configure the uplink TPC step size according to the parameters given in the message, otherwise it shall use the step size configured in other radio link.]

[TDD – If the *DL CCTrCH Information* IE is present, the Node B shall configure the new DL CCTrCH(s) according to the parameters given in the message.]

[TDD - If the *DL CCTrCH Information* IE includes the *TDD TPC DL Step Size* IE, the Node B shall configure the downlink TPC step size according to the parameters given in the message, otherwise it shall use the step size configured in other radio link.]

Radio Link Handling:

Diversity Combination Control:

The *Diversity Control Field* IE indicates for each RL whether the Node B shall combine the new RL with existing RL(s) or not.

- If the Diversity Control Field IE is set to "May", the Node B shall decide for any of the alternatives.
- If the *Diversity Control Field* IE is set to "Must", the Node B shall combine the RL with one of the other RL.
- If the *Diversity Control Field* IE is set to "Must not", the Node B shall not combine the RL with any other existing RL.

When a new RL is to be combined, the Node B shall choose which RL(s) to combine it with.

In the case of not combining a RL with a RL established with a previous Radio Link Setup or Radio Link Addition Procedure or a RL previously listed in the RADIO LINK ADDITION RESPONSE message, the Node B shall indicate with the Diversity Indication in the *RL Information Response* IE in the RADIO LINK ADDITION RESPONSE message that no combining is done. In this case, the Node B shall include in the *DCH Information Response* IE both the *Transport Layer Address* IE and the *Binding ID* IE for the transport bearer to be established for each DCH of the RL in the RADIO LINK ADDITION RESPONSE message.

In the case of combining with a RL established with a previous Radio Link Setup or Radio Link Addition Procedure or with a RL previously listed in this RADIO LINK ADDITION RESPONSE message, the Node B shall indicate with the Diversity Indication in the *RL Information Response* IE in the RADIO LINK ADDITION RESPONSE message that the RL is combined. In this case, the *RL ID* IE indicates (one of) the previously established RL(s) or a RL previously listed in this RADIO LINK ADDITION RESPONSE message with which the new RL is combined.

In the case of a set of co-ordinated DCHs, the *Binding ID* IE and the *Transport Layer Address* IE shall be included for only one of the DCHs in a set of coordinated DCHs.

[TDD – The Node B shall include in the RADIO LINK ADDITION RESPONSE message both the *Transport Layer Address* IE and the *Binding ID* IE for the transport bearer to be established for each DSCH and USCH.]

[FDD – Transmit Diversity]:

[FDD – If the *Transmit Diversity Indicator* IE is included in the RADIO LINK ADDITION REQUEST message, the Node B shall activate/deactivate the Transmit Diversity for each new Radio Link in accordance with the *Transmit Diversity Indicator* IE and the already known diversity mode.]

DL Power Control:

[FDD – If the RADIO LINK ADDITION REQUEST message includes the *Initial DL Transmission Power* IE, the Node B shall apply the given power to the transmission on each DL DPCH of the RL when starting transmission until either UL synchronisation on the Uu interface is achieved for the RLS or Power Balancing is activated. If no *Initial DL Transmission Power* IE is included, the Node B shall use any transmission power level currently used on already existing RLs for this Node B Communication Context. No inner loop power control or balancing shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[10], subclause 5.2.1.2) with DPC MODE currently configured for the relevant Node B Communication Context and the downlink power control procedure (see subclause 8.3.7).]

[TDD – If the RADIO LINK ADDITION REQUEST message includes the [3.84Mcps TDD – *Initial DL Transmission Power* IE] [1.28Mcps TDD – *DL Time Slot ISCP Info LCR* IE], the Node B shall apply the given power to the transmission on each DL DPCH and on each Time Slot of the RL when starting transmission until the UL synchronisation on the Uu interface is achieved for the RL. If no *Initial DL Transmission Power* IE is included, the Node B shall use any transmission power level currently used on already existing RLs for this Node B Communication Context. No inner loop power control shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[22], subclause 4.2.3.3).]

If the RADIO LINK ADDITION REQUEST message includes the *Maximum DL Power* IE, the Node B shall store this value and not transmit with a higher power on any DL DPCH of the RL. If no *Maximum DL Power* IE is included, any Maximum DL power stored for already existing RLs for this Node B Communication Contextshall be applied. [FDD - During compressed mode, the δP_{curr} , as described in ref.[10] subclause 5.2.1.3, shall be added to the maximum DL power for the associated compressed frame.]

If the RADIO LINK ADDITION REQUEST message includes the *Minimum DL Power* IE, the Node B shall store this value and never transmit with a lower power on any DL DPCH of the RL. If no *Minimum DL Power* IE is included, any Minimum DL power stored for already existing RLs for this Node B Communication Contextshall be applied.

[TDD – If the RADIO LINK ADDITION REQUEST message includes the *DL Time Slot ISCP Info* IE, the Node B shall use the indicated value when deciding the DL TX Power for each timeslot as specified in ref. [21], i.e. it shall reduce the DL TX power in those downlink timeslots of the radio link where the interference is low, and increase the DL TX power in those timeslots where the interference is high, while keeping the total downlink power in the radio link unchanged].

[1.28Mcps TDD – Uplink Synchronisation Parameters LCR]:

[1.28Mcps TDD - If the RADIO LINK ADDITION REQUEST message contains the *Uplink Synchronisation Parameters LCR* IE, the Node B shall use the indicated values of *Uplink Synchronisation Stepsize* IE and *Uplink Synchronisation Frequency* IE when evaluating the timing of the UL synchronisation.]

General:

[FDD – If the RADIO LINK ADDITION REQUEST message contains an *SSDT Cell Identity* IE, the Node B shall activate SSDT, if supported, for the concerned new RL, with the indicated SSDT cell identity used for that RL.]

The Node B shall start reception on the new RL(s) after the RLs are successfully established.

[FDD - Radio Link Set Handling]:

[FDD – For each RL not having a common generation of the TPC commands in the DL with another RL, the Node B shall assign the *RL Set ID* IE included in the RADIO LINK ADDITION RESPONSE message a value that uniquely identifies the RL Set within the Node B Communication Context.]

[FDD – For all RLs having a common generation of the TPC commands in the DL with another new or existing RL, the Node B shall assign the *RL Set ID* IE included in the RADIO LINK ADDITION RESPONSE message the same value. This value shall uniquely identify the RL Set within the Node B Communication Context.]

[FDD – After addition of the new RL(s), the UL out-of-sync algorithm defined in [10] shall, for each of the previously existing and newly established RL Set(s), use the maximum value of the parameters N_OUTSYNC_IND and T_RLFAILURE that are configured in the cells supporting the radio links of the RL Set. The UL in-sync algorithm defined in [10] shall, for each of the established RL Set(s), use the minimum value of the parameters N_INSYNC_IND, that are configured in the cells supporting the radio links of the RL Set.]

Response Message:

If all requested RLs are successfully added, the Node B shall respond with a RADIO LINK ADDITION RESPONSE message.

After sending the RADIO LINK ADDITION RESPONSE message, the Node B shall continuously attempt to obtain UL synchronisation on the Uu interface. [FDD – The Node B shall start transmission on the DL DPDCH(s) of the new RL as specified in [16].] [TDD – The Node B shall start transmission on the new RL immediately as specified in [16].]

8.3.1.3 Unsuccessful Operation

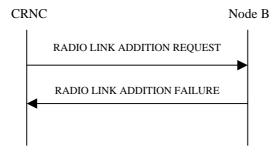


Figure 29: Radio Link Addition procedure: Unsuccessful Operation

If the establishment of at least one radio link is unsuccessful, the Node B shall respond with a RADIO LINK ADDITION FAILURE message. The message contains the failure cause in the *Cause* IE.

[FDD - If some RL(s) were established successfully, the Node B shall indicate this in the RADIO LINK ADDITION FAILURE message in the same way as in the RADIO LINK ADDITION RESPONSE message.]

[FDD – If the RADIO LINK ADDITION REQUEST contains a *C-ID* IE indicating that a Radio Link must be established on a Cell where DPC Mode change is not supported and DPC Mode can be changed for the relevant Node B Communication Context, the Node B shall consider the procedure as failed for the concerned Radio Link and shall respond with a RADIO LINK ADDITION FAILURE with the appropriate cause value ("DPC Mode change not supported").]

Typical cause values are as follows:

Radio Network Layer Cause

- Combining not supported
- Combining Resources not available

- Requested Tx Diversity Mode not supported
- UL SF not supported
- DL SF not supported
- Reconfiguration CFN not elapsed
- CM not supported
- [FDD DPC Mode change not supported]

Transport Layer Cause

- Transport Resources Unavailable

Miscellaneous Cause

- O&M Intervention
- Control processing overload
- HW failure

8.3.1.4 Abnormal conditions

[FDD – If the RADIO LINK ADDITION REQUEST message contains the *Compressed Mode Deactivation Flag* IE with the value "Deactivate" when compressed mode is active for the existing RL(s), and at least one of the new RL is added in a cell that has the same UARFCN (both UL and DL) of at least one cell with an already existing RL, the Node B shall regard the Radio Link Addition procedure as failed and shall respond with a RADIO LINK ADDITION FAILURE message with the cause value "Invalid CM settings".]

8.3.2 Synchronised Radio Link Reconfiguration Preparation

8.3.2.1 General

The Synchronised Radio Link Reconfiguration Preparation procedure is used to prepare a new configuration of Radio Link(s) related to one Node B Communication Context.

The Synchronised Radio Link Reconfiguration Preparation procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1.

8.3.2.2 Successful Operation

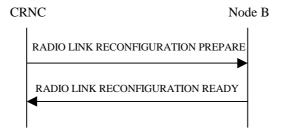


Figure 30: Synchronised Radio Link Reconfiguration Preparation procedure, Successful Operation

The Synchronised Radio Link Reconfiguration Preparation procedure is initiated by the CRNC by sending the RADIO LINK RECONFIGURATION PREPARE message to the Node B. The message shall use the Communication Control Port assigned for this Node B Communication Context.

Upon reception, the Node B shall reserve necessary resources for the new configuration of the Radio Link(s) according to the parameters given in the message. Unless specified below, the meaning of parameters is specified in other specifications.

The Node B shall prioritise resource allocation for the RL(s) to be modified according to Annex A.

DCH Modification:

If the RADIO LINK RECONFIGURATION PREPARE message includes any *DCHs to Modify* IE then the Node B shall treat them each as follows:

- If the *DCHs to Modify* IE includes the *Frame Handling Priority* IE, the Node B should store this information for this DCH in the new configuration. The received Frame Handling Priority should be used when prioritising between different frames in the downlink on the radio interface in congestion situations within the Node B once the new configuration has been activated.
- If the *DCHs to Modify* IE includes the *Transport Format Set* IE for the UL of a DCH, the Node B shall apply the new Transport Format Set in the Uplink of this DCH in the new configuration.
- If the *DCHs to Modify* IE includes the *Transport Format Set* IE for the DL of a DCH, the Node B shall apply the new Transport Format Set in the Downlink of this DCH in the new configuration.
- If the *DCHs to Modify* IE includes the *Allocation/Retention Priority* IE for a DCH, the Node B shall apply the new Allocation/Retention Priority to this DCH in the new configuration according to Annex A.
- If the *DCHs to Modify* IE includes multiple *DCH Specific Info* IE, the Node B shall treat the DCHs in the *DCHs to Modify* IE as a set of co-ordinated DCHs. The Node B shall include these DCHs in the new configuration only if it can include all of them in the new configuration.
- If the *DCHs to Modify* IE includes the *UL FP Mode* IE for a DCH or a DCH which belongs to a set of coordinated DCHs, the Node B shall apply the new FP Mode in the Uplink of the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.
- If the *DCHs to Modify* IE includes the *ToAWS* IE for a DCH or a DCH which belongs to a set of co-ordinated DCHs, the Node B shall apply the new ToAWS in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.
- If the *DCHs to Modify* IE includes the *ToAWE* IE for a DCH or a DCH which belongs to a set of co-ordinated DCHs, the Node B shall apply the new ToAWE in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.
- [TDD If the *DCHs to Modify* IE includes the *CCTrCH ID* IE for the DL of a DCH to be modified, the Node B shall apply the new CCTrCH ID in the Downlink of this DCH in the new configuration.]
- [TDD If the *DCHs to Modify* IE includes the *CCTrCH ID* IE for the UL of a DCH to be modified, the Node B shall apply the new CCTrCH ID in the Uplink of this DCH in the new configuration.]

DCH Addition:

If the RADIO LINK RECONFIGURATION PREPARE message includes any *DCHs to Add* IE then the Node B shall treat them each as follows:

- If the *DCHs to Add* IE includes multiple *DCH Specific Info* IEs, the Node B shall treat the DCHs in the *DCHs to Add* IE as a set of co-ordinated DCHs. The Node B shall include these DCHs in the new configuration only if it can include all of them in the new configuration.
- [FDD For DCHs which do not belong to a set of co-ordinated DCHs with the *QE-Selector* IE set to "selected", the Transport channel BER from that DCH shall be the base for the QE in the UL data frames. If no Transport channel BER is available for the selected DCH, the Physical channel BER shall be used for the QE, ref. [16]. If the *QE-Selector* IE is set to "non-selected", the Physical channel BER shall be used for the QE in the UL data frames, ref. [16].]
- For a set of co-ordinated DCHs, the Transport channel BER from the DCH with the *QE-Selector* IE set to "selected" shall be used for the QE in the UL data frames, ref. [16]. [FDD If no Transport channel BER is available for the selected DCH, the Physical channel BER shall be used for the QE, ref. [16]. If all DCHs have the *QE-Selector* IE set to "non-selected", the Physical channel BER shall be used for the QE, ref. [16].]
- The Node B should store the *Frame Handling Priority* IE received for a DCH to be added in the new configuration. The received Frame Handling Priority should be used when prioritising between different frames

in the downlink on the Uu interface in congestion situations within the Node B once the new configuration has been activated.

- The Node B shall use the included *UL FP Mode* IE for a DCH or a set of co-ordinated DCHs to be added as the new FP Mode in the Uplink of the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.
- The Node B shall use the included *ToAWS* IE for a DCH or a set of co-ordinated DCHs to be added as the new Time of Arrival Window Start Point in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.
- The Node B shall use the included *ToAWE* IE for a DCH or a set of co-ordinated DCHs to be added as the new Time of Arrival Window End Point in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.
- [TDD The Node B shall apply the *CCTrCH ID* IE (for the DL) in the Downlink of this DCH in the new configuration.]
- [TDD The Node B shall apply the *CCTrCH ID* IE (for the UL) in the Uplink of this DCH in the new configuration.]

DCH Deletion:

If the RADIO LINK RECONFIGURATION PREPARE message includes any *DCHs to Delete* IE, the Node B shall not include the referenced DCHs in the new configuration.

If all of the DCHs belonging to a set of co-ordinated DCHs are requested to be deleted, the Node B shall not include this set of co-ordinated DCHs in the new configuration.

Physical Channel Modification:

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes an *UL DPCH Information* IE, then the Node B shall apply the parameters to the new configuration as follows:]

- [FDD If the *UL DPCH Information* IE includes the *Uplink Scrambling Code* IE, the Node B shall apply this Uplink Scrambling Code to the new configuration.]
- [FDD If the *UL DPCH Information* IE includes the *Min UL Channelisation Code Length* IE, the Node B shall apply the value in the new configuration. The Node B shall apply the contents of the *Max Number of UL DPDCHs* IE (if it is included) in the new configuration.]
- [FDD If the *UL DPCH Information* IE includes the *UL SIR Target* IE, the Node B shall use the value for the UL inner loop power control when the new configuration is being used.]
- [FDD If the *UL DPCH Information* IE includes the *Puncture Limit* IE, the Node B shall apply the value in the uplink of the new configuration.]
- [FDD The Node B shall use the *TFCS* IE for the UL (if present) when reserving resources for the uplink of the new configuration. The Node B shall apply the new TFCS in the Uplink of the new configuration.]
- [FDD If the *UL DPCH Information* IE includes the *UL DPCCH Slot Format* IE, the Node B shall set the new Uplink DPCCH Structure to the new configuration.]
- [FDD If the *UL DPCH Information* IE includes the *Diversity Mode* IE, the Node B shall apply diversity according to the given value.]
- [FDD If the *UL DPCH Information* IE includes an *SSDT Cell Identity Length* IE and/or an *S-Field Length* IE, the Node B shall apply the values in the new configuration.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes a *DL DPCH Information* IE, the Node B shall apply the parameters to the new configuration as follows:]

- [FDD – The Node B shall use the *TFCS* IE for the DL (if it is present) when reserving resources for the downlink of the new configuration. The Node B shall apply the new TFCS in the Downlink of the new configuration.]

- [FDD If the *DL DPCH Information* IE includes the *TFCI Signalling Mode* IE or the *TFCI Presence* IE, the Node B shall use the information when building TFCIs in the new configuration.]
- [FDD If the *DL DPCH Information* IE includes the *DL DPCH Slot Format* IE, the Node B shall set the new Downlink DPCH Structure to the new configuration.]
- [FDD If the *DL DPCH Information* IE includes the *Multiplexing Position* IE, the Node B shall apply the indicated multiplexing type in the new configuration.]
- [FDD If the *DL DPCH Information* IE includes the *Limited Power Increase* IE set to "Used", the Node B shall, if supported, use Limited Power Increase according to ref. [10] subclause 5.2.1 for the inner loop DL power control in the new configuration.]
- [FDD If the *DL DPCH Information* IE includes the *Limited Power Increase* IE set to "Not Used", the Node B shall not use Limited Power Increase for the inner loop DL power control in the new configuration.]
- [FDD If the *DL DPCH Information* IE includes the *PDSCH Code Mapping* IE, then the Node B shall apply the defined mapping between TFCI values and PDSCH channelisation codes.]
- [FDD If the *DL DPCH Information* IE includes the *PDSCH RL ID* IE, then the Node B shall infer that the PDSCH for the specified user will be transmitted on the defined radio link.]

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *Transmission Gap Pattern Sequence Information* IE, the Node B shall store the new information about the Transmission Gap Pattern Sequences to be used in the new Compressed Mode Configuration. This new Compressed Mode Configuration shall be valid in the Node B until the next Compressed Mode Configuration is configured in the Node B or Node B Communication Context is deleted.]

[TDD – UL/DL CCTrCH Modification]

[TDD – If the RADIO LINK RECONFIGURATION PREPARE message includes any *UL CCTrCH to Modify* or *DL CCTrCH to Modify* IE, then the Node B shall treat them each as follows:]

- [TDD If the IE includes any of the *TFCS* IE, *TFCI coding* IE or *Puncture Limit* IE, the Node B shall apply these as the new values, otherwise the old values specified for this CCTrCH are still applicable.]
- [TDD If the IE includes any *UL DPCH To Add* IE or *DL DPCH To Add* IE, the Node B shall include this DPCH in the new configuration.]
- [TDD If the IE includes any *UL DPCH To Delete* IE or *DL DPCH To Delete* IE, the Node B shall remove this DPCH in the new configuration.]
- [TDD If the IE includes any *UL DPCH To Modify* IE or *DL DPCH To Modify* IE and includes any of the *Repetition Period* IE, *Repetition Length* IE or *TDD DPCH Offset* IE, or the message includes UL/DL Timeslot Information and includes any of the [3.84Mcps TDD *Midamble Shift And Burst Type* IE], [1.28Mcps TDD *Midamble Shift LCR* IE], or *TFCI Presence* IE or the message includes UL/DL Code information and includes [3.84Mcps TDD *TDD Channelisation Code* IE], [1.28Mcps TDD *TDD Channelisation Code LCR* IE], [1.28Mcps TDD *TDD UL DPCH Time Slot Format LCR* IE or *TDD DL DPCH Time Slot Format LCR* IE], the Node B shall apply these specified information elements as the new values, otherwise the old values specified for this DPCH configuration are still applicable.]
- [1.28Mcps TDD If the *UL CCTrCH To Modify* IE includes the *UL SIR Target* IE, the Node B shall use the value for the UL inner loop power control according [19] and [21] when the new configuration is being used.]
- [1.28Mcps TDD If the *UL CCTrCH to Modify* IE includes the *TDD TPC UL Step Size* IE, the Node B shall apply this value to the uplink TPC step size in the new configuration.]
- [TDD If the *DL CCTrCH to Modify* IE includes the *TDD TPC DL Step Size* IE, the Node B shall apply this value to the downlink TPC step size in the new configuration.]

[TDD - UL/DL CCTrCH Addition]

[TDD – If the RADIO LINK RECONFIGURATION PREPARE message includes any *UL CCTrCH To Add* IE or *DL CCTrCH To Add* IE, the Node B shall include this CCTrCH in the new configuration.]

[TDD – If the *UL/DL CCTrCH To Add* IE includes any *UL/DL DPCH Information* IE, the Node B shall reserve necessary resources for the new configuration of the UL/DL DPCH(s) according to the parameters given in the message.]

[TDD – If the RADIO LINK RECONFIGURATION PREPARE message includes *TDD TPC DL Step Size* IE within a *DL CCTrCH To Add* IE, the Node B shall set the downlink TPC step size of that CCTrCH to that value, otherwise the Node B shall set the TPC step size of that CCTrCH to the same value as the lowest numbered DL CCTrCH in the current configuration.]

[1.28Mcps TDD - If the *UL CCTrCH To Add* IE includes the *TDD TPC UL Step Size* IE, the Node B shall apply the uplink TPC step size in the new configuration.]

[1.28Mcps TDD – The Node B shall use the *UL SIR Target* IE in the *UL CCTrCH To Add* IE as the UL SIR value for the inner loop power control for this CCTrCH according [19] and [21] in the new configuration.]

[TDD – UL/DL CCTrCH Deletion]

[TDD – If the RADIO LINK RECONFIGURATION PREPARE message includes any UL or DL CCTrCH to be deleted , the Node B shall remove this CCTrCH in the new configuration.]

DSCH Addition/Modification/Deletion:

If the RADIO LINK RECONFIGURATION PREPARE message includes any *DSCH To Add*, *DSCH To Modify* or *DSCH To Delete* IE, then the Node B shall use this information to add/modify/delete the indicated DSCH channels to/from the radio link, in the same way as the DCH info is used to add/modify/release DCHs.

The Node B shall include in the RADIO LINK RECONFIGURATION READY message both the *Transport Layer Address* IE and the *Binding ID* IE for the transport bearer to be established for each DSCH.

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *TFC12 Bearer Information* IE, then the Node B shall support the establishment of a transport bearer on which the DSCH TFCI Signaling control frames shall be received if one does not already exist or shall apply the new values if such a bearer does already exist for this Node B Communication Context. The *Binding ID* IE and *Transport Layer Address* IE of any new bearer to be set up for this purpose shall be returned in the RADIO LINK RECONFIGURATION READY message. If the RADIO LINK RECONFIGURATION PREPARE message specifies that the TFC12 transport bearer is to be deleted, then the Node B shall release the resources associated with that bearer in the new configuration.]

[FDD – If the *TFCI Signalling Mode* IE within the RADIO LINK RECONFIGURATION PREPARE message indicates that there shall be a hard split on the TFCI field but a TFCI2 transport bearer has not already been set up and *TFCI2 Bearer Information* IE is not included in the message, then the Node B shall transmit the TFCI2 field with zero power in the new configuration.]

[FDD – If the *TFCI Signalling Mode* IE within the RADIO LINK RECONFIGURATION PREPARE message indicates that there shall be a hard split on the TFCI and the *TFCI2 Bearer Information* IE is included in the message, then the Node B shall transmit the TFCI2 field with zero power until Synchronisation is achieved on the TFCI2 transport bearer and the first valid DSCH TFCI Signalling control frame is received on this bearer in the new configuration (see ref. [24]).]

 $[FDD-If the RADIO LINK RECONFIGURATION PREPARE \ message \ includes \ the \ \textit{DSCH Common Information IE}, \ the \ Node \ B \ shall \ treat \ it \ as \ follows:]$

- [FDD If the *Enhanced DSCH PC Indicator* IE is included and set to "Enhanced DSCH PC Active in the UE", the Node B shall activate enhanced DSCH power control in accordance with ref. [10] subclause 5.2.2, if supported, using either:]
 - [FDD the *SSDT Cell Identity for EDSCHPC* IE in the *RL Information* IE, if the *SSDT Cell Identity* IE is not included in the *RL Information* IE or]
 - [FDD the SSDT Cell Identity IE in the RL Information IE, if both the SSDT Cell Identity IE and the SSDT Cell Identity for EDSCHPC IE are included in the RL Information IE.]

[FDD - together with the SSDT Cell Identity Length IE in UL DPCH Information IE, and Enhanced DSCH PC IE, in the new configuration.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *Enhanced DSCH PC Indicator* IE set to "Enhanced DSCH PC not Active in the UE", the Node B shall deactivate enhanced DSCH power control in the new configuration.]

[TDD – USCH Addition/Modification/Deletion:]

- [TDD If the RADIO LINK RECONFIGURATION PREPARE message includes USCH information for the USCHs to be added/modified/deleted then the Node B shall use this information to add/modify/delete the indicated USCH channels to/from the radio link, in the same way as the DCH info is used to add/modify/release DCHs.]
- [TDD The Node B shall include in the RADIO LINK RECONFIGURATION READY message both the *Transport Layer Address* IE and the *Binding ID* IE for the transport bearer to be established for each USCH.]

RL Information:

If the RADIO LINK RECONFIGURATION PREPARE message includes the *RL Information* IE, the Node B shall treat it as follows:

- [FDD When more than one DL DPDCH are assigned per RL, the segmented physical channel shall be mapped on to DL DPDCHs according to [8]. When *p* number of DL DPDCHs are assigned to each RL, the first pair of DL Scrambling Code and FDD DL Channelisation Code Number corresponds to "*PhCH number 1*", the second to "*PhCH number 2*", and so on until the *pth* to "*PhCH number p*".]
- [FDD If the *RL Information* IE includes the *SSDT Indication* IE set to "SSDT Active in the UE", the Node B may activate SSDT using the *SSDT Cell Identity* IE in the new configuration.]
- [FDD If the *RL Information* IE includes the *SSDT Indication* IE set to "SSDT not Active in the UE", the Node B shall deactivate SSDT in the new configuration.]
- [FDD If the *RL Information* IE includes a *DL Code Information* IE, the Node B shall apply the values in the new configuration.]
- [FDD If the *RL Information* IE contains the *Transmission Gap Pattern Sequence Code Information* IE in the *DL Code Information* IE for any of the allocated DL Channelisation Codes, the Node B shall apply the alternate scrambling code as indicated whenever the downlink compressed mode method SF/2 is active in the new configuration.]
- If the *RL Information* IE includes the *Maximum DL Power* and/or the *Minimum DL Power* IEs, the Node B shall apply the values in the new configuration. [FDD During compressed mode, the δP_{curr} , as described in ref.[10] subclause 5.2.1.3, shall be added to the maximum DL power for the associated compressed frame.]
- [TDD If the *RL Information* IE includes the *Initial DL Transmission Power* IE, the Node B shall apply the given power to the transmission on each DPCH of the CCTrCH when starting transmission on a new CCTrCH until the UL synchronisation on the Uu interface is achieved for the CCTrCH. If no *Initial DL Transmission Power* IE is included with a new CCTrCH, the Node B shall use any transmission power level currently used on already existing CCTrCHs when starting transmission for a new CCTrCH. No inner loop power control shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[22], subclause 4.2.3.3).]
- [1.28Mcps TDD If the RADIO LINK RECONFIGURATION PREPARE message contains the *Uplink Synchronisation Parameters LCR* IE, the Node B shall use the indicated values of *Uplink Synchronisation Stepsize* IE and *Uplink Synchronisation Frequency* IE when evaluating the timing of the UL synchronisation.]

[TDD - PDSCH RL ID]

- [TDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *PDSCH RL ID* IE then in the new configuration the Node B shall use the PDSCH and/or PUSCH in this radio link.]

General

If the requested modifications are allowed by the Node B and the Node B has successfully reserved the required resources for the new configuration of the Radio Link(s), it shall respond to the CRNC with the RADIO LINK RECONFIGURATION READY message. When this procedure has been completed successfully there exists a Prepared Reconfiguration, as defined in subclause 3.1.

The Node B shall include in the RADIO LINK RECONFIGURATION READY message the *Transport Layer Address* IE and the *Binding ID* IE for any Transport Channel being added or any Transport Channel being modified for which a new transport bearer was requested with the *Transport Bearer Request Indicator* IE.

In the case of a set of co-ordinated DCHs requiring a new transport bearer on the Iub interface, the *Transport Layer Address* IE and the *Binding ID* IE in the *DCH Information Response* IE shall be included only for one of the DCH in the set of co-ordinated DCHs.

In the case of a Radio Link being combined with another Radio Link within the Node B, the *Transport Layer Address* IE and the *Binding ID* IE in the *DCH Information Response* IE shall be included only for one of the combined Radio Links.

8.3.2.3 Unsuccessful Operation

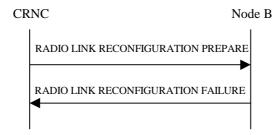


Figure 31: Synchronised Radio Link Reconfiguration Preparation procedure, Unsuccessful Operation

If the Node B cannot reserve the necessary resources for all the new DCHs of one set of co-ordinated DCHs requested to be added, it shall regard the Synchronised Radio Link Reconfiguration Preparation procedure as having failed.

If the requested Synchronised Radio Link Reconfiguration Preparation procedure fails for one or more RLs, the Node B shall send the RADIO LINK RECONFIGURATION FAILURE message to the CRNC, indicating the reason for failure.

Typical cause values are as follows:

Radio Network Layer Cause

- UL SF not supported
- DL SF not supported
- Downlink Shared Channel Type not supported
- Uplink Shared Channel Type not supported
- CM not supported
- Number of DL codes not supported
- Number of UL codes not supported

Transport Layer Cause

- Transport Resources Unavailable

Miscellaneous Cause

- O&M Intervention
- Control processing overload
- HW failure

8.3.2.4 Abnormal Conditions

If only a subset of all the DCHs belonging to a set of co-ordinated DCHs is requested to be deleted, the Node B shall regard the Synchronised Radio Link Reconfiguration Preparation procedure as having failed and shall send the RADIO LINK RECONFIGURATION FAILURE message to the CRNC.

If more than one DCH of a set of co-ordinated DCHs has the *QE-Selector* IE set to "selected" [TDD – or no DCH of a set of co-ordinated DCHs has the *QE-Selector* IE set to "selected"], the Node B shall regard the Synchronised Radio Link Reconfiguration Preparation procedure as failed and shall respond with a RADIO LINK RECONFIGURATION FAILURE message.

[FDD - If the *RL Information* IE includes the *SSDT Indication* IE set to "SSDT Active in the UE" and SSDT is not active in the current configuration, the Node B shall regard the Synchronised Radio Link Reconfiguration Preparation procedure as failed if the *UL DPCH Information* IE does not include the *SSDT Cell Identity Length* IE. In this case, it shall respond with a RADIO LINK RECONFIGURATION FAILURE message.]

If the RADIO LINK RECONFIGURATION PREPARE message includes a *DCHs To Modify* IE or *DCHs To Add* IE with multiple *DCH Specific Info* IEs, and if the DCHs in the *DCHs To Modify* IE or *DCHs To Add* IE do not have the same *Transmission Time Interval* IE in the *Semi-Static Transport Format Information* IE, then the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

8.3.3 Synchronised Radio Link Reconfiguration Commit

8.3.3.1 General

This procedure is used to order the Node B to switch to the new configuration for the Radio Link(s) within the Node B, previously prepared by the Synchronised Radio Link Reconfiguration Preparation procedure.

The message shall use the Communication Control Port assigned for this Node B Communication Context.

8.3.3.2 Successful Operation



Figure 32:Synchronised Radio Link Reconfiguration Commit procedure, Successful Operation

The Node B shall switch to the new configuration previously prepared by the Synchronised Radio Link Reconfiguration Preparation procedure at the next coming CFN with a value equal to the value requested by the CRNC in the *CFN* IE when receiving the RADIO LINK RECONFIGURATION COMMIT message from the CRNC.

[FDD – If the *Active Pattern Sequence Information* IE is included in the RADIO LINK RECONFIGURATION COMMIT message, the *CM Configuration Change CFN* IE in the *Active Pattern Sequence Information* IE shall be ignored by the Node B.]

When this procedure has been completed the Prepared Reconfiguration does not exist any more, see subclause 3.1.

In the case of a transport channel modification for which a new transport bearer was requested and established, the switch to the new transport bearer shall also take place at the indicated CFN. The detailed frame protocol handling during transport bearer replacement is described in [16], subclause 5.10.1 and in [24], subclause 5.8.2.

[FDD – If the RADIO LINK RECONFIGURATION COMMIT includes the *Active Pattern Sequence Information* IE, the Node B shall deactivate all the ongoing Transmission Gap Pattern Sequences at the *CFN* IE. From that moment on, all Transmission Gap Pattern Sequences included in *Transmission Gap Pattern Sequence Status* IE repetitions shall be started when the indicated *TGCFN* IE elapses. The *CFN* IE and *TGCFN* IE for each sequence refer to the next coming CFN with that value. If the values of the *CFN* IE and the *TGCFN* IE are equal, the concerned Transmission Gap Pattern Sequence shall be started immediately at the CFN with a value equal to the value received in the *CFN* IE.]

8.3.3.3 Abnormal Conditions

If a new transport bearer is required for the new reconfiguration and it is not available at the requested CFN, the Node B shall initiate the Radio Link Failure procedure.

8.3.4 Synchronised Radio Link Reconfiguration Cancellation

8.3.4.1 General

This procedure is used to order the Node B to release the new configuration for the Radio Link(s) within the Node B, previously prepared by the Synchronised Radio Link Preparation Reconfiguration procedure.

The message shall use the Communication Control Port assigned for this Node B Communication Context.

8.3.4.2 Successful Operation



Figure 33:Synchronised Radio Link Reconfiguration Cancellation procedure, Successful Operation

When receiving the RADIO LINK RECONFIGURATION CANCEL message from the CRNC, the Node B shall release the new configuration ([FDD - including the new Transmission Gap Pattern Sequence parameters (if existing)]) previously prepared by the Synchronised Radio Link Reconfiguration Preparation procedure and continue using the old configuration. When this procedure has been completed the Prepared Reconfiguration does not exist any more, see subclause 3.1.

8.3.4.3 Abnormal Conditions

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8.3.5 Unsynchronised Radio Link Reconfiguration

8.3.5.1 General

The Unsynchronised Radio Link Reconfiguration procedure is used to reconfigure Radio Link(s) related to one UE-UTRAN connection within a Node B.

The Unsynchronised Radio Link Reconfiguration procedure is used when there is no need to synchronise the time of the switching from the old to the new configuration in one Node B used for a UE-UTRAN connection with any other Node B also used for the UE-UTRAN connection.

The Unsynchronised Radio Link Reconfiguration procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1.

8.3.5.2 Successful Operation

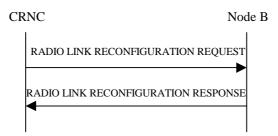


Figure 34: Unsynchronised Radio Link Reconfiguration Procedure, Successful Operation

The Unsynchronised Radio Link Reconfiguration procedure is initiated by the CRNC by sending the RADIO LINK RECONFIGURATION REQUEST message to the Node B. The message shall use the Communication Control Port assigned for this Node B Communication Context.

Upon reception, the Node B shall modify the configuration of the Radio Link(s) according to the parameters given in the message. Unless specified below, the meaning of parameters is specified in other specifications.

The Node B shall prioritise resource allocation for the RL(s) to be modified according to Annex A.

DCH Modification:

If the RADIO LINK RECONFIGURATION REQUEST message includes any *DCHs To Modify* IE then the Node B shall treat them each as follows:

- If the *DCHs To Modify* IE includes the *Frame Handling Priority* IE, the Node B should store this information for this DCH in the new configuration. The received Frame Handling Priority should be used when prioritising between different frames in the downlink on the Uu interface in congestion situations within the Node B once the new configuration has been activated.
- If the *DCHs To Modify* IE includes the *Transport Format Set* IE for the UL, the Node B shall apply the new Transport Format Set in the Uplink of this DCH in the new configuration.
- If the *DCHs To Modify* IE includes the *Transport Format Set* IE for the DL, the Node B shall apply the new Transport Format Set in the Downlink of this DCH in the new configuration.
- If the *DCHs to Modify* IE includes the *Allocation/Retention Priority* IE for a DCH, the Node B shall apply the new Allocation/Retention Priority to this DCH in the new configuration according to Annex A.
- If the *DCHs To Modify* IE includes multiple *DCH Specific Info* IEs, then the Node B shall treat the DCHs in the *DCHs Tto Modify* IE as a set of co-ordinated DCHs. The Node B shall include these DCHs in the new configuration only if it can include all of them in the new configuration.
- If the *DCHs To Modify* IE includes the *UL FP Mode* IE for a DCH or a set of co-ordinated DCHs, the Node B shall apply the new FP Mode in the Uplink of the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.
- If the *DCHs To Modify* IE includes the *ToAWS* IE for a DCH or a set of co-ordinated DCHs, the Node B shall apply the new ToAWS in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.
- If the *DCHs To Modify* IE includes the *ToAWE* IE for a DCH or a set of co-ordinated DCHs, the Node B shall apply the new ToAWE in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.
- [TDD If the RADIO LINK RECONFIGURATION REQUEST message includes the *CCTrCH ID* IE for the DL of a DCH to be modified, the Node B shall apply the new CCTrCH ID in the Downlink of this DCH in the new configuration.]
- [TDD If the RADIO LINK RECONFIGURATION REQUEST message includes the *CCTrCH ID* IE for the UL of a DCH to be modified, the Node B shall apply the new CCTrCH ID in the Uplink of this DCH in the new configuration.]

DCH Addition:

If the RADIO LINK RECONFIGURATION REQUEST message includes any *DCH To Add* IE, the Node B shall reserve necessary resources for the new configuration of the Radio Link(s) according to the parameters given in the message and include these DCHs in the new configuration. In particular:

- If a *DCHs To Add* IE includes multiple *DCH Specific Info* IEs for a DCH to be added, the Node B shall treat the DCHs in the *DCHs To Add* IE as a set of co-ordinated DCHs. The Node B shall include these DCHs in the new configuration only if it can include all of them in the new configuration.
- [FDD For DCHs which do not belong to a set of co-ordinated DCHs with the *QE-Selector* IE set to "selected", the Node B shall use the Transport channel BER from that DCHas the base for the QE in the UL data frames. If no Transport channel BER is available for the selected DCH, the Physical channel BER shall be used for the QE [16]. If the *QE-Selector* IE is set to "non-selected", the Physical channel BER shall be used for the QE in the UL data frames, ref. [16].]
- For a set of co-ordinated DCHs, the Node B shall use the Transport channel BER from the DCH with the *QE-Selector* IE set to "selected" as the QE in the UL data frames [16]. [FDD If no Transport channel BER is available for the selected DCH, the Physical channel BER shall be used for the QE [16]. If all DCHs have the *QE-Selector* IE set to "non-selected", the Physical channel BER shall be used for the QE [16].]
- The Node B should store the *Frame Handling Priority* IE received for a DCH to be added in the new configuration. The received Frame Handling Priority should be used when prioritising between different frames in the downlink on the Uu interface in congestion situations within the Node B once the new configuration has been activated.
- The Node B shall use the included *UL FP Mode* IE for a DCH or a set of co-ordinated DCHs to be added as the new FP Mode in the Uplink of the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.
- The Node B shall use the included *ToAWS* IE for a DCH or a set of co-ordinated DCHs to be added as the new Time of Arrival Window Start Point in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.
- The Node B shall use the included *ToAWE* IE for a DCH or a set of co-ordinated DCHs to be added as the new Time of Arrival Window End Point in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.
- [TDD If the RADIO LINK RECONFIGURATION REQUEST message includes the *CCTrCH ID* IE for the DL of a DCH to be added, the Node B shall apply the new CCTrCH ID in the downlink of this DCH in the new configuration.]
- [TDD If the RADIO LINK RECONFIGURATION REQUEST message includes the *CCTrCH ID* IE for the UL of a DCH to be added, the Node B shall apply the new CCTrCH ID in the Uplink of this DCH in the new configuration.]

DCH Deletion:

If the RADIO LINK RECONFIGURATION REQUEST message includes any DCH to be deleted from the Radio Link(s), the Node B shall not include this DCH in the new configuration.

If all of the DCHs belonging to a set of co-ordinated DCHs are requested to be deleted, the Node B shall not include this set of co-ordinated DCHs in the new configuration.

[FDD - Physical Channel Modification:]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes an *UL DPCH Information* IE, then the Node B shall apply the parameters to the new configuration as follows:]

- [FDD – If the *UL DPCH Information* IE includes the *TFCS* IE for the UL, the Node B shall apply the new TFCS in the Uplink of the new configuration.]

[FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes a *DL DPCH Information* IE, then the Node B shall apply the parameters to the new configuration as follows:]

- [FDD – If the *DL DPCH Information* IE includes on the *TFCS* IE for the DL, the Node B shall apply the new TFCS in the Downlink of the new configuration.]

- [FDD If the *DL DPCH Information* IE includes the *TFCI Signalling Mode* IE, the Node B shall use the information when building TFCIs in the new configuration.
- [FDD If the *DL DPCH Information* IE includes the *Limited Power Increase* IE set to "Used", the Node B shall, if supported, use Limited Power Increase according to ref. [10] subclause 5.2.1 for the inner loop DL power control in the new configuration.]
- [FDD If the *DL DPCH Information* IE includes the *Limited Power Increase* IE set to "Not Used", the Node B shall not use Limited Power Increase for the inner loop DL power control in the new configuration.]

[FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *Transmission Gap Pattern Sequence Information* IE, the Node B shall store the new information about the Transmission Gap Pattern Sequences to be used in the new Compressed Mode Configuration. This new Compressed Mode Configuration shall be valid in the Node B until the next Compressed Mode Configuration is configured in the Node B or Node B Communication Context is deleted.]

[TDD – UL/DL CCTrCH Modification]

[TDD – If the RADIO LINK RECONFIGURATION REQUEST message includes any *UL CCTrCH To Modify* IE or *DL CCTrCH To Modify* IE in the Radio Link(s), the Node B shall reserve necessary resources for the new configuration of the Radio Link(s) according to the parameters given in the message.]

[TDD – If the *UL/DL CCTrCH To Modify* IE includes *TFCS* IE and/or *Puncture Limit* IE, the Node B shall apply these as the new values, otherwise the old values specified for this CCTrCH are still applicable.]

[1.28Mcps TDD - If the *UL CCTrCH To Modify* IE includes *UL SIR Target* IE, the Node B shall apply this value as the new configuration and use it for the UL inner loop power control according [19] and [21].]

[TDD – UL/DL CCTrCH Deletion]

[TDD – If the RADIO LINK RECONFIGURATION REQUEST message includes any *UL CCTrCH To Delete* IE or *DL CCTrCH To Delete* IE, the Node B shall not include this CCTrCH in the new configuration.]

RL Information:

If the RADIO LINK RECONFIGURATION REQUEST message includes the *RL Information* IE, the Node B shall treat it as follows:

- If the *RL Information* IE includes the *Maximum DL Power* IE, the Node B shall apply this value to the new configuration and not transmit with a higher power on any Downlink DPCH of the Radio Link once the new configuration is being used. [FDD During compressed mode, the δP_{curr} , as described in ref.[10] subclause 5.2.1.3, shall be added to the maximum DL power for the associated compressed frame.]
- If the *RL Information* IE includes the *Minimum DL Power* IE, the Node B shall apply this value to the new configuration and never transmit with a lower power on any Downlink Channelisation Code of the Radio Link once the new configuration is being used.
- [FDD If the *RL Information* IE contains the *Transmission Gap Pattern Sequence Code Information* IE in the *DL Code Information* IE for any of the allocated DL Channelisation Codes, the Node B shall apply the alternate scrambling code as indicated whenever the downlink compressed mode method SF/2 is active in the new configuration.]
- [1.28Mcps TDD If the RADIO LINK RECONFIGURATION REQUEST message contains the *Uplink Synchronisation Parameters LCR* IE, the Node B shall use the indicated values of *Uplink Synchronisation Stepsize* IE and *Uplink Synchronisation Frequency* IE when evaluating the timing of the UL synchronisation.]

General

If the requested modifications are allowed by the Node B, the Node B has successfully allocated the required resources, and changed to the new configuration, it shall respond to the CRNC with the RADIO LINK RECONFIGURATION RESPONSE message.

The Node B shall include in the RADIO LINK RECONFIGURATION RESPONSE message the *Transport Layer Address* IE and the *Binding ID* IE for any Transport Channel being added or any Transport Channel being modified for

which a new transport bearer was requested with the *Transport Bearer Request Indicator* IE. The detailed frame protocol handling during transport bearer replacement is described in [16], subclause 5.10.1.

In the case of a set of co-ordinated DCHs requiring a new transport bearer on the Iub interface, the *Transport Layer Address* IE and the *Binding ID* IE in the *DCH Information Response* IE shall be included only for one of the DCH in the set of coordinated DCHs.

In the case of a Radio Link being combined with another Radio Link within the Node B, the *Transport Layer Address* IE and the *Binding ID* IE in the *DCH Information Response* IE shall be included only for one of the combined Radio Links.

8.3.5.3 Unsuccessful Operation

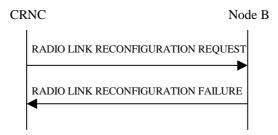


Figure 35: Unsynchronised Radio Link Reconfiguration procedure, Unsuccessful Operation

If the Node B cannot allocate the necessary resources for all the new DCHs of one set of co-ordinated DCHs requested to be set-up, it shall regard the Unsynchronised Radio Link Reconfiguration procedure as having failed.

If the requested Unsynchronised Radio Link Reconfiguration procedure fails for one or more Radio Link(s), the Node B shall send the RADIO LINK RECONFIGURATION FAILURE message to the CRNC, indicating the reason for failure.

Typical cause values are as follows:

Radio Network Layer Cause

CM not supported

Transport Layer Cause

- Transport Resources Unavailable

Miscellaneous Cause

- O&M Intervention
- Control processing overload
- HW failure

8.3.5.4 Abnormal Conditions

If only a subset of all the DCHs belonging to a set of co-ordinated DCHs is requested to be deleted, the Node B shall regard the Unsynchronised Radio Link Reconfiguration procedure as having failed and shall send the RADIO LINK RECONFIGURATION FAILURE message to the CRNC.

[FDD – If the *RL Information* IE contains the *DL Code Information* IE and this IE includes *DL Scrambling Code* and *FDD DL Channelisation Code Number* IEs not matching the DL Channelisation code(s) already allocated to the Radio Link identified by *RL ID* IE, then the Node B shall consider the Unsynchronised Radio Link Reconfiguration procedure as having failed and it shall send the RADIO LINK RECONFIGURATION FAILURE message to the CRNC.

If more than one DCH of a set of co-ordinated DCHs has the *QE-Selector* IE set to "selected" [TDD – or no DCH of a set of co-ordinated DCHs has the *QE-Selector* IE set to "selected"], the Node B shall regard the Unsynchronised Radio Link Reconfiguration Preparation procedure as failed and shall respond with a RADIO LINK RECONFIGURATION FAILURE message.

If the RADIO LINK RECONFIGURATION REQUEST message includes a *DCHs To Modify* IE or *DCHs To Add* IE with multiple *DCH Specific Info* IEs, and if the DCHs in the *DCHs To Modify* IE or *DCHs To Add* IE do not have the same *Transmission Time Interval* IE in the *Semi-Static Transport Format Information* IE, then the Node B shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

8.3.6 Radio Link Deletion

8.3.6.1 General

The Radio Link Deletion procedure is used to release the resources in a Node B for one or more established radio links towards a UE.

The Radio Link Deletion procedure may be initiated by the CRNC at any time when the Node B Communication Context exists.

8.3.6.2 Successful Operation

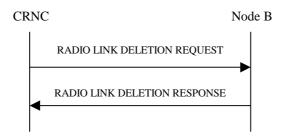


Figure 36: Radio Link Deletion procedure, Successful Operation

The procedure is initiated with a RADIO LINK DELETION REQUEST message sent from the CRNC to the Node B using the Communication Control Port assigned to the concerned Node B Communication Context.

Upon receipt of this message, the Node B shall delete the radio link(s) identified by the *RL ID* IE, *Node B Communication ID* IE and *CRNC Communication ID* IE and release all associated resources and respond to the CRNC with a RADIO LINK DELETION RESPONSE message. [FDD – Resources associated with the TFCI2 bearer shall be released only if all the RLs in the Node B Communication Context are deleted].

[FDD – After deletion of the RL(s), the UL out-of-sync algorithm defined in ref. [10] shall for each of the remaining RL Set(s) use the maximum value of the parameters N_OUTSYNC_IND and T_RLFAILURE that are configured in the cells supporting the radio links of the RL Set and the UL in-sync algorithm defined in ref. [10] shall for each of the remaining RL Set(s) use the minimum value of the parameters N_INSYNC_IND that are configured in the cells supporting the radio links of the RL Set].

8.3.6.3 Unsuccessful Operation

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8.3.6.4 Abnormal Conditions

If the RL indicated by the *RL ID* IE, *Node B Communication ID* IE and *CRNC Communication ID* IE does not exist, the Node B shall respond with the RADIO LINK DELETION RESPONSE message and use the *CRNC Communication Context ID* IE received in the RADIO LINK DELETION REQUEST message.

8.3.7 Downlink Power Control [FDD]

8.3.7.1 General

The purpose of this procedure is to balance the DL transmission powers of one or more Radio Links used for the related UE-UTRAN connection within the Node B. The Downlink Power Control procedure may be initiated by the CRNC at any time when the Node B Communication Context exists, irrespective of other ongoing CRNC initiated dedicated

NBAP procedures towards this Node B Communication Context. The only exception occurs when the CRNC has requested the deletion of the last RL via this Node B, in which case the Downlink Power Control procedure shall no longer be initiated.

8.3.7.2 Successful Operation



Figure 37: Downlink Power Control procedure, Successful Operation

The procedure is initiated by the CRNC sending a DL POWER CONTROL REQUEST message to the Node B using the Communication Control Port assigned to the concerned Node B Communication Context.

The Power Adjustment Type IE defines the characteristic of the power adjustment.

If the value of the *Power Adjustment Type* IE is "Common", the Power Balancing Adjustment Type of the Node B Communication Context shall be set to "Common". As long as the Power Balancing Adjustment Type of the Node B Communication Context is set to "Common", the Node B shall perform the power adjustment (see below) for all existing and future radio links associated with the context identified by the *Node B Communication Context ID* IE and use a common DL reference power level.

If the value of the *Power Adjustment Type* IE is "Individual", the Power Balancing Adjustment Type of the Node B Communication Context shall be set to "Individual". The Node B shall perform the power adjustment (see below) for all radio links addressed in the message using the given DL Reference Powers per RL. If the Power Balancing Adjustment Type of the Node B Communication Context was set to "Common" before this message was received, power balancing on all radio links not addressed by the DL POWER CONTROL REQUEST message shall remain to be executed in accordance with the existing power balancing parameters which are now considered RL individual parameters. Power balancing will not be started on future radio links without a specific request.

If the value of the *Power Adjustment Type* IE is "None", the Power Balancing Adjustment Type of the Node B Communication Context shall be set to "None" and the Node B shall suspend on going power adjustments for all radio links for the Node B Communication Context.

If the *Inner Loop DL PC Status* IE is present and set to "Active", the Node B shall activate inner loop DL power control for all radio links for the Node B Communication Context. If the *Inner Loop DL PC Status* IE is present and set to "Inactive", the Node B shall deactivate inner loop DL power control for all radio links for the Node B Communication Context according to ref. [10].

Power Adjustment

The power balancing adjustment shall be superimposed on the inner loop power control adjustment (see ref. [10]) if activated. The power balancing adjustment shall be such that:

$$\sum P_{bal} = (1 - r)(P_{ref} + P_{P-CPICH} - P_{init})$$
 with an accuracy of ±0.5 dB

where the sum is performed over an adjustment period corresponding to a number of frames equal to the value of the *Adjustment Period* IE, Pref is the value of the *DL Reference Power* IE, $P_{P-CPICH}$ is the power used on the primary CPICH, P_{init} is the code power of the last slot of the previous adjustment period and r is given by the *Adjustment Ratio* IE. If the last slot of the previous adjustment period is within a transmission gap due to compressed mode, P_{init} shall be set to the same value as the code power of the slot just before the transmission gap.

The adjustment within one adjustment period shall in any case be performed with the constraints given by the *Max Adjustment Step* IE and the DL TX power range set by the CRNC.

The power adjustments shall be started at the first slot of a frame with CFN modulo the value of *Adjustment Period* IE equal to 0 and shall be repeated for every adjustment period and shall be restarted at the first slot of a frame with CFN=0, until a new DL POWER CONTROL REQUEST message is received or the RL is deleted.

8.3.7.3 Abnormal Conditions

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8.3.8 Dedicated Measurement Initiation

8.3.8.1 General

This procedure is used by a CRNC to request the initiation of measurements on dedicated resources in a Node B.

The Dedicated Measurement Initiation procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1.

8.3.8.2 Successful Operation

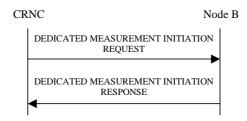


Figure 38: Dedicated Measurement Initiation procedure, Successful Operation

The procedure is initiated with a DEDICATED MEASUREMENT INITIATION REQUEST message sent from the CRNC to the Node B using the Communication Control Port assigned to the Node B Communication Context.

Upon reception, the Node B shall initiate the requested measurement according to the parameters given in the request. Unless specified below the meaning of the parameters are given in other specifications.

If the *Node B Communication Context ID* IE equals the reserved value "All NBCC", this measurement request shall apply for all current and future Node B Communication Contexts controlled via the Communication Control Port on which the DEDICATED MEASUREMENT INITIATION REQUEST message was received. Otherwise, this measurement request shall apply for the requested Node B Communication Context ID only.

If the *Node B Communication Context ID* IE equals the reserved value "All NBCC", the measurement request shall be treated as a single measurement, despite applying to multiple contexts. This means that it may only be terminated or failed on "All NBCC".

If the *Node B Communication Context ID* IE equals the reserved value "All NBCC", the measurement shall be initiated only for those Node B Communication Contexts handling a mode (FDD, 3.84Mcps TDD or 1.28Mcps TDD) for which the concerned measurement is specified in [4] and [5].

If the Dedicated Measurement Object Type is indicated as being "RL" in the DEDICATED MEASUREMENT INITIATION REQUEST message, measurement results shall be reported for all indicated Radio Links.

[FDD – If the Dedicated Measurement Object Type is indicated as being "RLS" in the DEDICATED MEASUREMENT INITIATION REQUEST message, measurement results shall be reported for all indicated Radio Link Sets.]

[FDD - If the Dedicated Measurement Object Type is indicated as being "ALL RL" in the DEDICATED MEASUREMENT INITIATION REQUEST message, measurement results shall be reported for all current and future Radio Links within the Node B Communication Context.]

[TDD - If the Dedicated Measurement Object Type is indicated as being "ALL RL" in the DEDICATED MEASUREMENT INITIATION REQUEST message, measurement results shall be reported for one existing DPCH per CCTrCH in each used time slot of current and future Radio Links within the Node B Communication Context, provided the measurement type is applicable to the respective DPCH.]

[FDD – If the Dedicated Measurement Object Type is indicated as being "ALL RLS" in the DEDICATED MEASUREMENT INITIATION REQUEST message, measurement results shall be reported for all existing and future Radio Link Sets within the Node B Communication Context.]

[TDD – If the *DPCH ID* IE is provided within the RL Information, the measurement request shall apply for the requested physical channel individually. If no *DPCH ID* IE and no *PUSCH Information* IE is provided within the RL Information, the measurement request shall apply for one existing physical channel per CCTrCH in each used time slot of the Radio Link, provided the measurement type is applicable to this physical channel.]

[TDD – If the *PUSCH Information* IE is provided within the RL Information, the measurement request shall apply for the requested physical channel individually.]

If the *CFN Reporting Indicator* IE is set to "FN Reporting Required", the *CFN* IE shall be included in the DEDICATED MEASUREMENT REPORT message or in the DEDICATED MEASUREMENT RESPONSE message, the latter only in the case the *Report Characteristics* IE is set to "On-Demand". The reported CFN shall be the CFN at the time when the measurement value was reported by the layer 3 filter, referred to as point C in the measurement model [25].

Report characteristics

The Report Characteristics IE indicates how the reporting of the measurement shall be performed. See also Annex B.

If the *Report Characteristics* IE is set to "On Demand" and if the *CFN* IE is not provided, the Node B shall return the result of the measurement immediately. If the *CFN* IE is provided, it indicates the frame for which the measurement value shall be provided. The provided measurement value shall be the one reported by the layer 3 filter, referred to as point C in the measurement model [25].

If the *Report Characteristics* IE is set to "Periodic", the Node B shall periodically initiate the Dedicated Measurement Report procedure for this measurement, with the requested report frequency. If the *CFN* IE is provided, it indicates the frame for which the first measurement value of a periodic reporting shall be provided. The provided measurement value shall be the one reported by the layer 3 filter, referred to as point C in the measurement model [25].

If the *Report Characteristics* IE is set to "Event A", the Node B shall initiate the Dedicated Measurement Reporting procedure when the measured entity rises above the requested threshold and stays there for the requested hysteresis time. If the *Measurement Hysteresis Time* IE is not included, the Node B shall use the value zero for the hysteresis time.

If the *Report Characteristics* IE is set to "Event B", the Node B shall initiate the Dedicated Measurement Reporting procedure when the measured entity falls below the requested threshold and stays there for the requested hysteresis time. If the *Measurement Hysteresis Time* IE is not included, the Node B shall use the value zero for the hysteresis time.

If the *Report Characteristics* IE is set to "Event C", the Node B shall initiate the Dedicated Measurement Reporting procedure when the measured entity rises by an amount greater than the requested threshold within the requested time. After having reported this type of event, the next C event reporting for the same measurement cannot be initiated before the rising time specified by the *Measurement Change Time* IE has elapsed since the previous event reporting.

If the *Report Characteristics* IE is set to "Event D", the Node B shall initiate the Dedicated Measurement Reporting procedure when the measured entity falls by an amount greater than the requested threshold within the requested time. After having reported this type of event, the next D event reporting for the same measurement cannot be initiated before the falling time specified by the *Measurement Change Time* IE has elapsed since the previous event reporting.

If the *Report Characteristics* IE is set to "Event E", the Node B shall initiate the Dedicated Measurement Reporting procedure when the measured entity rises above the 'Measurement Threshold 1' and stays there for the 'Measurement Hysteresis Time' (Report A). When the conditions for Report A are met and the *Report Periodicity* IE is provided, the Node B shall also initiate the Dedicated Measurement Reporting procedure periodically. If the conditions for Report A have been met and the measured entity falls below the 'Measurement Threshold 2' and stays there for the 'Measurement Hysteresis Time', the Node B shall initiate the Dedicated Measurement Reporting procedure (Report B) as well as terminating any corresponding periodic reporting. If the *Measurement Threshold 2* IE is not present, the Node B shall use the value of the *Measurement Threshold 1* IE instead. If the *Measurement Hysteresis Time* IE is not included, the Node B shall use the value zero as hysteresis times for both Report A and Report B.

If the *Report Characteristics* IE is set to "Event F", the Node B shall initiate the Dedicated Measurement Reporting procedure when the measured entity falls below the 'Measurement Threshold 1' and stays there for the 'Measurement Hysteresis Time' (Report A). When the conditions for Report A are met and the *Report Periodicity* IE is provided, the Node B shall also initiate the Dedicated Measurement Reporting procedure periodically. If the conditions for Report A have been met and the measured entity rises above the 'Measurement Threshold 2' and stays there for the 'Measurement Hysteresis Time', the Node B shall initiate the Dedicated Measurement Reporting procedure (Report B) as well as

terminating any corresponding periodic reporting. If the *Measurement Threshold 2* IE is not present, the Node B shall use the value of the *Measurement Threshold 1* IE instead. If the *Measurement Hysteresis Time* IE is not included, the Node B shall use the value zero as hysteresis times for both Report A and Report B.

If the *Report Characteristics* IE is not set to "On Demand", the Node B is required to perform reporting for a dedicated measurement object, in accordance with the conditions provided in the DEDICATED MEASUREMENT INITIATION REQUEST message, as long as the object exists. If no dedicated measurement object for which a measurement is defined exists anymore, the Node B shall terminate the measurement locally, i.e. without reporting this to the CRNC.

If at the start of the measurement, the reporting criteria are fulfilled for any of Event A, Event B, Event E or Event F, the Node B shall initiate the Dedicated Measurement Reporting procedure immediately, and then continue with the measurements as specified in the DEDICATED MEASUREMENT INITIATION REQUEST message.

Higher layer filtering

The *Measurement Filter Coefficient* IE indicates how filtering of the measurement values shall be performed before measurement event evaluation and reporting.

The averaging shall be performed according to the following formula.

$$F_n = (1-a) \cdot F_{n-1} + a \cdot M_n$$

The variables in the formula are defined as follows

 F_n is the updated filtered measurement result

 F_{n-1} is the old filtered measurement result

 M_n is the latest received measurement result from physical layer measurements, the unit used for M_n is the same unit as the reported unit in the DEDICATED MEASUREMENT INITIATION RESPONSE, DEDICATED MEASUREMENT REPORT messages or the unit used in the event evaluation (i.e. same unit as for Fn)

 $a = 1/2^{(k/2)}$, where k is the parameter received in the *Measurement Filter Coefficient IE*. If the *Measurement Filter Coefficient IE* is not present, a shall be set to 1 (no filtering)

In order to initialise the averaging filter, F_0 is set to M_1 when the first measurement result from the physical layer measurement is received.

Response message

If the Node B was able to initiate the measurement requested by the CRNC, it shall respond with the DEDICATED MEASUREMENT INITIATION RESPONSE message using the Communication Control Port assigned to the Node B Communication Context. The message shall include the same Measurement ID that was used in the measurement request.

Only in the case where the *Report Characteristics* IE is set to "On Demand", the DEDICATED MEASUREMENT INITIATION RESPONSE message shall contain the measurement result. In this case, also the *Dedicated Measurement Object* IE shall be included if it was included in the request message.

In the case where the *Node B Communication Context ID* IE is set to "All NBCC", the *CRNC Communication Context ID* IE in the DEDICATED MEASUREMENT INITIATION RESPONSE shall be set to the value "All CRNCCC", which is reserved for this purpose.

Interaction with Reset Procedure

If a measurement has been requested with the *Node B Communication Context ID* IE set to "All NBCC", the Node B shall terminate the measurement locally if either the CRNC or the Node B initiates the Reset procedure for the relevant Communication Control Port or the entire Node B.

8.3.8.3 Unsuccessful Operation

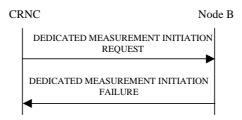


Figure 39: Dedicated Measurement Initiation procedure: Unsuccessful Operation

If the requested measurement cannot be initiated, the Node B shall send a DEDICATED MEASUREMENT INITIATION FAILURE message using the Communication Control Port assigned to the Node B Communication Context. The message shall include the same Measurement ID that was used in the DEDICATED MEASUREMENT INITIATION REQUEST message and the *Cause* IE set to an appropriate value.

In the case where the *Node B Communication Context ID* IE is set to "All NBCC" the *CRNC Communication Context ID* IE in the DEDICATED MEASUREMENT INITIATION FAILURE shall be set to the value "All CRNCCC", which is reserved for this purpose.

Typical cause values are as follows:

Radio Network Layer cause

- Measurement not supported for the object
- Measurement Temporarily not Available

Miscellaneous Cause

- O&M Intervention
- Control processing overload
- HW failure

8.3.8.4 Abnormal Conditions

The allowed combinations of the Dedicated Measurement Type and Report Characteristics Type are shown in the table below marked with "X". For not allowed combinations, the Node B shall regard the Dedicated Measurement Initiation procedure as failed.

Table 4: Allowed Dedicated Measurement Type and Report Characteristics Type combinations

Dedicated Measurement	Report Characteristics Type								
Туре	On Demand	Periodic	Event A	Event B	Event C	Event D	Event E	Event F	On Modification
SIR	X	X	Х	Х	Х	Х	Х	Х	
SIR Error	Х	Х	Х	Х	Х	Х	Х	Х	
Transmitted Code Power	Х	Х	Х	Х	Х	Х	Х	Х	
RSCP	Х	Х	Х	Х	Х	Х	Х	Х	
Rx Timing Deviation	Х	Х	Х	Х			Х	Х	
Round Trip Time	Х	Х	Х	Х	Х	Х	Х	Х	
Rx Timing Deviation LCR	Х	Х	Х	Х			Х	Х	

If the Dedicated Measurement Type received in the *Dedicated Measurement Type* IE is not defined in ref. [4] or [5] to be measured on the Dedicated Measurement Object Type received in the DEDICATED MEASUREMENT INITIATION REQUEST message, the Node B shall regard the Dedicated Measurement Initiation procedure as failed.

If the *CFN* IE is included in the DEDICATED MEASUREMENT INITIATION REQUEST message and the *Report Characteristics* IE is other than "Periodic" or "On Demand", the Node B shall regard the Dedicated Measurement Initiation procedure as failed.

8.3.9 Dedicated Measurement Reporting

8.3.9.1 General

This procedure is used by the Node B to report the result of measurements requested by the CRNC with the Dedicated Measurement Initiation procedure. The Node B may initiate the Dedicated Measurement Reporting procedure at any time after establishing a Radio Link, as long as the Node B Communication Context exists.

8.3.9.2 Successful Operation



Figure 40: Dedicated Measurement Reporting procedure, Successful Operation

If the requested measurement reporting criteria are met, the Node B shall initiate the Dedicated Measurement Reporting procedure. The DEDICATED MEASUREMENT REPORT message shall use the Communication Control Port assigned to the Node B Communication Context. If the measurement was initiated (by the Dedicated Measurement Initiation procedure) for multiple dedicated measurement objects, the Node B may include measurement values for multiple objects in the DEDICATED MEASUREMENT REPORT message. Unless specified below, the meaning of the parameters are given in other specifications.

The *Measurement ID* IE shall be set to the Measurement ID provided by the CRNC when initiating the measurement with the Dedicated Measurement Initiation procedure.

If the achieved measurement accuracy does not fulfil the given accuracy requirement (see ref.[22] and [23]), the Measurement not available shall be reported.

8.3.9.3 Abnormal Conditions

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8.3.10 Dedicated Measurement Termination

8.3.10.1 General

This procedure is used by the CRNC to terminate a measurement previously requested by the Dedicated Measurement Initiation procedure.

The Dedicated Measurement Termination procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1.

8.3.10.2 Successful Operation



Figure 41: Dedicated Measurement Termination procedure, Successful Operation

This procedure is initiated with a DEDICATED MEASUREMENT TERMINATION REQUEST message, sent from the CRNC to the Node B using the Communication Control Port assigned to the Node B Communication Context.

Upon reception, the Node B shall terminate reporting of dedicated measurements corresponding to the received *Measurement ID* IE.

8.3.10.3 Abnormal Conditions

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8.3.11 Dedicated Measurement Failure

8.3.11.1 General

This procedure is used by the Node B to notify the CRNC that a measurement previously requested by the Dedicated Measurement Initiation procedure can no longer be reported. The Node B is allowed to initiate the DEDICATED MEASUREMENT FAILURE INDICATION message at any time after having sent the RADIO LINK SETUP RESPONSE message, as long as the Node B Communication Context exists.

8.3.11.2 Successful Operation



Figure 42: Dedicated Measurement Failure procedure, Successful Operation

This procedure is initiated with a DEDICATED MEASUREMENT FAILURE INDICATION message, sent from the Node B to the CRNC using the Communication Control Port assigned to the Node B Communication Context, to inform the CRNC that a previously requested measurement can no longer be reported. The Node B has locally terminated the indicated measurement.

If the failed measurement was initiated with the *Node B Communication Context ID* IE set to the reserved value "All NBCC" and the Node B has terminated the measurement reporting of the measurement corresponding to the Measurement ID indicated in the DEDICATED MEASUREMENT FAILURE INDICATION message, the *CRNC Communication Context ID* IE shall be set to the value "All CRNCCC".

8.3.11.3 Abnormal Conditions

8.3.12 Radio Link Failure

8.3.12.1 General

This procedure is used by the Node B to indicate a failure in one or more Radio Links [FDD - or Radio Link Sets][TDD or CCTrCHs within a Radio Link].

The Node B may initiate the Radio Link Failure procedure at any time after establishing a Radio Link.

8.3.12.2 Successful Operation



Figure 43: Radio Link Failure procedure, Successful Operation

When the Node B detects that one or more Radio Link [FDD - or Radio Link Sets] [TDD – or CCTrCHs within a Radio Link] are no longer available, it sends the RADIO LINK FAILURE INDICATION message to the CRNC indicating the failed Radio Links or Radio Link Sets or CCTrCHs with the most appropriate cause values in the *Cause* IE. The message shall use the Communication Control Port assigned to the concerned Node B Communication Context.

If the failure concerns one or more individual Radio Links, the Node B shall indicate the affected Radio Link(s) using the *RL Information* IE. [FDD - The Node B shall indicate the affected Radio Link Set(s) using the *RL Set Information* IE.] [TDD – If the failure concerns only the failure of one or more CCTrCHs within a radio link, the Node B shall indicate the affected CCTrCHs using the *CCTrCH ID* IE.]

When the Radio Link Failure procedure is used to notify the loss of UL synchronisation of a [FDD – Radio Link Set] [TDD – Radio Link or CCTrCHs within a Radio Link] on the Uu interface, the RADIO LINK FAILURE INDICATION message shall be sent, with the *Cause* IE set to "Synchronisation Failure", when indicated by the UL out-of-sync algorithm defined in [10] and [21]. [FDD – The algorithms in [10] shall use the maximum value of the parameters N_OUTSYNC_IND and T_RLFAILURE, and the minimum value of the parameters N_INSYNC_IND, that are configured in the cells supporting the radio links of the RL Set.]

[FDD – When the Radio Link Failure procedure is used to indicate permanent failure in one or more Radio Links/Radio Link Sets due to the occurrence of an UL or DL frame with more than one transmission gap caused by one or more compressed mode pattern sequences, the DL transmission shall be stopped and the RADIO LINK FAILURE INDICATION message shall be sent with the cause value "Invalid CM Settings". After sending the RADIO LINK FAILURE INDICATION message to notify the permanent failure, the Node B shall not remove the Radio Link(s)/Radio Link Set(s) from the Node B Communication Context or the Node B Communication Context itself.]

In the other cases, the Radio Link Failure procedure is used to indicate that one or more Radio Links/Radio Link Sets are permanently unavailable and cannot be restored. After sending the RADIO LINK FAILURE INDICATION message to notify the permanent failure, the Node B shall not remove the Radio Link/Radio Link Set from the Node B Communication Context or the Node B Communication Context itself. When applicable, the retention priorities associated with the transport channels shall be used by the Node B to prioritise which Radio Links/Radio Link Sets to indicate as unavailable to the CRNC.

Typical cause values are:

Radio Network Layer Causes:

- Synchronisation Failure
- Invalid CM settings

Transport Layer Causes:

- Transport Resources Unavailable

Miscellaneous Causes:

- Control Processing Overload
- HW Failure
- O&M Intervention

8.3.12.3 Abnormal Conditions

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8.3.13 Radio Link Restoration

8.3.13.1 General

This procedure is used by the Node B to notify the achievement and re-achievement of uplink synchronisation of one or more [FDD - Radio Link Sets][TDD - Radio Links or CCTrCHs within a Radio Link] on the Uu interface.

The Node B may initiate the Radio Link Restoration procedure at any time after establishing a Radio Link.

8.3.13.2 Successful Operation



Figure 44: Radio Link Restoration procedure, Successful Operation

The Node B shall send the RADIO LINK RESTORE INDICATION message to the CRNC when indicated by the UL synchronisation detection algorithm defined in ref. [10] and [21]. [FDD – The algorithm in ref. [10] shall use the minimum value of the parameters N_INSYNC_IND that are configured in the cells supporting the radio links of the RL Set.] The message shall use the Communication Control Port assigned to the concerned Node B Communication Context.

[TDD – If the re-established Uu synchronisation concerns one or more individual Radio Links, the Node B shall indicate the affected Radio Link(s) using the *RL Information* IE.] [TDD – If the re-established Uu synchronisation concerns one or more individual CCTrCHs within a radio link, the Node B shall indicate the affected CCTrCHs using the *CCTrCH ID* IE.] [FDD – If the re-established Uu synchronisation concerns one or more Radio Link Sets, the Node B shall indicate the affected Radio Link Set(s) using the *RL Set Information* IE.]

8.3.13.3 Abnormal Condition

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8.3.14 Compressed Mode Command [FDD]

8.3.14.1 General

The Compressed Mode Command procedure is used to activate or deactivate the compressed mode in the Node B for one Node B Communication Context.

The Compressed Mode Command procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in subclause 3.1.

8.3.14.2 Successful Operation



Figure 47: Compressed Mode Command procedure, Successful Operation

The procedure is initiated by the CRNC sending a COMPRESSED MODE COMMAND message to the Node B using the Communication Control Port assigned to the concerned Node B Communication Context.

The Node B shall deactivate all the ongoing Transmission Gap Pattern Sequences at the *CM Configuration Change CFN* IE requested by the CRNC when receiving the COMPRESSED MODE COMMAND message from the CRNC. From that moment on, all Transmission Gap Pattern Sequences included in *Transmission Gap Pattern Sequence Status* IE repetitions (if present) shall be started when the indicated *TGCFN* IE elapses. The *CM Configuration Change CFN* IE in the *Active Pattern Sequence Information* IE and *TGCFN* IE for each sequence refer to the next coming CFN with that value.

If the values of the *CM Configuration Change CFN* IE and the *TGCFN* IE are equal, the concerned Transmission Gap Pattern Sequence shall be started immediately at the CFN with a value equal to the value received in the *CM Configuration Change CFN* IE.

8.3.14.3 Abnormal Conditions

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8.3.15 Downlink Power Timeslot Control [TDD]

8.3.15.1 General

The purpose of this procedure is to enable the Node B to use the indicated DL Timeslot ISCP values when deciding the DL TX Power for each timeslot.

The Downlink Power Timeslot Control procedure can be initiated by the CRNC at any time when the Node B Communication Context exists, irrespective of other ongoing CRNC initiated dedicated NBAP procedures towards this Node B Communication Context. The only exception occurs when the CRNC has requested the deletion of the last RL via this Node B, in which case the Downlink Power Timeslot Control procedure shall no longer be initiated.

8.3.15.2 Successful Operation



Figure 47A: Downlink Power Timeslot Control procedure, Successful Operation

The procedure is initiated by the CRNC sending a DL POWER TIMESLOT CONTROL REQUEST message to the Node B using the Communication Control Port assigned to the concerned Node B Communication Context.

Upon reception, the Node B shall use the indicated DL Timeslot ISCP value when deciding the DL TX Power for each timeslot as specified in ref. [21], i.e. it shall reduce the DL TX power in those downlink timeslots of the radio link where the interference is low, and increase the DL TX power in those timeslots where the interference is high, while keeping the total downlink power in the radio link unchanged.

8.3.15.3 Abnormal Conditions

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8.3.16 Radio Link Pre-emption

8.3.16.1 General

This procedure is started by the Node B when resources need to be freed.

The Node B may initiate the Radio Link Pre-emption procedure at any time after establishing a Radio Link.

8.3.16.2 Successful Operation

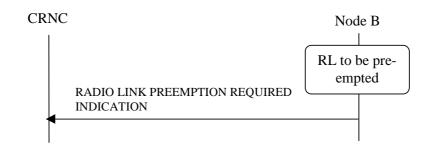


Figure 47B: Radio Link Pre-emption procedure, Successful Operation

When the Node B detects that one or more Radio Links should be pre-empted (see Annex A), it shall send the RADIO LINK PREEMPTION REQUIRED INDICATION message to the CRNC using the Communication Control Port assigned to the concerned Node B Communication Context.

If all Radio Links for a CRNC Communication Context ID should be pre-empted, the *RL Information* IE shall be omitted. If one or several but not all Radio Links should be pre-empted for a CRNC Communication Context, the Radio Links that should be pre-empted shall be indicated in the *RL Information* IE. The Radio Link(s) that should be pre-empted should be deleted by the CRNC.

8.3.16.3 Abnormal Conditions

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8.4 Error Handling Procedures

8.4.1 Error Indication

8.4.1.1 General

The Error Indication procedure is initiated by a node in order to report detected errors in one incoming message, provided they cannot be reported by an appropriate response message.

8.4.1.2 Successful Operation

When the conditions defined in subclause 10 are fulfilled, the Error Indication procedure is initiated by an ERROR INDICATION message sent from the receiving node.

In case the Error Indication procedure was triggered by a dedicated procedure, the following applies:

- When the ERROR INDICATION message is sent from a Node B to its CRNC, the *CRNC Communication Context ID* IE shall be included in the message if the corresponding Node B Communication Context, addressed by the *Node B Communication Context ID* IE which was received in the message triggering the Error Indication procedure, exists;
- When the ERROR INDICATION message is sent from a CRNC to a Node B, the *Node B Communication Context ID* IE shall be included in the message if the corresponding CRNC Communication Context, addressed by the *CRNC Communication Context ID* IE which was received in the message triggering the Error Indication procedure, exists;
- When the message triggering the Error Indication procedure is received in the Node B and there is no Node B Communication Context as indicated by the *Node B Communication Context ID* IE, the Node B shall include the unknown *Node B Communication Context ID* IE from the received message in the ERROR INDICATION message, unless another handling is specified in the procedure text for the affected procedure.
- When the message triggering the Error Indication procedure is received in the CRNC and there is no CRNC Communication Context as indicated by the *CRNC Communication Context ID* IE, the CRNC shall include the unknown *CRNC Communication Context ID* IE from the received message in the ERROR INDICATION message, unless another handling is specified in the procedure text for the affected procedure.

The ERROR INDICATION message shall include either the *Cause* IE, or the *Criticality Diagnostics* IE or both the *Cause* IE and the *Criticality Diagnostics* IE.

Typical cause values for the ERROR INDICATION message are:

Protocol Causes:

- Transfer Syntax Error
- Abstract Syntax Error (Reject)
- Abstract Syntax Error (Ignore and Notify)
- Message not Compatible with Receiver State
- Unspecified

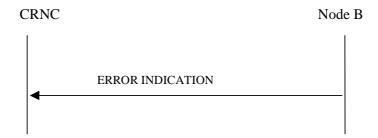


Figure 49: Error Indication procedure (Node B to CRNC): Successful Operation

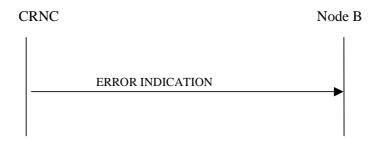


Figure 50: Error Indication procedure (CRNC to Node B), Successful Operation

8.4.1.3 Abnormal Conditions

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9 Elements for NBAP communication

9.1 Message Functional Definition and Contents

9.1.1 General

Subclause 9.1 presents the contents of NBAP messages in tabular format. The corresponding ASN.1 definition is presented in subclause 9.3. In case there is contradiction between the tabular format in subclause 9.1 and the ASN.1 definition, the ASN.1 shall take precedence, except for the definition of conditions for the presence of conditional IEs, where the tabular format shall take precedence.

NOTE: The messages have been defined in accordance to the guidelines specified in ref. [26].

9.1.2 Message Contents

9.1.2.1 Presence

An information element can be of the following types:

	М	IEs marked as Mandatory (M) shall always be included in the message.
Γ	0	IEs marked as Optional (O) may or may not be included in the message.
Γ	С	IEs marked as Conditional (C) shall be included in a message only if the condition is satisfied.
		Otherwise the IE shall not be included.

In case of an Information Element group, the group is preceded by a name for the info group (in bold). It is also indicated how many times a group may be repeated in the message and whether the group is conditional. The presence field of the Information Elements inside one group defines if the Information Element is mandatory, optional or conditional if the group is present.

9.1.2.2 Criticality

Each Information Element or Group of Information Elements may have a criticality information applied to it. Following cases are possible:

_	No criticality information is applied explicitly.					
YES	Criticality information is applied. "YES" is usable only for non-repeatable information elements.					
GLOBAL	OBAL The information element and all its repetitions together have one common criticality information.					
	"GLOBAL" is usable only for repeatable information elements.					
EACH	Each repetition of the information element has its own criticality information. It is not allowed to assign					
	different criticality values to the repetitions. "EACH" is usable only for repeatable information elements.					

9.1.2.3 Range

The Range column indicates the allowed number of copies of repetitive IEs.

9.1.2.4 Assigned Criticality

This column provides the actual criticality information as defined in subclause 10.3.2, if applicable.

9.1.3 COMMON TRANSPORT CHANNEL SETUP REQUEST

9.1.3.1 FDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	М		9.2.1.45		_	
Message Type	М		9.2.1.46		YES	reject
Transaction ID	М		9.2.1.62		_	
C-ID	М		9.2.1.9		YES	reject
Configuration Generation ID	М		9.2.1.16		YES	reject
CHOICE Common Physical Channel To Be Configured	М				YES	ignore
>Secondary CCPCH					_	
>>Secondary CCPCH		1			_	
>>>Common Physical Channel ID	М		9.2.1.13		_	
>>>FDD SCCPCH Offset	М		9.2.2.15	Corresponds to [7]: _{S-CCPCH,k}	_	
>>>DL Scrambling Code	C-PCH		9.2.2.13		-	
>>>FDD DL Channelisation Code Number	М		9.2.2.14		-	
>>>TFCS	М		9.2.1.58	For the DL.	_	
>>>Secondary CCPCH Slot Format	М		9.2.2.43		-	
>>TFCI Presence	C- SlotFormat		9.2.1.57	Refer to TS [7]	_	
>>>Multiplexing Position	М		9.2.2.23		_	
>>>Power Offset		1			_	
Information						
>>>>P01	М		Power Offset 9.2.2.29	Power offset for the TFCI bits	_	
>>>PO3	М		Power Offset 9.2.2.29	Power offset for the pilot bits	_	
>>>STTD Indicator	М		9.2.2.48		_	
>>>FACH Parameters		0 <maxno ofFACHs></maxno 			GLOBAL	reject
>>>Common Transport Channel ID	М		9.2.1.14		_	
>>>Transport Format Set	М		9.2.1.59	For the DL.	_	
>>>ToAWS	М		9.2.1.61		_	
>>>ToAWE	М		9.2.1.60		_	
>>>Max FACH	М		DL Power	Maximum	_	
Power			9.2.1.21	allowed power on the FACH.		
>>>PCH Parameters		01			YES	reject
>>>Common Transport Channel ID	М		9.2.1.14		_	
>>>Transport Format Set	М		9.2.1.59	For the DL.	_	
>>>>ToAWS	М		9.2.1.61		_	
>>>ToAWE	M		9.2.1.60		_	

>>>PCH Power	М		DL Power		_	
			9.2.1.21			
>>>PICH Parameters		1			_	
>>>>Common Physical Channel ID	М		9.2.1.13		_	
>>>>FDD DL	М		9.2.2.14		_	
Channelisation Code	"		0.2.2.11			
Number						
>>>>PICH Power	М		9.2.1.49A		_	
>>>>PICH Mode	M		9.2.2.26	Number of PI		
	IVI			per frame	_	
>>>>STTD	M		9.2.2.48		_	
Indicator						
>PRACH					_	
>>PRACH		1			_	
>>>Common Physical	М		9.2.1.13		_	
Channel ID						
>>>Scrambling Code	М		9.2.2.42		_	
Number			_			
>>>TFCS	М		9.2.1.58	For the UL.	_	
>>>Preamble	M		9.2.2.31	TOTATIO DE.	_	
Signatures	IVI		3.2.2.31			
>>>Allowed Slot		1 <maxno< td=""><td></td><td></td><td></td><td></td></maxno<>				
Format Information					_	
Format information		ofSlotForm				
		atsPRACH				
5.0		>				
>>>>RACH Slot	M		9.2.2.37		_	
Format						
>>>RACH Sub Channel	M		9.2.2.38		_	
Numbers						
>>>Puncture Limit	M		9.2.1.50	For the UL	_	
>>>Preamble Threshold	M		9.2.2.32		_	
>>>RACH Parameters		1			YES	reject
>>>Common	M		9.2.1.14		_	
Transport Channel ID						
>>>Transport Format	М		9.2.1.59	For the UL.	_	
Set						
>>>AICH Parameters		1			_	
>>>Common	М	-	9.2.1.13		_	
Physical Channel ID	""		3.2.1.13			
>>>AICH	М		9.2.2.1		_	
Transmission Timing	IVI		J.Z.Z. I		_	
	M		0.2.2.4.4			
>>>FDD DL	IVI		9.2.2.14		_	
Channelisation Code						
Number			0000			
>>>AICH Power	M		9.2.2.D		_	
>>>STTD Indicator	M		9.2.2.48		_	
>PCPCHs					_	
>>CPCH Parameters		1			_	
>>>Common Transport	M		9.2.1.14		_	
Channel ID						
>>>Transport Format	М		9.2.1.59	For the UL.	_	
Set						
>>>AP Preamble	М		CPCH		_	
Scrambling Code			Scrambling			
			Code			
			Number			
i				i .		

			9.2.2.4B			
CD Draggette	N4					
>>>CD Preamble	M		CPCH		_	
Scrambling Code			Scrambling			
			Code			
			Number			
TECC	N.4		9.2.2.4B	Con the LU		
>>>TFCS	M		9.2.1.58	For the UL	_	
>>>CD Signatures	0		Preamble	Note: When not	_	
			Signatures 9.2.2.31	present, all CD		
			9.2.2.31	signatures are to be used.		
CD Cub Channal			9.2.2.1C	to be used.		
>>>CD Sub Channel Numbers	0		9.2.2.10		_	
>>>Puncture Limit	M		9.2.1.50	For the UL		
>>>CPCH UL DPCCH	M		9.2.1.50 9.2.2.4C	For UL CPCH	_	
Slot Format	IVI		9.2.2.40		_	
Siot Format				message		
III CID	M		0.2.4.674	control part		
>>>UL SIR >>>Initial DL	M		9.2.1.67A DL Power		_	
>>>Initial DL Transmission Power	IVI		9.2.1.21		_	
>>>Maximum DL Power	M		DL Power			
>>>waximum DL Power	IVI		9.2.1.21		_	
>>>Minimum DL Power	M		DL Power			
>>>wiinimum DL Power	IVI		9.2.1.21		_	
>>>PO2	M		Power	Power offset for		
>>>PU2	IVI		Offset	the TPC bits	_	
			9.2.2.29	relative to the		
			9.2.2.29	pilot bits.		
>>>FDD TPC DL Step	M		9.2.2.16	pilot bits.		
Size	IVI		9.2.2.10		_	
>>>N_Start_Message	М		9.2.2.23C		_	
>>>N_EOT	M		9.2.2.23A		_	
>>>Channel	M		9.2.2.1D			
Assignment Indication	IVI		9.2.2.10		_	
>>>CPCH Allowed Total	М		9.2.2.4A		_	
Rate	IVI		3.2.2.4/			
>>>PCPCH Channel		1 <maxno< td=""><td></td><td></td><td>_</td><td></td></maxno<>			_	
Information		ofPCPCHs				
oauoii		>				
>>>Common	М		9.2.1.13		_	
Physical Channel ID			5.2			
>>>CPCH	М		9.2.2.4B	For UL PCPCH	_	
Scrambling Code			5.2.2.	3. 32. 31 311		
Number						
>>>>DL Scrambling	М		9.2.2.13	For DL CPCH	_	
Code				message part		
>>>FDD DL	М		9.2.2.14	For DL CPCH	_	
Channelisation Code				message part		
Number				3 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -		
>>>PCP Length	М		9.2.2.24A		_	
>>>UCSM	C-NCA	1			_	
Information						
>>>>Min UL	М		9.2.2.22		_	
Channelisation Code						
Length						
>>>>NF_max	М		9.2.2.23B		_	
>>>>Channel		0 <maxa< td=""><td></td><td></td><td>_</td><td></td></maxa<>			_	
Request		PSigNum>				

Parameters						
>>>>AP Preamble Signature	М		9.2.2.1A		-	
>>>>AP Sub	0		9.2.2.1B		_	
Channel Number			3.2.2.75			
>>>VCAM Mapping	C-CA	1 <maxno< td=""><td></td><td>Refer to TS [18]</td><td>-</td><td></td></maxno<>		Refer to TS [18]	-	
Information		ofLen>				
>>>>Min UL	М		9.2.2.22		_	
Channelisation Code						
Length						
>>>NF_max	M		9.2.2.23B		-	
>>>Max Number of	M		9.2.2.20A		_	
PCPCHs						
>>>SF Request		1 <maxa< td=""><td></td><td></td><td>_</td><td></td></maxa<>			_	
Parameters		PSigNum>				
>>>>AP Preamble	M		9.2.2.1A		_	
Signature			0.0.0.45			
>>>>AP Sub	0		9.2.2.1B		_	
Channel Number >>>AP-AICH		1				
>>>AP-AICH Parameters		1			_	
>>>Common	М		9.2.1.13			
Physical Channel ID	IVI		9.2.1.13		_	
>>>FDD DL	М		9.2.2.14		_	
Channelisation Code	"		0.2.2.11			
Number						
>>>AP-AICH Power	М		AICH		-	
			Power			
			9.2.2.D			
>>>>CSICH Power	М		AICH	For CSICH bits	_	
			Power	at end of AP-		
			9.2.2.D	AICH slot		
>>>STTD Indicator	M		9.2.2.48		_	
>>>CD/CA-ICH		1			_	
Parameters						
>>>Common	M		9.2.1.13		_	
Physical Channel ID						
>>>>FDD DL	M		9.2.2.14		_	
Channelisation Code						
Number	1.4		41011			
>>>CD/CA-ICH	M		AICH		_	
Power			Power			
CTTD Indiant-	NA.		9.2.2.D			
>>>STTD Indicator	M		9.2.2.48		_	

Condition	Explanation
SlotFormat	The IE shall be present if the Secondary CCPCH Slot Format IE is set to any of the values from 8 to 17.
CA	The IE shall be present if the <i>Channel Assignment Indication</i> IE is set to 'CA Active'.
NCA	The IE shall be present if the <i>Channel Assignment Indication</i> IE is set to 'CA Inactive'.
PCH	The IE shall be present if the PCH Parameters IE is not present.

Range Bound	Explanation
maxnoofFACHs	Maximum number of FACHs that can be defined on a Secondary CCPCH
maxnoofPCPCHs	Maximum number of PCPCHs for a CPCH
maxnoofLen	Maximum number of Min UL Channelisation Code Length
maxnoofSlotFormatsPRACH	Maximum number of SF for a PRACH
maxAPSigNum	Maximum number of AP Signatures

9.1.3.2 TDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		_	
Message Type	М		9.2.1.46		YES	reject
Transaction ID	М		9.2.1.62		_	
C-ID	M		9.2.1.9		YES	reject
Configuration Generation ID	M		9.2.1.16		YES	reject
CHOICE Common Physical Channel To Be Configured	М				YES	ignore
>Secondary CCPCHs					_	
>>SCCPCH CCTrCH ID	М		CCTrCH ID 9.2.3.3	For DL CCTrCH supporting one or several Secondary CCPCHs	-	
>>TFCS	М		9.2.1.58	For DL CCTrCH supporting one or several Secondary CCPCHs	-	
>>TFCI Coding	M		9.2.3.22		_	
>>Puncture Limit	М		9.2.1.50		_	
>>CHOICE HCR or LCR	М			See note 1 below	_	
>>>3.84Mcps TDD					_	
>>>>Secondary CCPCH		1 <maxno ofSCCPC Hs></maxno 			GLOBAL	reject
>>>>Common Physical Channel ID	М		9.2.1.13		_	
>>>>TDD Channelisation Code	M		9.2.3.19		_	
>>>>Time Slot	M		9.2.3.23		_	
>>>>Midamble Shift And Burst Type	М		9.2.3.7		_	
>>>>TDD Physical Channel Offset	M		9.2.3.20		_	
>>>>Repetition Period	М		9.2.3.16		_	
>>>>Repetition Length	М		9.2.3.15		_	
>>>>SCCPCH Power	М		DL Power 9.2.1.21		_	
>>>1.28Mcps TDD					_	
>>>>Secondary CCPCH LCR		1 <maxno ofSCCPC HsLCR></maxno 			GLOBAL	reject
>>>>Common Physical Channel ID	М		9.2.1.13		_	
>>>>TDD Channelisation Code LCR	М		9.2.3.19a		_	
>>>>Time Slot	M		9.2.3.24A		_	

		T	T	T	ı ı	
LCR	 					
>>>>Midamble Shift LCR	М		9.2.3.7A		_	
>>>>TDD Physical Channel Offset	М		9.2.3.20		-	
>>>>Repetition Period	М		9.2.3.16		-	
>>>>Repetition Length	М		9.2.3.15		_	
>>>>SCCPCH	М		DL Power		-	
Power			9.2.1.21			
>>>> SCCPCH Time Slot Format LCR	M		TDD DL DPCH Time Slot Format LCR 9.2.3.19D		_	
>>FACH Parameters		0 <maxno ofFACHs></maxno 	0.2.0.100		GLOBAL	reject
>>>Common Transport Channel ID	М	OII AOI 182	9.2.1.14		_	
>>>FACH CCTrCH ID	М		CCTrCH ID 9.2.3.3		-	
>>>Transport Format Set	М		9.2.1.59	For the DL.	_	
>>>ToAWS	М		9.2.1.61		_	
>>>ToAWE	M		9.2.1.60		_	
>>>Max FACH Power	0		DL Power 9.2.1.21	Applicable to 1.28Mcps TDD only	YES	reject
>>PCH Parameters		01			YES	reject
>>>Common Transport Channel ID	М		9.2.1.14		_	,
>>>PCH CCTrCH ID	М		CCTrCH ID 9.2.3.3		_	
>>>Transport Format Set	М		9.2.1.59	For the DL.	_	
>>>ToAWS	М		9.2.1.61		_	
>>>ToAWE	M		9.2.1.60		_	
>>>CHOICE HCR or LCR	M			See note 1 below	-	
>>>3.84Mcps TDD					_	
>>>>PICH Parameters		1			YES	reject
>>>>Common Physical Channel	М		9.2.1.13		_	
ID						
ID >>>>TDD Channelisation	M		9.2.3.19		-	
ID >>>>TDD Channelisation Code					-	
ID >>>>TDD Channelisation Code >>>>Time Slot >>>>Midamble Shift And Burst	M M		9.2.3.19 9.2.3.23 9.2.3.7		- - -	
ID >>>>TDD Channelisation Code >>>>Time Slot >>>>>Midamble	M		9.2.3.23		- - -	

	1	1	1	_		1
>>>>Repetition Length	М		9.2.3.15		-	
>>>>Paging Indicator Length	М		9.2.3.8		_	
>>>>PICH Power	М		9.2.1.49A		_	
>>>>1.28Mcps TDD					_	
>>>>PICH		1			YES	reject
Parameters LCR		,			123	reject
>>>>Common Physical Channel ID	М		9.2.1.13		-	
>>>>TDD Channelisation Code LCR	М		9.2.3.19a		-	
>>>>Time Slot LCR	М		9.2.3.24A		_	
>>>>Midamble Shift LCR	М		9.2.3.7A		-	
>>>>TDD Physical Channel Offset	М		9.2.3.20		-	
>>>>Repetition Period	M		9.2.3.16		-	
>>>>Repetition Length	М		9.2.3.15		_	
>>>>Paging Indicator Length	М		9.2.3.8		_	
>>>>PICH Power	М		9.2.1.49A		_	
>>>>Second TDD Channelisation Code LCR	М		TDD Channelisat ion Code LCR 9.2.3.19a		T	
>>>PCH Power	0		DL Power 9.2.1.21	Applicable to 1.28Mcps TDD only	YES	reject
>PRACH					_	
>>CHOICE HCR or LCR	М			See note 1 below	_	
>>>3.84Mcps TDD					_	
>>>>PRACH		1			YES	reject
>>>>Common	М	1	9.2.1.13		-	reject
Physical Channel ID		1	100:			
>>>>TFCS	M		9.2.1.58		_	
>>>>Time Slot	M		9.2.3.23			
>>>>TDD	М		9.2.3.19		_	
Channelisation Code						
>>>>Max PRACH Midamble Shifts	М		9.2.3.6		-	
>>>>PRACH Midamble	М		9.2.3.14		_	
>>>>RACH		1			YES	reject
>>>>Common Transport Channel ID	М		9.2.1.14		_	-,
>>>>Transport	М		9.2.1.59	For the UL	_	
t						

Format Set						
>>>1.28Mcps TDD						
>>>>PRACH LCR		1 <maxno ofPRACHL CRs></maxno 			GLOBAL	reject
>>>>Common Physical Channel ID	М		9.2.1.13		_	
>>>>TFCS	М		9.2.1.58		_	
>>>>Time Slot LCR	М		9.2.3.24A		_	
>>>>TDD Channelisation Code LCR	M		9.2.3.19a		_	
>>>>Midamble Shift LCR	М		9.2.3.7A		_	
>>>>RACH		1			YES	reject
>>>>Common Transport Channel ID	М		9.2.1.14		_	
>>>>Transport Format Set	М		9.2.1.59	For the UL	-	
>>FPACH		01		Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD.	YES	reject
>>>Common Physical Channel ID	М		9.2.1.13		_	
>>>TDD Channelisation Code LCR	М		9.2.3.19a		-	
>>>Time Slot LCR	М		9.2.3.24A		_	
>>>Midamble Shift LCR	М		9.2.3.7A		_	
>>>Max FPACH Power	М		9.2.3.5E		_	

Note 1: This information element is a simplified representation of the ASN.1. The choice is in reality performed through the use of ProtocolIE-Single-Container within the ASN.1.

Range Bound	Explanation
maxnoofSCCPCHs	Maximum number of Secondary CCPCHs per CCTrCH for 3.84Mcps
	TDD
maxnoofSCCPCHsLCR	Maximum number of Secondary CCPCHs per CCTrCH for 1.28Mcps
	TDD
maxnoofCCTrCHs	Maximum number of CCTrCHs that can be defined in a cell
maxnoofFACHs	Maximum number of FACHs that can be defined on a Secondary
	CCPCH
maxnoofPRACHLCRs	Maximum number of PRACHs LCR that can be defined on a RACH for
	1.28Mcps TDD

9.1.4 COMMON TRANSPORT CHANNEL SETUP RESPONSE

IE/Group Name	Presence	Range	IE Type and	Semantics Description	Criticality	Assigned Criticality
			Reference			
Message Discriminator	M		9.2.1.45		_	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		_	
FACH Parameters Info		0 <maxno ofFACHs></maxno 		The FACH Parameters may be combined with PCH Parameters	GLOBAL	ignore
>FACH Parameters	М		Common Transport Channel Information Response 9.2.1.14A		-	
PCH Parameters	0		Common Transport Channel Information Response 9.2.1.14A	The PCH Parameters may be combined with FACH Parameters	YES	ignore
RACH Parameters	0		Common Transport Channel Information Response 9.2.1.14A	The RACH Parameters shall not be combined with FACH Parameters or PCH Parameters	YES	ignore
CPCH Parameters	0		Common Transport Channel Information Response 9.2.1.14A	The CPCH Parameters shall not be combined with FACH Parameters or PCH Parameters or RACH Parameters	YES	ignore
Criticality Diagnostics	0		9.2.1.17		YES	ignore

Range Bound	Explanation
maxnoofFACHs	Maximum number of FACHs that can be defined on a Secondary
	CCPCH[FDD] / a group of Secondary CCPCHs [TDD]

9.1.5 COMMON TRANSPORT CHANNEL SETUP FAILURE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	М		9.2.1.45		_	_
Message Type	М		9.2.1.46		YES	reject
Transaction ID	М		9.2.1.62		_	_
Cause	М		9.2.1.6		YES	ignore
Criticality Diagnostics	0		9.2.1.17		YES	ignore

9.1.6 COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST

9.1.6.1 FDD Message

IE/Group Name	Presence	Range	IE Type and	Semantics Description	Criticality	Assigned Criticality
			Reference	•		,
Message Discriminator	M		9.2.1.45		_	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		_	
C-ID	M		9.2.1.9		YES	reject
Configuration Generation ID	M		9.2.1.16		YES	reject
CHOICE Common Physical	M				YES	reject
Channel To Be Configured						
>Secondary CCPCH					_	
>>FACH Parameters		0 <maxfa CHCell></maxfa 			GLOBAL	reject
>>>Common Transport Channel ID	М		9.2.1.14		_	
>>>Max FACH Power	0		DL Power 9.2.1.21	Maximum allowed power on the FACH.	_	
>>>ToAWS	0		9.2.1.61		_	
>>>ToAWE	0		9.2.1.60		_	
>>PCH Parameters		01			YES	reject
>>>Common Transport Channel ID	М		9.2.1.14		_	
>>>PCH Power	0		DL Power	Power to be	_	
			9.2.1.21	used on the PCH.		
>>>ToAWS	0		9.2.1.61		_	
>>>ToAWE	0		9.2.1.60		_	
>>PICH Parameters		01			YES	reject
>>>Common Physical Channel ID	М		9.2.1.13		_	
>>>PICH Power	0		9.2.1.49A		_	
>PRACH					_	
>>PRACH Parameters		0 <maxp RACHCell ></maxp 			GLOBAL	reject
>>>Common Physical Channel ID	М		9.2.1.13		_	
>>>Preamble Signatures	0		9.2.2.31		-	
>>>Allowed Slot Format Information		0 <maxno ofSlotForm atsPRACH ></maxno 			_	
>>>>RACH Slot Format	М		9.2.2.37		_	
>>>RACH Sub Channel Numbers	0		9.2.2.38		-	
>>AICH Parameters		0 <maxp RACHCell</maxp 			GLOBAL	reject
>>>Common Physical	М		9.2.1.13		_	

Channel ID						
>>>AICH Power	0		9.2.2.D		_	
>CPCH					_	
>>CPCH Parameters		0 <maxno ofCPCHs></maxno 			GLOBAL	reject
>>>Common Transport Channel ID	М		9.2.1.14		-	
>>>UL SIR	0		9.2.1.67A		_	
>>>Initial DL Transmission Power	0		DL Power 9.2.1.21		-	
>>>Maximum DL Power	0		DL Power 9.2.1.21		-	
>>>Minimum DL Power	0		DL Power 9.2.1.21		_	
>>AP-AICH Parameters		0 <maxno ofCPCHs></maxno 			GLOBAL	reject
>>>Common Physical Channel ID	М		9.2.1.13		-	
>>>AP-AICH Power	0		AICH Power 9.2.2.D		_	
>>>CSICH Power	0		AICH Power 9.2.2.D	For CSICH bits at end of AP- AICH slot	-	
>>CD/CA-ICH Parameters		0 <maxno ofCPCHs></maxno 			GLOBAL	reject
>>>Common Physical Channel ID	М		9.2.1.13		-	
>>>CD/CA-ICH Power	0		AICH Power 9.2.2.D		-	

Range Bound	Explanation
maxFACHCell	Maximum number of FACHs that can be defined in a Cell
maxnoofCPCHs	Maximum number of CPCHs that can be defined in a Cell
maxPRACHCell	Maximum number of PRACHs and AICHs that can be defined in a Cell
maxnoofSlotFormatsPRACH	Maximum number of SF for a PRACH

9.1.6.2 TDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	М		9.2.1.45		_	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		_	
C-ID	М		9.2.1.9		YES	reject
Configuration Generation ID	М		9.2.1.16		YES	reject
Secondary CCPCH Parameters		01			YES	reject

		_	1	1		
>CCTrCH ID	M		9.2.3.3	For DL	_	
				CCTrCH		
				supporting one		
				or several		
				Secondary		
				CCPCHs		
>Secondary CCPCHs To		0 <maxno< td=""><td></td><td></td><td>GLOBAL</td><td>reject</td></maxno<>			GLOBAL	reject
Be Configured		ofSCCPC				-
		Hs>				
>>Common Physical	М		9.2.1.13		_	
Channel ID						
>>SCCPCH Power	0		DL power		_	
			9.2.1.21			
PICH Parameters		01			YES	reject
>Common Physical Channel ID	М		9.2.1.13		ı	
>PICH Power	0		9.2.1.49A		_	
FACH Parameters		0 <maxno< td=""><td></td><td></td><td>GLOBAL</td><td>reject</td></maxno<>			GLOBAL	reject
		ofFACHs>				-
>Common Transport	М		9.2.1.14		_	
Channel ID			_			
>ToAWS	0		9.2.1.61		-	
>ToAWE	0		9.2.1.60			
>Max FACH Power	0		DL Power	Applicable to	YES	reject
			9.2.1.21	1.28Mcps TDD		•
DOLL D			_	only	\/=0	
PCH Parameters		01			YES	reject
>Common Transport	M		9.2.1.14		_	
Channel ID >ToAWS			00101			
	0		9.2.1.61		_	
>ToAWE	0		9.2.1.60	A P 11 (_	
>PCH Power	0		DL Power	Applicable to	YES	reject
			9.2.1.21	1.28Mcps TDD only		
FPACH Parameters		01		Mandatory for	YES	reject
		0 1		1.28Mcps TDD.	163	reject
				Not Applicable		
				to 3.84Mcps		
				TDD.		
>Common Physical	М		9.2.1.13		_	
Channel ID						
>Max FPACH Power	0	1	9.2.3.5E		_	

Range Bound	Explanation
maxnoofSCCPCHs	Maximum number of SCCPCHs that can be repeated in a Cell
maxnoofFACHs	Maximum number of FACHs that can be repeated in a Cell

9.1.7 COMMON TRANSPORT CHANNEL RECONFIGURATION RESPONSE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	М		9.2.1.45		_	
Message Type	М		9.2.1.46		YES	reject
Transaction ID	М		9.2.1.62		_	
Criticality Diagnostics	0		9.2.1.17		YES	ignore

9.1.8 COMMON TRANSPORT CHANNEL RECONFIGURATION FAILURE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		_	
Message Type	М		9.2.1.46		YES	reject
Transaction ID	М		9.2.1.62		_	
Cause	М		9.2.1.6		YES	ignore
Criticality Diagnostics	0		9.2.1.17		YES	ignore

9.1.9 COMMON TRANSPORT CHANNEL DELETION REQUEST

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	М		9.2.1.45		_	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		_	
C-ID	M		9.2.1.9		YES	reject
Common Physical Channel ID	M		9.2.1.13	Indicates the Common Physical Channel for which the Common Transport Channels (together with the Common Physical Channel) shall be deleted.	YES	reject
Configuration Generation ID	М		9.2.1.16		YES	reject

9.1.10 COMMON TRANSPORT CHANNEL DELETION RESPONSE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		_	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	М		9.2.1.62		_	
Criticality Diagnostics	0		9.2.1.17		YES	ignore

9.1.11 BLOCK RESOURCE REQUEST

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		_	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		_	
C-ID	M		9.2.1.9		YES	reject
Blocking Priority Indicator	M		9.2.1.5		YES	reject
Shutdown Timer	C- BlockNorm al		9.2.1.56		YES	reject

Condition	Explanation
BlockNormal	The IE shall be present if the Blocking Priority Indicator IE indicates
	'Normal Priority'.

9.1.12 BLOCK RESOURCE RESPONSE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		_	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		_	-
Criticality Diagnostics	0		9.2.1.17		YES	ignore

9.1.13 BLOCK RESOURCE FAILURE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	М		9.2.1.45		_	
Message Type	М		9.2.1.46		YES	reject
Transaction ID	М		9.2.1.62		_	
Cause	М		9.2.1.6		YES	ignore
Criticality Diagnostics	0		9.2.1.17		YES	ignore

9.1.14 UNBLOCK RESOURCE INDICATION

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		_	
Message Type	М		9.2.1.46		YES	ignore
Transaction ID	М		9.2.1.62		_	
C-ID	М		9.2.1.9		YES	ignore

9.1.15 AUDIT REQUIRED INDICATION

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		_	
Message Type	М		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		_	

9.1.16 AUDIT REQUEST

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	М		9.2.1.45		_	
Message Type	М		9.2.1.46		YES	reject
Transaction ID	М		9.2.1.62		_	
Start Of Audit Sequence Indicator	М		9.2.1.56B		YES	reject

9.1.17 AUDIT RESPONSE

	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	М		9.2.1.45		_	
Message Type	М		9.2.1.46		YES	reject
Transaction ID	М		9.2.1.62		_	
End Of Audit Sequence Indicator	М		9.2.1.29A		YES	ignore
Cell Information		0 <maxce IlinNodeB></maxce 			EACH	ignore
>C-ID	M		9.2.1.9		_	
>Configuration Generation ID	М		9.2.1.16		_	
>Resource Operational State	М		9.2.1.52		-	
>Availability Status	M		9.2.1.2		_	
>Local Cell ID	M		9.2.1.38	The local cell that the cell is configured on	_	
>Primary SCH Information	0		Common Physical Channel Status Information 9.2.1.13A		YES	ignore
>Secondary SCH Information	0		Common Physical Channel Status Information 9.2.1.13A		YES	ignore
>Primary CPICH Information	0		Common Physical Channel Status Information 9.2.1.13A		YES	ignore
>Secondary CPICH Information		0 <maxs CPICHCell ></maxs 			EACH	ignore
>>Secondary CPICH Individual Information	М		Common Physical Channel Status Information 9.2.1.13A		-	
>Primary CCPCH Information	0		Common Physical Channel Status Information 9.2.1.13A		YES	ignore
>BCH Information	0		Common Transport Channel Status Information 9.2.1.14B		YES	ignore
>Secondary CCPCH		0 <maxs< td=""><td>J</td><td></td><td>EACH</td><td>ignore</td></maxs<>	J		EACH	ignore

Information		0000110			
		CCPCHCe II>			
>>Secondary CCPCH Individual Information	M		Common Physical Channel Status Information 9.2.1.13A	-	
>PCH Information	0		Common Transport Channel Status Information 9.2.1.14B	YES	ignore
>PICH Information	0		Common Physical Channel Status Information 9.2.1.13A	YES	ignore
>FACH Information		0 <maxfa CHCell></maxfa 		EACH	ignore
>>FACH Individual Information	M		Common Transport Channel Status Information 9.2.1.14B	-	
>PRACH Information		0 <maxp RACHCell ></maxp 		EACH	ignore
>>PRACH Individual Information	M		Common Physical Channel Status Information 9.2.1.13A	-	
>RACH Information		0 <maxr ACHCell></maxr 	9.2.1.13A	EACH	ignore
>>RACH Individual Information	M	7.0.100112	Common Transport Channel Status Information 9.2.1.14B	-	
>AICH Information		0 <maxp RACHCell ></maxp 		EACH	ignore
>>AICH Individual Information	M		Common Physical Channel Status Information 9.2.1.13A	-	
>PCPCH Information		0 <maxp CPCHCell</maxp 	J.Z.1.1JA	EACH	ignore
>>PCPCH Individual Information	М		Common Physical Channel	-	

	1	1	ı	_		T
			Status			
			Information			
			9.2.1.13A			
>CPCH Information		0 <maxc PCHCell></maxc 			EACH	ignore
>>CPCH Individual	M		Common		_	
Information			Transport			
			Channel			
			Status			
			Information			
			9.2.1.14B			
>AP-AICH Information		0 <maxc PCHCell></maxc 			EACH	ignore
>>AP-AICH Individual	M		Common		_	
Information			Physical			
			Channel			
			Status			
			Information			
			9.2.1.13A			<u></u>
>CD/CA-ICH Information		0 <maxc< td=""><td></td><td></td><td>EACH</td><td>ignore</td></maxc<>			EACH	ignore
OD/CA IOLL: ":::		PCHCell>	_			
>>CD/CA-ICH Individual	M		Common		_	
Information			Physical			
			Channel			
			Status			
			Information			
			9.2.1.13A			
>SCH Information	0		Common	TDD Sync	YES	ignore
			Physical	Channel		
			Channel			
			Status			
			Information			
			9.2.1.13A			
>FPACH Information		0 <maxfp< td=""><td></td><td>Applicable to</td><td>EACH</td><td>ignore</td></maxfp<>		Applicable to	EACH	ignore
		ACHCell>		1.28Mcps TDD		.9
		710770011		only		
>>FPACH Individual	М		Common	Orny	_	
Information	1		Physical			
			Channel			
			Status			
			Information			
			9.2.1.13A			
>DwPCH Information	0		Common	Applicable to	YES	ignore
			Physical	1.28Mcps TDD	123	ignore
			Channel	only		
			Status	Offiny		
			Information 9.2.1.13A			
Communication Control		0 <maxc< td=""><td>J.Z.1.13A</td><td></td><td>EACH</td><td>ignore</td></maxc<>	J.Z.1.13A		EACH	ignore
Port Information		CPinNode			2,1011	19.1010
Communication Cantral	1	B>	00115			
>Communication Control Port ID	M		9.2.1.15		_	
>Resource Operational State	M		9.2.1.52		_	
>Availability Status	М		9.2.1.2		_	
Local Cell Information		0 <maxlo< td=""><td></td><td></td><td>EACH</td><td>ignore</td></maxlo<>			EACH	ignore
		calCellinN				
		odeB>				
		•		i contraction of the contraction		

>Local Cell ID	М		9.2.1.38		_	
>DL or Global Capacity	M		9.2.1.20B		_	
Credit						
>UL Capacity Credit	0		9.2.1.65A		_	
>Common Channels Capacity Consumption Law	М		9.2.1.9A		_	
>Dedicated Channels Capacity Consumption Law	М		9.2.1.20A		-	
>Maximum DL Power Capability	0		9.2.1.39		ı	
>Minimum Spreading Factor	0		9.2.1.47		ı	
>Minimum DL Power Capability	0		9.2.1.46A		-	
>Local Cell Group ID	0		9.2.1.37A		_	
>Reference Clock Availability	0		9.2.3.14A	TDD only	YES	ignore
Local Cell Group Information		0 <maxlo calCellinN odeB></maxlo 			EACH	ignore
>Local Cell Group ID	М		9.2.1.37A		_	
>DL or Global Capacity Credit	М		9.2.1.20B		-	
>UL Capacity Credit	0		9.2.1.65A		_	
>Common Channels Capacity Consumption Law	М		9.2.1.9A		-	
>Dedicated Channels Capacity Consumption Law	М		9.2.1.20A		_	
Criticality Diagnostics	0		9.2.1.17		YES	ignore

Range Bound	Explanation
maxCellinNodeB	Maximum number of Cells that can be configured in Node B
maxCCPinNodeB	Maximum number of Communication Control Ports that can exist in the Node B
maxCPCHCell	Maximum number of CPCHs that can be defined in a Cell
maxLocalCellinNodeB	Maximum number of Local Cells that can exist in the Node B
maxPCPCHCell	Maximum number of PCPCHs that can be defined in a Cell
maxSCPICHCell	Maximum number of Secondary CPICHs that can be defined in a Cell.
maxSCCPCHCell	Maximum number of Secondary CCPCHs that can be defined in a Cell.
maxFACHCell	Maximum number of FACHs that can be defined in a Cell
maxPRACHCell	Maximum number of PRACHs that can be defined in a Cell
maxRACHCell	Maximum number of RACHs that can be defined in a Cell
maxFPACHCell	Maximum number of FPACHs that can be defined in a Cell

9.1.17A AUDIT FAILURE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message discriminator	M		9.2.1.45		_	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		_	
Cause	M		9.2.1.6		YES	ignore
Criticality diagnostics	0		9.2.1.17		YES	ignore

9.1.18 COMMON MEASUREMENT INITIATION REQUEST

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		_	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		_	
Measurement ID	M		9.2.1.42		YES	reject
CHOICE Common Measurement Object Type >Cell	М				YES _	reject
>>C-ID	М		9.2.1.9		_	
>>Time Slot	Ö		9.2.3.23	Applicable to 3.84Mcps TDD only	_	
>>Time Slot LCR	0		9.2.3.24A	Applicable to 1.28Mcps TDD only	YES	reject
>>Neighbouring Cell Measurement Information		0 <maxno MeasNCell s></maxno 			GLOBAL	ignore
>>>CHOICE Neighbouring Cell Measurement Information					_	_
>>>Neighbouring FDD Cell Measurement Information				FDD only	_	_
>>>> Neighbouring FDD Cell Measurement Information	M		9.2.1.47C		_	_
>>>Neighbouring TDD Cell Measurement Information				Applicable to 3.84Mcps TDD only	_	_
>>>> Neighbouring TDD Cell Measurement Information	М		9.2.1.47D		_	_
>RACH				FDD only	_	
>>C-ID	M		9.2.1.9		_	
>>Common Transport Channel ID	M		9.2.1.14		_	
>CPCH				FDD only	_	
>>C-ID	M		9.2.1.9		_	
>>Common Transport Channel ID	М		9.2.1.14			
>>Spreading Factor	0		Minimum UL Channelisat ion Code Length		-	
Common Massacra 1.T	N4		9.2.2.22		VE0	m-1- 1
Common Measurement Type Measurement Filter Coefficient	M O		9.2.1.11 9.2.1.41		YES YES	reject reject
Report Characteristics	M	-	9.2.1.51		YES	roject
SFN Reporting Indicator	M	1	9.2.1.51 FN		YES	reject reject
			Reporting Indicator 9.2.1.29B			,
SFN	0		9.2.1.53A		YES	reject
Common Measurement	0		9.2.1.9B		YES	reject

Λοοuroov			
Accuracy			

Range Bound	Explanation
maxnoMeasNCells	Maximum number of neighbouring cells that can be measured on.

9.1.19 COMMON MEASUREMENT INITIATION RESPONSE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		_	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		_	
Measurement ID	M		9.2.1.42		YES	ignore
CHOICE Common Measurement Object Type	0			Common Measurement Object Type that the measurement was initiated with.	YES	ignore
>Cell					_	
>>Common Measurement Value	М		9.2.1.12		_	
>RACH				FDD only	_	
>>Common Measurement Value	М		9.2.1.12		_	
>CPCH				FDD only	_	
>>Common Measurement Value	M		9.2.1.12		_	
SFN	0		9.2.1.53A	Common Measurement Time Reference	YES	ignore
Criticality Diagnostics	0		9.2.1.17		YES	ignore
Common Measurement Achieved Accuracy	0		Common Measureme nt Accuracy 9.2.1.9B		YES	ignore

9.1.20 COMMON MEASUREMENT INITIATION FAILURE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		_	
Message Type	М		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		_	
Measurement ID	M		9.2.1.42		YES	ignore
Cause	M		9.2.1.6		YES	ignore
Criticality Diagnostics	0		9.2.1.17		YES	ignore

9.1.21 COMMON MEASUREMENT REPORT

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		_	
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		_	
Measurement ID	M		9.2.1.42		YES	ignore
CHOICE Common Measurement Object Type	М			Common Measurement Object Type that the measurement was initiated with.	YES	ignore
>Cell					_	
>>Common Measurement Value Information	М		9.2.1.12A		_	
>RACH				FDD only	_	
>>Common Measurement Value Information	M		9.2.1.12A		_	
>CPCH				FDD only	_	
>>Common Measurement Value Information	М		9.2.1.12A		_	
SFN	0		9.2.1.53A	Common Measurement Time Reference	YES	ignore

9.1.22 COMMON MEASUREMENT TERMINATION REQUEST

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	М		9.2.1.45		_	
Message Type	М		9.2.1.46		YES	ignore
Transaction ID	М		9.2.1.62		_	
Measurement ID	М		9.2.1.42		YES	ignore

9.1.23 COMMON MEASUREMENT FAILURE INDICATION

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	М		9.2.1.45		_	
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		_	
Measurement ID	M		9.2.1.42		YES	ignore
Cause	М		9.2.1.6		YES	ignore

9.1.24 CELL SETUP REQUEST

9.1.24.1 FDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		_	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		_	
Local Cell ID	M		9.2.1.38		YES	reject
C-ID	M		9.2.1.9		YES	reject
Configuration Generation ID	M		9.2.1.16		YES	reject
T Cell	M		9.2.2.49		YES	reject
UARFCN	M		9.2.1.65	Corresponds to Nu [14]	YES	reject
UARFCN	М		9.2.1.65	Corresponds to Nd [14]	YES	reject

Maximum Transmission Power	М		9.2.1.40	YES	reject
Closed Loop Timing Adjustment Mode	0		9.2.2.2A	YES	reject
Primary Scrambling Code	М		9.2.2.34	YES	reject
Synchronisation		1		YES	reject
Configuration					,
>N_INSYNC_IND	M		9.2.1.47A	_	
>N_OUTSYNC_IND	М		9.2.1.47B	_	
>T_RLFAILURE	М		9.2.1.56A	_	
DL TPC Pattern 01 Count	М		9.2.2.13A	YES	reject
Primary SCH Information		1		YES	reject
>Common Physical	M		9.2.1.13	_	•
Channel ID					
>Primary SCH Power	M		DL Power	_	
			9.2.1.21		
>TSTD Indicator	M		9.2.1.64	_	
Secondary SCH Information		1		YES	reject
>Common Physical	M		9.2.1.13	_	
Channel ID	<u> </u>				
>Secondary SCH Power	М		DL Power 9.2.1.21	-	
>TSTD Indicator	М		9.2.1.64	_	
Primary CPICH Information		1	0.2	YES	reject
>Common Physical	М		9.2.1.13	_	. 0,000
Channel ID	'''		0.20		
>Primary CPICH power	М		9.2.2.33	_	
>Transmit Diversity	M		9.2.2.53	_	
Indicator			0.2.2.00		
Secondary CPICH		0 <maxs< td=""><td></td><td>EACH</td><td>reject</td></maxs<>		EACH	reject
Information		CPICHCell >			
>Common Physical Channel ID	M		9.2.1.13	_	
>DL Scrambling Code	М		9.2.2.13	_	
>FDD DL Channelisation Code Number	М		9.2.2.14	-	
>Secondary CPICH Power	М		DL Power 9.2.1.21	-	
>Transmit Diversity	М		9.2.2.53	_	
Indicator	.**		0.2.2.00		
Primary CCPCH	1	1		YES	reject
Information		· .			, -, -
>Common Physical	М		9.2.1.13	_	
Channel ID					
>BCH Information		1		_	
>>Common Transport	М		9.2.1.14	_	
Channel ID	1				
>>BCH Power	М		DL Power 9.2.1.21	-	
>STTD Indicator	M		9.2.2.48		
Limited Power Increase	IVI	1	3.2.2.40	YES	reject
Information		'		123	reject
>Power_Raise_Limit	M		9.2.2.29A	 _ 	
>DL_power_averaging_win	M		9.2.2.12A		
dow_size	'*'		J.2.2.12A	_	
IPDL Parameter Information	 	01		YES	reject
>IPDL FDD Parameters	М	J 1	9.2.2.18C	-	TOJGOL
>IPDL Indicator	M		9.2.1.36F	_	
ZII DE IIIGIGALOI	141		J.L. 1.001		

Range Bound	Explanation
maxSCPICHCell	Maximum number of Secondary CPICHs that can be defined in a Cell.

9.1.24.2 TDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	М		9.2.1.45		_	
Message Type	М		9.2.1.46		YES	reject
Transaction ID	М		9.2.1.62		_	, , , , , , , , , , , , , , , , , , ,
Local Cell ID	M		9.2.1.38		YES	reject
C-ID	M		9.2.1.9		YES	reject
Configuration Generation Id	M		9.2.1.16		YES	reject
UARFCN	М		9.2.1.65	Corresponds to Nt [15]	YES	reject
Cell Parameter ID	M		9.2.3.4		YES	reject
Maximum Transmission Power	М		9.2.1.40		YES	reject
Transmission Diversity Applied	M		9.2.3.26	On DCHs	YES	reject
Sync Case	M		9.2.3.18		YES	reject
Synchronisation Configuration		1			YES	reject
>N_INSYNC_IND	M		9.2.1.47A		_	
>N_OUTSYNC_IND	М		9.2.1.47B		_	
>T_RLFAILURE	М		9.2.1.56A		_	
DPCH Constant Value	М		Constant Value		YES	reject
PUSCH Constant Value	M		Constant Value		YES	reject
PRACH Constant Value	М		Constant Value		YES	reject
Timing Advance Applied	M		9.2.3.22A		YES	reject
SCH Information		01		Mandatory for 3.84Mcps TDD. Not Applicable to 1.28Mcps TDD.	YES	reject
>Common Physical Channel ID	M		9.2.1.13		_	
>CHOICE Sync Case	M				YES	reject
>>Case 1					_	
>>>Time Slot	M		9.2.3.23		_	
>>Case 2					_	
>>>SCH Time Slot	M		9.2.3.17		_	
>SCH Power	M		DL Power 9.2.1.21		-	
>TSTD Indicator PCCPCH Information	M	01	9.2.1.64	Mandatory for	- YES	reject
		01		3.84Mcps TDD. Not Applicable to 1.28Mcps TDD.	123	reject
>Common Physical Channel ID	M		9.2.1.13		_	
>TDD Physical Channel Offset	M		9.2.3.20		_	
>Repetition Period	М		9.2.3.16		_	
>Repetition Length	M		9.2.3.15		_	
>PCCPCH Power	M		9.2.3.9		_	
>SCTD Indicator	M		9.2.3.30		_	
Time Slot Configuration		015		Mandatory for 3.84Mcps TDD. Not Applicable to 1.28Mcps TDD.	GLOBAL	reject
>Time Slot	M		9.2.3.23		_	
>Time Slot Status	M		9.2.3.25		_	

>Time Slot Direction	М		9.2.3.24		_	
Time Slot Configuration LCR		07		Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD.	GLOBAL	reject
>Time Slot LCR	M		9.2.3.24A		_	
>Time Slot Status	M		9.2.3.25		_	
>Time Slot Direction	M		9.2.3.24		_	
PCCPCH Information LCR		01		Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD.	YES	reject
>Common Physical Channel ID	М		9.2.1.13		_	
>TDD Physical Channel Offset	М		9.2.3.20		_	
>Repetition Period	М		9.2.3.16		_	
>Repetition Length	М		9.2.3.15		_	
>PCCPCH Power	М		9.2.3.9		_	
>SCTD Indicator	М		9.2.3.30		_	
>TSTD Indicator	М		9.2.1.64		_	
DwPCH Information		01		Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD.	YES	reject
>Common Physical Channel ID	М		9.2.1.13		_	
>TSTD Indicator	M		9.2.1.64		_	
>DwPCH Power	M		9.2.3.5B		_	
Reference SFN Offset	0		9.2.3.14B		YES	ignore
IPDL Parameter Information		01		Applicable to 3.84Mcps TDD only	YES	reject
>IPDL TDD Parameters	М		9.2.3.5D		_	
>IPDL Indicator	М		9.2.1.36F		_	

9.1.25 CELL SETUP RESPONSE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		_	
Message Type	М		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		_	
Criticality Diagnostics	0		9.2.1.17		YES	ignore

9.1.26 CELL SETUP FAILURE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		_	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		_	
Cause	M		9.2.1.6		YES	ignore
Criticality Diagnostics	0		9.2.1.17		YES	ignore

9.1.27 CELL RECONFIGURATION REQUEST

9.1.27.1 FDD Message

IE/Group Name	Presence	Range	IE Type	Semantics	Criticality	Assigned
			and Reference	Description		Criticality
Message Discriminator	М		9.2.1.45		_	
Message Type	М		9.2.1.46		YES	reject
Transaction ID	М		9.2.1.62		_	
C-ID	М		9.2.1.9		YES	reject
Configuration Generation ID	М		9.2.1.16		YES	reject
Maximum Transmission	0		9.2.1.40		YES	reject
Power						
Synchronisation		01			YES	reject
Configuration						-
>N_INSYNC_IND	M		9.2.1.47A		_	
>N_OUTSYNC_IND	М		9.2.1.47B		_	
>T_RLFAILURE	М		9.2.1.56A		_	
Primary SCH Information		01			YES	reject
>Common Physical Channel ID	M		9.2.1.13		_	
>Primary SCH Power	М		DL Power 9.2.1.21		_	
Secondary SCH Information		01			YES	reject
>Common Physical Channel ID	М		9.2.1.13		-	
>Secondary SCH Power	М		DL Power 9.2.1.21		-	
Primary CPICH Information		01			YES	reject
>Common Physical Channel ID	М		9.2.1.13		-	
>Primary CPICH Power	М		9.2.2.33		_	
Secondary CPICH Information		0 <maxs CPICHCell ></maxs 			EACH	reject
>Common Physical Channel ID	М		9.2.1.13		_	
>Secondary CPICH Power	М		DL Power 9.2.1.21		_	
Primary CCPCH Information		01		_	YES	reject
>BCH Information		1				
>>Common Transport Channel ID	М		9.2.1.14		_	
>>BCH Power	М		DL Power 9.2.1.21			
IPDL Parameter Information		01			YES	reject
>IPDL FDD Parameters	0		9.2.2.18C			
>IPDL Indicator	М		9.2.1.36F		_	

Range Bound	Explanation
maxSCPICHCell	Maximum number of Secondary CPICH that can be defined in a Cell.

9.1.27.2 TDD Message

IE/Group Name	Presence	Range	IE Type	Semantics	Criticality	Assigned
			and Reference	Description		Criticality
Message Discriminator	М		9.2.1.45		_	
Message Type	М		9.2.1.46		YES	reject
Transaction ID	М		9.2.1.62		_	.,
C-ID	M		9.2.1.9		YES	reject
Configuration Generation ID	M		9.2.1.16		YES	reject
Synchronisation		01	0.2		YES	reject
Configuration						.,
>N_INSYNC_IND	М		9.2.1.47A		_	
>N_OUTSYNC_IND	M		9.2.1.47B		_	
>T_RLFAILURE	M		9.2.1.56A		_	
Timing Advance Applied	0		9.2.3.22A		YES	reject
SCH Information		01		Applicable to 3.84Mcps TDD only	YES	reject
>Common Physical Channel ID	M		9.2.1.13		-	
>SCH Power	М		DL Power 9.2.1.21		_	
PCCPCH Information		01	1		YES	reject
>Common Physical Channel ID	М		9.2.1.13		_	,
>PCCPCH Power	M		9.2.3.9		_	
Maximum Transmission Power	0		9.2.1.40		YES	reject
DPCH Constant Value	0		Constant Value		YES	reject
PUSCH Constant Value	0		Constant Value		YES	reject
PRACH Constant Value	0		Constant Value		YES	reject
Time Slot Configuration		015	74.00	Mandatory for 3.84Mcps TDD. Not Applicable to 1.28Mcps TDD.	GLOBAL	reject
>Time Slot	M		9.2.3.23		_	
>Time Slot Status	M		9.2.3.25		_	
>Time Slot Direction	M		9.2.3.24		_	
Time Slot Configuration LCR		07		Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD.	GLOBAL	reject
>Time Slot LCR	M		9.2.3.24A		_	
>Time Slot Status	M		9.2.3.25		_	
>Time Slot Direction	M		9.2.3.24		_	
DwPCH Information		01		Applicable to 1.28Mcps TDD only.	YES	reject
>Common Physical Channel ID	М		9.2.1.13		_	
>DwPCH Power	М		9.2.3.5B			
IPDL Parameter Information		01			YES	reject
>IPDL TDD Parameters	0		9.2.3.5D		_	
>IPDL Indicator	M		9.2.1.36F		_	

9.1.28 CELL RECONFIGURATION RESPONSE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	М		9.2.1.45		_	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		_	
Criticality Diagnostics	0		9.2.1.17		YES	ignore

9.1.29 CELL RECONFIGURATION FAILURE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		_	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		_	
Cause	M		9.2.1.6		YES	ignore
Criticality Diagnostics	0		9.2.1.17		YES	ignore

9.1.30 CELL DELETION REQUEST

IE/Group Name	Presence	Range	IE Type and	Semantics Description	Criticality	Assigned Criticality
			Reference			
Message Discriminator	M		9.2.1.45		ı	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		_	
C-ID	M		9.2.1.9		YES	reject

9.1.31 CELL DELETION RESPONSE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		_	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		_	
Criticality Diagnostics	0		9.2.1.17		YES	ignore

9.1.32 RESOURCE STATUS INDICATION

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	М		9.2.1.45		_	
Message Type	М		9.2.1.46		YES	ignore
Transaction ID	М		9.2.1.62		_	
CHOICE Indication Type	М				YES	ignore
>No Failure					_	
>>Local Cell Information		1 <max LocalCellin NodeB></max 			EACH	ignore
>>>Local Cell ID	М		9.2.1.38		_	
>>>Add/Delete Indicator	М		9.2.1.1		_	
>>>DL or Global Capacity Credit	C-add		9.2.1.20B		_	
>>>UL Capacity Credit	0		9.2.1.65A		_	
>>>Common Channels	C-add		9.2.1.9A		_	
Capacity Consumption Law						
>>>Dedicated Channels Capacity Consumption Law	C-add		9.2.1.20A		_	
>>>Maximum DL Power Capability	C-add		9.2.1.39			
>>>Minimum Spreading Factor	C-add		9.2.1.47		_	
>>>Minimum DL Power Capability	C-add		9.2.1.46A		_	
>>>Local Cell Group ID	0		9.2.1.37A		_	
>>>Reference Clock Availability	C-add		9.2.3.14A	TDD only	YES	ignore
>>Local Cell Group Information		0 <maxlo calCellinN odeB></maxlo 			EACH	ignore
>>>Local Cell Group ID	М		9.2.1.37A		_	
>>>DL or Global Capacity Credit	М		9.2.1.20B		_	
>>>UL Capacity Credit	0		9.2.1.65A		_	
>>>Common Channels Capacity Consumption Law	М		9.2.1.9A		_	
>>>Dedicated Channels Capacity Consumption Law	M		9.2.1.20A		_	
>Service Impacting					_	
>>Local Cell Information		0 <maxlo calCellinN odeB></maxlo 			EACH	ignore
>>>Local Cell ID	М		9.2.1.38		_	
>>>DL or Global	0		9.2.1.20B		_	
Capacity Credit						
>>>UL Capacity Credit	0		9.2.1.65A		_	
>>>Common Channels Capacity Consumption	0		9.2.1.9A		_	
>>>Dedicated Channels Capacity Consumption	0		9.2.1.20A		_	

Law						
>>>Maximum DL Power	0		9.2.1.39		_	
Capability						
>>>Minimum Spreading Factor	0		9.2.1.47		_	
>>>Minimum DL Power Capability	0		9.2.1.46A		_	
>>>Reference Clock Availability	0		9.2.3.14A	TDD only	YES	ignore
>>Local Cell Group		0 <maxlo< td=""><td></td><td></td><td>EACH</td><td>ignore</td></maxlo<>			EACH	ignore
Information		calCellinN odeB>				-
>>>Local Cell Group ID	M		9.2.1.37A		_	
>>>DL or Global Capacity Credit	0		9.2.1.20B		_	
>>>UL Capacity Credit	0		9.2.1.65A		_	
>>>Common Channels Capacity Consumption Law	0		9.2.1.9A		_	
>>>Dedicated Channels Capacity Consumption Law	0		9.2.1.20A		_	
>>Communication Control Port Information		0 <maxc CPinNode B></maxc 			EACH	ignore
>>>Communication Control Port ID	М		9.2.1.15		-	
>>>Resource Operational State	М		9.2.1.52		_	
>>>Availability Status	М		9.2.1.2		_	
>>Cell Information		0 <maxce IlinNodeB></maxce 			EACH	ignore
>>>C-ID	М		9.2.1.9		_	
>>>Resource Operational State	0		9.2.1.52		_	
>>>Availability Status	0		9.2.1.2		_	
>>>Primary SCH Information	0		Common Physical Channel Status Information 9.2.1.13A	FDD only	YES	ignore
>>>Secondary SCH Information	0		Common Physical Channel Status Information 9.2.1.13A	FDD only	YES	ignore
>>>Primary CPICH Information	0		Common Physical Channel Status Information 9.2.1.13A	FDD only	YES	ignore
>>>Secondary CPICH Information		0 <maxs CPICHCell ></maxs 		FDD only	EACH	ignore
>>>>Secondary CPICH Individual Information	M		Common Physical Channel Status Information		_	

			9.2.1.13A		\/F0	
>>>Primary CCPCH Information	0		Common Physical		YES	ignor
			Channel			
			Status Information			
			9.2.1.13A			
>>>BCH Information	0		Common		YES	ignor
J momadon			Transport			
			Channel			
			Status			
			Information 9.2.1.14B			
>>>Secondary CCPCH		0 <maxs< td=""><td>9.2.1.140</td><td></td><td>EACH</td><td>ignoi</td></maxs<>	9.2.1.140		EACH	ignoi
Information		CCPCHCe				Ü
		<i>II></i>				
>>>Secondary	М		Common Physical		_	
CCPCH Individual			Channel			
Information			Status			
			Information			
			9.2.1.13A			
>>>PCH Information	0		Common		YES	ignoi
			Transport			
			Channel Status			
			Information			
			9.2.1.14B			
>>>PICH Information	0		Common		YES	igno
			Physical			
			Channel			
			Status Information			
			9.2.1.13A			
>>>FACH Information		0 <maxfa< td=""><td></td><td></td><td>EACH</td><td>ignoi</td></maxfa<>			EACH	ignoi
FAOUL Individual	M	CHCell>	Common		_	
>>>FACH Individual	IVI		Transport		_	
Information			Channel			
			Status			
			Information			
>>> DD A C U		0 <maxp< td=""><td>9.2.1.14B</td><td></td><td>EACH</td><td>ignoi</td></maxp<>	9.2.1.14B		EACH	ignoi
>>>PRACH Information		RACHCell			LAOIT	igiloi
		>				
>>>>PRACH	М		Common		_	
Individual Information			Physical			
			Channel Status			
			Information			
			9.2.1.13A			
>>>RACH Information		0 <maxp< td=""><td></td><td></td><td>EACH</td><td>ignor</td></maxp<>			EACH	ignor
		RACHCell >				
>>>RACH Individual	M		Common		_	
Information			Transport			
			Channel			
			Status			
			Information 9.2.1.14B			
>>>AICH Information		0 <maxp< td=""><td>0.2.1.170</td><td>FDD only</td><td>EACH</td><td>ignor</td></maxp<>	0.2.1.170	FDD only	EACH	ignor
		RACHCell				
SSS AICH Individual	M	>	Common			
>>>>AICH Individual	141		Physical		_	
Information			Channel			
			Status Information			

			9.2.1.13A			
>>>PCPCH Information		0 <maxp CPCHCell ></maxp 		FDD only	EACH	ignore
>>>PCPCH Individual Information	M		Common Physical Channel Status Information 9.2.1.13A		-	
>>>CPCH Information		0 <maxc PCHCell></maxc 		FDD only	EACH	ignore
>>>>CPCH Individual Information	М		Common Transport Channel Status Information 9.2.1.14B		-	
>>>AP-AICH Information		0 <maxc PCHCell></maxc 		FDD only	EACH	ignore
>>>AP-AICH Individual Information	М		Common Physical Channel Status Information 9.2.1.13A		-	
>>>CD/CA-ICH Information		0 <maxc PCHCell></maxc 		FDD only	EACH	ignore
>>>>CD/CA-ICH Individual Information	M		Common Physical Channel Status Information 9.2.1.13A		-	
>>>SCH Information	0		Common Physical Channel Status Information 9.2.1.13A	Applicable to 3.84Mcps TDD only	YES	ignore
>>>FPACH Information		0 <maxfp ACHCell></maxfp 		Applicable to 1.28Mcps TDD only	EACH	ignore
>>>FPACH Individual Information	М		Common Physical Channel Status Information 9.2.1.13A		_	
>>>DwPCH Information	0		Common Physical Channel Status Information 9.2.1.13A	Applicable to 1.28Mcps TDD only	YES	ignore
use	0		9.2.1.6		YES	ignore

Condition	Explanation			
add	The IE shall be present if the <i>Add/Delete Indicator</i> IE is set to 'Add'.			

Range Bound	Explanation
maxLocalCellinNodeB	Maximum number of Local Cells that can exist in the Node B
maxCellinNodeB	Maximum number of C-IDs that can be configured in the Node B
maxCPCHCell	Maximum number of CPCHs that can be defined in a Cell
maxSCPICHCell	Maximum number of Secondary CPICHs that can be defined in a Cell.
maxSCCPCHCell	Maximum number of Secondary CCPCHs that can be defined in a Cell.
maxFACHCell	Maximum number of FACHs that can be defined in a Cell
maxPCPCHCell	Maximum number of PCPCHs that can be defined in a Cell
maxPRACHCell	Maximum number of PRACHs and AICHs that can be defined in a Cell
maxCCPinNodeB	Maximum number of Communication Control Ports that can exist in the
	Node B
maxFPACHCell	Maximum number of FPACHs that can be defined in a Cell

9.1.33 SYSTEM INFORMATION UPDATE REQUEST

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	М		9.2.1.45		_	
Message Type	М		9.2.1.46		YES	reject
Transaction ID	М		9.2.1.62		_	
C-ID	М		9.2.1.9		YES	reject
BCCH Modification Time	0		9.2.1.3		YES	reject
MIB/SB/SIBInformation		1 <maxib ></maxib 			GLOBAL	reject
>IB Type	М		9.2.1.35		-	
>IB OC ID	M		9.2.1.31A	In one message, every occurrence of IB Type can only be deleted once and/or added once.	_	
>CHOICE IB Deletion Indicator	M				_	
>>No Deletion					_	
>>>SIB Originator	C-SIB		9.2.1.55		-	
>>>IB SG REP	0		9.2.1.34		_	
>>>Segment Information		1 <maxib SEG></maxib 			GLOBAL	reject
>>>>IB SG POS	0		9.2.1.33		_	
>>>Segment Type	C- CRNCOrig ination		9.2.1.53B		-	
>>>>IB SG DATA	C- CRNCOrig ination		9.2.1.32		-	
>>Deletion			NULL		_	

Range Bound	Explanation
maxIB	Maximum number of information Blocks supported in one message
maxIBSEG	Maximum number of segments for one Information Block

Condition	Explanation
CRNCOrigination	The IE shall be present if the SIB Originator IE is set to 'CRNC' or if the
	IB Type IE is set to 'MIB', 'SB1' or 'SB2'.
SIB	The IE shall be present if the IB Type IE is set to "SIB".

9.1.34 SYSTEM INFORMATION UPDATE RESPONSE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		_	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		_	
Criticality Diagnostics	0		9.2.1.17		YES	ignore

9.1.35 SYSTEM INFORMATION UPDATE FAILURE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	М		9.2.1.45		_	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		_	
Cause	М		9.2.1.6		YES	ignore
Criticality Diagnostics	0		9.2.1.17		YES	ignore

9.1.36 RADIO LINK SETUP REQUEST

9.1.36.1 FDD message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	М		9.2.1.45		_	
Message Type	М		9.2.1.46		YES	reject
Transaction ID	М		9.2.1.62		_	,
CRNC Communication Context ID	M		9.2.1.18	The reserved value 'All CRNCCC' shall not be used.	YES	reject
UL DPCH Information		1			YES	reject
>UL Scrambling Code	M		9.2.2.59		-	
>Min UL Channelisation Code Length	М		9.2.2.22		_	
>Max Number of UL DPDCHs	C- CodeLen		9.2.2.21		_	
>Puncture Limit	М		9.2.1.50	For UL	_	
>TFCS	М		9.2.1.58	For UL	_	
>UL DPCCH Slot Format	М		9.2.2.57		_	
> UL SIR Target	М		UL SIR 9.2.1.67A		_	
>Diversity Mode	М		9.2.2.9		_	
>SSDT Cell ID Length	0		9.2.2.45		_	
>S Field Length	0		9.2.2.40		_	
>DPC Mode	0		9.2.2.13C		YES	reject
DL DPCH Information		1			YES	reject
>TFCS	М		9.2.1.58	For DL	_	· ojeet
>DL DPCH Slot Format	M		9.2.2.10	10152	_	
	M		9.2.2.50		_	
>TFCI Signalling Mode >TFCI Presence	C- SlotFormat		9.2.1.57		_	
>Multiplexing Position	M		9.2.2.23		_	
>PDSCH RL ID	C-DSCH		RL ID 9.2.1.53		_	
>PDSCH Code Mapping	C-DSCH		9.2.2.25		_	
>Power Offset	C-DSCI1	1	9.2.2.23		_	
Information						
>>PO1	М		Power Offset 9.2.2.29	Power offset for the TFCI bits	_	
>>PO2	М		Power Offset 9.2.2.29	Power offset for the TPC bits	_	
>>PO3	M		Power Offset 9.2.2.29	Power offset for the pilot bits	_	
>FDD TPC DL Step Size	М		9.2.2.16		-	
>Limited Power Increase	М		9.2.2.18A		_	
>Inner Loop DL PC Status DCH Information	M		9.2.2.18B DCH FDD Information		YES	reject
DSCH Information	0		9.2.2.4D DSCH FDD Information 9.2.2.13B		YES	reject
	+	0.4	J.Z.Z. 1JD	-	VEO	
TFCI2 bearer information		01			YES	ignore

>ToAWE	M		9.2.1.60			
RL Information		1 <maxno ofRLs></maxno 			EACH	notify
>RL ID	M		9.2.1.53		_	
>C-ID	М		9.2.1.9		_	
>First RLS Indicator	М		9.2.2.16A		_	
>Frame Offset	М		9.2.1.31		_	
>Chip Offset	М		9.2.2.2		_	
>Propagation Delay	0		9.2.2.35		_	
>Diversity Control Field	C- NotFirstRL		9.2.1.25		-	
>DL Code Information	M		FDD DL Code Information 9.2.2.14A		-	
>Initial DL Transmission Power	M		DL Power 9.2.1.21	Initial power on DPCH	-	
>Maximum DL Power	М		DL Power 9.2.1.21	Maximum allowed power on DPCH	-	
>Minimum DL Power	M		DL Power 9.2.1.21	Minimum allowed power on DPCH	-	
>SSDT Cell Identity	0		9.2.2.44		_	
>Transmit Diversity Indicator	C-Diversity mode		9.2.2.53		_	
>SSDT Cell Identity For EDSCHPC	C- EDSCHPC		9.2.2.44A		YES	ignore
Transmission Gap Pattern Sequence Information	0		9.2.2.53A		YES	reject
Active Pattern Sequence Information	0		9.2.2.A		YES	reject
DSCH Common Information	0		DSCH FDD Common Information 9.2.2.13D		YES	ignore

Condition	Explanation
CodeLen	The IE shall be present if Min UL Channelisation Code Length IE equals
	to 4.
NotFirstRL	The IE shall be present if the RL is not the first one in the RL Information
	IE.
DSCH	The IE shall be present if the DSCH Information IE is present.
SlotFormat	The IE shall be present if the DL DPCH Slot Format IE is equal to any of
	the values from 12 to 16.
Diversity mode	The IE shall be present if Diversity Mode IE in UL DPCH Information IE
	is not set to 'none'.
EDSCHPC	The IE shall be present if Enhanced DSCH PC IE is present in the
	DSCH Common Information IE.

Range Bound	Explanation
maxnoofRLs	Maximum number of RLs for one UE

9.1.36.2 TDD message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	М		9.2.1.45		_	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		_	
CRNC Communication Context ID	M		9.2.1.18	The reserved value 'All CRNCCC' shall not be used.	YES	reject
UL CCTrCH Information		0 <maxno CCTrCH></maxno 			EACH	notify
>CCTrCH ID	М		9.2.3.3		_	
>TFCS	М		9.2.1.58		_	
>TFCI Coding	М		9.2.3.22		_	
>Puncture Limit	М		9.2.1.50		_	
>UL DPCH Information		01		Applicable to 3.84Mcps TDD only	YES	notify
>>Repetition Period	М		9.2.3.16		_	
>>Repetition Length	M		9.2.3.15			
>>TDD DPCH Offset	M		9.2.3.19A			
>>UL Timeslot Information	М		9.2.3.26C		_	
>UL DPCH Information LCR		01		Applicable to 1.28Mcps TDD only	YES	notify
>>Repetition Period	M		9.2.3.16		_	
>>Repetition Length	М		9.2.3.15		_	
>>TDD DPCH Offset	М		9.2.3.19A		_	
>>UL Timeslot Information LCR	М		9.2.3.26E		_	
>UL SIR Target	0		UL SIR 9.2.1.67A	Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD.	YES	reject
>TDD TPC UL Step Size	0		9.2.3.21a	Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD.	YES	reject
DL CCTrCH Information		0 <maxno CCTrCH></maxno 			EACH	notify
>CCTrCH ID	M		9.2.3.3		_	
>TFCS	M		9.2.1.58		_	
>TFCI Coding	M		9.2.3.22		_	
>Puncture Limit	M		9.2.1.50		_	
>TDD TPC DL Step Size	M		9.2.3.21		_	
>TPC CCTrCH List		0 <maxno CCTrCH></maxno 		List of uplink CCTrCH which provide TPC	_	
>>TPC CCTrCH ID	М		CCTrCH ID 9.2.3.3		_	
>DL DPCH information		01		Applicable to 3.84Mcps TDD only	YES	notify
>>Repetition Period	M		9.2.3.16		_	
>>Repetition Length	M		9.2.3.15		_	
>>TDD DPCH Offset	М		9.2.3.19A		_	

DI Time a lat	М		9.2.3.4E			
>>DL Timeslot	IVI		9.2.3.40		_	
Information		01		Applicable to	YES	notify
>DL DPCH information LCR		01		1.28Mcps TDD only	169	nothy
>>Repetition Period	М		9.2.3.16	•	_	
>>Repetition Length	М		9.2.3.15		_	
>>TDD DPCH Offset	М		9.2.3.19A		_	
>>DL Timeslot	М		9.2.3.40		_	
Information LCR						
>>TSTD Indicator	М		9.2.1.64		_	
DCH Information	0		DCH TDD Information 9.2.3.4C		YES	reject
DSCH Information	0		DSCH TDD Information 9.2.3.5A		YES	reject
USCH Information	0		9.2.3.28		YES	reject
RL Information		1			YES	reject
>RL ID	М		9.2.1.53		_	
>C-ID	М		9.2.1.9		_	
>Frame Offset	М		9.2.1.31		_	
>Special Burst Scheduling	М		9.2.3.18A		_	
>Initial DL Transmission Power	М		DL Power 9.2.1.21	Initial power on DPCH	-	
>Maximum DL Power	М		DL Power 9.2.1.21	Maximum allowed power on DPCH	-	
>Minimum DL Power	M		DL Power 9.2.1.21	Minimum allowed power on DPCH	-	
>DL Time Slot ISCP Info	0		9.2.3.4F	Applicable to 3.84Mcps TDD only	-	
>DL Time Slot ISCP Info LCR	0		9.2.3.4P	Applicable to 1.28Mcps TDD only	YES	reject
>UL Synchronisation Parameters LCR		01		Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD.	YES	ignore
>>Uplink Synchronisation Step Size	М		9.2.3.26H		_	
>>Uplink Synchronisation Frequency	М		9.2.3.26G		_	
PDSCH-RL-ID	0		RL ID 9.2.1.53		YES	ignore

Range Bound	Explanation
maxnoCCTrCH	Number of CCTrCHs for one UE

9.1.37 RADIO LINK SETUP RESPONSE

9.1.37.1 FDD message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		_	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		_	
CRNC Communication Context ID	M		9.2.1.18	The reserved value 'All CRNCCC' shall not be used.	YES	ignore
Node B Communication Context ID	M		9.2.1.48	The reserved value 'All NBCC' shall not be used.	YES	ignore
Communication Control Port ID	M		9.2.1.15		YES	ignore
RL Information Response		1 <maxno ofRLs></maxno 			EACH	ignore
>RL ID	M		9.2.1.53		_	
>RL Set ID	M		9.2.2.39		_	
>Received Total Wide Band Power	M		9.2.2.39A		_	
>CHOICE Diversity Indication	М				_	
>>Combining					_	
>>>RL ID	M		9.2.1.53	Reference RL ID for the combining	_	
>>Non Combining or First RL					_	
>>>DCH Information Response	М		9.2.1.20C		_	
>DSCH Information Response	0		9.2.1.27A		YES	ignore
>SSDT Support Indicator	M		9.2.2.46		_	
TFCI2 Bearer Information Response	0		9.2.2.49A		YES	ignore
Criticality Diagnostics	0		9.2.1.17		YES	ignore

Range Bound	Explanation
maxnoofRLs	Maximum number of RLs for one UE

9.1.37.2 TDD Message

IE/Group Name	Presence	Range	IE Type	Semantics	Criticality	Assigned
			and Reference	Description		Criticality
Message Discriminator	M		9.2.1.45		-	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		_	
CRNC Communication Context ID	M		9.2.1.18	The reserved value 'All CRNCCC' shall not be used.	YES	ignore
Node B Communication Context ID	M		9.2.1.48	The reserved value 'All NBCC' shall not be used.	YES	ignore
Communication Control Port ID	M		9.2.1.15		YES	ignore
RL Information Response		01		Mandatory For 3.84Mcps TDD. Not Applicable to 1.28Mcps TDD.	YES	ignore
>RL ID	M		9.2.1.53		_	
>UL Time Slot ISCP Info	M		9.2.3.26D		_	
>UL PhysCH SF Variation	M		9.2.3.26B		-	
>DCH Information Response	0		9.2.1.20C		YES	ignore
>DSCH Information Response	0		9.2.1.27A		YES	ignore
>USCH Information Response	0		9.2.3.28		YES	ignore
RL Information Response LCR		01		Mandatory For 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD.	YES	ignore
>RL ID	M		9.2.1.53		_	
>UL Time Slot ISCP Info LCR	M		9.2.3.26F		_	
>UL PhysCH SF Variation	M		9.2.3.26B		_	
>DCH Information Response	0		9.2.1.20C		YES	ignore
>DSCH Information Response	0		9.2.1.27A		YES	ignore
>USCH Information Response	0		9.2.3.28		YES	ignore
Criticality Diagnostics	0		9.2.1.17		YES	ignore

9.1.38 RADIO LINK SETUP FAILURE

9.1.38.1 FDD Message

Message Discriminator M 9.2.1.45 — Message Type M 9.2.1.46 YES reject Transaction ID M 9.2.1.62 —	IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Transaction D	Message Discriminator	1				_	
CRNC Communication Context ID	Message Type	М				YES	reject
Node B Communication	Transaction ID	M		9.2.1.62		_	
Context ID					value 'All CRNCCC' shall not be used.		-
D		C-Success		9.2.1.48	value 'All NBCC' shall not	YES	ignore
Scause		0		9.2.1.15		YES	ignore
Social S	CHOICE Cause Level	М				YES	ignore
Note: There will never be maxmoofRLs repetitions of this sequence. Note: There will never be maxmoofRLs repetitions of this sequence. Note: There will never be maxmoofRLs repetitions of this sequence. Note: There will never be maxmoofRLs repetitions of this sequence. Note: There will never be maxmoofRLs repetitions of this sequence. Note: There will never be maxmoofRLs repetitions of this sequence. Note: There will never be maxmoofRLs repetitions of this sequence. Note: There will never be maxmoofRLs repetitions of this sequence. Note: There will never be maxmoofRLs repetitions of this sequence. Note: There will never be maxmoofRLs repetitions of this sequence. Note: There will never be maxmoofRLs repetitions of this sequence. Note: There will never be maxmoofRLs repetitions of this sequence. Note: There will never be maxmoofRLs repetitions of this sequence. Note: There will never be maxmoofRLs repetitions of this sequence. Note: There will never be maxmoofRLs repetitions of this sequence. Note: There will never be maxmoofRLs repetitions of this sequence. Note: There will never be maxmoofRLs repetitions of this sequence. Note: There will never be maxmoofRLs repetitions of this sequence. Note: There will never be maxmoofRLs repetitions of this sequence. Note: There will never be maxmoofRLs repetitions of this sequence. Note: There will never be maxmoofRLs repetitions of this sequence. Note: There will never be maxmoofRLs repetitions of this sequence. Note: There will never be maxmoofRLs repetitions of this sequence. Note: There will never be maxmoofRLs repetitions of this sequence. Note: There will never be maxmoofRLs repetitions of this sequence. Note: There will never be maxmoofRLs repetitions of this sequence. Note: There will never be maxmoofRLs repetitions of this sequence. Note: There will never be maxmoofRLs repetitions of this sequence. Note: There will never be maxmoofRLs repetitions of this sequence. Note: There will never be maxmoofRLs repeti						_	
Solution Solution	>>Cause	M		9.2.1.6		_	
Solution Solution						-	
>>>RL ID M 9.2.1.53 — >>>Cause M 9.2.1.6 — >>Successful RL Information Response 0 Note: There will never be maxnoofRLs repetitions of this sequence. EACH ignore >>>RL ID M 9.2.1.53 — >>>RL Set ID M 9.2.2.39 — >>>Received Total Wide Band Power M 9.2.2.39A — >>>CHOICE Diversity Indication M — — >>>>Combining — — — >>>>Non Combining or First RL — — — >>>>DCH Information Response M 9.2.1.27A YES ignore >>>TFCI2 Bearer Information Response O 9.2.2.49A There shall be only one TFCI2 bearer per Node B Communication Context. >>>SSSDT Support Indicator M 9.2.2.46 —						EACH	ignore
Successful RL Information Response O O Note: There will never be maxnoofRLs repetitions of this sequence.		М		9.2.1.53		_	
Successful RL Information Response O Successful RL Information Response O Note: There will never be maxmoofRLs repetitions of this sequence.	>>>Cause	М		9.2.1.6		_	
Note					never be maxnoofRLs repetitions of	EACH	ignore
>>>Received Total M 9.2.2.39A - Wide Band Power - - >>>CHOICE Diversity Indication M - >>>>Combining - - >>>>Non Combining or First RL - - >>>>DCH Information Response M 9.2.1.20C - >>>DSCH Information Response O 9.2.1.27A YES ignore >>>TFCI2 Bearer Information Response O 9.2.2.49A There shall be only one TFCI2 bearer per Node B Communication Context. >>>SSDT Support Indicator M 9.2.2.46 -	>>>RL ID	М		9.2.1.53		_	
Wide Band Power	>>>RL Set ID	M				_	
Indication		М		9.2.2.39A		_	
>>>>RL ID M 9.2.1.53 Reference RL ID for the combining — >>>>Non Combining or First RL — — — >>>>DCH Information Response M 9.2.1.20C — — >>>DSCH Information Response O 9.2.1.27A YES ignore >>>TFCI2 Bearer Information Response O 9.2.2.49A There shall be only one TFCI2 bearer per Node B Communication Context. — >>>SSDT Support Indicator M 9.2.2.46 — —	_	М				_	
>>>>RL ID M 9.2.1.53 Reference RL ID for the combining — >>>>Non Combining or First RL — — — >>>>DCH Information Response M 9.2.1.20C — — >>>DSCH Information Response O 9.2.1.27A YES ignore >>>TFCI2 Bearer Information Response O 9.2.2.49A There shall be only one TFCI2 bearer per Node B Communication Context. — >>>SSDT Support Indicator M 9.2.2.46 — —	>>>Combining					-	
or First RL 9.2.1.20C — >>>>DCH M 9.2.1.20C — Information Response P.2.1.27A YES ignore >>>TFCI2 Bearer O 9.2.2.49A There shall be only one TFCI2 bearer per Node B — Information Response M 9.2.2.46 —		М		9.2.1.53	ID for the	-	
Information Response >>>DSCH Information Response >>>TFCI2 Bearer Information Response O 9.2.2.49A There shall be only one TFCI2 bearer per Node B Communication Context. >>>SSDT Support Indicator Indicator	~					-	
>>>DSCH Information Response >>>TFCI2 Bearer Information Response O 9.2.1.27A There shall be only one TFCI2 bearer per Node B Communication Context. >>>SSDT Support Indicator M 9.2.2.46 PES ignore 9.2.2.49A There shall be only one TFCI2 bearer per Node B Communication Context. -	Information	М		9.2.1.20C		_	
Information Response only one TFCI2 bearer per Node B Communication Context. >>>SSDT Support Indicator M 9.2.2.46 -	>>>DSCH Information	0		9.2.1.27A		YES	ignore
>>>SSDT Support M 9.2.2.46 -	>>>TFCI2 Bearer	0		9.2.2.49A	only one TFCI2 bearer per Node B Communication	-	
		М		9.2.2.46		_	
	Criticality Diagnostics	0		9.2.1.17		YES	ignore

Condition	Explanation
Success	The IE shall be present if at least one of the radio links has been
	successfully set up.

Range Bound	Explanation			
maxnoofRLs	Maximum number of RLs for one UE			

9.1.38.2 TDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		_	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		_	
CRNC Communication Context ID	М		9.2.1.18	The reserved value 'All CRNCCC' shall not be used.	YES	ignore
CHOICE Cause Level	M				YES	ignore
>General					_	
>>Cause	M		9.2.1.6		_	
>RL Specific					_	
>>Unsuccessful RL Information Response		1			YES	ignore
>>>RL ID	M		9.2.1.53		_	
>>>Cause	M		9.2.1.6		_	
Criticality Diagnostics	0		9.2.1.17		YES	ignore

9.1.39 RADIO LINK ADDITION REQUEST

9.1.39.1 FDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		_	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		_	
Node B Communication Context ID	М		9.2.1.48	The reserved value 'All NBCC' shall not be used.	YES	reject
Compressed Mode Deactivation Flag	0		9.2.2.3A		YES	reject
RL Information		1 <maxno ofRLs-1></maxno 			EACH	notify
>RL ID	M		9.2.1.53		_	
>C-ID	M		9.2.1.9		_	
>Frame Offset	M		9.2.1.31		_	
>Chip Offset	M		9.2.2.2		_	
>Diversity Control Field	M		9.2.1.25		_	
>DL Code Information	М		FDD DL Code Information 9.2.2.14A		-	
>Initial DL Transmission Power	0		DL Power 9.2.1.21	Initial power on DPCH	_	
>Maximum DL Power	0		DL Power 9.2.1.21	Maximum allowed power on DPCH	_	
>Minimum DL Power	0		DL Power 9.2.1.21	Minimum allowed power on DPCH	-	
>SSDT Cell Identity	0		9.2.2.44		_	
>Transmit Diversity Indicator	0		9.2.2.53		_	

Range Bound		Explanation			
	maxnoofRLs	Maximum number of RLs for one UE			

9.1.39.2 TDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	М		9.2.1.45		_	
Message Type	М		9.2.1.46		YES	reject
Transaction ID	М		9.2.1.62		_	
Node B Communication Context ID	М		9.2.1.48	The reserved value 'All NBCC' shall not be used.	YES	reject
UL CCTrCH Information		0 <maxno CCTrCH></maxno 			GLOBAL	reject
>CCTrCH ID	M		9.2.3.3		-	
>UL DPCH Information		01		Applicable to 3.84Mcps TDD only	YES	notify
>>Repetition Period	M		9.2.3.16		I	
>>Repetition Length	M		9.2.3.15		1	
>>TDD DPCH Offset	M		9.2.3.19A		_	
>>UL Timeslot	M		9.2.3.26C		_	
Information						
>UL DPCH Information LCR		01		Applicable to 1.28Mcps TDD only	YES	notify
>>Repetition Period	М		9.2.3.16		_	
>>Repetition Length	М		9.2.3.15		_	
>>TDD DPCH Offset	М		9.2.3.19A		_	
>>UL Timeslot Information LCR	М		9.2.3.26E		_	
>TDD TPC UL Step Size	0		9.2.3.21a	Applicable to 1.28Mcps TDD only	YES	reject
DL CCTrCH Information		0 <maxno CCTrCH></maxno 			GLOBAL	reject
>CCTrCH ID	M		9.2.3.3		1	
>DL DPCH information		01		Applicable to 3.84Mcps TDD only	YES	notify
>>Repetition Period	M		9.2.3.16		-	
>>Repetition Length	М		9.2.3.15		_	
>>TDD DPCH Offset	М		9.2.3.19A		_	
>>DL Timeslot	M		9.2.3.4E		-	
Information						
>DL DPCH information LCR		01		Applicable to 1.28Mcps TDD only	YES	notify
>>Repetition Period	M		9.2.3.16		-	
>>Repetition Length	M		9.2.3.15		_	
>>TDD DPCH Offset	M		9.2.3.19A		_	
>>DL Timeslot Information LCR	М		9.2.3.40		_	
>TDD TPC DL Step Size	0		9.2.3.21		YES	reject
RL Information		1			YES	reject
>RL ID	М		9.2.1.53		-	
>C-ID	M		9.2.1.9		_	
>Frame Offset	М		9.2.1.31		-	
>Diversity Control Field	M		9.2.1.25		_	
>Initial DL Transmission Power	0		DL Power 9.2.1.21	Initial power on DPCH	-	

>Maximum DL Power	0		DL Power 9.2.1.21	Maximum allowed power on DPCH	-	
>Minimum DL Power	0		DL Power 9.2.1.21	Minimum allowed power on DPCH	-	
>DL Time Slot ISCP Info	0		9.2.3.4F	Applicable to 3.84Mcps TDD only	1	
>DL Time Slot ISCP Info LCR	0		9.2.3.4P	Applicable to 1.28Mcps TDD only	YES	reject
>UL Synchronisation Parameters LCR		01		Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD.	YES	reject
>>Uplink Synchronisation Step Size	M		9.2.3.26H		-	
>>Uplink Synchronisation Frequency	M		9.2.3.26G		_	

Range Bound	Explanation
maxnoCCTrCH	Number of CCTrCH for one UE

9.1.40 RADIO LINK ADDITION RESPONSE

9.1.40.1 FDD message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	М		9.2.1.45		_	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		_	
CRNC Communication Context ID	M		9.2.1.18	The reserved value 'All CRNCCC' shall not be used.	YES	ignore
RL Information Response		1 <maxno ofRLs-1></maxno 			EACH	ignore
>RL ID	M		9.2.1.53		_	
>RL Set ID	М		9.2.2.39		_	
>Received Total Wide Band Power	M		9.2.2.39A		_	
>CHOICE Diversity Indication	М				-	
>>Combining					_	
>>>RL ID	М		9.2.1.53	Reference RL	_	
>>Non Combining					_	
>>>DCH Information Response	М		9.2.1.20C		_	
>SSDT Support Indicator	M		9.2.2.46		_	
Criticality Diagnostics	0		9.2.1.17		YES	ignore

Range Bound	Explanation		
maxnoofRLs	Maximum number of RLs for one UE		

9.1.40.2 TDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		_	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		_	
CRNC Communication Context ID	M		9.2.1.18	The reserved value 'All CRNCCC' shall not be used.	YES	ignore
RL Information Response		01		Mandatory for 3.84Mcps TDD. Not Applicable to 1.28Mcps TDD.	YES	ignore
>RL ID	М		9.2.1.53		_	
>UL Time Slot ISCP Info	М		9.2.3.26D		_	
>UL PhysCH SF Variation	М		9.2.3.26B		_	
>DCH Information		01			_	
>>CHOICE Diversity	М				-	
Indication >>>Combining				In TDD it indicates whether the old Transport Bearer shall be reused or not	-	
>>>>RL ID	М		9.2.1.53	Reference RL	_	
>>>Non Combining			0.11.77.00		_	
>>>DCH Information Response	М		9.2.1.20C		_	
>DSCH Information Response	0		9.2.1.27A		YES	ignore
>USCH Information Response	0		9.2.3.29		YES	ignore
Criticality Diagnostics	0		9.2.1.17		YES	ignore
RL Information Response LCR		01		Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD.	YES	ignore
>RL ID	M		9.2.1.53		_	
>UL Time Slot ISCP Info LCR	М		9.2.3.26F		_	
>UL PhysCH SF Variation	M		9.2.3.26B		_	
>DCH Information		01			_	
>>CHOICE Diversity indication	М				_	
>>>Combining				In TDD it indicates whether the old Transport Bearer shall be reused or not	-	
>>>>RL ID	М		9.2.1.53	Reference RL	_	
>>>Non Combining					_	
>>>>DCH Information Response	М		9.2.1.20C		_	
>DSCH Information Response	0		9.2.1.27A		YES	ignore

>USCH Information	0	9.2.3.29	YES	ignore
Response				

9.1.41 RADIO LINK ADDITION FAILURE

9.1.41.1 FDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		_	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		_	
CRNC Communication Context ID	М		9.2.1.18	The reserved value 'All CRNCCC' shall not be used.	YES	ignore
CHOICE Cause Level	M				YES	ignore
>General					_	
>>Cause	M		9.2.1.6		_	
>RL Specific					_	
>>Unsuccessful RL Information Response		1 <maxno ofRLs-1></maxno 			EACH	ignore
>>>RL ID	M		9.2.1.53		_	
>>>Cause	M		9.2.1.6		_	
>>Successful RL Information Response		0 <maxno ofRLs-2></maxno 			EACH	ignore
>>>RL ID	M		9.2.1.53		_	
>>>RL Set ID	M		9.2.2.39		_	
>>> Received Total Wide Band Power	M		9.2.2.39A		-	
>>>CHOICE Diversity Indication	M				_	
>>>Combining					_	
>>>>RL ID	М		9.2.1.53	Reference RL	_	
>>>Non Combining					_	
>>>>DCH Information Response	M		9.2.1.20C		_	
>>>SSDT Support Indicator	М		9.2.2.46		_	
Criticality Diagnostics	0		9.2.1.17		YES	ignore

Range Bound	Explanation
maxnoofRLs	Maximum number of RLs for one UE

9.1.41.2 TDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	М		9.2.1.45		_	
Message Type	М		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		_	
CRNC Communication Context ID	M		9.2.1.18	The reserved value 'All CRNCCC' shall not be used.	YES	ignore
CHOICE Cause Level	М				YES	ignore
>General					_	
>>Cause	М		9.2.1.6		_	
>RL Specific					_	
>>Unsuccessful RL Information Response		1			YES	ignore
>>>RL ID	М		9.2.1.53		_	
>>>Cause	М		9.2.1.6		_	
Criticality Diagnostics	0		9.2.1.17		YES	ignore

9.1.42 RADIO LINK RECONFIGURATION PREPARE

9.1.42.1 FDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		_	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		_	
Node B Communication Context ID	M		9.2.1.48	The reserved value 'All NBCC' shall not be used.	YES	reject
UL DPCH Information		01			YES	reject
>UL Scrambling Code	0		9.2.2.59		ı	
>UL SIR Target	0		UL SIR 9.2.1.67A		_	
>Min UL Channelistion Code Length	0		9.2.2.22		_	
>Max Number of UL DPDCHs	C- CodeLen		9.2.2.21		-	
>Puncture Limit	0		9.2.1.50	For UL	_	
>TFCS	0		9.2.1.58		_	
>UL DPCCH Slot Format	0		9.2.2.57		_	
>Diversity Mode	0		9.2.2.9		_	
>SSDT Cell Identity Length	0		9.2.2.45		_	
>S-Field Length	0		9.2.2.40		_	
DL DPCH Information		01			YES	reject
>TFCS	0		9.2.1.58		ı	
>DL DPCH Slot Format	0		9.2.2.10		ı	
>TFCI Signalling Mode	0		9.2.2.50		-	
>TFCI Presence	C- SlotFormat		9.2.1.57		-	
>Multiplexing Position	0		9.2.2.23			
>PDSCH Code Mapping	0		9.2.2.25			
>PDSCH RL ID	0		RL ID 9.2.1.53		-	
>Limited Power Increase	0		9.2.2.18A		_	
DCHs To Modify	0		DCHs FDD To Modify 9.2.2.4E		YES	reject
DCHs To Add	0		DCH FDD Information 9.2.2.4D		YES	reject
DCHs To Delete		0 <maxno ofDCHs></maxno 			GLOBAL	reject
>DCH ID	M		9.2.1.20		_	
DSCH To Modify		0 <maxno ofDSCHs></maxno 			EACH	reject
>DSCH ID	M		9.2.1.27		_	
>Transport Format Set	0		9.2.1.59	For the DL.	_	
>Allocation/Retention Priority	0		9.2.1.1A		_	
>Frame Handling Priority	0		9.2.1.30		-	
>ToAWS	0		9.2.1.61		_	
>ToAWE	0		9.2.1.60		_	
>Transport Bearer Request Indicator	М		9.2.1.62A		_	

DSCH To Add	0		DSCH FDD Information 9.2.2.13B		YES	reject
DSCH To Delete		0 <maxno ofDSCHs></maxno 			EACH	reject
>DSCH ID	M		9.2.1.27		_	
TFCI2 Bearer Information		01			YES	reject
>CHOICE TFCI2 Bearer	M				_	
Action						
>>Add or Modify					_	
>>>ToAWS	M		9.2.1.61		_	
>>>ToAWE	M		9.2.1.60		_	
>>Delete			NULL		_	
RL Information		0 <maxno ofRLs></maxno 			EACH	reject
>RL ID	М		9.2.1.53		_	
>DL Code Information	0		FDD DL		_	
			Code			
			Information			
			9.2.2.14A			
>Maximum DL Power	0		DL Power 9.2.1.21	Maximum allowed power on DPCH	_	
>Minimum DL Power	0		DL Power 9.2.1.21	Minimum allowed power on DPCH	-	
>SSDT Indication	0		9.2.2.47		_	
>SSDT Cell Identity	C- SSDTIndO N		9.2.2.44		-	
>Transmit Diversity Indicator	CDiversity mode		9.2.2.53		_	
>SSDT Cell Identity For EDSCHPC	C- EDSCHPC		9.2.2.44A		YES	ignore
Transmission Gap Pattern Sequence Information	0		9.2.2.53A		YES	reject
DSCH Common Information	0		DSCH FDD Common Information 9.2.2.13D		YES	ignore

Condition	Explanation
SSDTIndON	The IE shall be present if the SSDT Indication IE is set to 'SSDT Active in the UE'.
CodeLen	The IE shall be present if the <i>Min UL Channelisation Code Length</i> IE is equals to 4.
SlotFormat	The IE shall be present if the <i>DL DPCH Slot Format</i> IE is equal to any of the values from 12 to 16.
Diversity mode	The IE shall be present if the <i>Diversity Mode</i> IE is present in the <i>UL DPCH Information</i> IEand is not set to 'none'.
EDSCHPC	The IE shall be present if the <i>Enhanced DSCH PC</i> IE is present in the <i>DSCH Common Information</i> IE.

Range Bound	Explanation
maxnoofDCHs	Maximum number of DCHs for a UE
maxnoofDSCHs	Maximum number of DSCHs for a UE
maxnoofRLs	Maximum number of RLs for a UE

9.1.42.2 TDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		-	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	М		9.2.1.62		_	
Node B Communication Context ID	М		9.2.1.48	The reserved value 'All NBCC' shall not be used.	YES	reject
UL CCTrCH To Add		0 <maxno ofCCTrCH s></maxno 			GLOBAL	reject
>CCTrCH ID	М		9.2.3.3		_	
>TFCS	M		9.2.1.58		-	
>TFCI Coding	M		9.2.3.22		-	
>Puncture Limit	М		9.2.1.50		_	
>UL DPCH Information		01		Applicable to 3.84Mcps TDD only	YES	reject
>>Repetition Period	M		9.2.3.16		-	
>>Repetition Length	М		9.2.3.15		-	
>>TDD DPCH Offset	M		9.2.3.19A		-	
>>UL Timeslot Information	М		9.2.3.26C		_	
>UL DPCH Information LCR		01		Applicable to 1.28Mcps TDD only	YES	reject
>>Repetition Period	M		9.2.3.16	•	-	
>>Repetition Length	М		9.2.3.15		_	
>>TDD DPCH Offset	M		9.2.3.19A		-	
>>UL Timeslot Information LCR	М		9.2.3.26E		_	
>UL SIR Target	0		UL SIR 9.2.1.67A	Mandatory for 1.28Mcps TDD; not Applicable to 3.84Mcps TDD	YES	reject
>TDD TPC UL Step Size	0		9.2.3.21a	Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD.	YES	reject
UL CCTrCH To Modify		0 <maxno ofCCTrCH s></maxno 			GLOBAL	reject
>CCTrCH ID	М		9.2.3.3		_	
>TFCS	0		9.2.1.58		-	
>TFCI Coding	0		9.2.3.22		-	
>Puncture Limit	0		9.2.1.50		-	
>UL DPCH To Add		01		Applicable to 3.84Mcps TDD only	YES	reject
>>Repetition Period	M		9.2.3.16		_	
>>Repetition Length	М		9.2.3.15		_	
>>TDD DPCH Offset	М		9.2.3.19A		_	
>>UL Timeslot Information	M		9.2.3.26C		_	
>UL DPCH To Modify		01			YES	reject
>>Repetition Period	0		9.2.3.16		_	

>>Repetition Length	0		9.2.3.15		_	
>>TDD DPCH Offset	0		9.2.3.19A		_	
>>UL Timeslot		0 <maxno< td=""><td>J.2.J.15/1</td><td>Applicable to</td><td>_</td><td></td></maxno<>	J.2.J.15/1	Applicable to	_	
Information		ofULts>		3.84Mcps TDD only		
>>>Time Slot	М		9.2.3.23		_	
>>>Midamble Shift And	0		9.2.3.7		_	
Burst Type						
>>>TFCI Presence	0		9.2.1.57		_	
>>>UL Code		0 <maxno< td=""><td></td><td></td><td>-</td><td></td></maxno<>			-	
Information		ofDPCHs>				
>>>DPCH ID	M		9.2.3.5		-	
>>>>TDD	0		9.2.3.19		-	
Channelisation Code						
>>UL Timeslot Information LCR		0 <maxno ofULtsLCR</maxno 		Applicable to 1.28Mcps TDD only	GLOBAL	reject
>>>Time Slot LCR	М		9.2.3.24A		_	
>>>Midamble Shift LCR	0		9.2.3.7A			
>>>TFCI Presence	0		9.2.1.57		_	
>>>UL Code Information LCR		0 <maxno ofDPCHsL CR></maxno 			-	
>>>DPCH ID	М	0,15	9.2.3.5		_	
>>>>TDD	0		9.2.3.19a		_	
Channelisation Code LCR						
>>>> TDD UL DPCH Time Slot Format LCR	0		9.2.3.21C		YES	reject
>UL DPCH To Delete		0 <maxno ofDPCHs></maxno 			GLOBAL	reject
>>DPCH ID	М		9.2.3.5		-	
>UL DPCH To Add LCR		01		Applicable to 1.28Mcps TDD only	YES	reject
>>Repetition Period	M		9.2.3.16		_	
>>Repetition Length	M		9.2.3.15		-	
>>TDD DPCH Offset	M		9.2.3.19A		_	
>>UL Timeslot	M		9.2.3.26E		-	
Information LCR						
>UL SIR Target	0		UL SIR 9.2.1.67A	Applicable to 1.28Mcps TDD only	YES	reject
>TDD TPC UL Step Size	0		9.2.3.21a	Applicable to 1.28Mcps TDD only	YES	reject
UL CCTrCH To Delete		0 <maxno ofCCTrCH s></maxno 			GLOBAL	reject
>CCTrCH ID	М	-	9.2.3.3		_	
DL CCTrCH To Add		0 <maxno ofCCTrCH s></maxno 			GLOBAL	reject
>CCTrCH ID	М		9.2.3.3		_	
>TFCS	М		9.2.1.58		_	
>TFCI Coding	М		9.2.3.22		_	
>Puncture Limit	М		9.2.1.50		-	
>TPC CCTrCH List		0 <maxno ofCCTrCH s></maxno 		List of uplink CCTrCH which provide TPC	-	
>>TPC CCTrCH ID	М		CCTrCH ID 9.2.3.3		-	

	1	T	T			
>DL DPCH Information		01		Applicable to 3.84Mcps TDD only	YES	reject
>>Repetition Period	М		9.2.3.16	Offig	_	
>>Repetition Length	M		9.2.3.15		_	
>>TDD DPCH Offset	M		9.2.3.19A		_	
>>DL Timeslot	M		9.2.3.4E		_	
Information			0.2.0.12			
>DL DPCH Information		01		Applicable to	YES	reject
LCR		07		1.28Mcps TDD only	120	10,000
>>Repetition Period	М		9.2.3.16		_	
>>Repetition Length	М		9.2.3.15		_	
>>TDD DPCH Offset	М		9.2.3.19A		_	
>>DL Timeslot	М		9.2.3.40		_	
Information LCR						
>TDD TPC DL Step Size	0		9.2.3.21		YES	reject
DL CCTrCH To Modify		0 <maxno< td=""><td></td><td></td><td>GLOBAL</td><td>reject</td></maxno<>			GLOBAL	reject
,		ofCCTrCH s>				-
>CCTrCH ID	М		9.2.3.3.		_	
>TFCS	0		9.2.1.58		_	
>TFCI Coding	0		9.2.3.22		_	
>Puncture Limit	0		9.2.1.50		_	
>TPC CCTrCH List		0 <maxno< td=""><td></td><td>List of uplink</td><td>_</td><td></td></maxno<>		List of uplink	_	
711 0 0011011 Elst		ofCCTrCH s>		CCTrCH which provide TPC		
>>TPC CCTrCH ID	М		CCTrCH ID 9.2.3.3		_	
>DL DPCH To Add		01		Applicable to 3.84Mcps TDD only	YES	reject
>>Repetition Period	М		9.2.3.16		_	
>>Repetition Length	М		9.2.3.15		_	
>>TDD DPCH Offset	М		9.2.3.19A		_	
>>DL Timeslot	М		9.2.3.4E		_	
Information						
>DL DPCH To Modify		01			YES	reject
>>Repetition Period	0		9.2.3.16		_	,
>>Repetition Length	0		9.2.3.15		_	
>>TDD DPCH Offset	0		9.2.3.19A		_	
>>DL Timeslot Information		0 <maxno ofDLts></maxno 		Applicable to 3.84Mcps TDD only	-	
>>>Time Slot	М		9.2.3.23	,	_	
>>>Midamble Shift And Burst Type	0		9.2.3.7		_	
>>>TFCI Presence	0		9.2.1.57		_	
>>>TFCT Presence		0 <maxno< td=""><td>5.2.1.07</td><td></td><td>_</td><td></td></maxno<>	5.2.1.07		_	
>>>DL Code Information		ofDPCHs>				
>>>DPCH ID	М		9.2.3.5		_	
>>>>TDD Channelisation Code	0		9.2.3.19			
>>DL Timeslot		0 <maxno< td=""><td></td><td>Applicable to</td><td>GLOBAL</td><td>reject</td></maxno<>		Applicable to	GLOBAL	reject
Information LCR		ofDLtsLCR >		1.28Mcps TDD only		,
>>>Time Slot LCR	М		9.2.3.24A		_	
>>>Midamble Shift LCR	0		9.2.3.7A			
>>>TFCI Presence	0		9.2.1.57		_	
>>>DL Code		0 <maxno< td=""><td></td><td></td><td>_</td><td></td></maxno<>			_	

Information LCR		ofDPCHsL				
		CR>				
>>>DPCH ID	М		9.2.3.5		_	
>>>>TDD Channelisation Code LCR	0		9.2.3.19a		_	
>>>>TDD DL DPCH Time Slot Format LCR	0		9.2.3.19D		YES	reject
>DL DPCH To Delete		0 <maxno ofDPCHs></maxno 			GLOBAL	reject
>>DPCH ID	М		9.2.3.5		_	
>DL DPCH To Add LCR		01		Applicable to 1.28Mcps TDD only	YES	reject
>>Repetition Period	M		9.2.3.16		_	
>>Repetition Length	M		9.2.3.15		_	
>>TDD DPCH Offset	M		9.2.3.19A		_	
>>DL Timeslot Information LCR	M		9.2.3.40		_	
>TDD TPC DL Step Size	0		9.2.3.21		YES	reject
DL CCTrCH To Delete		0 <maxno ofCCTrCH s></maxno 			GLOBAL	reject
>CCTrCH ID	М		9.2.3.3		_	
DCHs To Modify	0		DCHs TDD To Modify 9.2.3.4D		YES	reject
DCHs To Add	0		DCH TDD Information 9.2.3.4C		YES	reject
DCHs To Delete		0 <maxno ofDCHs></maxno 			GLOBAL	reject
>DCH ID	M		9.2.1.20		_	
DSCH To Modify		0 <maxno ofDSCHs></maxno 			GLOBAL	reject
>DSCH ID	М		9.2.1.27		_	
>CCTrCH ID	0		9.2.3.3	DL CCTrCH in which the DSCH is mapped	_	
>Transport Format Set	0		9.2.1.59		_	
>Allocation/Retention Priority	0		9.2.1.1A		_	
>Frame Handling Priority	0		9.2.1.30		_	
>ToAWS	0		9.2.1.61		_	
>ToAWE	0		9.2.1.60		_	
>Transport Bearer Request Indicator	M		9.2.1.62A		_	
DSCH To Add	0		DSCH TDD Information 9.2.3.5A		YES	reject
DSCH To Delete		0 <maxno ofDSCHs></maxno 			GLOBAL	reject
>DSCH ID	М		9.2.1.27		_	
USCH To Modify		0 <maxno ofUSCHs></maxno 			GLOBAL	reject
>USCH ID	М		9.2.3.27			· · · · · · · · · · · · · · · · · · ·
>Transport Format Set	0		9.2.1.59			
>Allocation/Retention Priority	0		9.2.1.1A		_	
>CCTrCH ID	0		9.2.3.2	UL CCTrCH in	_	

				which the USCH is mapped		
>Transport Bearer Request Indicator	M		9.2.1.62A		_	
USCH To Add	0		USCH Information 9.2.3.28		YES	reject
USCH To Delete		0 <maxno ofUSCHs></maxno 			GLOBAL	reject
>USCH ID	M		9.2.3.27		_	
RL Information		01			YES	reject
>RL ID	М		9.2.1.53		_	
>Maximum Downlink Power	0		DL Power 9.2.1.21	Maximum allowed power on DPCH	-	
>Minimum Downlink Power	0		DL Power 9.2.1.21	Minimum allowed power on DPCH	-	
>Initial DL Transmission Power	0		DL Power 9.2.1.21	Initial power on DPCH	YES	ignore
>UL Synchronisation Parameters LCR		01		Mandatory for 1.28Mcps TDD. Not applicable to 3.84Mcps TDD.	YES	ignore
>> Uplink Synchronisation Step Size	М		9.2.3.26H			
>> Uplink Synchronisation Frequency	М		9.2.3.26G			
PDSCH-RL-ID	0		RL ID 9.2.1.53		YES	ignore

Range Bound	Explanation
maxnoofDCHs	Maximum number of DCHs for a UE
maxnoofCCTrCHs	Maximum number of CCTrCHs for a UE
maxnoofDPCHs	Maximum number of DPCHs in one CCTrCH for 3.84Mcps TDD
maxnoofDPCHsLCR	Maximum number of DPCHs in one CCTrCH for 1.28Mcps TDD
mmaxnoofDSCHs	Maximum number of DSCHs for one UE
maxnoofUSCHs	Maximum number of USCHs for one UE
maxnoofDLts	Maximum number of Downlink time slots per Radio Link for 3.84Mcps TDD
maxnoofDLtsLCR	Maximum number of Downlink time slots per Radio Link for 1.28Mcps TDD
maxnoofULts	Maximum number of Uplink time slots per Radio Link for 3.84Mcps TDD
maxnoofULtsLCR	Maximum number of Uplink time slots per Radio Link for 1,28Mcps TDD

9.1.43 RADIO LINK RECONFIGURATION READY

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		_	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		_	
CRNC Communication Context ID	M		9.2.1.18	The reserved value 'All CRNCCC' shall not be used.	YES	ignore
RL Information Response		0 <maxno ofRLs></maxno 			EACH	ignore
>RL ID	M		9.2.1.53		_	
>DCH Information Response	0		9.2.1.20C		YES	ignore
>DSCH Information Response	0		9.2.1.27A		YES	ignore
>USCH Information Response	0		9.2.3.29	TDD only	YES	ignore
>TFCI2 Bearer Information Response	0		9.2.2.49A	FDD only: There shall be only one TFCI2 bearer per Node B Communication Context.	_	
Criticality Diagnostics	0		9.2.1.17		YES	ignore

Range Bound	Explanation
maxnoofRLs	Maximum number of RLs for a UE

9.1.44 RADIO LINK RECONFIGURATION FAILURE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		_	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		_	
CRNC Communication Context ID	M		9.2.1.18	The reserved value 'All CRNCCC' shall not be used.	YES	ignore
CHOICE Cause Level	M				YES	ignore
>General					_	
>>Cause	M		9.2.1.6		YES	ignore
>RL Specific					_	
>>RLs Causing Reconfiguration Failure		0 <maxno ofRLs></maxno 			EACH	ignore
>>>RL ID	M		9.2.1.53		_	
>>>Cause	M		9.2.1.6		_	
Criticality Diagnostics	0		9.2.1.17		YES	ignore

Range Bound	Explanation		
maxnoofRLs	Maximum number of RLs for a UE		

9.1.45 RADIO LINK RECONFIGURATION COMMIT

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		_	
Message type	M		9.2.1.46		YES	ignore
Transaction ID	М		9.2.1.62		_	
Node B Communication Context ID	M		9.2.1.48	The reserved value 'All NBCC' shall not be used.	YES	ignore
CFN	M		9.2.1.7		YES	ignore
Active Pattern Sequence Information	0		9.2.2.A		YES	ignore

9.1.46 RADIO LINK RECONFIGURATION CANCEL

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	М		9.2.1.45		_	
Message type	М		9.2.1.46		YES	ignore
Transaction ID	М		9.2.1.62		_	
Node B Communication Context ID	М		9.2.1.48	The reserved value 'All NBCC' shall not be used.	YES	ignore

9.1.47 RADIO LINK RECONFIGURATION REQUEST

FDD Message 9.1.47.1

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		_	
Message Type	М		9.2.1.46		YES	reject
Transaction ID	М		9.2.1.62		_	
Node B Communication Context ID	М		9.2.1.48	The reserved value 'All NBCC' shall not be used.	YES	reject
UL DPCH Information		01			YES	reject
>TFCS	0		9.2.1.58	For the UL.	_	
DL DPCH Information		01			YES	reject
>TFCS	0		9.2.1.58	For the DL.	_	
>TFCI Signalling Mode	0		9.2.2.50		_	
>Limited Power Increase	0		9.2.2.18A		_	
DCHs To Modify	0		DCHs FDD To Modify 9.2.2.4E		YES	reject
DCHs To Add	0		DCH FDD Information 9.2.2.4D		YES	reject
DCHs To Delete		0 <maxno ofDCHs></maxno 			GLOBAL	reject
>DCH ID	М		9.2.1.20		_	
Radio Link Information		0 <maxno ofRLs></maxno 			EACH	reject
>RL ID	M		9.2.1.53		_	
>Maximum DL Power	0		DL Power 9.2.1.21	Maximum allowed power on DPCH	-	
>Minimum DL Power	0		DL Power 9.2.1.21	Minimum allowed power on DPCH	_	
>DL Code Information	C-SF/2		FDD DL Code Information 9.2.2.14A		-	
Transmission Gap Pattern Sequence Information	0		9.2.2.53A		YES	reject

Range Bound	Explanation		
maxnoofDCHs	Maximum number of DCHs for a UE		
maxnoofRLs	Maximum number of RLs for a UE		

Condition	Explanation
SF/2	The IE shall be present if the Transmission Gap Pattern Sequence
	Information IE is included and the indicated Downlink Compressed
	Mode method for at least one of the included Transmission Gap Pattern
	Sequence is set to "SF/2".

9.1.47.2 TDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantic Description	Criticality	Assigned Criticality
Message Discriminator	М		9.2.1.45		_	
Message Type	М		9.2.1.46		YES	reject
Transaction ID	М		9.2.1.62		_	,
Node B Communication Context ID	M		9.2.1.48	The reserved value 'All NBCC' shall not be used.	YES	reject
UL CCTrCH To Modify		0 <maxno ofCCTrCH s></maxno 			EACH	notify
>CCTrCH ID	M		9.2.3.3		_	
>TFCS	0		9.2.1.58		_	
>Puncture Limit	0		9.2.1.50		_	
>UL SIR Target	0		UL SIR 9.2.1.67A	Applicable to 1.28Mcps TDD only	YES	reject
UL CCTrCH To Delete		0 <maxno ofCCTrCH s></maxno 			EACH	notify
>CCTrCH ID	M		9.2.3.3		_	
DL CCTrCH To Modify		0 <maxno ofCCTrCH s></maxno 			EACH	notify
>CCTrCH ID	M		9.2.3.3		_	
>TFCS	0		9.2.1.58		_	
>Puncture Limit	0		9.2.1.50		_	
DL CCTrCH To Delete		0 <maxno ofCCTrCH s></maxno 			EACH	notify
>CCTrCH ID	M		9.2.3.3		_	
DCHs To Modify	0		DCHs TDD To Modify 9.2.3.4D		YES	reject
DCHs To Add	0		DCH TDD Information 9.2.3.4C		YES	reject
DCHs To Delete		0 <maxno ofDSCHs></maxno 			GLOBAL	reject
>DCH ID	M	_	9.2.1.20		_	
RL Information	ļ	01			YES	reject
>RL ID	M		9.2.1.53		_	
>Maximum Downlink Power	0		DL Power 9.2.1.21	Maximum allowed power on DPCH	_	
>Minimum Downlink Power	0		DL Power 9.2.1.21	Minimum allowed power on DPCH	-	
>UL Synchronisation Parameters LCR		01		Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD.	YES	ignore
>>Uplink Synchronisation Step Size	М		9.2.3.26H		_	
>>Uplink Synchronisation Frequency	М		9.2.3.26G		_	

Range Bound	Explanation
maxnoofCCTrCHs	Maximum number of CCTrCHs for a UE

9.1.48 RADIO LINK RECONFIGURATION RESPONSE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	М		9.2.1.45		_	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	М		9.2.1.62		_	
CRNC Communication Context ID	M		9.2.1.18	The reserved value 'All CRNCCC' shall not be used.	YES	ignore
RL Information Response		0 <maxno ofRLs></maxno 			EACH	ignore
>RL ID	M		9.2.1.53		_	
>DCH Information Response	0		9.2.1.20C		YES	ignore
Criticality Diagnostics	0		9.2.1.17		YES	ignore

Range Bound	Explanation
maxnoofRLs	Maximum number of RLs for a UE

9.1.49 RADIO LINK DELETION REQUEST

IE/Group Name	Presence	Range	IE Type and	Semantics Description	Criticality	Assigned Criticality
			Reference			_
Message Discriminator	M		9.2.1.45		_	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		_	
Node B Communication Context ID	M		9.2.1.48	The reserved value 'All NBCC' shall not be used.	YES	reject
CRNC Communication Context ID	М		9.2.1.18		YES	reject
RL Information		1 <maxno ofRLs></maxno 			EACH	notify
>RL ID	M		9.2.1.53		_	

Range Bound	Explanation
maxnoofRLs	Maximum number of radio links for one UE

9.1.50 RADIO LINK DELETION RESPONSE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		_	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		_	
CRNC Communication Context ID	М		9.2.1.18	The reserved value 'All CRNCCC' shall not be used.	YES	ignore
Criticality Diagnostics	0		9.2.1.17		YES	ignore

9.1.51 DL POWER CONTROL REQUEST [FDD]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		_	
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		_	
Node B Communication Context ID	M		9.2.1.48	The reserved value 'All NBCC' shall not be used.	YES	ignore
Power Adjustment Type	M		9.2.2.27		YES	ignore
DL Reference Power	C- Common		DL power 9.2.1.21	Power on DPCH	YES	ignore
Inner Loop DL PC Status	0		9.2.2.18B		YES	ignore
DL Reference Power Information	C- Individual	1 <maxno ofRLs></maxno 			EACH	ignore
>RL ID	M		9.2.1.53		-	
>DL Reference Power	М		DL power 9.2.1.21	Power on DPCH	_	
Max Adjustment Step	C- CommonO rIndividual		9.2.2.20		YES	ignore
Adjustment Period	C- CommonO rIndividual		9.2.2.B		YES	ignore
Adjustment Ratio	C- CommonO rIndividual		9.2.2.C		YES	ignore

Condition	Explanation
Common	The IE shall be present if the Adjustment Type IE is equal to 'Common'.
Individual	The IE shall be present if the Adjustment Type IE is equal to 'Individual'.
CommonOrIndividual	The IE shall be present if the Adjustment Type IE is equal to 'Common"
	or "Individual'.

Range Bound	Explanation
maxnoofRLs	Maximum number of Radio Links for a UE

9.1.52 DEDICATED MEASUREMENT INITIATION REQUEST

IE/Group Name	Presence	Range	IE Type and	Semantics Description	Criticality	Assigned Criticality
			Reference	Description		Criticality
Message Discriminator	М		9.2.1.45		_	
Message Type	М		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		ı	
Node B Communication Context ID	M		9.2.1.48	The reserved value 'All NBCC' shall not be used when the Report characteristics type is set to	YES	reject
				'On Demand'.		
Measurement ID	M		9.2.1.42		YES	reject
CHOICE Dedicated Measurement Object Type	М				YES	reject
>RL					_	
>>RL Information		1 <maxno ofRLs></maxno 			EACH	reject
>>>RL ID	М		9.2.1.53		_	
>>>DPCH ID	0		9.2.3.5	TDD only		
>>>PUSCH Information		0 <maxno ofPUSCHs ></maxno 		TDD only	GLOBAL	reject
>>>PUSCH ID	М		9.2.3.12		_	
>RLS				FDD only	_	
>>RL Set Information		1 <maxno ofRLSets></maxno 			-	
>>>RL Set ID	М		9.2.2.39		_	
>ALL RL			NULL		_	
>ALL RLS			NULL	FDD only	-	
Dedicated Measurement Type	М		9.2.1.23		YES	reject
Measurement Filter Coefficient	0		9.2.1.41		YES	reject
Report Characteristics	М		9.2.1.51		YES	reject
CFN Reporting Indicator	М		FN Reporting Indicator 9.2.1.29B		YES	reject
CFN	0		9.2.1.7		YES	reject

Range Bound	Explanation
maxnoofRLs	Maximum number of individual RLs a measurement can be started on
maxnoofPUSCHs	Maximum number of PUSCHs per RL a measurement can be started on
maxnoofRLSets	Maximum number of individual RL Sets a measurement can be started
	on

9.1.53 DEDICATED MEASUREMENT INITIATION RESPONSE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	М		9.2.1.45		_	
Message Type	М		9.2.1.46		YES	reject
Transaction ID	М		9.2.1.62		_	
CRNC Communication Context ID	M		9.2.1.18		YES	ignore
Measurement ID	М		9.2.1.42		YES	ignore
CHOICE Dedicated Measurement Object Type	O			Dedicated Measurement Object Type the measurement was initiated with	YES	ignore
>RL or ALL RL					_	
>>RL Information		1 <maxno ofRLs></maxno 			EACH	ignore
>>>RL ID	М		9.2.1.53		_	
>>>DPCH ID	0		9.2.3.5	TDD only	_	
>>>Dedicated Measurement Value	М		9.2.1.24		-	
>>>CFN	0		9.2.1.7	Dedicated Measurement Time Reference	_	
>>>PUSCH Information		0 <maxno ofPUSCHs ></maxno 		TDD only	GLOBAL	reject
>>>>PUSCH ID	М		9.2.3.12		_	
>RLS or ALL RLS				FDD only	_	
>>RL Set Information		1 <maxno ofRLSets></maxno 			EACH	ignore
>>>RL Set ID	M		9.2.2.39		_	
>>>Dedicated Measurement Value	М		9.2.1.24		-	
>>>CFN	0		9.2.1.7	Dedicated Measurement Time Reference	-	
Criticality Diagnostics	0		9.2.1.17		YES	ignore

Range Bound	Explanation
maxnoofRLs	Maximum number of individual RLs the measurement can be started on.
maxnoofPUSCHs	Maximum number of PUSCHs per RL a measurement can be started
	on.
maxnoofRLSets	Maximum number of individual RL Sets a measurement can be started
	on.

9.1.54 DEDICATED MEASUREMENT INITIATION FAILURE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		_	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		_	
CRNC Communication Context ID	М		9.2.1.18		YES	ignore
Measurement ID	M		9.2.1.42		YES	ignore
Cause	M		9.2.1.6		YES	ignore
Criticality Diagnostics	0		9.2.1.17		YES	ignore

9.1.55 DEDICATED MEASUREMENT REPORT

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		_	
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	М		9.2.1.62		_	
CRNC Communication Context ID	M		9.2.1.18	The reserved value 'All CRNCCC' shall not be used.	YES	ignore
Measurement ID	M		9.2.1.42		YES	ignore
CHOICE Dedicated Measurement Object Type	М			Dedicated Measurement Object Type the measurement was initiated with	YES	ignore
>RL or ALL RL					_	
>>RL Information		1 <maxno ofRLs></maxno 			EACH	ignore
>>>RL ID	М		9.2.1.53		_	
>>>DPCH ID	0		9.2.3.5	TDD only	_	
>>>Dedicated Measurement Value Information	M		9.2.1.24A		_	
>>>PUSCH Information		0 <maxno ofPUSCHs ></maxno 		TDD only	GLOBAL	reject
>>>>PUSCH ID	М		9.2.3.12		_	
>RLS or ALL RLS				FDD only	_	
>>RL Set Information		1 <maxno ofRLSets></maxno 			EACH	ignore
>>>RL Set ID	M		9.2.2.39		_	
>>>Dedicated Measurement Value Information	М		9.2.1.24A		-	

Range Bound	Explanation
maxnoofRLs	Maximum number of individual RLs the measurement can be started on
maxnoofPUSCHs	Maximum number of PUSCHs per RL a measurement can be started on
maxnoofRLSets	Maximum number of individual RL Sets a measurement can be started
	on

9.1.56 DEDICATED MEASUREMENT TERMINATION REQUEST

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	М		9.2.1.45		_	
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		_	
Node B Communication Context ID	M		9.2.1.48	The reserved value "All NBCC" shall be used if this value was used when initiating the measurement. Otherwise, the reserved value "All NBCC" shall not be used.	YES	ignore
Measurement ID	M		9.2.1.42		YES	ignore

9.1.57 DEDICATED MEASUREMENT FAILURE INDICATION

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		_	
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		_	
CRNC Communication Context ID	M		9.2.1.18	The reserved value "All CRNCCC" shall be used if the Node B Communication Context ID was set to "All NBCC" when initiating the measurement. Otherwise, the reserved value "All CRNCCC" shall not be used.	YES	ignore
Measurement ID	М		9.2.1.42		YES	ignore
Cause	М	·	9.2.1.6		YES	ignore

9.1.58 RADIO LINK FAILURE INDICATION

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	М		9.2.1.45		_	
Message Type	М		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		_	
CRNC Communication Context ID	M		9.2.1.18	The reserved value 'All CRNCCC' shall not be used.	YES	ignore
CHOICE Reporting Object	M			Object for which the Failure shall be reported.	YES	ignore
>RL					_	
>>RL Information		1 <maxno ofRLs></maxno 			EACH	ignore
>>>RL ID	М		9.2.1.53		_	
>>>Cause	М		9.2.1.6		_	
>RL Set				FDD only	_	
>>RL Set Information		1 <maxno ofRLSets></maxno 			EACH	ignore
>>>RL Set ID	М		9.2.2.39		_	
>>>Cause	М		9.2.1.6		_	
>CCTrCH				TDD only	_	
>>RL ID	M		9.2.1.53			
>>CCTrCH List		1 <maxno ofCCTrCH s></maxno 			EACH	ignore
>>>CCTrCH ID	M		9.2.3.3		_	
>>>Cause	М		9.2.1.6		_	

Range Bound	Explanation
maxnoofRLs	Maximum number of RLs for one UE
maxnoofRLSets	Maximum number of RL Sets for one UE
maxnoofCCTrCHs	Maximum number of CCTrCHs for a UE

9.1.59 RADIO LINK RESTORE INDICATION

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	М		9.2.1.45		_	
Message Type	М		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		_	
CRNC Communication Context ID	M		9.2.1.18	The reserved value 'All CRNCCC' shall not be used.	YES	ignore
CHOICE Reporting Object	М			Object for which the Restoration shall be reported.	YES	ignore
>RL				TDD only	_	
>>Radio Link Information		1 <maxno ofRLs></maxno 			EACH	ignore
>>>RL ID	М		9.2.1.53		_	
>RL Set				FDD only	_	
>>RL Set Information		1 <maxno ofRLSets></maxno 			EACH	ignore
>>>RL Set ID	М		9.2.2.39		_	
>CCTrCH				TDD only		
>>RL ID	M		9.2.1.53		_	
>>CCTrCH List		1 <maxno ofCCTrCH s></maxno 			EACH	ignore
>>>CCTrCH ID	М		CCTrCH ID 9.2.3.3		-	

Range Bound	Explanation
maxnoofRLs	Maximum number of RLs for one UE
maxnoofRLSets	Maximum number of RL Sets for one UE
maxnoofCCTrCHs	Maximum number of CCTrCHs for a UE

9.1.60 COMPRESSED MODE COMMAND [FDD]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	М		9.2.1.45		_	
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		_	
Node B Communication Context ID	M		9.2.1.48	The reserved value 'All NBCC' shall not be used.	YES	ignore
Active Pattern Sequence Information	M		9.2.2.A		YES	ignore

9.1.61 ERROR INDICATION

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		_	
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		-	
CRNC Communication Context ID	0		9.2.1.18	The reserved value 'All CRNCCC' shall not be used.	YES	ignore
Node B Communication Context ID	0		9.2.1.48	The reserved value 'All NBCC' shall not be used.	YES	ignore
Cause	0		9.2.1.6		YES	ignore
Criticality Diagnostics	0		9.2.1.17		YES	ignore

9.1.62 PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST [TDD]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		_	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		_	
C-ID	M		9.2.1.9		YES	reject
SFN	0		9.2.1.53A		YES	reject
PDSCH Sets To Add		0 <maxno ofPDSCH Sets></maxno 			GLOBAL	reject
>PDSCH Set ID	M		9.2.3.11		_	
>PDSCH To Add Information		01		Mandatory for 3.84Mcps TDD. Not Applicable to 1.28Mcps TDD.	YES	reject
>>Repetition Period	M		9.2.3.16		_	
>>Repetition Length	M		9.2.3.15		_	
>>TDD Physical Channel Offset	М		9.2.3.20		_	
>>DL Timeslot		1 <maxno< td=""><td></td><td></td><td>-</td><td></td></maxno<>			-	
Information		ofDLts>				
>>>Time Slot	M		9.2.3.23		-	
>>>Midamble Shift And Burst Type	М		9.2.3.7		_	
>>>TFCI Presence	M		9.2.1.57		_	
>>>DL Code Information		1 <maxno ofPDSCHs ></maxno 			_	
>>>PDSCH ID	M		9.2.3.10		_	
>>>TDD	M		9.2.3.19		_	
Channelisation Code						
>PDSCH To Add Information LCR		01		Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD.	YES	reject

. Donatition Daried	M		9.2.3.16			
>>Repetition Period	M		9.2.3.15		_	
>>Repetition Length >>TDD Physical Channel	M		9.2.3.20		_	
Offset	IVI		9.2.3.20			
>>DL Timeslot Information LCR		1 <maxno ofDLtsLCR</maxno 			_	
>>>Time Slot LCR	М		9.2.3.24A		_	
>>>Midamble Shift LCR	М		9.2.3.7A		_	
>>>TFCI Presence	М		9.2.1.57		_	
>>>DL Code		1 <maxno< td=""><td></td><td></td><td>_</td><td></td></maxno<>			_	
Information LCR		ofPDSCHs >				
>>>PDSCH ID	М		9.2.3.10		_	
>>>TDD	M		9.2.3.19a		_	
Channelisation Code LCR						
PDSCH Sets To Modify		0 <maxno< td=""><td></td><td></td><td>GLOBAL</td><td>reject</td></maxno<>			GLOBAL	reject
,		of PDSCHSe ts>				
>PDSCH Set ID	М	102	9.2.3.11		_	
>CHOICE HCR or LCR	М			See note 1	_	
				below		
>>3.84Mcps TDD					_	
>>>PDSCH To Modify		1			YES	reject
Information						
>>>Repetition Period	0		9.2.3.16		_	
>>>Repetition	0		9.2.3.15		_	
Length						
>>>>TDD Physical	0		9.2.3.20		_	
Channel Offset						
>>>DL Timeslot		0 <maxno< td=""><td></td><td></td><td>_</td><td></td></maxno<>			_	
Information		ofDLts>				
>>>>Time Slot	M		9.2.3.23		_	
>>>>Midamble	0		9.2.3.7		_	
Shift And Burst Type						
>>>>TFCI	0		9.2.1.57		_	
Presence						
>>>>DL Code Information		0 <maxno ofPDSCHs ></maxno 			_	
>>>>PDSCH ID	М		9.2.3.10		_	
>>>>TDD	М		9.2.3.19		_	
Channelisation						
Code						
>>1.28Mcps TDD					_	
>>>PDSCH To Modify		1			YES	reject
Information LCR	_					
>>>Repetition Period	0		9.2.3.16		_	
>>>Repetition	0		9.2.3.15		_	
Length			0.0.0.0			
>>>>TDD Physical	0		9.2.3.20		_	
Channel Offset		0				
>>>>DL Timeslot		0 <maxno ofdltslcr<="" td=""><td></td><td></td><td>_</td><td></td></maxno>			_	
Information LCR		> OIDLISLUR	0.0.0.0			
>>>>Time Slot	M		9.2.3.24A		-	
LCR	1	1	1	1	1	

		T		1		
>>>>Midamble	0		9.2.3.7A		_	
Shift LCR						
>>>>TFCI	0		9.2.1.57		_	
Presence						
>>>>DL Code		0 <maxno< td=""><td></td><td></td><td>_</td><td></td></maxno<>			_	
Information LCR		ofPDSCHs				
		>				
>>>>PDSCH ID	M		9.2.3.10		_	
>>>>TDD	M		9.2.3.19a		_	
Channelisation						
Code LCR						
PDSCH Sets To Delete		0 <maxno< td=""><td></td><td></td><td>GLOBAL</td><td>reject</td></maxno<>			GLOBAL	reject
		of				
		PDSCHSe				
		ts>				
>PDSCH Set ID	М		9.2.3.11		_	
PUSCH Sets To Add		0 <maxno< td=""><td></td><td></td><td>GLOBAL</td><td>reject</td></maxno<>			GLOBAL	reject
		of				
	1	PUSCHSe				
, DUCCH Cot ID	M	ts>	9.2.3.13		_	
>PUSCH Set ID	101	01	9.2.3.13	Mandatory for	YES	roinet
>PUSCH To Add		0 1		3.84Mcps TDD.	YES	reject
Information				Not Applicable		
				to 1.28Mcps		
				TDD.		
>>Repetition Period	М		9.2.3.16		_	
>>Repetition Length	М		9.2.3.15		_	
>>TDD Physical Channel	М		9.2.3.20		_	
Offset			0.2.0.20			
>>UL Timeslot		1 <maxno< td=""><td></td><td></td><td>_</td><td></td></maxno<>			_	
		ofULts>			_	
Information	M	0/02:02	0.0.0.00			
>>>Time Slot			9.2.3.23		_	
>>>Midamble Shift And	М		9.2.3.7		_	
Burst Type						
>>>TFCI Presence	M		9.2.1.57		_	
>>>UL Code		1 <maxno< td=""><td></td><td></td><td>_</td><td></td></maxno<>			_	
Information		ofPUSCHs				
		>	0.0040			
>>>PUSCH ID	M		9.2.3.12		_	
>>>TDD	M		9.2.3.19		_	
Channelisation Code						
>PUSCH To Add		01		Mandatory for	YES	reject
Information LCR	1			1.28Mcps TDD.		
	1			Not Applicable		
	1			to 3.84Mcps TDD.		
Donatition Desired	M		9.2.3.16	וטט.	_	
>>Repetition Period	M		9.2.3.16		_	
>>Repetition Length					_	
>>TDD Physical Channel	М		9.2.3.20		_	
Offset						
>>UL Timeslot	1	1 <maxno< td=""><td></td><td></td><td>_</td><td></td></maxno<>			_	
Information LCR	1	ofULtsLCR				
Time Clat I OD	M	>	9.2.3.24A		_	
>>>Time Slot LCR					_	
>>>Midamble Shift LCR	M		9.2.3.7A		_	
>>>TFCI Presence	М		9.2.1.57		_	
>>>UL Code	1	1 <maxno< td=""><td></td><td></td><td>_</td><td></td></maxno<>			_	
Information LCR		ofPUSCHs				
>>>>PUSCH ID	M	>	9.2.3.12			
>>>FU3UN IU	IVI	l	J.L.J. 12	1	_	

>>>TDD Channelisation Code LCR	М		9.2.3.19a		-	
PUSCH Sets To Modify		0 <maxno of</maxno 			GLOBAL	reject
		PUSCHSe ts>				
>PUSCH Set ID	М		9.2.3.13		_	
>CHOICE HCR or LCR	М			See note 1 below	_	
>>3.84Mcps TDD					_	
>>>PUSCH To Modify		1			YES	reject
Information			9.2.3.16			
>>>Repetition Period	0		9.2.3.16		_	
>>>Repetition			9.2.3.13		_	
Length >>>>TDD Physical	0		9.2.3.20		_	
Channel Offset			0.2.0.20			
>>>UL Timeslot		0 <maxno< td=""><td></td><td></td><td>_</td><td></td></maxno<>			_	
Information		ofULts>				
>>>>Time Slot	М		9.2.3.23			
>>>>Midamble Shift And Burst Type	0		9.2.3.7		_	
>>>>TFCI	0		9.2.1.57		_	
Presence						
>>>>UL Code		0 <maxno< td=""><td></td><td></td><td>_</td><td></td></maxno<>			_	
Information		ofPUSCHs				
>>>>PUSCH ID	M	>	9.2.3.12		_	
>>>>TDD	M		9.2.3.19		_	
Channelisation						
Code						
>>1.28Mcps TDD		1			YES	reject
>>>PUSCH To Modify Information LCR		'			120	reject
>>>Repetition Period	0		9.2.3.16		_	
>>>Repetition	0		9.2.3.15		_	
Length						
>>>>TDD Physical	0		9.2.3.20		_	
Channel Offset				A 1: 11 (
>>>>UL Timeslot Information LCR		0 <maxno ofULtsLCR</maxno 		Applicable to 1.28Mcps TDD only	_	
>>>>Time Slot LCR	М		9.2.3.24A		-	
>>>>Midamble Shift LCR	0		9.2.3.7A		_	
>>>>TFCI Presence	0		9.2.1.57		_	
>>>>UL Code		0 <maxno< td=""><td></td><td>1</td><td>_</td><td></td></maxno<>		1	_	
Information LCR		ofPUSCHs >				
>>>>PUSCH ID	M		9.2.3.12		_	
>>>>>FU3CITID		1	9.2.3.19a		_	
>>>>TDD Channelisation	M		0.2.000			
>>>>TDD Channelisation Code LCR	M		0.2.000		21.05	
>>>>TDD Channelisation	M	0 <maxno ofPUSCH</maxno 			GLOBAL	reject
>>>>TDD Channelisation Code LCR	M		9.2.3.13		GLOBAL _	reject

Note 1: This information element is a simplified representation of the ASN.1. The choice is in reality performed through the use of ProtocolIE-Single-Container within the ASN.1.

Range Bound	Explanation
maxnoofPDSCHSets	Maximum number of PDSCH Sets in a cell
maxnoofPDSCHs	Maximum number of PDSCHs in a cell
maxnoofPUSCHSets	Maximum number of PUSCH Sets in a cell
maxnoofPUSCHs	Maximum number of PUSCHs in a cell
maxnoofDLts	Maximum number of Downlink time slots in a cell for 3.84Mcps TDD
maxnoofDLtsLCR	Maximum number of Downlink time slots in a cell for 1.28Mcps TDD
maxnoofULts	Maximum number of Uplink time slots in a cell for 3.84Mcps TDD
maxnoofULtsLCR	Maximum number of Uplink time slots in a cell for 1.28Mcps TDD

9.1.63 PHYSICAL SHARED CHANNEL RECONFIGURATION RESPONSE [TDD]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		_	
Message Type	М		9.2.1.46		YES	reject
Transaction ID	М		9.2.1.62		_	
Criticality Diagnostics	0		9.2.1.17		YES	ignore

9.1.64 PHYSICAL SHARED CHANNEL RECONFIGURATION FAILURE [TDD]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	М		9.2.1.45		_	
Message Type	М		9.2.1.46		YES	reject
Transaction ID	М		9.2.1.62		_	
CHOICE Cause Level	М				YES	ignore
>General					-	
>>Cause	М		9.2.1.6		-	
>Set Specific					-	
>>Unsuccessful DL Shared Channel Set		0 <maxno ofPDSCH Sets></maxno 			EACH	ignore
>>>PDSCH Set ID	М		9.2.3.13		-	
>>>Cause	М		9.2.1.6		_	
>>Unsuccessful UL Shared Channel Set		0 <maxno ofPUSCH Sets></maxno 			EACH	ignore
>>>PUSCH Set ID	М		9.2.3.13			
>>>Cause	М		9.2.1.6		_	
Criticality Diagnostics	0		9.2.1.17		YES	ignore

Range Bound	Explanation
maxnoofPDSCHSets	Maximum number of PDSCH Sets in a cell
maxnoofPUSCHSets	Maximum number of PUSCH Sets in a cell

9.1.65 RESET REQUEST

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		_	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		_	
CHOICE Reset Indicator	M				YES	ignore
>Communication Context					_	
>>Communication Context Information		1 <maxco mmunicati onContext</maxco 			EACH	reject
>>>CHOICE Communication Context Type	M				_	
>>>>CRNC Communication Context					_	
>>>>CRNC Communication Context ID	М		9.2.1.18		-	
>>>Node B Communication Context					_	
>>>>Node B Communication Context ID	М		9.2.1.48		-	
>Communication Control Port					-	
>>Communication Control Port Information		1 <maxc CPinNode B></maxc 			EACH	reject
>>>Communication Control Port ID	М		9.2.1.15		_	
>Node B			NULL		_	

Range Bound	Explanation
maxCommunicationContext	Maximum number of Communication Contexts that can exist in the Node B
maxCCPinNodeB	Maximum number of Communication Control Ports that can exist in the Node B

9.1.66 RESET RESPONSE

IE/Group Name	Presence	Range	IE Type and	Semantics Description	Criticality	Assigned Criticality
			Reference			,
Message Discriminator	M		9.2.1.45		_	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		_	
Criticality Diagnostics	0		9.2.1.17		YES	ignore

9.1.67 DL POWER TIMESLOT CONTROL REQUEST [TDD]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		_	
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		_	
Node B Communication Context ID	M		9.2.1.48	The reserved value 'All NBCC' shall not be used.	YES	ignore
DL Time Slot ISCP Info	0		9.2.3.4F	Mandatory for 3.84Mcps TDD. Not Applicable to 1.28Mcps TDD.	YES	ignore
DL Time Slot ISCP Info LCR	0		9.2.3.4P	Mandatory for 1.28Mcps TDD. Not Applicable to 3.84Mcps TDD.	YES	ignore

9.1.68 RADIO LINK PREEMPTION REQUIRED INDICATION

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		_	
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		_	
CRNC Communication Context ID	М		9.2.1.18		YES	ignore
RL Information		0 <maxno ofRLs></maxno 			EACH	ignore
>RL ID	M		9.2.1.53		_	

Range Bound	Explanation
maxnoofRLs	Maximum number of radio links for one UE

9.1.69 INFORMATION EXCHANGE INITIATION REQUEST

IE/Group Name	Presence	Range	IE Type and	Semantics Description	Criticality	Assigned Criticality
			Reference	-		
Message Discriminator	M		9.2.1.45		_	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		_	
Information Exchange ID	M		9.2.1.36C		YES	reject
CHOICE Information Exchange Object Type	М				YES	reject
>Cell					_	
>>C-ID	M		9.2.1.9		_	
Information Type	M		9.2.1.36D		YES	reject
Information Report Characteristics	М		9.2.1.36B		YES	reject

9.1.70 INFORMATION EXCHANGE INITIATION RESPONSE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		_	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		_	-
Information Exchange ID	M		9.2.1.36C		YES	ignore
CHOICE Information Exchange Object Type	0				YES	ignore
>Cell					_	
>>Requested Data Value	M		9.2.1.51A		-	
Criticality Diagnostics	0		9.2.1.17		YES	ignore

9.1.71 INFORMATION EXCHANGE INITIATION FAILURE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		_	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		_	
Information Exchange ID	M		9.2.1.36C		YES	ignore
Cause	M		9.2.1.6		YES	ignore
Criticality Diagnostics	0		9.2.1.17		YES	ignore

9.1.72 INFORMATION REPORT

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	М		9.2.1.45		_	
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		_	
Information Exchange ID	M		9.2.1.36C		YES	ignore
CHOICE Information Exchange Object Type	М				YES	ignore
>Cell					_	
>>Requested Data Value Information	М		9.2.1.51B		_	

9.1.73 INFORMATION EXCHANGE TERMINATION REQUEST

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		-	
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		-	
Information Exchange ID	M		9.2.1.36C		YES	ignore

9.1.74 INFORMATION EXCHANGE FAILURE INDICATION

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		_	
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		_	
Information Exchange ID	M		9.2.1.36C		YES	ignore
Cause	M		9.2.1.6		YES	ignore

9.1.75 CELL SYNCHRONISATION INITIATION REQUEST [3.84Mcps TDD]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		_	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		_	
C-ID	M		9.2.1.9		YES	reject
Cell Sync Burst Repetition Period	M		9.2.3.4J		YES	reject
Time Slot Information		115			GLOBAL	reject
>Time Slot	М		9.2.3.23		_	
Cell Sync Burst Transmission Initiation Information		01			GLOBAL	reject
>CSB Transmission ID	M		9.2.3.4N		_	
>SFN	M		9.2.1.53A		_	
>Cell Sync Burst Code	M		9.2.3.4G		_	
>Cell Sync Burst Code Shift	М		9.2.3.4H		_	
>Initial DL Transmission Power	M		DL Power 9.2.1.21		_	
Cell Sync Burst Measurement Initiation Information		01			GLOBAL	reject
>CSB Measurement ID	M		9.2.3.41		_	
>Cell Sync Burst Code	М		9.2.3.4G		_	
>Cell Sync Burst Code Shift	M		9.2.3.4H		_	
>Synchronisation Report Type	M		9.2.3.18 ^E		_	
>SFN	0		9.2.1.53A		_	
>Synchronisation Report Characteristics	М		9.2.3.18D		_	

9.1.76 CELL SYNCHRONISATION INITIATION RESPONSE [3.84Mcps TDD]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		_	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		_	
Criticality Diagnostics	0		9.2.1.17		YES	ignore

9.1.77 CELL SYNCHRONISATION INITIATION FAILURE [3.84Mcps TDD]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		_	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		_	
Cause	M		9.2.1.6		YES	ignore
Criticality Diagnostics	0		9.2.1.17		YES	ignore

9.1.78 CELL SYNCHRONISATION RECONFIGURATION REQUEST [3.84Mcps TDD]

IE/Group Name	Presence	Range	IE Type and	Semantics Description	Criticality	Assigned Criticality
			Reference	Description		Officiality
Message Discriminator	М		9.2.1.45		_	
Message Type	М		9.2.1.46		YES	reject
Transaction ID	М		9.2.1.62		_	-,
C-ID	M		9.2.1.9		YES	reject
Time Slot	М		9.2.3.23		YES	reject
Number Of Cycles Per SFN	М		9.2.3.7B		YES	reject
Period						.,
Number Of Repetitions Per	M		9.2.3.7C		YES	reject
Cycle Period						
Cell Sync Burst		0 <maxno< td=""><td></td><td></td><td>GLOBAL</td><td>reject</td></maxno<>			GLOBAL	reject
Transmission		ofCellSync				-
Reconfiguration		Bursts>				
Information						
>CSB Transmission ID	M		9.2.3.4N		_	
>Sync Frame Number To	М		Sync Frame		_	
Transmit			Number			
Transmit			9.2.3.18C			
>Cell Sync Burst Code	0		9.2.3.4G		_	
>Cell Sync Burst Code Shift	0		9.2.3.4H		_	
>DL Transmission Power	0		DL Power 9.2.1.21		_	
Cell Sync Burst Measurement Reconfiguration Information		01			YES	reject
>Cell Sync Burst Measurement Information		1 <maxno ofCellSync Bursts></maxno 			GLOBAL	reject
>>Sync Frame Number To Receive	М	24.00	Sync Frame Number 9.2.3.18C		-	
>>Cell Sync Burst Information		1 <maxno ofreceptio nsperSync Frame></maxno 			-	
>>>CSB Measurement ID	М		9.2.3.41		_	
>>>Cell Sync Burst Code	М		9.2.3.4G		_	
>>>Cell Sync Burst Code shift	М		9.2.3.4H		_	
>Synchronisation Report Type	0		9.2.3.18E		YES	reject
>Synchronisation Report Characteristics	0		9.2.3.18D		YES	reject

Range Bound	Explanation
maxnoofCellSyncBursts	Maximum number of cell sync bursts per cycle
maxnoofreceptionsperSyncFrame	Maximum number of cell sync burst receptions per Sync Frame

9.1.79 CELL SYNCHRONISATION RECONFIGURATION RESPONSE [3.84Mcps TDD]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		_	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		_	
Criticality Diagnostics	0		9.2.1.17		YES	ignore

9.1.80 CELL SYNCHRONISATION RECONFIGURATION FAILURE [3.84Mcps TDD]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		_	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		_	
Cause	M		9.2.1.6		YES	ignore
Criticality Diagnostics	0		9.2.1.17		YES	ignore

9.1.81 CELL SYNCHRONISATION REPORT [3.84Mcps TDD]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		_	
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		_	
Cell Synchronisation Information		1 <maxce IlinNodeB></maxce 			EACH	ignore
>C-ID	М		9.2.1.9		YES	ignore
>CHOICE Synchronisation Report Type					YES	ignore
>>Initial Phase or Steady- State Phase					-	
>>>Cell Sync Burst Measured Information		1 <maxno ofCellSync Bursts></maxno 			_	
>>>SFN	M		9.2.1.53A		_	
>>>>Cell Sync Burst Information		1 <maxno ofreceptio nsperSync Frame></maxno 			_	
>>>>CHOICE Cell Sync Burst Availability Indicator	M				_	
>>>>Cell Sync Burst Available					_	
>>>>>Cell Sync Burst Timing	M		9.2.3.4L		_	
>>>>>Cell Sync Burst SIR	М		9.2.3.4K		_	
>>>>Cell Sync Burst Not Available			NULL		_	
>>Late-Entrant Cell			NULL		_	
>>Frequency Acquisition			NULL		_	

Range Bound	Explanation			
maxCellinNodeB	Maximum number of Cells in a Node B			
maxnoofCellSyncBursts	Maximum number of cell synchronisation bursts per cycle			
maxnoofreceptionsperSyncFrame	Maximum number of cell synchronisation burst receptions per Sync			
	Frame			

9.1.82 CELL SYNCHRONISATION TERMINATION REQUEST [3.84Mcps TDD]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		_	
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		_	
C-ID	M		9.2.1.9		YES	ignore
CSB Transmission ID	0		9.2.3.4N		YES	ignore
CSB Measurement ID	0	•	9.2.3.41		YES	ignore

9.1.83 CELL SYNCHRONISATION FAILURE INDICATION [3.84Mcps TDD]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		_	
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	М		9.2.1.62		_	
C-ID	М		9.2.1.9		YES	ignore
CSB Transmission ID	0		9.2.3.4N		YES	ignore
CSB Measurement ID	0		9.2.3.41		YES	ignore
Cause	М		9.2.1.6		YES	ignore

9.1.84 CELL SYNCHRONISATION ADJUSTMENT REQUEST [3.84Mcps TDD]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		_	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	М		9.2.1.62		_	
Cell Adjustment Information		1 <maxce IlinNodeB></maxce 			EACH	ignore
>C-ID	М		9.2.1.9		_	
>Frame Adjustment Value	0		9.2.3.5C		_	
>Timing Adjustment Value	0		9.2.3.22a		_	
>DL Transmission Power	0		9.2.1.21		_	
>SFN	0		9.2.1.53A		_	

Range Bound	Explanation			
maxCellinNodeB	Maximum number of Cells in a Node B			

9.1.85 CELL SYNCHRONISATION ADJUSTMENT RESPONSE [3.84Mcps TDD]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		_	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		_	
Criticality Diagnostics	0		9.2.1.17		YES	ignore

9.1.86 CELL SYNCHRONISATION ADJUSTMENT FAILURE [3.84Mcps TDD]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		_	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		_	
CHOICE Cause Level	M				YES	ignore
>General					_	
>>Cause	M		9.2.1.6		_	
>Cell Specific					_	
>>Unsuccessful Cell Information Response		1 <maxce IlinNodeB></maxce 			EACH	ignore
>>>C-ID	M		9.2.1.9		_	
>>>Cause	M		9.2.1.6		_	
Criticality Diagnostics	0		9.2.1.17		YES	ignore

Range Bound	Explanation			
maxCellinNodeB	Maximum number of Cells in a Node B			

9.2 Information Element Functional Definition and Contents

9.2.0 General

Subclause 9.2 presents the NBAP IE definitions in tabular format. The corresponding ASN.1 definition is presented in Subclause 9.3. In case there is a contradiction between the tabular format in Subclause 9.2 and the ASN.1 definition, the ASN.1 shall take precedence, except for the definition of conditions for the presence of conditional elements, where the tabular format shall take precedence.

When specifying information elements which are to be represented by bitstrings, if not otherwise specifically stated in the semantics description of the concerned IE or elsewhere, the following principle applies with regards to the ordering of bits:

- The first bit (leftmost bit) contains the most significant bit (MSB);
- The last bit (rightmost bit) contains the least significant bit (LSB);
- When importing bitstrings from other specifications, the first bit of the bitstring contains the first bit of the concerned information;

9.2.1 Common parameters

9.2.1.1 Add/Delete Indicator

The add/delete indicator shall notify the CRNC whether the associated resource has been added to or removed from the Node B.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Add/Delete Indicator			ENUMERATED (
			Add,	
			Delete)	

9.2.1.1A Allocation/Retention Priority

This parameter indicates the priority level in the allocation and retention of Node B internal resources. See Annex A.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Priority Level	М		INTEGER (015)	This IE indicates the priority of the request. Usage: Value "0" means "Spare"; It shall be treated as a logical error if received. Values between "1" and "14" are ordered in decreasing order of priority, "1" being the highest and "14" the lowest. Value "15" means "No Priority".
Pre-emption Capability	M		ENUMERATED (shall not trigger pre- emption, may trigger pre- emption)	
Pre-emption Vulnerability	M		ENUMERATED (not pre-emtable, pre-emtable)	

9.2.1.2 Availability Status

The availability status is used to indicate more detailed information of the availability of the resource. In accordance with ref. [6], following values are defined. If the value of this IE is "empty", this implies that none of the status conditions described in ref. [6] are present.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Availability Status			ENUMERATED (empty, in test, failed, power off, off line, off duty, dependency, degraded, not installed, log full,)	

9.2.1.3 BCCH Modification Time

Indicates the time after which the new system information shall be applied on BCCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
BCCH Modification Time			INTEGER (0511)	All SFN values in which MIB may be mapped are allowed. The tabular description is presented in [18].

9.2.1.4 Binding ID

The Binding ID is the identifier of a user data stream. It is allocated at the Node B and it is unique for each transport bearer under establishment to/from the Node B.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Binding ID			OCTET STRING (14,)	

9.2.1.5 Blocking Priority Indicator

The Blocking priority indicator shall indicate the immediacy with which a resource should be blocked from use. The following priority classes shall be supported in the Blocking priority indicator.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Blocking Priority Indicator			ENUMERATED (High, Normal, Low,)	"High" priority: Block resource immediately. "Normal" priority: Block resource when idle or upon timer expiry. "Low" priority: Block resource when idle.

9.2.1.5A Burst Mode Parameters

The Burst Mode Parameters IE provides information to be applied for IPDL burst mode.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Burst Start	M		INTEGER (015)	See [10] and [21]
Burst Length	M		INTEGER (1025)	See [10] and [21]
Burst Freq	M		INTEGER (116)	See [10] and [21]

9.2.1.6 Cause

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE Cause Group				•
>Radio Network Layer				
>>Radio Network Layer	M		ENUMERATED (
Cause			unknown C-ID,	
			Cell not available,	
			Power level not supported,	
			DL radio resources not	
			available,	
			UL radio resources not available.	
			RL Already	
			Activated/allocated,	
			Node B Resources	
			Unavailable,	
			Measurement not supported	
			for the object,	
			Combining Resources not	
			available,	
			Requested configuration not	
			supported,	
			Synchronization failure,	
			Priority transport channel established,	
			SIB Origination in Node B not	
			Supported,	
			Requested Tx Diversity Mode	
			not supported,	
			Unspecified,	
			BCCH scheduling error,	
			Measurement Temporarily not	
			Available,	
			Invalid CM Setting,	
			Reconfiguration CFN not	
			elapsed, Number of DL codes not	
			supported,	
			S-CPICH not supported,	
			Combining not supported,	
			UL SF not supported,	
			DL SF not supported,	
			Common Transport Channel	
			Type not supported,	
			Dedicated Transport Channel	
			Type not supported,	
			Downlink Shared Channel Type not supported,	
			Uplink Shared Channel Type	
			not supported,	
			CM not supported,	
			Tx diversity no longer	
			supported,	
			Unknown Local Cell ID,	
			,	
			Number of UL codes not	
			supported,	
			Information temporarily not	
			available, Information Provision not	
			supported for the object,	
			Cell Synchronisation not	
			supported,	
			Cell Synchronisation	
			Adjustment not supported,	
			DPC Mode Change not	
			Supported,	

>Transport Layer >>Transport Layer Cause	M	IPDL already activated, IPDL not supported, IPDL parameters not available, Frequency Acquisition not supported) ENUMERATED (Transport resource unavailable, Unspecified,)	
>Protocol		,	
>>Protocol Cause		ENUMERATED (Transfer syntax error, Abstract syntax error (reject), Abstract syntax error (ignore and notify), Message not compatible with receiver state, Semantic error, Unspecified, Abstract syntax error (falsely constructed message),)	
>Misc			
>>Miscellaneous Cause	M	ENUMERATED (Control processing overload Hardware failure, O&M intervention, Not enough user plane processing resources, Unspecified,)	

The meaning of the different cause values is described in the following table. In general, "not supported" cause values indicate that the concerned capability is missing. On the other hand, "not available" cause values indicate that the concerned capability is present, but insufficient resources were available to perform the requested action.

Radio Network Layer cause	Meaning
BCCH scheduling error	The Node B has detected an illegal BCCH schedule update (see
	subclause 8.2.16.3).
Cell not Available	The concerned cell or local cell is not available.
Cell Synchronisation Adjustment not	The concerned cell(s) do not support Cell Synchronisation Adjustment.
supported	
Cell Synchronisation not supported	The concerned cell(s) do not support Cell Synchronisation.
Combining not supported	The Node B does not support RL combining for the concerned cells.
Combining Resources Not Available	The value of the received <i>Diversity Control Field</i> IE was set to "Must",
	but the Node B cannot perform the requested combining.
CM not supported	The concerned cell(s) do not support Compressed Mode.
Common Transport Channel Type not	The concerned cell(s) do not support the RACH and/or FACH and/or
supported	CPCH Common Transport Channel Type.
Dedicated Transport Channel Type not	The concerned cell(s) do not support the Dedicated Transport Channel
supported	Type.
DL Radio Resources not Available	The Node B does not have sufficient DL radio resources available.
DL SF not supported	The concerned cell(s) do not support the requested DL SF.
DL Shared Channel Type not	The concerned cell(s) do not support the Downlink Shared Channel
supported	Type.
DPC Mode Change not Supported	The concerned cells do not support DPC mode changes.
Frequency Acquisition not supported	The concerned cell(s) do not support Frequency Acquisition.
Information Provision not supported	The requested information provision is not supported for the concerned
for the object	object types.
Information temporarily not available	The requested information can temporarily not be provided.
Invalid CM Settings	The concerned cell(s) consider the requested Compressed Mode settings

	invalid.
IPDL already activated	The concerned cell(s) have already active IPDL ongoing.
IPDL not supported	The concerned cell(s) do not support the IPDL.
IPDL parameters not available	The concerned cell(s) do not have IPDL parameters defining IPDL to be
If DL parameters not available	applied.
Measurement not Supported For The	At least one of the concerned cell(s) does not support the requested
Object	measurement on the concerned object type.
Measurement Temporarily not	The Node B can temporarily not provide the requested measurement
Available	value.
Node B resources unavailable	The Node B does not have sufficient resources available.
Number of DL codes not supported	The concerned cell(s) do not support the requested number of DL codes.
Number of UL codes not supported	The concerned cell(s) do not support the requested number of UL codes.
Power Level not Supported	A DL power level was requested which the concerned cell(s) do not
To wer ze ter not supported	support.
Priority transport channel established	The CRNC cannot perform the requested blocking since a transport
	channel with a high priority is present.
Reconfiguration CFN not elapsed	The requested action cannot be performed due to that a RADIO LINK
	RECONFIGURATION COMMIT message was received previously,
	but the concerned CFN has not yet elapsed.
Requested Configuration not	The concerned cell(s) do not support the requested configuration i.e.
Supported	power levels, Transport Formats, physical channel parameters.
Requested Tx Diversity mode not	The concerned cell(s) do not support the requested transmit diversity
supported	mode.
RL already Activated/ allocated	The Node B has already allocated an RL with the requested RL-id for
	this UE context.
S-CPICH not supported	The concerned cell(s) do not support S-CPICH.
SIB Orgination in Node B not	The Node B does not support the origination of the requested SIB for
Supported	the concerned cell.
Synchronisation Failure	Loss of UL Uu synchronisation.
Tx diversity no longer supported	Tx diversity can no longer be supported in the concerned cell.
UL Radio Resources not Available	The Node B does not have sufficient UL radio resources available.
UL SF not supported	The concerned cell(s) do not support the requested minimum UL SF.
UL Shared Channel Type not	The concerned cell(s) do not support the Uplink Shared Channel Type.
supported	
Unknown C-ID	The Node B is not aware of a cell with the provided C-ID.
Unknown Local Cell ID	The Node B is not aware of a local cell with the provided Local Cell ID.
Unspecified	Sent when none of the above cause values applies but still the cause is
	Radio Network layer related.

Transport Network Layer cause	Meaning
Transport resource unavailable	The required transport resources are not available.
Unspecified	Sent when none of the above cause values applies but still the cause is
	Transport Network layer related.

Protocol cause	Meaning
Abstract Syntax Error (Reject)	The received message included an abstract syntax error and the
	concerned criticality indicated "reject" (see subclause 10.3).
Abstract Syntax Error (Ignore and	The received message included an abstract syntax error and the
Notify)	concerned criticality indicated "ignore and notify" (see subclause 10.3).
Abstract syntax error (falsely	The received message contained IEs in wrong order or with too many
constructed message)	occurrences (see subclause 10.3).
Message not Compatible with	The received message was not compatible with the receiver state (see
Receiver State	subclause 10.4).
Semantic Error	The received message included a semantic error (see subclause 10.4).
Transfer Syntax Error	The received message included a transfer syntax error (see subclause
	10.2).

Unspecified	Sent when none of the above cause values applies but still the cause is
	protocol related.

Miscellaneous cause	Meaning
Control Processing Overload	Node B control processing overload.
Hardware Failure	Node B hardware failure.
Not enough User Plane Processing	Node B has insufficient user plane processing resources available.
Resources	
O&M Intervention	Operation and Maintenance intervention related to Node B equipment.
Unspecified	Sent when none of the above cause values applies and the cause is not
	related to any of the categories Radio Network Layer, Transport
	Network Layer or Protocol.

9.2.1.7 CFN

Connection Frame Number for the radio connection, see ref. [17].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CFN			INTEGER (0255)	

9.2.1.8 CFN Offset

Void.

9.2.1.9 C-ID

The C-ID (Cell identifier) is the identifier of a cell in one RNC.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
C-ID			INTEGER (065535)	

9.2.1.9A Common Channels Capacity Consumption Law

The capacity consumption law indicates to the CRNC how the Capacity Credit is consumed by NBAP set of procedures, depending on the allocated Spreading Factor. [FDD - For the PRACH, the reference spreading factor shall be the minimum possible spreading factor amongst the ones defined by the *RACH Slot Format* IE(s) in the Common Transport Channel Setup or Reconfiguration procedures. For the PCPCH, the reference spreading factor shall be the minimum spreading factor computed from the TFCS as described in [8].]

This capacity consumption law indicates the consumption law to be used with the following procedures:

- Common Transport Channel Setup
- Common Transport Channel Deletion
- [FDD Common Transport Channel Reconfiguration]

For the Common Transport Channel Setup procedure, the cost given in the consumption law shall be debited from the Capacity Credit, whereas it shall be credited to the Capacity Credit for the Common Transport Channel Deletion one.

[FDD - For the Common Transport Channel Reconfiguration procedure, the difference of the consumption cost for the new spreading factor and the consumption cost for the old spreading factor shall be debited from the Capacity Credit (or credited if this difference is negative).]

If the modelling of the internal resource capability of the Node B is modelled independently for the Uplink and Downlink, the "DL cost" shall be applied to the "DL or Global Capacity Credit" and the "UL Cost" shall be applied to the "UL Capacity Credit". If it is modelled as shared resources, both the "DL cost" and the "UL cost" shall be applied to the "DL or Global Capacity Credit".

[FDD - When the Common Transport Channel Setup, Deletion or Reconfiguration procedures are used, the Capacity Credit shall be updated considering all physical channels related in these procedures (S-CCPCH, PICH, PRACH, AICH, PCPCH, CD/CA-ICH and AP-AICH), i.e. one cost shall be credited to or debited from the Capacity Credit per physical channel.]

[FDD - The costs given in the consumption law are the costs per channelization code. When multiple channelization codes are used by a physical channel, the cost credited to or debited from the Capacity Credit for this physical channel shall be taken as N times the cost given in the consumption law, where N is the number of channelization codes.]

[TDD - When the Common Transport Channel Setup or Deletion procedures are used, the Capacity Credit shall be updated considering all physical channels related in these procedures (S-CCPCH, PICH, PRACH), i.e. one cost shall be credited to or debited from the Capacity Credit per physical channel.]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
SF Allocation Law		1 <maxno ofSFs></maxno 		[FDD - For each SF, cost of its allocation: the first instance corresponds to SF = 4, the second to SF = 8, the third to SF = 16 and so on.] [TDD - For each SF, cost of its allocation: the first instance corresponds to SF = 1, the second to SF = 2, the third to SF = 4 and so on.]
>DL cost	М		INTEGER (065535)	-
>UL cost	М		INTEGER (065535)	

Range Bound	Explanation
maxnoofSFs	Maximum number of Spreading Factors

9.2.1.9B Common Measurement Accuracy

The Common Measurement Accuracy IE indicates the accuracy of the common measurement.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE Common				
Measurement Accuracy				
>T _{UTRAN-GPS} Measurement Accuracy Class				
>>T _{UTRAN-GPS} Measurement Accuracy Class	M		T _{UTRAN-GPS} Accuracy Class 9.2.1.64C	

9.2.1.10 Common Measurement Object Type

Void.

9.2.1.11 Common Measurement Type

The Common Measurement Type identifies which measurement that shall be performed.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Common Measurement Type			ENUMERATED (Received Total Wide Band Power, Transmitted Carrier Power, Acknowledged PRACH Preambles, UL Timeslot ISCP, Acknowledged PCPCH Access Preambles, Detected PCPCH Access Preambles,, UTRAN GPS Timing of Cell Frames forUE Positioning, SFN-SFN Observed Time Difference)	"UL Timeslot ISCP" is used by TDD only, "Acknowledged PRACH Preambles", "Acknowledged PCPCH Access Preambles", "Detected PCPCH Access Preambles" are used by FDD only

9.2.1.12 Common Measurement Value

The Common Measurement Value shall be the most recent value for this measurement, for which the reporting criteria were met.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
CHOICE Common				•	_	
Measurement Value						
>Transmitted Carrier Power					_	
>>Transmitted Carrier Power Value	M		INTEGER (0100)	According to mapping in [22] and [23]	_	
>Received Total Wide Band Power					-	
>>Received Total Wide Band Power Value	М		INTEGER (0621)	According to mapping in [22] and [23]	-	
>Acknowledged PRACH Preambles				FDD Only	-	
>>Acknowledged PRACH Preamble Value	M		INTEGER (0240,)	According to mapping in [22]	_	
>UL Timeslot ISCP				TDD Only	_	
>>UL Timeslot ISCP	М		INTEGER (0127)	According to mapping in [23]	_	
>Acknowledged PCPCH Access Preambles				FDD Only	-	
>>Acknowledged PCPCH Access Preambles	М		INTEGER (015,)	According to mapping in [22]	_	
>Detected PCPCH Access Preambles				FDD Only	_	
>>Detected PCPCH Access Preambles	М		INTEGER (0240,)	According to mapping in [22]	-	
>Additional Common Measurement Values					_	
>>UTRAN GPS Timing of Cell Frames for UE Positioning					-	
>>>T _{UTRAN-GPS} Measurement Value Information	М		9.2.1.64A		YES	ignore
>>SFN-SFN Observed Time Difference					_	
>>>SFN-SFN Measurement Value Information	M		9.2.1.53E		YES	ignore

9.2.1.12A Common Measurement Value Information

The *Common Measurement Value Information* IE provides information both on whether or not the Common Measurement Value is provided in the message or not and if provided also the Common Measurement Value itself.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE Measurement Availability Indicator	M			
>Measurement Available				
>>Common Measurement Value	M		9.2.1.12	
>Measurement Not Available			NULL	

9.2.1.13 Common Physical Channel ID

Common Physical Channel ID is the unique identifier for one common physical channel within a cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Common Physical Channel ID			INTEGER (0255)	

9.2.1.13A Common Physical Channel Status Information

IE/Group Name	Presence	Range	IE Type and	Semantics Description
			Reference	
Common Physical Channel ID	М		9.2.1.13	
Resource Operational State	М		9.2.1.52	
Availability Status	М		9.2.1.2	

9.2.1.14 Common Transport Channel ID

Common Transport Channel ID is the unique identifier for one common transport channel within a cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Common Transport Channel ID			INTEGER (0255)	

9.2.1.14A Common Transport Channel Information Response

The Common Transport Channel Information Response IE provides information for Common Transport Channels that have been established or modified.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Common Transport Channel ID	М		9.2.1.14	
Binding ID	0		9.2.1.4	
Transport Layer Address	0		9.2.1.63	

9.2.1.14B Common Transport Channel Status Information

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Common Transport Channel ID	М		9.2.1.14	
Resource Operational State	М		9.2.1.52	
Availability Status	М		9.2.1.2	

9.2.1.15 Communication Control Port ID

A Communication Control Port corresponds to one signalling bearer between the CRNC and the Node B for the control of Node B Communication Contexts. The Node B may have multiple Communication Control Ports (one per Traffic Termination Point). The Communication Control Port is selected at creation of the Node B Communication Context. The Communication Control Port ID is the identifier of the Communication Control Port.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Communication Control Port ID			INTEGER (065535)	

9.2.1.16 Configuration Generation ID

The Configuration Generation ID describes the generation of the configuration of logical resources in a cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Configuration Generation ID			INTEGER (0255)	Value "0" means "No configuration". At possible wraparound of the ID counter in CRNC the value "0" shall not be used.

9.2.1.17 Criticality Diagnostics

The *Criticality Diagnostics* IE is sent by a Node B or the CRNC when parts of a received message have not been comprehended or are missing, or if the message contained logical errors. When applicable, it contains information about which IEs that were not comprehended or were missing.

For further details on how to use the *Criticality Diagnostics* IE, see Annex C.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Procedure ID		01		Procedure ID is to be used if Criticality Diagnostics is part of Error Indication procedure, and not within the response message of the same procedure that caused the error	-	
>Procedure Code	М		INTEGER (0255)		_	
>Ddmode	М		ENUMERATED (TDD, FDD, Common,)	"Common" = common to FDD and TDD.	-	
Triggering Message	0		ENUMERATED (initiating message, successful outcome, unsuccessful outcome, outcome, outcome)	The Triggering Message is used only if the Criticality Diagnostics is part of Error Indication.	-	
Procedure Criticality	0		ENUMERATED (reject, ignore, notify)	This Procedure Criticality is used for reporting the Criticality of the Triggering message (Procedure).	-	
Transaction ID	0		9.2.1.62		_	
Information Element Criticality Diagnostics		0 <max nooferro rs></max 			_	
>IE Criticality	M		ENUMERATED (reject, ignore, notify)	The IE Criticality is used for reporting the criticality of the triggering IE. The value "ignore" shall never be used.	_	
>IE ID	М		INTEGER (065535)	The IE ID of the not understood or missing IE	_	
>Repetition Number	0		INTEGER (0255)	The Repetition Number IE gives: • for a not understood IE: The number of occurrences of the reported IE up to and including the not understood occurrence • for a missing IE: The number of occurrences up to but not including the missing occurrence. Note: All the counted occurrences of the reported IE must have the same topdown hierachical message structure of IEs with assigned criticality above them.		

>Message Structure	0	9.2.1.45A	The Message Structure IE describes the structure where the not understood or missing IE was detected. This IE is included if the not understood IE is not the top level of the message.	YES	ignore
>Type Of Error	M	ENUMERATED (not understood, missing,)		YES	ignore

Range Bound	Explanation
maxnooferrors	Maximum number of IE errors allowed to be reported with a single
	message.

9.2.1.18 CRNC Communication Context ID

The CRNC Communication Context ID is the identifier of the Communication Context in the CRNC.

IE/Group Name	Presence	Range	IE Type and	Semantics Description
			Reference	
CRNC Communication Context			INTEGER (02^20 -	"2^20-1" is a reserved value
ID			1)	indicating all the CRNC
				Communication Contexts that
				can be reached by the
				Communication Control Port
				(All CRNCCC).

9.2.1.18A CTFC

The CTFC is an integer number calculated in accordance with [18], subclause 14.10. Regarding the channel ordering, for all transport channels, "TrCH1" corresponds to the transport channel having the lowest transport channel identity among all configured transport channels on this CCTrCH. "TrCH2" corresponds to the transport channel having the next lowest transport channel identity, and so on.

IE/Group Name	Presence	Range	IE Type and	Semantics Description
			Reference	
CHOICE CTFC Format				
>2 bits long				
>>CTFC value	M		INTEGER (03)	
>4 bits long				
>>CTFC value	M		INTEGER (015)	
>6 bits long				
>>CTFC value	M		INTEGER (063)	
>8 bits long				
>>CTFC value	M		INTEGER (0255)	
>12 bits long				
>>CTFC value	M		INTEGER (04095)	
>16 bits long				
>>CTFC value	M		INTEGER (065535)	
>max nb bits long				
>>CTFC value	M	•	INTEGER	
			(0maxCTFC)	

Range Bound	Explanation
MaxCTFC	Maximum number of the CTFC value is calculated according to the following:
	$\sum_{i=1}^{I} (L_i - 1) P_i$
	with the notation according to ref. [18]

9.2.1.19 DCH Combination Indicator

Void.

9.2.1.20 DCH ID

The DCH ID is the identifier of an active dedicated transport channel. It is unique for each active DCH among the active DCHs simultaneously allocated for the same UE.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DCH ID			INTEGER (0255)	

9.2.1.20A Dedicated Channels Capacity Consumption Law

The capacity consumption law indicates to the CRNC how the Capacity Credit is consumed by NBAP set of procedures, depending on the [FDD - allocated Spreading Factor and the RL/RLS situation] [TDD – allocated Spreading Factor on each DPCH and the assigned timeslot]. [FDD - In Uplink, the reference spreading factor shall be the minimum spreading factor signalled in the Radio Link Setup Request message (*Min UL Channelisation Code Length* IE).]

This capacity consumption law indicates the consumption law to be used with the following procedures:

- Radio Link Setup
- Radio Link Addition
- Radio Link Reconfiguration
- Radio Link Deletion
- [TDD Physical Shared Channel Reconfiguration]

For the Radio Link Setup and Radio Link Addition procedures, the cost given in the consumption law shall be debited from the Capacity Credit, whereas it shall credited to the Capacity Credit for the Radio Link Deletion procedure. For the Radio Link Reconfiguration procedure, the difference of the consumption cost for the new spreading factor and the consumption cost for the old spreading factor shall be debited from the Capacity Credit (or credited when this difference is negative).

If the modelling of the internal resource capability of the Node B is modelled independently for the Uplink and Downlink, the DL cost shall be applied to the DL or Global Capacity Credit and the UL Cost shall be applied to the UL Capacity Credit. If it is modelled as shared resources, both the DL costs" and the UL costs shall be applied to the DL or Global Capacity Credit.

[FDD - For a Radio Link creating a Radio Link Set (first RL of a RLS), the cost for the RL (cost 2) and RLS (cost 1) shall be taken into account. When adding a Radio Link to a Radio Link Set, only the RL cost (cost 2) shall be taken into account.

In the case where multiple Radio Links are established in one procedure, for every created Radio Link Set, the first Radio Link is always the Radio Link with the lowest repetition number.]

[FDD- When a PDSCH is allocated in the Radio Link Setup procedure, the processing cost associated to this PDSCH, equal to the DL cost RL, shall be debited from the Capacity Credit, in addition to the processing cost of the radio links.

In a similar way, this cost shall be credited to the Capacity Credit, when a PDSCH is deleted and the difference between the new cost and the old cost shall be debited from the Capacity Credit (or credited if this difference is negative) when a PDSCH is reconfigured.]

[FDD- The costs given in the consumption law are the costs per channelization code. When multiple channelization codes are used by either the radio links or the PDSCH, the cost credited to or debited from the Capacity Credit shall be taken as N times the cost for one code, where N is the number of channelization codes.]

[TDD –The cost for a radio link is a sum of the costs for each DPCH. For the first DPCH assigned to any user in a cell within a timeslot, the initial cost for a DPCH in a timeslot (cost 1) and the cost for a DPCH (cost 2) shall be taken into account. For any DPCH that is not the first DPCH assigned for any user in a cell within a timeslot, only the cost for a DPCH (cost 2) shall be taken into account.]

[TDD – The cost for shared channels is the sum of the costs for each PDSCH and PUSCH assigned to a PUSCH or PDSCH set. For the first PDSCH or PUSCH assigned to any user in a cell within a timeslot, the initial cost for a PDSCH/PUSCH in a timeslot (cost 1) and the cost for a PDSCH/PUSCH (cost 2) shall be taken into account. For any PDSCH/PUSCH that is not the first PDSCH/PUSCH assigned to any user in a cell within a timeslot, only the cost for a PDSCH/PUSCH (cost 2) shall be taken into account.]

[TDD - In the case of Physical Shared Channel Reconfiguration, the sum of the consumption cost of the each PDSCH/PUSCH of the previous configuration shall be credited to the capacity credit, and the sum of the consumption cost of each PDSCH/PUSCH of the new configuration shall be subtracted from the capacity credit.]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
SF Allocation Law		1 <maxno ofSFs></maxno 	Kererence	[FDD - For each SF, cost of its allocation: the first instance corresponds to SF = 4, the second to SF = 8, the third to SF = 16 and so on.] [TDD - For each SF, cost of its allocation: the first instance corresponds to SF = 1, the second to SF = 2, the third to SF = 4 and so on.]
>DL Cost 1	M		INTEGER (065535)	[FDD – This is the cost of a RLS.] [TDD – This is the additional cost of the first DPCH/PDSCH/PUSCH assigned to any user in a cell within a timeslot.]
>DL Cost 2	M		INTEGER (065535)	[FDD – This is the cost of a RL.] [TDD – This is the cost of a DPCH/PDSCH/PUSCH]
>UL Cost 1	M		INTEGER (065535)	FDD – This is the cost of a RLS.] [TDD – This is the additional cost of the first DPCH/PDSCH/PUSCH assigned to any user in a cell within a timeslot.]
>UL Cost 2	M		INTEGER (065535)	[FDD – This is the cost of a RL.] [TDD – This is the cost of a DPCH/PDSCH/PUSCH.]

Range Bound	Explanation
maxnoofSFs	Maximum number of Spreading Factors

9.2.1.20B DL or Global Capacity Credit

The capacity credit indicates to the CRNC the Downlink or global capacity of a Local Cell or a Local Cell Group.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DL or Global Capacity Credit			INTEGER (065535)	

9.2.1.20C DCH Information Response

The DCH Information Response IE provides information for DCHs that have been established or modified.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DCH Information Response		1 <maxno ofDCHs></maxno 		Only one DCH per set of coordinated DCHs shall be included
>DCH ID	М		9.2.1.20	
>Binding ID	0		9.2.1.4	
>Transport Layer Address	0		9.2.1.63	

Range Bound	Explanation
maxnoofDCHs	Maximum number of DCH per UE

9.2.1.21 DL Power

The *DL Power* IE indicates a power level relative to the [FDD - primary CPICH power] [TDD - primary CCPCH power] configured in a cell. If Transmit Diversity is applied to a downlink physical channel, the *DL Power* IE indicates the power offset between the linear sum of the power for this downlink physical channel on all branches and the [FDD - primary CPICH power] [TDD - PCCPCH power] configured in a cell.

[FDD - If referred to a DPCH, it indicates the power of the transmitted DPDCH symbols.] [FDD - If referred to a DL-DPCCH for CPCH, it indicates the power of the transmitted pilot symbols].

[TDD - If referred to a DPCH, it indicates the power of a spreading factor 16 code, the power for a spreading factor 1 code would be 12 dB higher].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DL Power			INTEGER (-350150)	Value = DL Power /10 Unit: dB Range: -35.0 +15.0 dB Step: 0.1dB

9.2.1.22 Dedicated Measurement Object Type

Void.

9.2.1.23 Dedicated Measurement Type

The Dedicated Measurement Type identifies the type of measurement that shall be performed.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Dedicated Measurement Type			ENUMERATED (SIR, SIR Error, Transmitted Code Power, RSCP, Rx Timing Deviation, Round Trip Time,, Rx Timing Deviation LCR)	"RSCP" is used by TDD only. "Rx Timing Deviation" is used by 3.84Mcps TDD only. "Rx Timing Deviation LCR" is used by 1.28 Mcps TDD only. "Round Trip Time", "SIR Error" are used by FDD only.

Note: For definitions of the measurement types refer to [4] and [5].

9.2.1.24 Dedicated Measurement Value

The Dedicated Measurement Value shall be the most recent value for this measurement, for which the reporting criteria were met.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
CHOICE Dedicated				•	_	•
Measurement Value						
>SIR Value					_	
>>SIR Value	М		INTEGER (063)	According to mapping in [22] and [23]	_	
>SIR Error Value			,	FDD only	_	
>>SIR Error Value	М		INTEGER (0125)	According to mapping in [22]	_	
>Transmitted Code Power Value					_	
>>Transmitted Code Power Value	М		INTEGER (0127)	According to mapping in [22] and [23]. Values 0 to 9 and 123 to 127 shall not be used.	_	
>RSCP				TDD only	_	
>>RSCP	М		INTEGER (0127)	According to mapping in [23]	_	
>Rx Timing Deviation Value				Applicable to 3.84Mcps TDD only	_	
>>Rx Timing Deviation	М		INTEGER (08191)	According to mapping in [23]	_	
>Round Trip Time				FDD only	_	
>>Round Trip Time	М		INTEGER (032767)	According to mapping in [22]	_	
>Additional Dedicated Measurement Values					_	
>>Rx Timing Deviation Value LCR				Applicable to 1.28Mcps TDD only	-	
>>>Rx Timing Deviation LCR	М		INTEGER (0511)	According to mapping in [23]	YES	reject

9.2.1.24A Dedicated Measurement Value Information

The *Dedicated Measurement Value Information* IE provides information both on whether or not the Dedicated Measurement Value is provided in the message or not and if provided also the Dedicated Measurement Value itself.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE Measurement Availability Indicator	М			
>Measurement Available				
>>Dedicated Measurement Value	М		9.2.1.24	
>>CFN	0		9.2.1.7	Dedicated Measurement Time Reference
>Measurement Not Available			NULL	

9.2.1.24B DGPS Corrections

The DGPS Corrections IE contains DGPS information used by the UE Positioning A-GPS method. For further details on the meaning of parameters, see [28].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
GPS TOW	М		INTEGER (0604799)	Time in seconds. This field indicates the baseline time for which the corrections are valid
Status/Health	М		ENUMERATED (UDRE scale 1.0, UDRE scale 0.75, UDRE scale 0.5, UDRE scale 0.3, UDRE scale 0.1, no data, invalid data)	This field indicates the status of the differential corrections
Satellite Information		1 <maxno Sat></maxno 		
>SatID	М		INTEGER (063)	Satellite ID
>IODE	M		BIT STRING (8)	This IE is the sequence number for the ephemeris for the particular satellite. It can be used to determine if new ephemeris is used for calculating the corrections that are provided. This eight-bit IE is incremented for each new set of ephemeris for the satellite and may occupy the numerical range of [0, 239] during normal operations.
>UDRE	М		ENUMERATED (UDRE ≤1.0m, 1.0m < UDRE ≤ 4.0m, 4.0m < UDRE ≤ 8.0m, 8.0m < UDRE)	User Differential Range Error. This field provides an estimate of the uncertainty (1-σ) in the corrections for the particular satellite. The value in this field shall be multiplied by the UDRE Scale Factor in the common Corrections Status/Health field to determine the final UDRE estimate for the particular satellite
>PRC	M		INTEGER (-20472047)	Pseudo Range Correction Unit: m (meters) Step: 0.32 meters
>Range Correction Rate	М		INTEGER (-127127)	Unit: m/s Step: 0.032 m/s

Range Bound	Explanation		
maxNoSat	Maximum number of satellites for which information can be provided		

9.2.1.25 Diversity Control Field

The Diversity Control Field indicates if the current RL may, must or must not be combined with the already existing RLs.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Diversity Control Field			ENUMERATED (
			May,	
			Must,	
			Must Not)	

9.2.1.26 Diversity Indication

Void.

9.2.1.27 DSCH ID

The DSCH ID uniquely identifies a DSCH within a Node B Communication Context.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DSCH ID			INTEGER (0255)	

9.2.1.27A DSCH Information Response

 $\label{eq:continuous} The \textit{DSCH Information Response} \ IE \ provides \ information \ for \ DSCHs \ that \ have \ been \ established \ or \ modified.$

IE/Group Name	Presence	Range	IE Type and	Semantics Description
			Reference	
DSCH Information Response		1 <maxno< td=""><td></td><td></td></maxno<>		
		ofDSCHs>		
>DSCH ID	M		9.2.1.27	
>Binding ID	0		9.2.1.4	
>Transport Layer Address	0		9.2.1.63	

Range Bound	Explanation
maxnoofDSCHs	Maximum number of DSCHs for one UE

9.2.1.28 DSCH Transport Format Set

Void.

9.2.1.29 DSCH Transport Format Combination Set

Void.

9.2.1.29A End Of Audit Sequence Indicator

Indicates if the AUDIT RESPONSE message ends an audit sequence or not.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
End Of Audit Sequence Indicator			ENUMERATED (End of audit sequence, Not end of audit sequence)	"End of audit sequence" = all audit information has been provided by the Node B. "Not end of audit sequence" = more audit information is available.

9.2.1.29B FN Reporting Indicator

The Frame Number Reporting Indicator indicates if the SFN or CFN shall be included together with the reported measurement value.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
FN Reporting Indicator			ENUMERATED (FN Reporting Required, FN Reporting Not Required)	

9.2.1.30 Frame Handling Priority

This parameter indicates the priority level to be used during the lifetime of the DCH/DSCH for temporary restriction of the allocated resources due overload reason.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Frame Handling Priority			INTEGER (015)	"0" = lowest priority,
				"15" = highest priority

9.2.1.31 Frame Offset

The Frame Offset is the required offset between the dedicated channel downlink transmission frames (CFN, Connection Frame Number) and the broadcast channel frame offset (Cell Frame Number). The Frame_offset is used in the translation between Connection Frame Number (CFN) on Iub/Iur and the least significant 8 bits of SFN (System Frame Number) on Uu. The Frame Offset is UE and cell specific.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Frame Offset			INTEGER (0255)	Frames

9.2.1.31A IB OC ID

The IB OC ID identifies the occurrence of a specific Information Block.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
IB OC ID			INTEGER (116)	

9.2.1.31B GPS Navigation Model & Time Recovery

This IE contains subframes 1 to 3 of the GPS navigation message. For further details on the meaning of parameters, see [27].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Navigation Message 1to3		1 <maxno Sat></maxno 		
>Transmission TOW	М		INTEGER (01048575)	Time of the Week when the message is broadcast.
>SatID	М		INTEGER (063)	Satellite ID of the satellite from which the information is obtained
>TLM Message	М		BIT STRING (14)	
>TIm Revd (C)	М		BIT STRING (2)	
>HO-Word	М		BIT STRING (22)	
>WN	М		BIT STRING (10)	
>C/A or P on L2	М		BIT STRING (2)	
>User Range Accuracy Index	М		BIT STRING (4)	
>SV Health	М		BIT STRING (6)	
>IODC	М		BIT STRING (10)	
>L2 P Data Flag	М		BIT STRING (1)	
>SF 1 Reserved	М		BIT STRING (87)	
>T _{GD}	М		BIT STRING (8)	
>t _{oc}	М		BIT STRING (16)	
>af ₂	М		BIT STRING (8)	
>af ₁	М		BIT STRING (16)	
>af ₀	М		BIT STRING (22)	
>C _{rs}	М		BIT STRING (16)	
>∆n	М		BIT STRING (16)	
>M ₀	М		BIT STRING (32)	
>C _{uc}	M		BIT STRING (16)	
>e	М		BIT STRING (32)	
>C _{us}	М		BIT STRING (16)	
>C _{us} >(A) ^{1/2}	М		BIT STRING (32)	
>t _{oe}	М		BIT STRING (16)	
>Fit Interval Flag	М		BIT STRING (1)	
>AODO	М		BIT STRING (5)	
>C _{ic}	М		BIT STRING (16)	
>OMEGA ₀	М		BIT STRING (32)	
>C _{is}	М		BIT STRING (16)	
>i ₀	М		BIT STRING (32)	
>C _{rc}	М		BIT STRING (16)	
>ω	М		BIT STRING (32)	
>OMEGAdot	М		BIT STRING (24)	
>ldot	M		BIT STRING (14)	
>Spare/zero fill	М		BIT STRING (20)	

Range Bound	Explanation		
maxNoSat	Maximum number of satellites for which information can be provided		

9.2.1.31C GPS Ionospheric Model

This IE provides the information regarding the GPS Ionospheric Model. For further details on the meaning of parameters, see [27].

IE/Group Name	Presence	Range	IE Type and	Semantics Description
			Reference	
α_0	M		BIT STRING (8)	
α_1	M		BIT STRING (8)	
α_2	M		BIT STRING (8)	
α_3	M		BIT STRING (8)	
β ₀	M		BIT STRING (8)	
β1	M		BIT STRING (8)	
β_2	М		BIT STRING (8)	
β ₃	M		BIT STRING (8)	

9.2.1.31D GPS UTC Model

This IE provides the information regarding the GPS UTC Model. For further details on the meaning of parameters, see [27].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
A ₁	M		BIT STRING (24)	
A ₀	М		BIT STRING (32)	
t _{ot}	М		BIT STRING (8)	
Δt_{LS}	M		BIT STRING (8)	
WNt	М		BIT STRING (8)	
WN _{LSF}	M		BIT STRING (8)	
DN	M		BIT STRING (8)	
Δt_{LSF}	M		BIT STRING (8)	

9.2.1.31E GPS Real-Time Integrity

This IE provides the information regarding the status of the GPS constellation. For further details on the meaning of parameters, see [27].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE Bad Satellites	M			
Presence				
>Bad Satellites				
>>Satellite information		1 <maxno< td=""><td></td><td></td></maxno<>		
		Sat>		
>>>BadSatID	M		INTEGER (063)	Satellite ID
>No Bad Satellites			NULL	

Range Bound	Explanation	
maxNoSat	Maximum number of satellites for which information can be provided	

9.2.1.31F GPS Almanac

This IE provides the information regarding the GPS Almanac. For further details on the meaning of parameters, see [27].

IE/Group Name	Presence	Range	IE Type and	Semantics Description
			Reference	
WN_a	M		BIT STRING (8)	
Satellite information	M	1 <maxno< td=""><td></td><td></td></maxno<>		
		Sat>		
>DataID	М		INTEGER (03)	
>SatID	М		INTEGER (063)	Satellite ID
>e	М		BIT STRING (16)	
>t _{oa}	М		BIT STRING (8)	
>δi	М		BIT STRING (16)	
>OMEGADOT	М		BIT STRING (16)	
>SV Health	М		BIT STRING (8)	
>A ^{1/2}	М		BIT STRING (24)	
>OMEGA ₀	М		BIT STRING (24)	
>M ₀	М		BIT STRING (24)	
>ω	М		BIT STRING (24)	
>af ₀	М		BIT STRING (11)	
>af₁	М		BIT STRING (11)	
SV Global Health	0		BIT STRING (364)	

Range Bound	Explanation		
maxNoSat	Maximum number of satellites for which information can be provided		

9.2.1.31G GPS Receiver Geographical Position (GPS RX Pos)

The GPS Receiver Geographical Position is used to identify the geographical coordinates of a GPS receiver relevant for a certain Information Exchange Object.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Latitude Sign	М		ENUMERATED (North, South)	
Degrees of Latitude	M		INTEGER (02 ²³ -1)	The IE value (N) is derived by this formula: N≤2 ²³ X /90 < N+1 X being the latitude in degree (0° 90°)
Degrees of Longitude	M		INTEGER (-2 ²³ 2 ²³ -1)	The IE value (N) is derived by this formula: N≤2 ²⁴ X /360 < N+1 X being the longitude in degree (-180°+180°)
Direction of Altitude	М		ENUMERATED (Height, Depth)	
Altitude	M		INTEGER (02 ¹⁵ -1)	The relation between the value (N) and the altitude (a) in meters it describes is N≤ a <n+1, except="" for="" n="2<sup">15-1 for which the range is extended to include all greater values of (a).</n+1,>

9.2.1.32 IB_SG_DATA

Segment as defined in ref. [18].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
IB_SG_DATA			BIT STRING	Contains 'SIB data fixed" or "SIB data variable' in segment as encoded in ref. [18].

9.2.1.33 IB_SG_POS

The lowest position of a specific Information Block segment in the SFN cycle (IB_SG_POS < IB_SG_REP).

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
IB_SG_POS			INTEGER (04094)	Only even positions are allowed. See ref. [18]

9.2.1.34 IB_SG_REP

Repetition distance for an Information Block segment. The segment shall be transmitted when SFN mod $IB_SG_REP = IB_SG_POS$.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
IB_SG_REP			ENUMERATED (4, 8, 16, 32, 64, 128, 256, 512, 1024, 2048, 4096)	Repetition period for the IB segment in frames

9.2.1.35 IB Type

The IB Type identifies a specific system information block.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
В Туре			ENUMERATED (
			MIB,	
			SB1,	
			SB2,	
			SIB1,	
			SIB2,	
			SIB3,	
			SIB4,	
			SIB5,	
			SIB6,	
			SIB7,	
			SIB8,	
			SIB9,	
			SIB10,	
			SIB11,	
			SIB12,	
			SIB13,	
			SIB13.1,	
			SIB13.2,	
			SIB13.3,	
			SIB13.4,	
			SIB14,	
			SIB15,	
			SIB15.1,	
			SIB15.2,	
			SIB15.3,	
			SIB16,	
			, SIB17,	
			SIB15.4,	
			SIB18,	
			SIB15.5)	

9.2.1.36 Indication Type

Void.

9.2.1.36A Information Exchange Object Type

Void.

9.2.1.36B Information Report Characteristics

The information report characteristics defines how the reporting shall be performed.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE Information Report				
Characteristics Type				
>On Demand			NULL	
>Periodic				
>>CHOICE Information Report Periodicity Scale	М			The frequency with which the Node B shall send information reports.
>>>minute				
>>>Report Periodicity Value	М		INTEGER (160,)	Unit: min
>>>hour				
>>>Report Periodicity Value	М		INTEGER (124,)	Unit: h
>On Modification				
>>Information Threshold	0		9.2.1.36E	

9.2.1.36C Information Exchange ID

The Information Exchange ID uniquely identifies any requested information per Node B.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Information Exchange ID	М		INTEGER	
			(02^20-1)	

9.2.1.36D Information Type

The Information Type indicates which kind of information the Node B shall provide.

IE/Group Name	Presence	Range	IE Type and	Semantics Description
1.6 C T 16			Reference	
Information Type Item	М		ENUMERATED (GPS Information, DGPS Corrections, GPS RX Pos,	
GPS Information	C-GPS	0 <maxno< td=""><td>)</td><td></td></maxno<>)	
	0 0. 0	GPSItems >		
>GPS Information Item			ENUMERATED (GPS Navigation Model & Time Recovery, GPS Ionospheric Model, GPS UTC Model, GPS Almanac, GPS Real-Time Integrity,)	

Condition	Explanation
GPS	The IE shall be present if the <i>Information Type Item</i> IE indicates 'GPS
	Information'.

Range Bound	Explanation
maxNoGPSItems	Maximum number of GPS Information Items supported in one
	Information Exchange

9.2.1.36E Information Threshold

The Information Threshold indicates which kind of information shall trigger the Information Reporting procedure.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE Information Type	M			
Item				
>DGPS				
>>PRC Deviation	M		ENUMERATED	PRC deviation in meters from
			(1, 2, 5, 10,)	the previously reported value,
				which shall trigger a report

9.2.1.36F IPDL Indicator

Indicates if IPDL periods shall be active or not.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
IPDL Indicator			ENUMERATED (
			active,	
			inactive)	

9.2.1.37 Limited Power Increase

Void.

9.2.1.37A Local Cell Group ID

The Local Cell Group ID represents resources in the Node B, which have been pooled from a capacity point of view.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Local Cell Group ID			Local Cell ID 9.2.1.38	

9.2.1.38 Local Cell ID

The local cell ID represents resources in the Node B that can be used for the configuration of a cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Local Cell ID			INTEGER (0268435455)	

9.2.1.39 Maximum DL Power Capability

This parameter indicates the maximum DL power capability for a local cell within the Node B. The reference point is the antenna connector. If Transmit Diversity can be used in the local cell, the parameter indicates the maximum for the linear sum of the power that can be used on all branches.

IE/Group Name	Presence	Range	IE Type and	Semantics Description
			Reference	
Maximum DL Power Capability			INTEGER (0500)	Unit: dBm
				Range: 050 dBm
				Step: 0.1 dB

9.2.1.40 Maximum Transmission Power

The Maximum Transmission Power is the maximum value for the linear sum of the power of all downlink physical channels, that is allowed to be used in a cell. If Transmit Diversity is applied to one downlink physical channel, the power to be considered for this downlink physical channel is the linear sum of the power used for this downlink physical channel on all branches. The reference point is the antenna connector.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Maximum Transmission Power			INTEGER (0500)	Unit: dBm
			-	Range: 050 dBm
				Step: 0.1 dB

9.2.1.40A Measurement Availability Indicator

Void.

9.2.1.40B Measurement Change Time

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE Time Scale				
>millisecond				
>>Measurement Change Time Value	M		INTEGER (16000,)	Unit: ms Range: 1060000 ms Step: 10 ms

9.2.1.41 Measurement Filter Coefficient

The Measurement Filter Coefficient determines the amount of filtering to be applied for measurements.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Measurement Filter Coefficient			ENUMERATED (0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 13, 15, 17, 19,)	

9.2.1.41A Measurement Hysteresis Time

The Measurement Hysteresis Time provides the duration during which a reporting criterion has to be fulfilled for the Measurement Reporting procedure to be triggered.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE Time Scale				
>millisecond				
>>Measurement Hysteresis Time Value	M		INTEGER (16000,)	Unit: ms Range: 1060000 ms Step: 10 ms

9.2.1.42 Measurement ID

The Measurement ID uniquely identifies any measurement per (Node B or Communication) Control Port.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Measurement ID			INTEGER	
			(02^20-1)	

9.2.1.43 Measurement Increase/Decrease Threshold

The Measurement Increase/Decrease Threshold defines the threshold that shall trigger Event C or D.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE Measurement				
Increase/Decrease Threshold				
>Received Total Wide Band				
Power				
>>Received Total Wide	M		INTEGER (0620)	Unit: dB
Band Power				Range: 062 dB
				Step: 0.1 dB
>Transmitted Carrier Power				
>>Transmitted Carrier	M		INTEGER (0100)	According to mapping in [22]
Power			, ,	and [23]
>Acknowledged PRACH				FDD only
Preambles				,
>>Acknowledged PRACH	M		INTEGER	According to mapping in [22]
Preambles			(0240,)	
>UL Timeslot ISCP				TDD only
>>UL Timeslot ISCP	М		INTEGER (0126)	Unit: dB
				Range: 063 dB
				Step: 0.5 dB
>SIR				
>>SIR	М		INTEGER (062)	Unit: dB
>> 0.11 C	'*'		11120211 (002)	Range: 031 dB
				Step: 0.5 dB
>SIR Error				FDD only
>>SIR Error	М		INTEGER (0124)	Unit: dB
>> 0.11 E1101	'*'		11120211 (0121)	Range: 062 dB
				Step: 0.5 dB
>Transmitted Code Power				0.00.0.000
>>Transmitted Code	М		INTEGER	Unit: dB
Power	IVI		(0112,)	Range: 056 dB
1 0W01			(012,)	Step: 0.5 dB
>RSCP				TDD only
>>RSCP	М		INTEGER (0126)	Unit: dB
>>11001	IVI		1141EGER (0120)	Range: 063 dB
				Step: 0.5 dB
>Round Trip Time				FDD only
>>Round Trip Time	M		INTEGER (032766)	Unit: chips
>>Nound Trip Time	IVI		INTEGEN (U32/00)	Range: 0 2047.875 chips
				Step: 0.625 chips
>Acknowledged PCPCH	1			FDD only
Access Preambles				1 DD Only
>>Acknowledged PCPCH	М		INTEGER (015,)	According to mapping in [22]
Access Preambles	IVI		INTEGER (U 13,)	According to mapping in [22]
>Detected PCPCH Access	+			FDD only
				FUD OHIY
Preambles >>Detected PCPCH	M		INTEGED	Apparding to manning in [22]
	IVI		INTEGER	According to mapping in [22]
Access Preambles			(0240,)	

9.2.1.44 Measurement Threshold

 $The \ Measurement \ Threshold \ defines \ which \ threshold \ that \ shall \ trigger \ Event \ A, \ B, \ E, \ F \ or \ On \ Modification.$

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
CHOICE Measurement Threshold					_	-
>Received Total Wide Band Power					_	
>>Received Total	M		INTEGER	According to mapping	_	
Wide Band Power			(0621)	in [22] and [23]		
>Transmitted Carrier Power					_	
>>Transmitted Carrier Power	М		INTEGER (0100)	According to mapping in [22] and [23]	_	
>Acknowledged PRACH Preambles			(0.1.00)	FDD only	_	
>>Acknowledged	M		INTEGER	According to mapping	_	
PRACH Preambles >UL Timeslot ISCP			(0240,)	in [22] TDD only	_	
>>UL Timeslot	M		INTEGER	According to mapping	_	
ISCP >SIR			(0127)	in [23]		
>>SIR >>SIR	M		INTEGER	According to mapping		
	***		(063)	in [22] and [23]		
>SIR Error	.		11.75050	FDD only	_	
>>SIR Error	M		INTEGER (0125)	According to mapping in [22]	_	
>Transmitted Code Power					_	
>>Transmitted Code Power	М		INTEGER (0127)	According to mapping in [22] and [23]	-	
>RSCP			(0121)	TDD only	_	
>>RSCP	М		INTEGER (0127)	According to mapping in [23]	-	
>Rx Timing Deviation			(0121)	Applicable to	_	
>>Rx Timing	M		INTEGER	3.84Mcps TDD only According to mapping	_	
Deviation	141		(08191)	in [23]		
>Round Trip Time				FDD only	_	
>>Round Trip Time	М		INTEGER (032767)	According to mapping in [22]	_	
>Acknowledged PCPCH Access Preambles				FDD only	_	
>>Acknowledged PCPCH Access	М		INTEGER (015,)	According to mapping in [22]	_	
Preambles >Detected PCPCH				FDD only	_	
Access Preambles >>Detected	N/		INTEGER	Apparding to receive		
>>Detected PCPCH Access Preambles	M		(0240,)	According to mapping in [22]	_	
>Additional					_	
Measurement Thresholds						
>>UTRAN GPS					_	
Timing of Cell Frames for UE						
Positioning						
>>>T _{UTRAN-GPS} Measurement Threshold	М		9.2.1.64B		YES	reject
Information						
>>SFN-SFN Observed Time Difference					_	
>>>SFN-SFN	М		9.2.1.53C		YES	reject
Measurement Threshold						

Information					
>Rx Timing Deviation			Applicable to	_	
LCR			1.28Mcps TDD Only		
>>Rx Timing	M	INTEGER	According to mapping	YES	reject
Deviation LCR		(0511)	in [23]		-

9.2.1.45 Message Discriminator

This field is used to discriminate between Dedicated NBAP and Common NBAP messages.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Message Discriminator			ENUMERATED (
			Common,	
			Dedicated)	

9.2.1.45A Message Structure

The *Message Structure* IE gives information for each level with assigned criticality in an hierarchical message structure from top level down to the lowest level above the reported level for the occured error (reported in the *Information Element Criticality Diagnostics* IE).

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Message Structure		1 <maxno oflevels></maxno 		The first repetition of the Message Structure IE corresponds to the top level of the message. The last repetition of the Message Structure IE corresponds to the level above the reported level for the occurred error of the message.
>IE ID	М		INTEGER (065535)	The IE ID of this level"s IE containing the not understood or missing IE.
>Repetition Number	0		INTEGER (1256)	The Repetition Number IE gives, if applicable, the number of occurrences of this level"s reported IE up to and including the occurrence containing the not understood or missing IE. Note: All the counted occurrences of the reported IE must have the same topdown hierachical message structure of IEs with assigned criticality above them.

Range Bound	Explanation
maxnooflevels	Maximum number of message levels to report. The value for
	maxnooflevels is 256.

9.2.1.46 Message Type

The Message Type uniquely identifies the message being sent.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Procedure ID	М	1		
•		_	IE Type and Reference INTEGER (0255)	"0" = Audit "1" = Audit Required "2" = Block Resource "3" = Cell Deletion "4" = Cell Reconfiguration "5" = Cell Setup "6" = Common Measurement Failure "7" = Common Measurement Initiation "8" = Common Measurement Report "9" = Common Measurement Termination "10" = Common Transport Channel Delete "11" = Common Transport Channel Setup "13" = Reset "14" = Compressed Mode Command "16" = Dedicated Measurement Failure "17" = Dedicated Measurement Initiation "18" = Dedicated Measurement Termination "20" = Downlink Power Control "21" = Error Indication (For Dedicated Procedures) "23" = Radio Link Addition "24" = Radio Link Restoration "25" = Radio Link Restoration "27" = Resource Status Indication "29" = Synchronised Radio Link Reconfiguration Cancellation "30" = Synchronised Radio Link Reconfiguration Commit "31" = Synchronised Radio Link Reconfiguration Preparation "32" = System Information Update "33" = Unblock Resource "34" = Unsynchronised Radio Link Reconfiguration Preparation "35" = Error Indication (For Common Procedures) "37" = Physical Shared Channel Reconfiguration "35" = Error Indication (For Common Procedures) "37" = Physical Shared Channel Reconfiguration "38" = Downlink Power Timeslot Control "39" = Radio Link Preemption "40" = Information Exchange Failure "41" = Information Exchange Failure "41" = Information Exchange Termination "42" = Information Exchange Termination "43" = Cell Synchronisation Adjustment "45" = Cell Synchronisation Reconfiguration "46" = Cell Synchronisation Reconfiguration
				"41" = Information Exchange Initiation "42" = Information Exchange Termination "43" = Information Reporting "44" = Cell Synchronisation Adjustment "45" = Cell Synchronisation Initiation
>Ddmode	М		ENUMERATED (TDD, FDD, Common,)	Common = common to FDD and TDD.
Type of Message	М		ENUMERATED (Initiating Message, Successful Outcome,	

	Unsuccessful	
	Outcome,	
	Outcome)	

9.2.1.46A Minimum DL Power Capability

This parameter indicates the minimum DL power capability for a local cell within the Node B. The reference point is the antenna connector. If Transmit Diversity can be used in the local cell, the parameter indicates the minimum for the linear sum of the power that can be used on all branches.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Minimum DL Power Capability			INTEGER (0800)	Unit: dBm Range: -30 +50 dBm Step: 0.1 dB

9.2.1.47 Minimum Spreading Factor

This parameter indicates the minimum spreading factor supported at a cell within the Node B.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Minimum Spreading Factor			ENUMERATED (4, 8, 16, 32, 64, 128, 256, 512)	[TDD – Mapping scheme for the minimum spreading factor 1 and 2: '256' means 1 '512' means 2]

9.2.1.47A N_INSYNC_IND

This parameter is used by the Node B for achievement/re-achievement of UL synchronisation on the Uu interface as defined in ref. [10] and [21].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
N_INSYNC_IND			INTEGER (1256)	

9.2.1.47B N_OUTSYNC_IND

This parameter defines the number of consecutive out-of-sync indications after which the timer T_RLFAILURE shall be started (see also ref. [10] and [21]).

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
N_OUTSYNC_IND			INTEGER (1256)	

9.2.1.47C Neighbouring FDD Cell Measurement Information

This IE provides information on the FDD neighbouring cells used for the purpose of measurements.

IE/Group Name	Presence	Range	IE Type and	Semantics Description
			Reference	
UC-Id	M		9.2.1.65B	
UARFCN	M		9.2.1.65	Corresponds to Nd [14]
Primary Scrambling Code	M		9.2.2.34	

9.2.1.47D Neighbouring TDD Cell Measurement Information

This IE provides information on the 3.84Mcps TDD neighbouring cells used for the purpose of measurements. Since the measurement can be performed on every time slot and midamble shift, the *Time Slot* IE and *Midamble Shift And Burst Type* IE shall be included if available.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UC-Id	M		9.2.1.65B	
UARFCN	М		9.2.1.65	Corresponds to Nt [15]
Cell Parameter ID	М		9.2.3.4	
Time Slot	0		9.2.3.23	
Midamble Shift And Burst Type	0		9.2.3.7	

9.2.1.48 Node B Communication Context ID

The Node B Communication Context ID is the identifier of the Communication Context in the Node B, it corresponds to the dedicated resources which are necessary for an UE using one or more dedicated channels in a given Node B.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Node B Communication Context ID			INTEGER (02^20-1)	"2^20-1" is a reserved value indicating all the existing and future Node B Communication Contexts that can be reached by the Communication Control Port (All NBCC).

9.2.1.49 Payload CRC Presence Indicator

This parameter indicates whether FP payload 16 bit CRC is used or not.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Payload CRC Presence Indicator			ENUMERATED (CRC Included, CRC Not Included,)	

9.2.1.49A PICH Power

The *PICH Power* IE indicates a power level relative to the [FDD - Primary CPICH power] [TDD - Primary CCPCH power] configured in a cell. If Transmit Diversity is applied to the PICH, the *PICH Power* IE indicates the power offset between the linear sum of the power for the PICH on all branches and the [FDD - Primary CPICH power] [TDD - Primary CCPCH power] configured in a cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
PICH Power			INTEGER (-10+5)	Unit: dB
				Range: -10 +5 dB
				Step: 1dB

9.2.1.50 Puncture Limit

The Puncture Limit limits the amount of puncturing that can be applied in order to minimise the number of dedicated physical channels.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Puncture Limit			INTEGER (015)	Unit: % Range: 40100 % Step: 4 % 100% means no puncturing

9.2.1.50A QE-Selector

The QE-Selector indicates from which source the value for the quality estimate (QE) shall be taken.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
QE-Selector			ENUMERATED (
			Selected,	
			Non-Selected)	

9.2.1.51 Report Characteristics

The report characteristics define how the reporting shall be performed.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
CHOICE Report Characteristics					-	
>On Demand			NULL		_	
>Periodic			HOLL		_	
>>Report Periodicity	M		9.2.1.51a	The frequency with which the Node B shall send measurement reports.	_	
>Event A					_	
>>Measurement Threshold	M		9.2.1.44	The threshold for which the Node B shall trigger a measurement report.	_	
>>Measurement Hysteresis Time	0		9.2.1.41A		_	
>Event B	1				_	
>>Measurement Threshold	M		9.2.1.44	The threshold for which the Node B shall trigger a measurement report.	_	
>>Measurement Hysteresis Time	0		9.2.1.41A		_	
>Event C					_	
>>Measurement Increase/Decrease Threshold	M		9.2.1.43		_	
>>Measurement Change Time	M		9.2.1.40B	The time the measurement entity shall rise on (in ms), in order to trigger a measurement report.	_	
>Event D					_	
>>Measurement Increase/Decrease Threshold	M		9.2.1.43		_	
>>Measurement Change Time	M		9.2.1.40B	The time the measurement entity shall fall (in ms), in order to trigger a measurement report.	-	
>Event E					_	
>>Measurement Threshold 1	M		Measurement Threshold 9.2.1.44		_	
>>Measurement Threshold 2	0		Measurement Threshold 9.2.1.44		_	
>>Measurement Hysteresis Time	0		9.2.1.41A		_	
>>Report Periodicity	0		9.2.1.51a	The frequency with which the Node B shall send measurement reports.	_	
>Event F					_	
>>Measurement Threshold 1	М		Measurement Threshold 9.2.1.44		_	
>>Measurement Threshold 2	0		Measurement Threshold 9.2.1.44		_	
>>Measurement Hysteresis Time	0		9.2.1.41A		_	
>>Report Periodicity	0		9.2.1.51a	The frequency with which the Node B shall send	_	

				measurement reports.		
>Additional Report					_	
Characteristics						
>>On Modification					_	
>>>On		1			YES	reject
Modification						-
>>>Measurem	М		9.2.1.44		_	
ent Threshold						

9.2.1.51a Report Periodicity

The Report Periodicity defines the frequency at which the Node B shall send measurement reports.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE Report Periodicity				
Scale				
>millisecond				
>>Report Periodicity Value	М		INTEGER (16000,)	Unit: ms Range: 1060000 ms Step: 10 ms
>minute				
>>Report Periodicity Value	М		INTEGER (160,)	Unit: min Range: 160 min Step: 1 min

9.2.1.51A Requested Data Value

The *Requested Data Value* IE contains the relevant data concerning the ongoing information exchange. The *Requested Data Value* IE shall include at least one of the following IE.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DGPS Corrections	0		9.2.1.24B	
GPS Navigation Model & Time Recovery	0		9.2.1.31B	
GPS Ionospheric Model	0		9.2.1.31C	
GPS UTC Model	0		9.2.1.31D	
GPS Almanac	0		9.2.1.31F	
GPS Real-Time Integrity	0		9.2.1.31E	
GPS RX Pos	0		9.2.1.31G	

9.2.1.51B Requested Data Value Information

The Requested Data Value Information IE provides information on whether or not the Requested Data Value is available in the message and also the Requested Data Value itself if available. In case of "Periodic" and "On Modification" reporting, "Information Not Available" shall be used when at least one part of the requested information was not available at the moment of initiating the Information Reporting procedure.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE Information Availability Indicator	М			
>Information Available				
>>Requested Data Value	M		9.2.1.51A	
>Information Not Available			NULL	

9.2.1.52 Resource Operational State

The Resource Operational State is used to indicate the current operational state of the associated resource following a Node B failure.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Resource Operational State			ENUMERATED (Enabled, Disabled)	When a resource is marked as disabled, then its child resources are implicitly disabled. Cell Resource hierarchy can be referred to [6].

9.2.1.52A Retention Priority

Void.

9.2.1.53 RL ID

The RL ID is the unique identifier for one RL associated with a UE.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
RL ID			INTEGER (031)	

9.2.1.53a RNC-ld

This is the identifier of one RNC in UTRAN.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
RNC-Id			INTEGER (04095)	

9.2.1.53A SFN

System Frame Number of the cell, see ref. [17].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
SFN			INTEGER (04095)	

9.2.1.53B Segment Type

Segment type as defined in [18].

IE/Group Name	Presence	Range	IE Type and	Semantics Description
			Reference	
Segment Type			ENUMERATED (
			First segment,	
			First segment short,	
			Subsequent	
			segment,	
			Last segment,	
			Last segment short,	
			Complete SIB,	
			Complete SIB short,	
)	

9.2.1.53C SFN-SFN Measurement Threshold Information

The SFN-SFN Measurement Threshold Information defines the related thresholds SFN-SFN Observed Time Difference measurements which shall trigger the Event On Modification.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
SFN-SFN Change Limit	0		INTEGER(1256)	Change of SFN-SFN value compared to previously reported value, which shall trigger a new report. Unit: chip Step: 1/16 chip
Predicted SFN-SFN Deviation Limit	0		INTEGER(1256)	Deviation of the predicated SFN-SFN from the latest measurement result, which shall trigger a new report. Unit: chip Step: 1/16 chip

9.2.1.53D SFN-SFN Measurement Time Stamp

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE Mode				
>FDD				
>>SFN	М		9.2.1.53A	Indicates the SFN of the reference cell at which the measurement has been performed.
>TDD				
>>SFN	М		9.2.1.53A	Indicates the SFN of the reference cell at which the measurement has been performed.
>>Time Slot	М		9.2.3.23	Indicates the Time Slot of the reference cell at which this measurement has been performed.

9.2.1.53E SFN-SFN Measurement Value Information

The *SFN-SFN Measurement Value Information* IE indicates the measurement result related to SFN-SFN Observed Time Difference measurements.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Successful Neighbouring Cell SFN-SFN Observed Time Difference Measurement Information		1 <maxno MeasNCell ></maxno 		
>UC-ld	M		9.2.1.65B	
>SFN-SFN Value	М		9.2.1.53F	
>SFN-SFN Quality	0		INTEGER (0255)	Indicates the standard deviation (std) of the SFN-SFN Observed Time Difference measurements in 1/16 chip. SFN-SFN Quality = $\sqrt{E[(x-\mu)^2]}$ = std of reported SFN-SFN Value, where x is the reported SFN-SFN Value and $\mu = E[x]$ is the expectation value of x.
>SFN-SFN Drift Rate	М		INTEGER (-100+100)	Indicates the SFN-SFN drift rate in 1/256 chip per second. A positive value indicates that the Reference cell clock is running at a greater frequency than the measured neighbouring cell.
>SFN-SFN Drift Rate Quality	0		INTEGER (0100)	Indicates the standard deviation (std) of the SFN-SFN drift rate measurements in 1/256 chip per second. SFN-SFN Drift Rate Quality = $\sqrt{E[(x-\mu)^2]}$ = std of reported SFN-SFN Drift Rate, where x is the reported SFN-SFN Drift Rate and $\mu = E[x]$ is the expectation value of x.
>SFN-SFN Measurement Time Stamp	М		9.2.1.53D	
Unsuccessful Neighbouring Cell SFN-SFN Observed Time Difference Measurement Information		0 <maxno MeasNCell -1></maxno 		
>UC-Id	М		9.2.1.65B	

Range Bound	Explanation		
maxnoMeasNCell	Maximum number of neighbouring cells that can be measured on.		

9.2.1.53F SFN-SFN Value

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE Mode				
>FDD				
>>SFN-SFN	M		INTEGER	According to mapping in [22].
			(0614399)	
>TDD				
>>SFN-SFN	M		INTEGER (040961)	According to mapping in [23].

9.2.1.54 SIB Deletion Indicator

Void.

9.2.1.55 SIB Originator

Indicates if the Node B shall fill in the SIB information or not.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
SIB Originator			ENUMERATED (Node B, CRNC,	
)	

9.2.1.56 Shutdown Timer

The shutdown timer shall indicate the length of time available to the CRNC to perform the block of a resource when a Normal priority block is requested.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Shutdown Timer			INTEGER (13600)	Unit: second

9.2.1.56A T_RLFAILURE

The Radio Link Failure procedure shall be triggered after a period of time T_RLFAILURE has elapsed with a persisting out-of-sync indication (see also ref. [10] and [21]).

Information Element/Group Name	Presence	Range	IE Type and Reference	Semantics Description
T_RLFAILURE			INTEGER (0255)	Unit: second
				Range: 0 25.5 s
				Step: 0.1 s

9.2.1.56B Start Of Audit Sequence Indicator

Indicates if the AUDIT REQUEST message initiates a new audit sequence or not.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Start Of Audit Sequence Indicator			ENUMERATED (Start Of Audit Sequence, Not Start Of Audit Sequence)	

9.2.1.57 TFCI Presence

The TFCI Presence parameter indicates whether the TFCI shall be included. [TDD - If it is present in the timeslot, it will be mapped to the channelisation code defined by [19].]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
TFCI presence			ENUMERATED (
			Present,	
			Not Present)	

9.2.1.58 TFCS (Transport Format Combination Set)

The Transport Format Combination Set is defined as a set of Transport Format Combinations on a Coded Composite Transport Channel. It is the allowed Transport Format Combinations of the corresponding Transport Channels. The DL Transport Format Combination Set is applicable for DL Transport Channels.

[FDD - Where the UE is assigned access to one or more DSCH transport channels then the UTRAN has the choice of two methods for signalling the mapping between TFCI(field 2) values and the corresponding TFC:

Method #1 - TFCI range

The mapping is described in terms of a number of groups, each group corresponding to a given transport format combination (value of CTFC(field2)). The CTFC(field2) value specified in the first group applies for all values of TFCI(field 2) between 0 and the specified 'Max TFCI(field2) value'. The CTFC(field2) value specified in the second group applies for all values of TFCI(field 2) between the 'Max TFCI(field2) value' specified in the last group plus one and the specified 'Max TFCI(field2) value' in the second group. The process continues in the same way for the following groups with the TFCI(field 2) value used by the UE in constructing its mapping table starting at the largest value reached in the previous group plus one.

Method #2 - Explicit

The mapping between TFCI(field 2) value and CTFC(field2) is spelt out explicitly for each value of TFCI (field2)]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE DSCH				
>No split in TFCI				This choice is made if: a) The TFCS refers to the Uplink. OR b) The mode is FDD and none of the Radio Links of the concerned UE are assigned any DSCH transport channels. OR c) The mode is TDD.
>>TFCS		1 <maxno ofTFCs></maxno 		The first instance of the parameter corresponds to TFCI zero, the second to 1 and so on. [TDD - The first entry (for TFCI 0) should be ignored by the receiver.]
>>>CTFC	M		9.2.1.18A	
>>>CHOICE Gain Factors	C- PhysChan			
>>>Signalled Gain Factors				
>>>>CHOICE Mode	M			
>>>>FDD				
>>>>>Gain Factor β _C	M		INTEGER (015)	For UL DPCCH or control part of PRACH or control part of PCPCH in FDD; mapping in accordance to [9]
>>>>>Gain Factor β _D	M		INTEGER (015)	For UL DPDCH or data part of PRACH or data part of PCPCH in FDD: mapping in accordance to [9]
>>>>TDD				
>>>>Gain Factor β	М		INTEGER (015)	For UL DPCH in TDD; mapping in accordance to [20].
>>>>Reference TFC	0		INTEGER (03)	If this TFC is a reference TFC, this IE indicates the reference number.
>>>Computed Gain Factors				
>>>>Reference TFC nr	M		INTEGER (03)	Indicates the reference TFC to be used to calculate the gain factors for this TFC.
>There is a split in the TFCI				This choice is made if: a) The TFCS refers to the Downlink. AND b) The mode is FDD and one of the Radio Links of the concerned UE is assigned one or more DSCH transport channels.
>>Transport Format Combination DCH		1 <maxtf CI_1_Com bs></maxtf 		The first instance of the parameter <i>Transport Format Combination DCH</i> corresponds to TFCI (field 1) = 0, the second to TFCI (field 1) = 1 and so on.
>>>CTFC(field1)	М		9.2.1.18A	-
>>CHOICE Signalling Method				
>>>TFCI Range				
>>>>TFC Mapping On DSCH		1 <maxno TFCIGrou</maxno 		

		ps>		
>>>>Max TFCI(field2) Value	M		INTEGER (11023)	This is the Maximum value in the range of TFCI(field2) values for which the specified CTFC(field2) applies
>>>>CTFC(field2)	M		9.2.1.18A	
>>>Explicit				
>>>>Transport Format Combination DSCH		1 <maxtf CI_2_Com bs></maxtf 		The first instance of the parameter <i>Transport Format Combination DSCH</i> corresponds to TFCI (field2) = 0, the second to TFCI (field 2) = 1 and so on.
>>>>CTFC(field2)	M		9.2.1.18A	

Condition	Explanation
PhysChan	The IE shall be present if the TFCS concerns a UL DPCH or PRACH
	channel [FDD – or PCPCH channel].

Range Bound	Explanation
maxnoofTFCs	The maximum number of Transport Format Combinations
maxTFCI_1_Combs	Maximum number of TFCI (field 1) combinations (given by 2 raised to
	the power of the length of the TFCI (field 1))
maxTFCI_2_Combs	Maximum number of TFCI (field 2) combinations (given by 2 raised to
	the power of the length of the TFCI (field 2))
maxNoTFCIGroups	Maximum number of groups, each group described in terms of a
	range of TFCI(field 2) values for which a single value of CTFC(field2)
	applies

9.2.1.59 Transport Format Set

The Transport Format Set is defined as the set of Transport Formats associated to a Transport Channel, e.g. DCH.

[TDD - The Transport Format Set for each transport channel within the same CCTrCH shall have the same value for the 2^{nd} Interleaving Mode IE.]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Dynamic Transport Format Information		1 <maxtf count></maxtf 		The first instance of the parameter corresponds to TFI zero, the second to 1 and so on.
>Number Of Transport Blocks	M		INTEGER (0512)	
>Transport Block Size	C-Blocks		INTEGER (05000)	Unit: Bits
>CHOICE Mode	M			
>>TDD				
>>>Transmission Time Interval Information	C- TTldynami c	1 <maxtt Icount></maxtt 		
>>>>Transmission Time Interval	М		ENUMERATED (10, 20, 40, 80,)	Unit: ms
Semi-Static Transport Format Information		1		
>Transmission Time Interval	М		ENUMERATED (10, 20, 40, 80, dynamic,,5)	Unit: ms; Value 'dynamic' for TDD only; Value '5' for LCR TDD only
>Type Of Channel Coding	M		ENUMERATED (No codingTDD, Convolutional, Turbo,)	[FDD - The value "No codingTDD" shall be treated as logical error if received]
>Coding Rate	C-Coding		ENUMERATED (1/2, 1/3,)	
>Rate Matching Attribute	M		INTEGER (1maxRM)	
>CRC Size	M		ENUMERATED (0, 8, 12, 16, 24,)	
>CHOICE Mode	M		. ,	
>>TDD				
>>>2 nd Interleaving Mode	М		ENUMERATED (Frame related, Timeslot related,)	

Condition	Explanation
Blocks	The IE shall be present if the Number Of Transport Blocks IE is set to
	a value greater than 0.
Coding	The IE shall be present if the Type Of Channel Coding IE is set to
	"Convolutional" or "Turbo".
TTIdynamic	The IE shall be present if the Transmission Time Interval IE in the
·	Semi-Static Transport Format Information IE is set to 'dynamic'.

Range Bound	Explanation
maxTFcount	Maximum number of different Transport Formats that can be included
	in the Transport Format Set for one transport channel
maxRM	Maximum number that could be set as rate matching attribute for a transport channel
maxTTlcount	The amount of different TTIs that are possible for that Transport Format

9.2.1.60 ToAWE

TOAWE is the window endpoint. DL data frames are expected to be received before this window endpoint. TOAWE is defined with a positive value relative Latest Time of Arrival (LTOA). A data frame arriving after TOAWE gives a Timing Adjustment Control frame response.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
ToAWE			INTEGER (02559)	Unit: ms.

9.2.1.61 ToAWS

TOAWS is the window startpoint. DL data frames are expected to be received after this window startpoint. TOAWS is defined with a positive value relative Time of Arrival Window Endpoint (TOAWE). A data frame arriving before TOAWS gives a Timing Adjustment Control frame response.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
ToAWS			INTEGER (01279)	Unit: ms

9.2.1.62 Transaction ID

The transaction ID is used to associate all the messages belonging to the same procedure. Messages belonging to the same procedure shall use the same transaction ID.

The transaction ID is determined by the initiating peer of a procedure. For common procedures the transaction ID shall uniquely identify a procedure within all ongoing parallel procedures initiated by one protocol peer, using the same procedure code and signalled over the same Node B Control Port. For dedicated procedures the transaction ID shall uniquely identify a procedure within all ongoing parallel procedures initiated by one protocol peer, using the same procedure code and initiated towards the same Node B/CRNC context.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE Transaction ID Length				The Transaction ID shall be interpreted for its integer value, not for the type of encoding ('short' or 'long').
>Short				
>>Transaction ID Value	M		INTEGER (0127)	
>Long				
>>Transaction ID Value	М	•	INTEGER (032767)	

9.2.1.62A Transport Bearer Request Indicator

Indicates whether a new transport bearer needs to be established for carrying the concerned transport channel.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Transport Bearer Request Indicator			ENUMERATED (Bearer Requested, Bearer Not Requested,)	

9.2.1.63 Transport Layer Address

The Transport Layer Address defines the transport address of the Node B. For details on the Transport Address used see ref. [2].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Transport Layer Address			BIT STRING (1160,	

9.2.1.64 TSTD Indicator

Indicates if TSTD shall be active or not.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
TSTD Indicator			ENUMERATED (
			active,	
			inactive)	

9.2.1.64A T_{UTRAN-GPS} Measurement Value Information

The $T_{UTRAN\text{-}GPS}$ Measurement Value Information IE indicates the measurement results related to the UTRAN GPS Timing of Cell Frames for UE Positioning measurements.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Tutran-gps		1		Indicates the UTRAN GPS Timing of Cell Frames forUE Positioning. According to mapping in [22]. Significant values range from 0 to 37158911999999.
>MS	M		INTEGER (016383)	Most Significant Part
>LS	M		INTEGER (04294967295)	Least Significant Part
Tutran-gps Quality	0		INTEGER (0255)	Indicates the standard deviation (std) of the T _{UTRAN-GPS} measurements in 1/16 chip. T _{UTRAN-GPS} Quality = $\sqrt{E[(x-\mu)^2]}$ = std of reported T _{UTRAN-GPS} Value, where x is the reported T _{UTRAN-GPS} Value and $\mu = E[x]$ is the expectation value of x.
T _{UTRAN-GPS} Drift Rate	M		INTEGER (-50+50)	Indicates the T _{UTRAN-GPS} drift rate in 1/256 chip per second. A positive value indicates that the UTRAN clock is running at a lower frequency than GPS clock.
T _{UTRAN-GPS} Drift Rate Quality	0		INTEGER (050)	Indicates the standard deviation (std) of the T_{UTRAN-} GPS drift rate measurements in 1/256 chip per second. $T_{UTRAN-GPS}$ Drift Rate Quality = $\sqrt{E[(x-\mu)^2]}$ = std of reported $T_{UTRAN-GPS}$ Drift Rate, where x is the reported $T_{UTRAN-GPS}$ Drift Rate and $\mu = E[x]$ is the expectation value of x.

9.2.1.64B T_{UTRAN-GPS} Measurement Threshold Information

The $T_{UTRAN-GPS}$ Measurement Threshold Information defines the related thresholds for UTRAN GPS Timing of Cell Frames for UE Positioning measurements shall trigger the event On Modification.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
T _{UTRAN-GPS} Change Limit	0		INTEGER (1256)	Change of T _{UTRAN-GPS} value compared to previously reported value, which shall trigger a new report. Unit: chip Step: 1/16 chip
Predicted T _{UTRAN-GPS} Deviation Limit	0		INTEGER (1256)	Deviation of the predicated T _{UTRAN-GPS} from the latest measurement result, which shall trigger a new report. Unit: chip. Step: 1/16 chip

9.2.1.64C T_{UTRAN-GPS} Accuracy Class

The $T_{UTRAN-GPS}$ Accuracy Class IE indicates the accuracy class of the UTRAN GPS Timing of Cell Frames for UE Positioning measurement.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
T _{UTRAN-GPS} Accuracy Class			ENUMERATED (Accuracy Class A, Accuracy Class B, Accuracy Class C,)	More information about T _{UTRAN-GPS} Measurement Accuracy Class is included in [22].

9.2.1.65 UARFCN

Designates the central frequency of the channel number.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UARFCN			INTEGER (016383,)	Unit: MHz Range: 0 3276.6 MHz Step: 0.2 MHz (subclause 5.4.3 in [14] and [15])

9.2.1.65A UL Capacity Credit

The capacity credit indicates to the CRNC the Uplink capacity of a Local Cell or a Local Cell Group.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UL Capacity Credit			INTEGER (065535)	

9.2.1.65B UTRAN Cell Identifier (UC-Id)

The UC-Id (UTRAN Cell identifier) is the identifier of a cell in one UTRAN.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
RNC-Id	M		9.2.1.53a	
C-Id	М		9.2.1.9	

9.2.1.66 UL FP Mode

This parameter defines if normal or silent mode of the Frame Protocol shall be used for the UL.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UL FP Mode			ENUMERATED (
			Normal,	
			Silent,	
)	

9.2.1.67 UL interference level

Void.

9.2.1.67A UL SIR

The UL SIR indicates a received UL SIR.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UL SIR			INTEGER (-82173)	Value = UL SIR/10 Unit: dB Range: -8.2 +17.3 dB Step: 0.1 dB

9.2.2 FDD specific parameters

9.2.2.A Active Pattern Sequence Information

Defines the parameters for the compressed mode gap pattern sequence activation. For details see ref. [18].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CM Configuration Change CFN	М		CFN 9.2.1.7	
Transmission Gap Pattern Sequence Status		0 <maxt GPS></maxt 		
>TGPS Identifier	М		INTEGER (1maxTGPS)	If the group is not present, none of the pattern sequences are activated. References an already defined sequence.
>TGPRC	M		INTEGER (0511)	The number of transmission gap patterns within the Transmission Gap Pattern Sequence. "0"=Infinity
>TGCFN	M		CFN 9.2.1.7	Connection Frame Number of the first frame of the first pattern 1 within the Transmission Gap Pattern Sequence.

Range Bound	Explanation			
maxTGPS	Maximum number of active pattern sequences. Value 6.			

9.2.2.B Adjustment Period

The Adjustment Period IE defines the period to be used for power balancing.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Adjustment Period			INTEGER (1256)	Unit: Frames

9.2.2.C Adjustment Ratio

The Adjustment Ratio IE (Radj) defines the convergence rate used for the associated Adjustment Period.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Adjustment Ratio			INTEGER (0100)	Unit: None
				Range: 01
				Step: 0.01

9.2.2.D AICH Power

The *AICH Power* IE indicates a power level (measured as the power per transmitted acquisition indicator when several AIs are transmitted in parallel) relative to the primary CPICH power configured in a cell. If Transmit Diversity is applied to the AICH, the *AICH Power* IE indicates the power offset between the linear sum of the power for the AICH on all branches and the Primary CPICH power configured in a cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
AICH Power			INTEGER (-22+5)	Unit: dB
				Range: -22 +5 dB
				Step: 1 dB

9.2.2.1 AICH Transmission Timing

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
AICH Transmission Timing			ENUMERATED (0, 1)	See parameter AICH_Transmission_Timing in ref. [7].

9.2.2.1A AP Preamble Signature

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
AP Preamble Signature			INTEGER (015)	Described in ref. [9]

9.2.2.1B AP Sub Channel Number

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
AP Sub Channel Number			INTEGER (011)	Described in ref. [10]

9.2.2.1C CD Sub Channel Numbers

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CD Sub Channel Numbers			BIT STRING (12)	Each bit indicates availability for a subchannel, where the subchannels are numbered 'subchannel 0' to 'subchannel 11'. The value 1 of a bit indicates that the corresponding subchannel is available and the value 0 indicates that it is not available. The order of bits is to be interpreted according to subclause 9.3.4. See also [10].

9.2.2.1D Channel Assignment Indication

The Channel Assingment Indication indicates whether CA is active or inactive. When CA is active, CPCH is in Versatile Channel Assingment Method (VCAM) mode and when CA is inactive, CPCH is in UE Channel Selection Method (UCSM) mode. In VCAM mode (CA active), CA message in CD/CA-ICH shall be sent.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Channel Assignment Indication			ENUMERATED (
			CA Active,	
			CA Inactive)	

9.2.2.2 Chip Offset

The Chip Offset is defined as the radio timing offset inside a radio frame. The Chip offset is used as offset for the DL DPCH relative to the Primary CPICH timing.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Chip Offset			INTEGER (038399)	Unit: chips

9.2.2.2A Closed Loop Timing Adjustment Mode

Indicates when the phase/amplitude adjustment is performed in the DL in relation to the receipt of the UL feedback command in case of closed loop mode transmit diversity on DPCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Closed Loop Timing Adjustment Mode			ENUMERATED (Offset1, Offset2,)	According to ref. [10] subclause 7.1: "Offset1" = slot(j+1)mod15 "Offset2" = slot(j+2)mod15

9.2.2.3 Common Channels Capacity Consumption Law

Void.

9.2.2.3A Compressed Mode Deactivation Flag

The Compressed Mode Deactivation Flag indicates whether Compressed Mode shall be deactivated or not in the new RL.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Compressed Mode			ENUMERATED (
Deactivation Flag			Deactivate,	
			Maintain Active)	

9.2.2.4 Compressed Mode Method

Void.

9.2.2.4A CPCH Allowed Total Rate

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CPCH Allowed Total Rate			ENUMERATED (15, 30, 60, 120, 240, 480, 960, 1920, 2880, 3840, 4800, 5760,)	Channel Symbol Rate Unit: ksps

9.2.2.4B CPCH Scrambling Code Number

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CPCH Scrambling Code			INTEGER (079)	Described in ref. [9]
Number				

9.2.2.4C CPCH UL DPCCH Slot Format

Indicates the slot format used in UL CPCH message control part, accordingly to ref. [7]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CPCH UL DPCCH Slot Format			INTEGER (02,)	

9.2.2.4D DCH FDD Information

The DCH FDD Information IE provides information for DCHs to be established.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DCH FDD Information		1 <maxno ofDCHs></maxno 		
>Payload CRC Presence Indicator	M		9.2.1.49	
>UL FP Mode	M		9.2.1.66	
>ToAWS	M		9.2.1.61	
>ToAWE	M		9.2.1.60	
>DCH Specific Info		1 <maxno ofDCHs></maxno 		
>>DCH ID	M		9.2.1.20	
>>Transport Format Set	M		9.2.1.59	For UL
>>Transport Format Set	M		9.2.1.59	For DL
>>Allocation/Retention Priority	М		9.2.1.1A	
>>Frame Handling Priority	M		9.2.1.30	
>>QE-Selector	M		9.2.1.50A	

Range Bound	Explanation
maxnoofDCHs	Maximum number of DCHs for one UE

9.2.2.4E DCHs FDD To Modify

The DCHs FDD To Modify IE provides information for DCHs to be modified.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DCHs FDD To Modify		1 <maxno ofDCHs></maxno 		
>UL FP Mode	0		9.2.1.66	
>ToAWS	0		9.2.1.61	
>ToAWE	0		9.2.1.60	
>Transport Bearer Request Indicator	М		9.2.1.62A	
>DCH Specific Info		1 <maxno ofDCHs></maxno 		
>>DCH ID	М		9.2.1.20	
>>Transport Format Set	0		9.2.1.59	For the UL.
>>Transport Format Set	0		9.2.1.59	For the DL.
>>Allocation/Retention Priority	0		9.2.1.1A	
>>Frame Handling Priority	0		9.2.1.30	

Range Bound	Explanation
maxnoofDCHs	Maximum number of DCHs for one UE

9.2.2.5 D-Field Length

Void.

9.2.2.6 Dedicated Channels Capacity Consumption Law

Void.

9.2.2.7 Diversity Control Field

Void.

9.2.2.8 Diversity Indication

Void.

9.2.2.9 Diversity mode

Define the diversity mode to be applied.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Diversity Mode			ENUMERATED (
			None,	
			STTD,	
			Closed loop mode 1,	
			Closed loop mode 2,	
)	

9.2.2.10 DL DPCH Slot Format

Indicates the slot format used in DPCH in DL, accordingly to ref. [7].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DL DPCH Slot Format			INTEGER (016,)	

9.2.2.11 DL frame type

Void.

9.2.2.12 DL or Global Capacity Credit

Void.

9.2.2.12A DL_power_averaging_window_size

The *DL_power_averaging_window_size* IE defines the window size when Limited Power Increase is used [10].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DL_power_averaging_window			INTEGER (160)	Unit: inner loop power
_size				adjustments
				Range: 160
				Step: 1 adjustment

9.2.2.13 DL Scrambling Code

DL scrambling code to be used by the RL. One cell may have multiple DL scrambling codes available.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DL Scrambling Code			INTEGER (015)	"0" = Primary scrambling code of the cell "1""15" = Secondary scrambling code

9.2.2.13A DL TPC Pattern 01 Count

The *DL TPC Pattern 01 Count* IE contains the value of the parameter n, which is used for determining the DL TPC pattern on Radio Links marked with "first RLS" by the *First RLS indicator* IE before UL synchronisation is achieved.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DL TPC Pattern 01 Count			INTEGER(030,)	

9.2.2.13B DSCH FDD Information

The DSCH FDD Information IE provides information for DSCHs to be established.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DSCH FDD Information		1 <maxno ofDSCHs></maxno 		
>DSCH ID	M		9.2.1.27	
>Transport Format Set	M		9.2.1.59	For DSCH
>Allocation/Retention Priority	M		9.2.1.1A	
>Frame Handling Priority	М		9.2.1.30	
>ToAWS	M		9.2.1.61	
>ToAWE	М		9.2.1.60	

Range Bound	Explanation
maxnoofDSCHs	Maximum number of DSCHs for one UE

9.2.2.13C DPC Mode

The DPC Mode IE indicates the DPC mode to be applied [10].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DPC Mode			ENUMERATED (Mode0, Mode1,)	"Mode0": The Node B shall estimate the UE transmitted TPC command and update the DL power in every slot
				"Mode1": The Node B shall estimate the UE transmitted TPC command over three slots and shall update the DL power in every three slots

9.2.2.13D DSCH FDD Common Information

The DSCH Common Information includes common information for all DSCHs for one UE.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Enhanced DSCH PC Indicator	0		9.2.2.13G	
Enhanced DSCH PC	C- EDSCHPC On		9.2.2.13E	

Condition	Explanation
EDSCHPCOn	The IE shall be present if the Enhanced DSCH PC Indicator IE is set
	to 'Enhanced DSCH PC Active in the UE'.

9.2.2.13E Enhanced DSCH PC

The Enhanced DSCH PC includes all the parameters which are needed for DSCH power control improvement during soft handover.

IE/Group Name	Presence	Range	IE Type and	Semantics Description
			Reference	
Enhanced DSCH PC Wnd	M		9.2.2.13H	
Enhanced DSCH PC Counter	M		9.2.2.13F	
Enhanced DSCH Power Offset	M		9.2.2.131	

9.2.2.13F Enhanced DSCH PC Counter

The Enhanced DSCH PC Counter parameter gives the number of correct cell ID command to receive in the averaging window, *Enhanced DSCH PC Wnd* IE, see ref. [10] subclause 5.2.2.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Enhanced DSCH PC Counter			INTEGER(150)	

9.2.2.13G Enhanced DSCH PC Indicator

The Enhanced DSCH PC Indicator indicates whether Enhanced DSCH PC is in use by the UE or not.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Enhanced DSCH PC Indicator			ENUMERATED(Enhanced DSCH PC Active in the UE, Enhanced DSCH PC not Active in the UE)	

9.2.2.13H Enhanced DSCH PC Wnd

The Enhanced DSCH PC Wnd parameter shows the window size to decide primary or non-primary cell, see ref. [10] subclause 5.2.2.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Enhanced DSCH PC Wnd			INTEGER (110)	

9.2.2.13I Enhanced DSCH Power Offset

The Enhanced DSCH Power Offset parameter gives the power offset to be added on DSCH when cell is decided to be primary.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Enhanced DSCH Power Offset			INTEGER (-150)	Unit: dB
				Range: -15 0 dB
				Step: 1 dB

9.2.2.14 FDD DL Channelisation Code Number

The DL Channelisation Code Number indicates the DL Channelisation Code number for a specific DL physical channel.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
FDD DL ChannelisationCode Number			INTEGER (0511)	According to the mapping in [9]. The maximum value is equal to the DL spreading factor –1.

9.2.2.14A FDD DL Code Information

The FDD DL Code Information IE provides DL Code information for the RL.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
FDD DL Code Information		1 <maxno ofcodes=""></maxno>		
>DL Scrambling Code	М		9.2.2.13	
>FDD DL Channelisation Code Number	M		9.2.2.14	
>Transmission Gap Pattern Sequence Code Information	0		9.2.2.53B	

Range Bound	Explanation
maxnoofCodes	Maximum number of DL code information

9.2.2.15 FDD SCCPCH Offset

The Secondary CCPCH offset is defined as the time offset towards the Primary CCPCH in the cell. The offset is a multiple of 256 chips.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
FDD SCCPCH Offset			INTEGER (0149)	Unit: chip Range: 038144 chips Step: 256 chips See ref. [7]

9.2.2.16 FDD TPC DL Step Size

This parameter indicates step size for the DL power adjustment.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
FDD TPC Downlink Step Size			ENUMERATED (0.5, 1, 1.5, 2,)	Unit: dB

9.2.2.16A First RLS Indicator

The *First RLS Indicator* IE indicates if a specific Radio Link and all Radio Links which are part of the same Radio Link Set, shall be considered as the first radio links established towards the UE or not.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
First RLS Indicator			ENUMERATED (First RLS, Not First RLS,)	

9.2.2.17 Gap Period

Void.

9.2.2.18 Gap Position Mode

Void.

9.2.2.18A Limited Power Increase

The parameter is used for a more efficient use of the inner loop DL power control for non real time data.

If the limited power increase is used, the Node B shall use the limited power increase algorithm as specified in [10], subclause 5.2.

IE/Group Name	Presence	Range	IE Type and	Semantics Description
			Reference	
Limited Power Increase			ENUMERATED (
			Used,	
			Not Used)	

9.2.2.18B Inner Loop DL PC Status

The *Inner Loop DL PC Status* IE indicates whether inner loop DL control shall be active or inactive for all radio links associated with the context identified by the *Node B Communication Context Id* IE.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Inner Loop DL PC Status			ENUMERATED (Active.	
			Inactive)	

9.2.2.18C IPDL FDD Parameters

The IPDL FDD Parameters IE provides information about IPDL to be applied for FDD when activated.

IE/Group Name	Presence	Range	IE Type and	Semantics Description
			Reference	
IP SpacingFDD	M		ENUMERATED	See [10]
			(5, 7, 10, 15, 20, 30,	
			40, 50,)	
IP Length	M		ENUMERATED	See [10]
			(5, 10)	
Seed	M		INTEGER (063)	See [10]
Burst Mode Parameters	0		9.2.1.5A	
IP Offset	М		INTEGER (09)	See [10]

9.2.2.19 Max Adjustment Period

Void.

9.2.2.20 Max Adjustment Step

Defines the maximum allowed value for the change of DL power level during a certain number of slots that can be utilised by the downlink power balancing algorithm. *Max Adjustment Step* IE defines a time period, in terms of number of slots, in which the accumulated power adjustment shall be maximum 1dB. This value does not include the DL inner loop PC adjustment.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Max Adjustment Step			INTEGER (110)	Unit: Slots

9.2.2.20A Max Number Of PCPCHs

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Max Number Of PCPCHs			INTEGER (164,)	

9.2.2.21 Maximum Number Of UL DPDCHs

Maximum number of uplink DPDCHs to be used during the connection. Needed by the rate matching algorithm.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Max Number Of UL DPDCHs			INTEGER (16)	

9.2.2.22 Minimum UL Channelisation Code Length

Minimum UL channelisation code length (spreading factor) of a DPDCH which is used during the connection. Needed by rate matching algorithm.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Min UL Channelisation Code			ENUMERATED	
Length			(4, 8, 16, 32, 64,	
			128, 256,)	

9.2.2.23 Multiplexing Position

Multiplexing Position specifies whether fixed or flexible positions of transport channels shall be used in the physical channel.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Multiplexing Position			ENUMERATED (
			Fixed,	
			Flexible)	

9.2.2.23A N_EOT

The N_EOT is defined as number of End of Transmission for release of PCPCH transmission.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
N_EOT			INTEGER (08)	Unit: TTI Value "8" is never used in this release.

9.2.2.23B NF_max

The NF_max is defined as maximum number of Frame in a PCPCH message data part.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
NF_max			INTEGER (164,)	

9.2.2.23C N_Start_Message

The N_Start_Message is defined as number of Frames for start message of DL DPDCHs for a CPCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
N_Start_Message			INTEGER (18)	

9.2.2.24 Pattern Duration (PD)

Void.

9.2.2.24A PCP Length

Indicates CPCH power control preamble length.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
PCP Length			ENUMERATED (0, 8)	

9.2.2.25 PDSCH Code Mapping

This IE indicates the association between each possible value of TFCI(field 2) and the corresponding PDSCH channelisation code(s). There are three fundamentally different ways that the UTRAN must choose between in order to signal the mapping information, these are described below. The signalling capacity consumed by the different methods will vary depending on the way in which the UTRAN configures usage of the DSCH. A fourth option is also provided which allows the UTRAN to replace individual entries in the TFCI(field 2) to PDSCH code mapping table with new PDSCH code values.

Method #1 - Using code range

The mapping is described in terms of a number of groups, each group associated with a given spreading factor. Each TFCI(field2) value corresponds to a given PDSCH channelisation code or set of PDSCH codes for multi-code. The Node B maps TFCI(field2) values to PDSCH codes in the following way:

- The PDSCH codes used for TFCI(field 2) = 0 are given by the SF of the Code Group 1 (i.e. first instance in *PDSCH Code Mapping*) and the code numbers between CodeNumber₀ (where CodeNumber₀ = "Start Code Number" of Code Group 1) and CodeNumber₀ + "Multi-Code Info" 1.
- This continues with unit increments in the value of TFCI (Field2) mapped to either unit increments in code numbers or groups of contiguous code numbers in case of multi-code, this until "Stop Code Number" is reached: So the PDSCH codes used for TFCI(field 2) = k (for k > 0 and k < ("Stop Code Number" "Start Code Number" + 1) DIV k) are given by the SF of the Code Group 1 and the code numbers between CodeNumber_k = CodeNumber_{k-1} + "Multi-Code Info" and CodeNumber_k + "Multi-Code Info" 1.
 If "Stop Code Number" = "Start Code Number" + "Multi-Code Info" 1 then this is to be interpreted as defining the mapping between the channelisation code(s) and a single TFCI.
- The Node B constructs its mapping table by repeating this process for all the Code Groups in the order they are instantiated in *PDSCH Code Mapping*. The first TFCI(field 2) value used in each group is the largest TFCI(field 2) value reached in the previous group incremented by one.

Note: This imposes that "Stop Code Number" – "Start Code Number" + 1 is a multiple of the value "Multi-Code Info" for each instance of *PDSCH Code Mapping*. Furthermore, in the case where multi-code is not used, then "Multi-Code Info" = 1 and the process above also applies.

Method #2 - Using TFCI range

The mapping is described in terms of a number of groups, each group corresponding to a given PDSCH channelisation code or codes for multicode.

- The set of PDSCH codes specified in the first instance applies for all values of TFCI(field 2) between 0 and the specified "Max TFCI(field2)".
- The process continues in the same way for the following groups with the TFCI(field 2) value starting at the largest value reached in the previous instance incremented by one.

 So the set of PDSCH codes specified in a given instance apply for all the values of TFCI(field 2) between the "Max TFCI(field2) value" specified in the previous instance incremented by one and the specified "Max TFCI(field2)" of the considered instance.

A set of PDSCH codes is composed of all the codes between "Code Number" and "Code Number" + "Multi-Code Info" – 1. So if multi-code is not used, the set of PDSCH codes is reduced to one element indicated by the *Code Number* IE.

Method #3 - Explicit

The mapping between TFCI(field 2) value and PDSCH channelisation code (or a set of PDSCH codes for multicode) is spelt out explicitly for each value of TFCI (field2).

A set of PDSCH codes is composed of all the codes between "Code Number" and "Code Number" + "Multi-Code Info" – 1. So if multi-code is not used, the set of PDSCH codes is reduced to one element indicated by the *Code Number* IE.

Method #4 - Replace

The "TFCI (field2)" value(s) for which the mapping to PDSCH channelisation code (or a set of PDSCH codes for multicode) is changed are explicitly signalled. Furthermore, the new mapping between TFCI(field 2) value and PDSCH channelisation code(s) is spelt out explicitly for each value of TFCI (field2).

A set of PDSCH codes is composed of all the codes between "Code Number" and "Code Number" + "Multi-Code Info" – 1. So if multi-code is not used, the set of PDSCH codes is reduced to one element indicated by the *Code Number* IE.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DL Scrambling Code	М		9.2.2.13	Scrambling code on which PDSCH is transmitted.
CHOICE Signalling Method	М			
>Code Range				
>>PDSCH Code Mapping		1 <maxno CodeGrou ps></maxno 		
>>>Spreading Factor	М		ENUMERATED (4, 8, 16, 32, 64, 128, 256,)	
>>>Multi-Code Info	М		INTEGER (116)	
>>>Start Code Number	M		INTEGER (0maxCodeNumCo mp-1)	PDSCH code start, Numbering as described in [18]. The maximum value is equal to the Spreading Factor - 1.
>>>Stop Code Number	M		INTEGER (0maxCodeNumCo mp-1)	PDSCH code stop, Numbering as described in [18]. The maximum value is equal to the Spreading Factor - 1.
>TFCI Range				
>>DSCH Mapping		1 <maxno TFCIGrou ps></maxno 		
>>>Max TFCI(field2) Value	M		INTEGER (11023)	This is the maximum value in the range of TFCI(field 2) values for which the specified PDSCH code applies
>>>Spreading Factor	M		ENUMERATED (4, 8, 16, 32, 64, 128, 256,)	SF of PDSCH code
>>>Multi-Code Info	М		INTEGER (116)	
>>>Code Number	М		INTEGER (0maxCodeNumCo mp-1)	Code number of PDSCH code. Numbering as described in [18]. The maximum value is equal to the Spreading Factor - 1.
>Explicit				
>>PDSCH Code		1 <maxtf Cl_2_Com bs></maxtf 		The first instance of the parameter PDSCH code corresponds to TFCI (field2) = 0, the second to TFCI(field 2) = 1 and so on.
>>>Spreading Factor	M		ENUMERATED (4, 8, 16, 32, 64, 128, 256,)	SF of PDSCH code
>>>Multi-Code Info	М		INTEGER (116)	
>>>Code Number	М		INTEGER (0maxCodeNumCo mp-1)	Code number of PDSCH code. Numbering as described in [18]. The maximum value is equal to the Spreading Factor - 1.
>Replace				
>>Replaced PDSCH Code		1 <maxtf CI_2_Com bs></maxtf 		
>>>TFCI (field2)	M		INTEGER (01023)	Value of TFCI(field 2) for which PDSCH code mapping will be changed
>>>Spreading Factor	М		ENUMERATED (4, 8, 16, 32, 64, 128, 256,)	SF of PDSCH code
>>>Multi-Code Info	М		INTEGER (116)	
>>>Code Number	M		INTEGER (0maxCodeNumCo mp-1)	Code number of PDSCH code. Numbering as described in [18].

		The maximum value is equal
		to the Spreading Factor - 1.

Range Bound	Explanation
maxCodeNumComp	Maximum number of codes at the defined spreading factor, within the complete code tree.
maxTFCI_2_Combs	Maximum number of TFCI (field 2) combinations (given by 2 raised to the power of the length of the TFCI field 2)
maxNoTFCIGroups	Maximum number of groups, each group described in terms of a range of TFCI(field 2) values for which a single PDSCH code applies.
maxNoCodeGroups	Maximum number of groups, each group described in terms of a range of PDSCH channelisation code values for which a single spreading factor applies.

9.2.2.26 PICH Mode

The number of paging indicators (PIs) in a PICH frame.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
PICH Mode			ENUMERATED	Number of PIs per frame
			(18, 36, 72, 144,)	

9.2.2.27 Power Adjustment Type

Defines the characteristic of the power adjustment.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Power Adjustment Type			ENUMERATED (
			None,	
			Common,	
			Individual)	

9.2.2.28 Power Control Mode

Void.

9.2.2.29 Power Offset

This IE defines a power offset relative to the Downlink transmission power of a DPDCH or a Secondary CCPCH data field or a DL-DPCCH for CPCH pilot field..

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Power Offset			INTEGER (024)	Unit: dB
				Range: 06 dB
				Step: 0.25 dB

9.2.2.29A Power_Raise_Limit

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Power_Raise_Limit			INTEGER (010)	Unit: dB
				Range: 010 dB
				Step: 1 dB

9.2.2.30 Power Resume Mode

Void.

9.2.2.31 Preamble Signature

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Preamble Signatures			BIT STRING (16)	Each bit indicates availability for a signature, where the signatures are numbered 'signature 0' up to 'signature 15'. The value 1 of a bit indicates that the corresponding signature is available and the value 0 that it is not available. The order of bits is to be interpreted according to subclause 9.3.4. See also [9].

9.2.2.32 Preamble Threshold

The IE sets the threshold for preamble detection. The ratio between received preamble power during the preamble period and interference level shall be above this threshold in order to be acknowledged.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Preamble Threshold			INTEGER (072)	Unit: dB Range: -36 0 dB Step: 0.5 dB

9.2.2.33 Primary CPICH Power

The Primary CPICH power is the power that shall be used for transmitting the P-CPICH in a cell. The reference point is the antenna connector. If Transmit Diversity is applied to the Primary CPICH, the Primary CPICH power is the linear sum of the power that is used for transmitting the Primary CPICH on all branches.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Primary CPICH Power			INTEGER (-100500)	Value = Primary CPICH Power/10 Unit: dBm Range: -10.0 +50.0 dBm Step: 0.1 dB

9.2.2.34 Primary Scrambling Code

The Primary scrambling code to be used in the cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Primary Scrambling Code			INTEGER (0511)	

9.2.2.35 Propagation Delay

The Propagation delay is the one-way propagation delay of the radio signal from the MS to the Node B.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Propagation Delay			INTEGER (0255)	Unit: chips
				Range: 0765 chips
				Step: 3 chips

9.2.2.36 QE-Selector

Void.

9.2.2.37 RACH Slot Format

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
RACH Slot Format			ENUMERATED (03,)	See ref. [7].

9.2.2.38 RACH Sub Channel Numbers

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
RACH Sub Channel Numbers			BIT STRING (12)	Each bit indicates availability for a subchannel, where the subchannels are numbered 'subchannel 0' to 'subchannel 11'. The value 1 of a bit indicates that the corresponding subchannel is available and the value 0 indicates that it is not available. The order of bits is to be interpreted according to subclause 9.3.4.

9.2.2.39 RL Set ID

The RL Set ID uniquely identifies one RL Set within a Node B Communication Context.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
RL Set ID			INTEGER (031)	

9.2.2.39A Received Total Wide Band Power

The Received total wide band power indicates the UL interference at a certain cell under CRNC, see ref. [4].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Received Total Wide Band Power			INTEGER (0621)	According to mapping in [22].

9.2.2.40 S-Field Length

The UE uses the S Field of the UL DPCCH slot to send the SSDT Cell ID to the network.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
S Field Length			ENUMERATED	
-			(1, 2,)	

9.2.2.41 Scrambling Code Change

Void.

9.2.2.42 Scrambling Code Number

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Scrambling Code Number			INTEGER (015)	Identification of scrambling code see ref. [9].

9.2.2.43 Secondary CCPCH Slot Format

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Secondary CCPCH Slot			INTEGER (017,)	
Format				

9.2.2.44 SSDT Cell Identity

The SSDT Cell ID is a temporary ID for SSDT assigned to a cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
SSDT Cell Identity			ENUMERATED	
			(a, b,, h)	

9.2.2.44A SSDT Cell Identity For EDSCHPC

The SSDT Cell Identity for EDSCHPC is a temporary ID for enhanced DSCH power control assigned to a cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
SSDT Cell Identity For EDSCHPC			SSDT Cell Identity 9.2.2.44	

9.2.2.45 SSDT Cell ID Length

The SSDT Cell ID Length parameter shows the length of the SSDT Cell ID.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Cell ID Length			ENUMERATED (Short, Medium, Long)	

9.2.2.46 SSDT Support Indicator

The SSDT Support Indicator indicates whether a RL supports SSDT or not.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
SSDT Support Indicator			ENUMERATED (SSDT Supported, SSDT Not Supported)	

9.2.2.47 SSDT Indication

The SSDT Indication indicates whether SSDT is in use by the UE or not.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
SSDT Indication			ENUMERATED (SSDT Active in the UE, SSDT Not Active in the UE)	

9.2.2.48 STTD Indicator

Indicates if STTD shall be active or not.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
STTD Indicator			ENUMERATED (active, inactive,	
			l)	

9.2.2.49 T Cell

Timing delay used for defining start of SCH, CPICH and the DL scrambling code(s) in a cell relative BFN. Resolution 256 chips.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
T Cell			ENUMERATED (0, 1,,9)	Unit: 0 chip Range: 02304 chips Step: 256 chips See ref. [17]

9.2.2.49A TFCI2 Bearer Information Response

The *TFCI2 Bearer Information Response* IE provides information for TFCI2 bearer that have been established or modified.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Binding ID	M		9.2.1.4	
Transport Layer Address	M		9.2.1.63	

9.2.2.50 TFCI Signalling Mode

This parameter indicates if the normal or split mode is used for the TFCI. In the event that the split mode is to be used then the IE indicates whether the split is "Hard" or "Logical", and in the event that the split is "Logical" the IE indicates the number of bits in TFCI (field 2).

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
TFCI Signalling Option	М		ENUMERATED (Normal, Split)	"Normal" : meaning no split in the TFCI field (either "Logical" or "Hard") "Split" : meaning there is a split in the TFCI field (either "Logical" or "Hard")
Split Type	C-lfSplit		ENUMERATED (Hard, Logical)	"Hard": meaning that TFCI (field 1) and TFCI (field 2) are each 5 bits long and each field is block coded separately. "Logical": meaning that on the physical layer TFCI (field 1) and TFCI (field 2) are concatenated, field 1 taking the most significant bits and field 2 taking the least significant bits). The whole is then encoded with a single block code.
Length Of TFCI2	C- SplitType		INTEGER (110)	This IE indicates the length measured in number of bits of TFCI (field2).

Condition	Explanation
IfSplit	The IE shall be present if the TFCI Signalling Option IE is set to 'Split'.
SplitType	The IE shall be present if the Split Type IE is set to 'Logical'.

9.2.2.51 TGD

Void.

9.2.2.52 TGL

Void.

9.2.2.53 Transmit Diversity Indicator

The Transmit Diversity Indicator indicates whether transmit diversity shall be active or not.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Transmit Diversity Indicator			ENUMERATED (
			active,	
			inactive)	

9.2.2.53A Transmission Gap Pattern Sequence Information

Defines the parameters for the compressed mode gap pattern sequence. For details see ref. [18].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Transmission Gap Pattern Sequence Information		1 <maxt GPS></maxt 		
>TGPS Identifier	M	0, 0,	INTEGER (1maxTGPS)	Transmission Gap Pattern Sequence Identifier: Establish a reference to the compressed mode pattern sequence. Up to <maxtgps> simultaneous compressed mode pattern sequences can be used.</maxtgps>
>TGSN	М		INTEGER (014)	Transmission Gap Starting Slot Number: The slot number of the first transmission gap slot within the TGCFN.
>TGL1	М		INTEGER (114)	The length of the first Transmission Gap within the transmission gap pattern expressed in number of slots.
>TGL2	0		INTEGER (114)	The length of the second Transmission Gap within the transmission gap pattern. If omitted, then TGL2=TGL1.
>TGD	M		INTEGER (0, 15 269)	Transmission Gap Distance: indicates the number of slots between the starting slots of two consecutive transmission gaps within a transmission gap pattern. If there is only one transmission gap in the transmission gap pattern, this parameter shall be set to "0" ("0" =undefined).
>TGPL1	М		INTEGER (1144,)	The duration of transmission gap pattern 1 in frames.
>TGPL2	0		INTEGER (1144,)	The duration of transmission gap pattern 2 in frames. If omitted, then TGPL2=TGPL1.
>UL/DL Mode	M		ENUMERATED (UL only, DL only, UL/DL)	Defines whether only DL, only UL or combined UL/DL compressed mode is used.
>Downlink Compressed Mode Method	C-DL		ENUMERATED (Puncturing, SF/2, Higher Layer Scheduling,)	Method for generating downlink compressed mode gap None means that compressed mode pattern is stopped.
>Uplink Compressed Mode Method	C-UL		ENUMERATED (SF/2, Higher Layer Scheduling,)	Method for generating uplink compressed mode gap.
>Downlink Frame Type	М		ENUMERATED (A, B,)	Defines if frame structure type "A" or "B" shall be used in downlink compressed mode.
>DeltaSIR1	M		INTEGER (030)	Delta in SIR target value to be set in the Node B during the frame containing the start of the first transmission gap in the transmission gap pattern (without including the effect of the bit-rate increase). Unit: dB Range: 03 dB Step: 0.1 dB

>DeltaSIRafter1	M	INTEGER (030	Delta in SIR target value to be set in the Node B one frame after the frame containing the start of the first transmission gap in the transmission gap pattern. Unit: dB Range: 03 dB Step: 0.1 dB
>DeltaSIR2	0	INTEGER (030	Delta in SIR target value to be set in the Node B during the frame containing the start of the second transmission gap in the transmission gap pattern (without including the effect of the bit-rate increase). When omitted, DeltaSIR2 = DeltaSIR1. Unit: dB Range: 03 dB Step: 0.1 dB
>DeltaSIRafter2	0	INTEGER (030	

Condition	Explanation
UL	The IE shall be present if the UL/DL mode IE is set to "UL only" or
	"UL/DL".
DL	The IE shall be present if the <i>UL/DL mode</i> IE is set to "DL only" or
	"UL/DL".

Range Bound	Explanation
maxTGPS	Maximum number of transmission gap pattern sequences

9.2.2.53B Transmission Gap Pattern Sequence Code Information

This IE indicates whether the alternative scrambling code shall used for the Downlink compressed mode method or not in the Transmission Gap Pattern Sequence. For details see [9].

IE/Group Name	Presence	Range	IE Type and	Semantics Description
			Reference	
Transmission Gap Pattern Sequence Code Information			ENUMERATED (Code Change, No Code Change)	Indicates whether the alternative scrambling code is used for compressed mode method "SF/2".

9.2.2.54 UL/DL compressed mode selection:

Void.

9.2.2.55 UL delta SIR

Void.

9.2.2.56 UL delta SIR after

Void.

9.2.2.57 UL DPCCH Slot Format

Indicates the slot format used in DPCCH in UL, according to ref. [7].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UL DPCCH Slot Format			INTEGER (05,)	

9.2.2.58 UL SIR

Void.

9.2.2.59 UL Scrambling Code

The UL Scrambling Code is the scrambling code used by UE. Every UE has its specific UL Scrambling Code.

IE/Group Name	Presence	Range	IE Type and	Semantics Description
			Reference	
UL Scrambling Code Number	M		INTEGER (02 ²⁴ -1)	
UL Scrambling Code Length	M		ENUMERATED (
			Short,	
			Long)	

9.2.2.60 UL Capacity Credit

Void.

9.2.3 TDD specific Parameters

9.2.3.1 Block STTD Indicator

Void.

9.2.3.2 Burst Type

Void.

9.2.3.3 CCTrCH ID

The CCTrCH ID for dedicated and shared channels identifies unambiguously an uplink or downlink CCTrCH inside a Radio Link. For S-CCPCH, it identifies unambiguously a downlink CCTrCH within a cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CCTrCH ID			INTEGER (015)	

9.2.3.4 Cell Parameter ID

The Cell Parameter ID identifies unambiguously the [3.84 Mcps TDD - Code Groups, Scrambling Codes, Midambles and Toffset] [1.28 Mcps TDD - SYNC-DL and SYNC-UL sequences, the scrambling codes and the midamble codes] (see ref. [20]).

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Cell Parameter ID			INTEGER (0127,)	

9.2.3.4A Constant Value

The Constant Value is the power margin used by a UE to set the proper uplink power for a DCH, USCH, or a RACH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Constant Value			INTEGER	Unit: dB
			(-1010,)	Range: -10 +10 dB
				Step: 1 dB.

9.2.3.4B DL Timeslot ISCP

The DL Timeslot ISCP is the measured interference in a downlink timeslot at the UE, see ref. [5].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DL Timeslot ISCP			INTEGER (091)	According to mapping in ref. [5].

9.2.3.4C DCH TDD Information

The DCH TDD Information IE provides information for DCHs to be established.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DCH TDD Information		1 <maxno ofDCHs></maxno 		
>Payload CRC Presence Indicator	М		9.2.1.49	
>UL FP Mode	M		9.2.1.66	
>ToAWS	M		9.2.1.61	
>ToAWE	M		9.2.1.60	
>DCH Specific Info		1 <maxno ofDCHs></maxno 		
>>DCH ID	M		9.2.1.20	
>>CCTrCH ID	М		9.2.3.3	UL CCTrCH in which the DCH is mapped
>>CCTrCH ID	М		9.2.3.3	DL CCTrCH in which the DCH is mapped
>>Transport Format Set	M		9.2.1.59	For UL
>>Transport Format Set	M		9.2.1.59	For DL
>>Allocation/Retention Priority	M		9.2.1.1A	
>>Frame Handling Priority	M		9.2.1.30	
>>QE-Selector	C- CoorDCH		9.2.1.50A	

Condition	Explanation
CoorDCH	The IE shall be present if this DCH is part of a set of coordinated DCHs (number of instances of the <i>DCH Specific Info</i> IE is greater
	than 1).

Range Bound	Explanation
maxnoofDCHs	Maximum number of DCHs for one UE

9.2.3.4D DCHs TDD To Modify

The $DCHs\ TDD\ To\ Modify\ IE$ provides information for DCHs to be modified.

IE/Group Name	Presence	Range	IE Type and	Semantics Description
			Reference	
DCHs TDD To Modify		1 <maxno ofDCHs></maxno 		
>UL FP Mode	0		9.2.1.66	
>ToAWS	0		9.2.1.61	
>ToAWE	0		9.2.1.60	
>Transport Bearer Request Indicator	М		9.2.1.62A	
>DCH Specific Info		1 <maxno ofDCHs></maxno 		
>>DCH ID	M		9.2.1.20	
>>CCTrCH ID	0		9.2.3.3	UL CCTrCH in which the DCH is mapped.
>>CCTrCH ID	0		9.2.3.3	DL CCTrCH in which the DCH is mapped
>>Transport Format Set	0		9.2.1.59	For the UL.
>>Transport Format Set	0		9.2.1.59	For the DL.
>>Allocation/Retention Priority	0		9.2.1.1A	
>>Frame Handling Priority	0		9.2.1.30	

Range Bound	Explanation
maxnoofDCHs	Maximum number of DCHs for one UE

9.2.3.4E DL Timeslot Information

The *DL Timeslot Information* IE provides information for DL Time slot to be established.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DL Timeslot Information		1 <maxno ofDLts></maxno 		
>Time Slot	M		9.2.3.23	
>Midamble Shift And Burst Type	M		9.2.3.7	
>TFCI Presence	М		9.2.1.57	
>DL Code Information	М		TDD DL Code Information 9.2.3.19B	

Range Bound	Explanation
maxnoofDLts	Maximum number of Downlink time slots per Radio Link

9.2.3.4F DL Time Slot ISCP Info

The DL Time Slot ISCP Info IE provides information for DL Interference level for each time slot within the Radio Link.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DL Time Slot ISCP Info		1 <maxno ofDLts></maxno 		
>Time Slot	M		9.2.3.23	
>DL Timeslot ISCP	M		9.2.3.4B	

Range Bound	Explanation
maxnoofDLts	Maximum number of Downlink time slots per Radio Link for 3.84Mcps
	TDD.

9.2.3.4G Cell Sync Burst Code

The Cell Sync Burst Code IE indicates which Code is used for a given Cell Sync Burst.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Cell Sync Burst Code			INTEGER (07,)	

9.2.3.4H Cell Sync Burst Code Shift

The Cell Sync Burst Code Shift IE indicates the number of code shifts used for a given Cell Sync Burst.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Cell Sync Burst Code Shift			INTEGER (07)	

9.2.3.4I CSB Measurement ID

The *Cell Sync Burst Measurement ID* IE uniquely identifies any cell synchronisation burst measurement per Node B Control Port.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CSB Measurement ID			INTEGER (065535)	

9.2.3.4J Cell Sync Burst Repetition Period

The *Cell Sync Burst Repetition Period* IE represents the number of consecutive Radio Frames after which the cell synchronisation burst transmission/measurement is repeated. This means that if the Time Slot K is assigned to the cell synchronisation burst transmission/measurements in the Radio Frame J, the cell synchronisation burst transmission/measurement is also in all the Radio Frames J+n*Repetition Period.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Cell Sync Burst Repetition Period			INTEGER (04095)	

9.2.3.4K Cell Sync Burst SIR

Indicates the Signal to Interference Ratio of the cell synchronisation burst measurement according definition in [5].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Cell Sync Burst SIR			INTEGER (031)	According to mapping in [23]

9.2.3.4L Cell Sync Burst Timing

The *Cell Sync Burst Timing* IE defines the time of start (defined by the first detected path in time) of the cell synchronisation burst of a neighbouring cell see [5].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE Phase				According to mapping in [23]
>Initial Phase				
>>Cell Synch Burst Timing	M		INTEGER (0	
Value			1048575,)	
>Steady State Phase				
>>Cell Synch Burst Timing	M		INTEGER (0255,)	
Value				

9.2.3.4M Cell Sync Burst Timing Threshold

The *Cell Sync Burst Timing Threshold* IE defines the threshold that shall trigger a CELL SYNCHRONISATION REPORT message.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Cell Sync Burst Timing Threshold			INTEGER (0254)	Unit: chip Range: 0 31.75 chips Step: 0.125 chip

9.2.3.4N CSB Transmission ID

The *Cell Sync Burst Transmisson ID* IE uniquely identifies any cell synchronisation burst transmission per Node B Control Port.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CSB Transmission ID			INTEGER (065535)	

9.2.3.40 DL Timeslot Information LCR

The *DL Timeslot Information LCR* IE provides information for DL Time slot to be established.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DL Timeslot Information LCR		1 <maxno ofDLtsLCR ></maxno 		
>Time Slot LCR	M		9.2.3.24A	
>Midamble Shift LCR	M		9.2.3.7A	
>TFCI Presence	M		9.2.1.57	
>DL Code Information	M		TDD DL Code Information LCR 9.2.3.19C	

Range Bound	Explanation
maxnoofDLtsLCR	Maximum number of Downlink time slots per Radio Link for 1.28Mcps
	TDD.

9.2.3.4P DL Time Slot ISCP Info LCR

The *DL Time Slot ISCP Info LCR* IE provides information for DL Interference level for each time slot within the Radio Link.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DL Time Slot ISCP Info LCR		1 <maxno ofDLtsLCR ></maxno 		
>Time Slot LCR	М		9.2.3.24A	
>DL Timeslot ISCP	М		9.2.3.4B	

Range Bound	Explanation
maxnoofDLtsLCR	Maximum number of Downlink time slots per Radio Link for 1.28Mcps
	TDD.

9.2.3.5 DPCH ID

The DPCH ID identifies unambiguously a DPCH inside a Radio Link.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DPCH ID			INTEGER (0239)	

9.2.3.5A DSCH TDD Information

The DSCH TDD Information IE provides information for DSCHs to be established.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DSCH TDD Information		1 <maxno ofDSCHs></maxno 		
>DSCH ID	М		9.2.1.27	
>CCTrCH ID	М		9.2.3.2	DL CCTrCH in which the DSCH is mapped
>Transport Format Set	М		9.2.1.59	For DSCH
>Allocation/Retention Priority	М		9.2.1.1A	
>Frame Handling Priority	М		9.2.1.30	
>ToAWS	М		9.2.1.61	
>ToAWE	M		9.2.1.60	

Range Bound	Explanation
maxnoofDSCHs	Maximum number of DSCH for one UE

9.2.3.5B DwPCH Power

DwPCH Power is the power that shall be used for transmitting the DwPCH in a cell. The reference point is the antenna connector. If Transmit Diversity is applied to the DwPCH, the DwPCH power is the linear sum of the power that is used for transmitting the DwPCH on all branches.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
DwPCH Power			INTEGER (-150+400,)	Unit: dBm Range: -15+40 dBm Step: 0.1 dB

9.2.3.5C Frame Adjustment Value

The Frame Adjustment Value IE represents the frame number correction within the initial synchronisation phase.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Frame Adjustment Value			INTEGER (04095)	SFN _{new} =(SFN _{old} +Frame Adjustment Value) mod 4096

9.2.3.5D IPDL TDD Parameter

The IPDL TDD Parameter IE provides information about IPDL to be applied for TDD when activated.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
IP SpacingTDD	M		ENUMERATED (30, 40, 50, 70, 100,)	See [21]
IP Start	М		INTEGER (04095)	See [21]
IP Slot	M		INTEGER (014)	See [21]
IP PCCPCH	M		ENUMERATED (Switch off 1 frame, Switch off 2 frames)	See [21]
Burst Mode parameters	0		9.2.1.5A	

9.2.3.5E Max FPACH Power

Max FPACH Power is the maximum power that shall be used for transmitting the FPACH in a cell. The reference point is the antenna connector. If Transmit Diversity is applied to the FPACH, the Max FPACH Power is the maximum of the linear sum of the power that is allowed for transmitting the FPACH on all branches.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
FPACH Power			INTEGER	Unit: dBm
			(-150+400,)	Range: -15+40 dBm
				Step: 0.1 dB

9.2.3.6 Max PRACH Midamble Shift

Indicates the maximum number of Midamble shifts to be used in a cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Max PRACH Midamble Shift			ENUMERATED (4, 8,)	

9.2.3.7 Midamble Shift And Burst Type

This information element indicates burst type and midamble allocation.

The 256 chip midamble supports 3 different time shifts, the 512 chips midamble may support 8 or even 16 time shifts.

Three different midamble allocation schemes exist:

Default midamble: the midamble is allocated by layer 1 depending on the associated channelisation code (DL and UL)

Common midamble: the midamble is allocated by layer 1 depending on the number of channelisation codes (possible in DL only)

UE specific midamble: a UE specific midamble is explicitly assigned (DL and UL)

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE Burst Type				
>Type1				
>>Midamble Configuration Burst Type 1 And 3	М		INTEGER (4, 8, 16)	As defined in [19]
>>CHOICE Midamble Allocation Mode	М			
>>>Default Midamble			NULL	
>>>Common Midamble			NULL	
>>>UE Specific Midamble				
>>Midamble Shift Long	M		INTEGER (015)	
>Type2			, ,	
>>Midamble Configuration Burst Type 2	М		INTEGER (3,6)	As defined in [19]
>>CHOICE Midamble Allocation Mode	М			
>>>Default Midamble			NULL	
>>>Common Midamble			NULL	
>>>UE Specific Midamble				
>>Midamble Shift Short	M		INTEGER (05)	
>Type3				UL only
>>Midamble Configuration Burst Type 1 And 3	М		INTEGER (4, 8, 16)	As defined in [19]
>>CHOICE Midamble Allocation Mode	М			
>>>Default Midamble			NULL	
>>>UE Specific Midamble				
>>Midamble Shift Long	М		INTEGER (015)	

9.2.3.7A Midamble Shift LCR

This information element indicates midamble allocation in 1.28Mcps TDD.

Three different midamble allocation schemes exist:

Default midamble: the midamble is allocated by layer 1 depending on the associated channelisation code (DL and UL)

Common midamble: the midamble is allocated by layer 1 depending on the number of channelisation codes (possible in DL only)

UE specific midamble: a UE specific midamble is explicitly assigned (DL and UL)

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Midamble Allocation Mode	M		ENUMERATED (Default midamble, Common midamble, UE specific midamble,)	
Midamble Shift Long	C-UE		INTEGER (015)	
Midamble Configuration LCR	М		ENUMERATED (2, 4, 6, 8, 10, 12, 14, 16,)	As defined in [19]

Condition	Explanation
UE	The IE shall be present if the Midamble Allocation Mode IE is set to
	"UE-specific midamble".

9.2.3.7B Number Of cycles Per SFN Period

The *Number Of Cycles Per SFN Period* IE indicates the number of repetitions per SFN period where the same schedule shall apply.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Number Of Cycles Per SFN			ENUMERATED	
Period			(1, 2, 4, 8,)	

9.2.3.7C Number Of Repetitions Per Cycle Period

The *Number Of Repetitions Per Cycle Period* IE indicates the number of Sync frames per Cycle Length where the cell synchronisation bursts shall be transmitted or the cell synchronisation bursts from the neighbouring cells shall be measured.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Number Of Repetitions Per			INTEGER (210)	
Cycle Period				

9.2.3.8 Paging Indicator Length

The Paging Indicator Length indicates the number of symbols for Page Indication transmitted in one timeslot (see ref [19]).

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Paging Indicator Length			ENUMERATED (2, 4, 8,)	

9.2.3.9 PCCPCH Power

The Primary CCPCH power is the power that shall be used for transmitting the P CCPCH in a cell. The P CCPCH power is the reference power in a TDD-cell. The reference point is the antenna connector. If Transmit Diversity is applied to the Primary CCPCH, the Primary CCPCH power is the linear sum of the power that is used for transmitting the Primary CCPCH on all branches.

IE/Group Name	Presence	Range	IE Type and	Semantics Description
			Reference	
PCCPCH Power			INTEGER	Unit: dBm
			(-150+400,)	Range: -15+40 dBm
				Step: 0.1 dB

9.2.3.10 PDSCH ID

The PDSCH ID identifies unambiguously a PDSCH inside a cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
PDSCH ID			INTEGER (0255)	

9.2.3.11 PDSCH Set ID

The PDSCH Set Id identifies unambiguously a PDSCH Set inside a cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
PDSCH Set ID			INTEGER (0255)	See ref. [6]

9.2.3.12 PUSCH ID

The PUSCH ID identifies unambiguously a PUSCH inside a cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
PUSCH ID			INTEGER (0255)	

9.2.3.13 PUSCH Set ID

The PUSCH Set ID identifies unambiguously a PUSCH Set inside a cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
PUSCH Set ID			INTEGER (0255)	See ref. [6]

9.2.3.14 PRACH Midamble

The PRACH Midamble indicates if only the Basic Midamble Sequence or also the time-inverted Midamble Sequence is used.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
PRACH Midamble			ENUMERATED (Inverted, Direct,)	

9.2.3.14A Reference Clock Availability

The *Reference Clock Availability* IE is used to indicate the presence and operating of a Reference Clock connected to a TDD cell for cell synchronisation purpose.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Reference Clock Availability			ENUMERATED (Available.	
			Not Available)	

9.2.3.14B Reference SFN Offset

The *Reference SFN Offset* IE indicates the number of frames the reference SFN shall be shifted compared to the SFN derived from the synchronisation port.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Reference SFN Offset			INTEGER (0255)	

9.2.3.15 Repetition Length

The Repetition Length represents the number of consecutive Radio Frames inside a Repetition Period in which the same Time Slot is assigned to the same Physical Channel see ref. [18].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Repetition Length			INTEGER (163)	

9.2.3.16 Repetition Period

The Repetition Period represents the number of consecutive Radio Frames after which the same assignment scheme of Time Slots to a Physical Channel is repeated. This means that if the Time Slot K is assigned to a physical channel in the Radio Frame J, it is assigned to the same physical channel also in all the Radio Frames J+n*Repetition Period (where n is an integer) see ref. [18].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Repetition Period			ENUMERATED	
-			(1, 2, 4, 8, 16, 32,	
			64,)	

9.2.3.17 SCH Time Slot

The *SCH Time Slot* IE represents the first time slot (k) of a pair of time slots inside a Radio Frame that shall be assigned to the Physical Channel SCH. The *SCH Time Slot* IE is only applicable if the value of *Sync Case* IE is Case 2 since in this case the SCH is allocated in TS#k and TS#k+8.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
SCH Time Slot			INTEGER (06)	

9.2.3.18 Sync Case

The SCH and PCCPCH are mapped on one or two downlink slots per frame. There are two cases of SCH and PCCPCH allocation as follows:

- Case 1) SCH and PCCPCH allocated in a single TS#k
- Case 2) SCH allocated in two TS: TS#k and TS#k+8 PCCPCH allocated in TS#k

[1.28Mcps TDD - There is no Sync Case indication needed for 1.28Mcps TDD. If the *Sync Case* IE must be included in a message from CRNC to Node B used for 1.28Mcps TDD, the CRNC should indicate Sync Case 1 and the Node B shall ignore it.]

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Sync Case			INTEGER (12,)	

9.2.3.18A Special Burst Scheduling

The number of frames between special burst transmissions during DTX.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Special Burst Scheduling			INTEGER (1256)	Number of frames between special burst transmission during DTX

9.2.3.18B SYNC_DL Code ID

Void.

9.2.3.18C Sync Frame Number

The *Sync Frame Number* IE indicates the number of the Sync frame per Cycle Length where the cell synchronisation bursts shall be transmitted or the cell synchronisation bursts from the neighbouring cells shall be measured.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Sync Frame Number			INTEGER (110)	

9.2.3.18D Synchronisation Report Characteristics

The *Synchronisation Report Characteristics* IE defines how the reporting on measured cell synchronisation bursts shall be performed

Different methods shall apply for the measured cell synchronisation burst reports. In the frequency acquisition phase the measurement report shall be sent when the frequency locking is completed. In the initial phase and for the measurement on late-entrant cells an immediate report after the measured frame is expected.

In the steady-state phase measurement reports may be given after every measured frame, after every SFN period, after every cycle length or only when the requested threshold is exceeded.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Synchronisation Report Characteristics Type	М		ENUMERATED (Frame related, SFN period related, Cycle length related, Threshold exceeding, Frequency Acquisition completed,)	
Threshold Exceeding	C- Threshold Exceeding			Applies only to the Steady State Phase
>Cell Sync Burst Threshold Information		1 <maxno ofCellSync Bursts></maxno 		
>>Sync Frame Number To Receive	M		Sync Frame Number 9.2.3.18C	
>>Cell Sync Burst Information		1 <maxno ofreceptio nsperSync Frame></maxno 		
>>>Cell Sync Burst Code	М		9.2.3.4G	
>>>Cell Sync Burst Code Shift	M		9.2.3.4H	
>>>Cell Sync Burst Arrival Time	0		Cell Sync Burst Timing 9.2.3.4L	
>>>Cell Sync Burst Timing Threshold	0		9.2.3.4M	

Range Bound	Explanation
maxnoofCellSyncBursts	Maximum number of cell synchronisation burst per cycle
maxnoofreceptionsperSyncFrame	Maximum number of cell synchronisation burst receptions per Sync
	Frame

9.2.3.18E Synchronisation Report Type

The *Synchronisationt Report Type* IE represents the individual types of synchronisation reports that shall apply within the individual synchronisation phases. (see [17]).

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Synchronisation Report Type			ENUMERATED (Initial Phase, Steady-State Phase, Late-Entrant Cell, Frequency Acquisition,)	

9.2.3.19 TDD Channelisation Code

The Channelisation Code Number indicates which Channelisation Code is used for a given Physical Channel. In TDD the Channelisation Code is an Orthogonal Variable Spreading Factor code, that can have a spreading factor of 1, 2, 4, 8 or 16.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
TDD Channelisation Code			ENUMERATED ((1/1), (2/1), (2/2), (4/1), (4/4), (8/1), (8/8), (16/1), (16/16),)	

9.2.3.19a TDD Channelisation Code LCR

The Channelisation Code Number indicates which Channelisation Code is used for a given Physical Channel. In 1.28Mcps TDD the Channelisation Code is an Orthogonal Variable Spreading Factor code, that can have a spreading factor of 1, 2, 4, 8 or 16 and there is a choice between QPSK and 8PSK modulation.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
TDD Channelisation Code			9.2.3.19	
Modulation			ENUMERATED (QPSK, 8PSK,)	Modulation options for 1.28Mcps TDD in contrast to 3.84Mcps TDD

9.2.3.19A TDD DPCH Offset

The Offset represents the phase information for the allocation of a group of dedicated physical channels. The first range is used when a starting offset is not required and the TDD Physical channel offset for each DPCH in the CCTrCH shall be directly determined from the TDD DPCH Offset. The second range is used when a starting offset is required. The TDD DPCH Offset shall map to the CFN and the TDD Physical Channel Offet for each DPCH in this CCTrCH shall calculated by TDD DPCH Offset *mod* Repetition period, see ref. [18].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE Offset Type				
>Initial Offset				
>>TDD DPCH Offset Value	M		INTEGER (0255)	
>No Initial Offset				
>>TDD DPCH Offset Value	M		INTEGER (063)	

9.2.3.19B TDD DL Code Information

The TDD DL Code Information IE provides DL Code information for the RL.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
TDD DL Code Information		1 <maxno ofDPCHs></maxno 		
>DPCH ID	М		9.2.3.5	
>TDD Channelisation Code	M		9.2.3.19	

Range Bound	Explanation
maxnoofDPCHs	Maximum number of DPCHs in one CCTrCH

9.2.3.19C TDD DL Code Information LCR

The TDD DL Code Information LCR IE provides DL Code information for the RL.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
TDD DL Code Information LCR		1 <maxno ofDPCHsL CR></maxno 		
>DPCH ID	M		9.2.3.5	
>TDD Channelisation Code LCR	M		9.2.3.19a	
> TDD DL DPCH Time Slot Format LCR	M		9.2.3.19D	

Range Bound	Explanation
maxnoofDPCHsLCR	Maximum number of DPCH in one CCTrCH for 1.28Mcps TDD

9.2.3.19D TDD DL DPCH Time Slot Format LCR

TDD DL DPCH Time Slot Format LCR indicates the time slot formats used in DL DPCH for 1.28Mcps TDD (see ref. [19]).

IE/Group Name	Presence	Range	IE type and reference	Semantics description
CHOICE Modulation				
> QPSK				
>>QPSK TDD DL DPCH	M		INTEGER	
Time Slot Format LCR			(024,)	
> 8PSK				
>>8PSK TDD DL DPCH	M		INTEGER	
Time Slot Format LCR			(024,)	

9.2.3.20 TDD Physical Channel Offset

The Offset represents the phase information for the allocation of a physical channel. (SFN mod Repetition Period = Offset) see ref. [18].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
TDD Physical Channel Offset			INTEGER (063)	

9.2.3.21 TDD TPC DL Step Size

This parameter indicates step size for the DL power adjustment (see ref. [21]).

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
TDD TPC Downlink Step Size			ENUMERATED (1, 2, 3,)	Unit: dB

9.2.3.21a TDD TPC UL Step Size

This parameter indicates step size for the UL power adjustment (see ref. [21]).

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
TDD TPC Uplink Step Size			ENUMERATED (1, 2, 3,)	Unit: dB

9.2.3.21A TDD UL Code Information

The TDD UL Code Information IE provides information for UL Code to be established.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
TDD UL Code Information		1 <maxno ofDPCHs></maxno 		
>DPCH ID	М		9.2.3.5	
>TDD Channelisation Code	М		9.2.3.19	

Range Bound	Explanation
maxnoofDPCHs	Maximum number of DPCHs in one CCTrCH

9.2.3.21B TDD UL Code Information LCR

The TDD UL Code Information LCR IE provides information for UL Code to be established.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
TDD UL Code Information LCR		1 <maxno ofDPCHsL CR></maxno 		
>DPCH ID	M		9.2.3.5	
>TDD Channelisation Code LCR	М		9.2.3.19a	
>TDD UL DPCH Time Slot Format LCR	М		9.2.3.21C	

Range Bound	Explanation
maxnoofDPCHsLCR	Maximum number of DPCHs in one CCTrCH for 1.28Mcps TDD

9.2.3.21C TDD UL DPCH Time Slot Format LCR

TDD UL DPCH Time Slot Format LCR indicates the time slot formats used in UL DPCH for 1.28Mcps TDD (see ref. [19]).

IE/Group Name	Presence	Range	IE type and reference	Semantics description
CHOICE Modulation			10.0.0.0	
> QPSK				
>>QPSK TDD UL DPCH	M		INTEGER	
Time Slot Format LCR			(069,)	
> 8PSK				
>>8PSK TDD UL DPCH	M		INTEGER	
Time Slot Format LCR			(024,)	

9.2.3.22 TFCI Coding

The TFCI Coding describes the way how the TFCI bits are coded. By default 1 TFCI bit is coded with 4 bits, 2 TFCI bits are coded with 8 bits, 3-5 TFCI bits are coded with 16 bits and 6-10 TFCI bits are coded with 32 bits.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
TFCI Coding			ENUMERATED	
			(4, 8, 16, 32,)	

9.2.3.22a Timing Adjustment Value

The *Timing Adjustment Value* IE indicates the timing correction within a Frame. Type 1 is used for the initial phase of Node B synchronisation. Type 2 is used for the steady-state phase of Node B synchronisation.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE Phase				According to mapping in [23]
>Initial Phase				
>>Timing Adjustment	М		INTEGER	
Value			(01048575,)	
>Steady State Phase				
>>Timing Adjustment Value	M		INTEGER (0255,)	

9.2.3.22A Timing Advance Applied

Defines the need for Rx Timing Deviation measurement results to be reported in a particular cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Timing Advance Applied			ENUMERATED (
			Yes,	
			No)	

9.2.3.23 Time Slot

The Time Slot represents the minimum time interval inside a Radio Frame that can be assigned to a Physical Channel.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Time Slot			INTEGER (014)	

9.2.3.24 Time Slot Direction

This parameter indicates whether the TS in the cell is used in Uplink or Downlink direction.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Time Slot Direction			ENUMERATED (
			UL,	
			DL,	
)	

9.2.3.24A Time Slot LCR

The Time Slot LCR is the number of the traffic time slot within a 5 ms subframe of LCR TDD.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Time Slot LCR			INTEGER (06)	

9.2.3.25 Time Slot Status

This parameter indicates whether the TS in the cell is active or not.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Time Slot Status			ENUMERATED (
			Active,	
			Not Active,	
)	

9.2.3.26 Transmission Diversity Applied

Defines if Transmission Diversity on DCHs is to be applied in a cell (see ref. [19]).

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Transmission Diversity Applied			BOOLEAN	True: Transmission Diversity shall be applied in this Cell. False: Transmission Diversity shall not be applied in this Cell.

9.2.3.26A UL Timeslot ISCP

UL Timeslot ISCP is the measured interference in a uplink timeslot at the Node B, see ref. [5].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UL Timeslot ISCP			INTEGER (0127)	According to mapping in [23].

9.2.3.26B UL PhysCH SF Variation

Indicates whether variation of SF in UL is supported by Radio Link or not.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UL PhysCH SF Variation			ENUMERATED (SF_Variation_supported, SF_Variation_NOT_ supported)	

9.2.3.26C UL Timeslot Information

The UL Timeslot Information IE provides information on the time slot allocation for an UL DPCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UL Timeslot Information		1 <maxno ofULts></maxno 		
>Time Slot	M		9.2.3.23	
>Midamble Shift And Burst Type	М		9.2.3.7	
>TFCI Presence	M		9.2.1.57	
>UL Code Information	M		TDD UL Code Information 9.2.3.21A	

Range Bound	Explanation
maxnoofULts	Maximum number of Uplink time slots per Radio Link

9.2.3.26D UL Time Slot ISCP Info

The UL Time Slot ISCP Info IE provides information for UL Interfernce level for each time slot within the Radio Link.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UL Time Slot ISCP Info		1 <maxno ofULts></maxno 		
>Time Slot	M		9.2.3.23	
>UL Timeslot ISCP	M		9.2.3.26A	

Range Bound	Explanation
maxnoofULts	Maximum number of Uplink time slots per Radio Link

9.2.3.26E UL Timeslot Information LCR

The UL Timeslot Information IE provides information on the time slot allocation for an UL DPCH.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UL Timeslot Information LCR		1 <maxno ofULtsLCR ></maxno 		
>Time Slot LCR	M		9.2.3.24A	
>Midamble Shift LCR	M		9.2.3.7A	
>TFCI Presence	М		9.2.1.57	
>UL Code Information	M		TDD UL Code Information LCR 9.2.3.21B	

Range Bound	Explanation
maxnoofULtsLCR	Maximum number of Uplink time slots per Radio Link for 1.28Mcps
	TDD.

9.2.3.26F UL Time Slot ISCP Info LCR

The *UL Time Slot ISCP Info LCR* IE provides information for UL Interfernce level for each time slot within the Radio Link.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UL Time Slot ISCP Info LCR		1 <maxno ofULtsLCR ></maxno 		
>Time Slot LCR	М		9.2.3.24A	
>UL Timeslot ISCP	М		9.2.3.26A	

Range Bound	Explanation
maxnoofULtsLCR	Maximum number of Uplink time slots per Radio Link for 1.28Mcps
	TDD

9.2.3.26G Uplink Synchronisation Frequency

The UL Synchronisation Frequency IE specifies the frequency of the adjustment of the uplink transmission timing.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Uplink Synchronisation			INTEGER (18)	Unit: subframe
Frequency				Step: 1

9.2.3.26H Uplink Synchronisation Step Size

The *UL Synchronisation Step Size* IE specifies the step size to be used for the adjustment of the uplink transmission timing.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Uplink Synchronisation Step Size			INTEGER (18)	Unit: 1/8 chip Step: 1.

9.2.3.27 USCH ID

The USCH ID uniquely identifies a USCH within a Node B Communication Context.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
USCH ID			INTEGER (0255)	

9.2.3.28 USCH Information

The USCH Information IE provides information for USCHs to be established.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
USCH Information		1 <maxno ofUSCHs></maxno 		
>USCH ID	М		9.2.3.27	
>CCTrCH ID	М		9.2.3.3	UL CCTrCH in which the USCH is mapped
>Transport Format Set	М		9.2.1.59	For USCH
>Allocation/Retention Priority	М		9.2.1.1A	

Range bound	Explanation
maxnoofUSCHs	Maximum number of USCHs for one UE

9.2.3.29 USCH Information Response

The USCH Information Response IE provides information for USCHs that have been established or modified.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
USCH Information Response		1 <maxno ofUSCHs></maxno 		
>USCH ID	M		9.2.3.27	
>Binding ID	0		9.2.1.4	
>Transport Layer Address	0		9.2.1.63	

Range Bound	Explanation	
maxnoofUSCHs	Maximum number of USCHs for one UE	

9.2.3.30 SCTD Indicator

Indicates if SCTD antenna diversity is applied or not to the PCCPCH and PICH [3.84Mcps TDD].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
SCTD Indicator			ENUMERATED (
			active,	
			inactive)	

9.3 Message and Information Element Abstract Syntax (with ASN.1)

9.3.0 General

Subclause 9.3 presents the Abstract Syntax of NBAP protocol with ASN.1. In case there is contradiction between the ASN.1 definition in this subclause and the tabular format in subclauses 9.1 and 9.2, the ASN.1 shall take precedence, except for the definition of conditions for the presence of conditional elements, where the tabular format shall take precedence.

The ASN.1 definition specifies the structure and content of NBAP messages. NBAP messages can contain any IEs specified in the object set definitions for that message without the order or number of occurrence being restricted by ASN.1. However, for this version of the standard, a sending entity shall construct a NBAP message according to the PDU definitions module and with the following additional rules (Note that in the following IE means an IE in the object set with an explicit id. If one IE needed to appear more than once in one object set, then the different occurrences have different IE ids):

- IEs shall be ordered (in an IE container) in the order they appear in object set definitions.
- Object set definitions specify how many times IEs may appear. An IE shall appear exactly once if the presence field in an object has value "mandatory". An IE may appear at most once if the presence field in an object has value "optional" or "conditional". If in a tabular format there is multiplicity specified for an IE (i.e. an IE list) then in the corresponding ASN.1 definition the list definition is separated into two parts. The first part defines an IE container list where the list elements reside. The second part defines list elements. The IE container list appears as an IE of its own. For this version of the standard an IE container list may contain only one kind of list elements.

If a NBAP message that is not constructed as defined above is received, this shall be considered as Abstract Syntax Error, and the message shall be handled as defined for Abstract Syntax Error in subclause 10.3.6.

9.3.1 Usage of Private Message mechanism for non-standard use

The private message mechanism for non-standard use may be used

- For special operator- (and/or vendor) specific features considered not to be part of the basic functionality, i.e. the functionality required for a complete and high-quality specification in order to guarantee multi-vendor inter-operability.
- By vendors for research purposes, e.g. to implement and evaluate new algorithms/features before such features are proposed for standardisation

The private message mechanism shall not be used for basic functionality. Such functionality shall be standardised.

9.3.2 Elementary Procedure Definitions

CellDeletionResponse,

```
itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)
umts-Access (20) modules (3) nbap (2) version1 (1) nbap-PDU-Descriptions (0) }
DEFINITIONS AUTOMATIC TAGS ::=
BEGIN
__ *******************
-- IE parameter types from other modules.
__ *********************
IMPORTS
    Criticality,
    ProcedureID,
   MessageDiscriminator,
    TransactionID
FROM NBAP-CommonDataTypes
    CommonTransportChannelSetupRequestFDD,
    CommonTransportChannelSetupRequestTDD,
    CommonTransportChannelSetupResponse,
    CommonTransportChannelSetupFailure,
    CommonTransportChannelReconfigurationRequestFDD,
    CommonTransportChannelReconfigurationRequestTDD,
    CommonTransportChannelReconfigurationResponse,
    CommonTransportChannelReconfigurationFailure,
    CommonTransportChannelDeletionRequest,
    CommonTransportChannelDeletionResponse,
    BlockResourceRequest,
    BlockResourceResponse,
    BlockResourceFailure,
    UnblockResourceIndication,
    AuditFailure,
    AuditRequiredIndication,
    AuditRequest,
    AuditResponse,
    CommonMeasurementInitiationRequest,
    CommonMeasurementInitiationResponse,
    CommonMeasurementInitiationFailure,
    CommonMeasurementReport,
    CommonMeasurementTerminationRequest,
    CommonMeasurementFailureIndication,
    CellSetupRequestFDD,
    CellSetupRequestTDD,
    CellSetupResponse,
    CellSetupFailure,
    CellReconfigurationRequestFDD,
    CellReconfigurationRequestTDD,
    CellReconfigurationResponse,
    CellReconfigurationFailure,
    CellDeletionRequest,
```

```
InformationExchangeInitiationRequest,
InformationExchangeInitiationResponse,
InformationExchangeInitiationFailure,
InformationReport,
InformationExchangeTerminationRequest,
InformationExchangeFailureIndication,
ResourceStatusIndication,
SystemInformationUpdateRequest,
SystemInformationUpdateResponse,
SystemInformationUpdateFailure,
ResetRequest,
ResetResponse,
RadioLinkPreemptionRequiredIndication,
RadioLinkSetupRequestFDD,
RadioLinkSetupRequestTDD,
RadioLinkSetupResponseFDD,
RadioLinkSetupResponseTDD,
RadioLinkSetupFailureFDD,
RadioLinkSetupFailureTDD,
RadioLinkAdditionRequestFDD,
RadioLinkAdditionRequestTDD,
RadioLinkAdditionResponseFDD,
RadioLinkAdditionResponseTDD,
RadioLinkAdditionFailureFDD,
RadioLinkAdditionFailureTDD,
RadioLinkReconfigurationPrepareFDD,
RadioLinkReconfigurationPrepareTDD,
RadioLinkReconfigurationReady,
RadioLinkReconfigurationFailure,
RadioLinkReconfigurationCommit,
RadioLinkReconfigurationCancel,
RadioLinkReconfigurationRequestFDD,
RadioLinkReconfigurationRequestTDD,
RadioLinkReconfigurationResponse,
RadioLinkDeletionRequest,
RadioLinkDeletionResponse,
DL-PowerControlRequest,
DL-PowerTimeslotControlRequest,
DedicatedMeasurementInitiationRequest,
DedicatedMeasurementInitiationResponse,
DedicatedMeasurementInitiationFailure,
DedicatedMeasurementReport,
DedicatedMeasurementTerminationRequest,
DedicatedMeasurementFailureIndication.
RadioLinkFailureIndication,
RadioLinkRestoreIndication,
CompressedModeCommand,
ErrorIndication,
PrivateMessage,
PhysicalSharedChannelReconfigurationReguestTDD,
PhysicalSharedChannelReconfigurationResponseTDD,
PhysicalSharedChannelReconfigurationFailureTDD,
CellSynchronisationInitiationRequestTDD,
CellSynchronisationInitiationResponseTDD,
```

```
CellSynchronisationInitiationFailureTDD,
    CellSynchronisationReconfigurationRequestTDD,
    CellSynchronisationReconfigurationResponseTDD,
    CellSynchronisationReconfigurationFailureTDD,
    CellSynchronisationAdjustmentRequestTDD,
    CellSynchronisationAdjustmentResponseTDD,
    CellSynchronisationAdjustmentFailureTDD,
    CellSynchronisationReportTDD,
    CellSynchronisationTerminationRequestTDD,
    CellSynchronisationFailureIndicationTDD
FROM NBAP-PDU-Contents
    id-audit.
    id-auditRequired,
    id-blockResource,
    id-cellDeletion.
    id-cellReconfiguration,
    id-cellSetup,
    id-cellSynchronisationInitiation,
    id-cellSynchronisationReconfiguration,
    id-cellSynchronisationReporting,
    id-cellSynchronisationTermination,
    id-cellSynchronisationFailure,
    id-commonMeasurementFailure,
    id-commonMeasurementInitiation,
    id-commonMeasurementReport,
    id-commonMeasurementTermination,
    id-commonTransportChannelDelete,
    id-commonTransportChannelReconfigure,
    id-commonTransportChannelSetup,
    id-compressedModeCommand,
    id-dedicatedMeasurementFailure,
    id-dedicatedMeasurementInitiation,
    id-dedicatedMeasurementReport,
    id-dedicatedMeasurementTermination.
    id-downlinkPowerControl,
    id-downlinkPowerTimeslotControl,
    id-errorIndicationForDedicated,
    id-errorIndicationForCommon,
    id-informationExchangeFailure,
    id-informationExchangeInitiation,
    id-informationReporting,
    id-informationExchangeTermination,
    id-physicalSharedChannelReconfiguration,
    id-privateMessageForDedicated.
    id-privateMessageForCommon,
    id-radioLinkAddition,
    id-radioLinkDeletion,
    id-radioLinkFailure,
    id-radioLinkPreemption,
    id-radioLinkRestoration,
    id-radioLinkSetup,
    id-reset.
```

id-resourceStatusIndication,

```
id-cellSynchronisationAdjustment,
   id-synchronisedRadioLinkReconfigurationCancellation,
   id-synchronisedRadioLinkReconfigurationCommit,
   id-synchronisedRadioLinkReconfigurationPreparation,
   id-systemInformationUpdate,
   id-unblockResource,
   id-unSynchronisedRadioLinkReconfiguration
FROM NBAP-Constants;
    Interface Elementary Procedure Class
      NBAP-ELEMENTARY-PROCEDURE ::= CLASS {
   &InitiatingMessage
   &SuccessfulOutcome
                                    OPTIONAL,
   &UnsuccessfulOutcome
                                    OPTIONAL,
   &Out.come
                                    OPTIONAL,
   &messageDiscriminator
                                    MessageDiscriminator,
   &procedureID
                                    ProcedureID
                                                   UNIQUE,
   &criticality
                                                   DEFAULT ignore
                                    Criticality
WITH SYNTAX {
                                    &InitiatingMessage
   INITIATING MESSAGE
   [SUCCESSFUL OUTCOME
                                    &SuccessfulOutcome]
                                    &UnsuccessfulOutcome]
   [UNSUCCESSFUL OUTCOME
                                    &Outcome]
   [OUTCOME
   MESSAGE DISCRIMINATOR
                                    &messageDiscriminator
   PROCEDURE ID
                                    &procedureID
   [CRITICALITY
                                    &criticality]
    *****************
  Interface PDU Definition
NBAP-PDU ::= CHOICE {
   initiatingMessage
                         InitiatingMessage,
   succesfulOutcome
                         SuccessfulOutcome,
   unsuccesfulOutcome
                         UnsuccessfulOutcome.
   outcome
                         Outcome,
   . . .
InitiatingMessage ::= SEQUENCE
   procedureID
                         NBAP-ELEMENTARY-PROCEDURE. &procedureID ({NBAP-ELEMENTARY-PROCEDURES}),
                         NBAP-ELEMENTARY-PROCEDURE. & criticality ({NBAP-ELEMENTARY-PROCEDURES} { @procedureID}),
   criticality
   messageDiscriminator
                         NBAP-ELEMENTARY-PROCEDURE.&messageDiscriminator({NBAP-ELEMENTARY-PROCEDURES}{@procedureID}),
   transactionID
                         TransactionID,
```

```
NBAP-ELEMENTARY-PROCEDURE.&InitiatingMessage({NBAP-ELEMENTARY-PROCEDURES}{@procedureID})
    value
SuccessfulOutcome ::= SEOUENCE
   procedureID
                          NBAP-ELEMENTARY-PROCEDURE.&procedureID
                                                                ({NBAP-ELEMENTARY-PROCEDURES}).
                          NBAP-ELEMENTARY-PROCEDURE.&criticality ({NBAP-ELEMENTARY-PROCEDURES}{@procedureID}),
   criticality
                          NBAP-ELEMENTARY-PROCEDURE.&messageDiscriminator({NBAP-ELEMENTARY-PROCEDURES}{@procedureID}),
   messageDiscriminator
    transactionID
    value
                          NBAP-ELEMENTARY-PROCEDURE. & Successful Outcome ( { NBAP-ELEMENTARY-PROCEDURES } { @procedureID } )
UnsuccessfulOutcome ::= SEQUENCE {
   procedureID
                          NBAP-ELEMENTARY-PROCEDURE.&procedureID ({NBAP-ELEMENTARY-PROCEDURES}),
   criticality
                          NBAP-ELEMENTARY-PROCEDURE.&criticality ({NBAP-ELEMENTARY-PROCEDURES}{@procedureID}),
   messageDiscriminator
                          NBAP-ELEMENTARY-PROCEDURE. & messageDiscriminator({NBAP-ELEMENTARY-PROCEDURES}{@procedureID}),
    transactionID
                          TransactionID.
                          NBAP-ELEMENTARY-PROCEDURE: &UnsuccessfulOutcome({NBAP-ELEMENTARY-PROCEDURES}{@procedureID})
    value
Outcome ::= SEOUENCE {
   procedureID
                          NBAP-ELEMENTARY-PROCEDURE.&procedureID ({NBAP-ELEMENTARY-PROCEDURES}),
                          NBAP-ELEMENTARY-PROCEDURE.&criticality ({NBAP-ELEMENTARY-PROCEDURES}{@procedureID}),
   criticality
                          NBAP-ELEMENTARY-PROCEDURE.&messageDiscriminator({NBAP-ELEMENTARY-PROCEDURES}{@procedureID}),
   messageDiscriminator
    transactionID
                          TransactionID,
                          NBAP-ELEMENTARY-PROCEDURE. &Outcome ({NBAP-ELEMENTARY-PROCEDURES}{@procedureID})
    value
      Interface Elementary Procedure List
  NBAP-ELEMENTARY-PROCEDURES NBAP-ELEMENTARY-PROCEDURE ::= {
   NBAP-ELEMENTARY-PROCEDURES-CLASS-1
   NBAP-ELEMENTARY-PROCEDURES-CLASS-2
NBAP-ELEMENTARY-PROCEDURES-CLASS-1 NBAP-ELEMENTARY-PROCEDURE ::=
    cellSetupFDD
    cellSetupTDD
    cellReconfigurationFDD
    cellReconfigurationTDD
    cellDeletion
    commonTransportChannelSetupFDD
    commonTransportChannelSetupTDD
    commonTransportChannelReconfigureFDD
    commonTransportChannelReconfigureTDD
    commonTransportChannelDelete
    audit
   blockResource
    radioLinkSetupFDD
    radioLinkSetupTDD
```

```
systemInformationUpdate
    commonMeasurementInitiation
    radioLinkAdditionFDD
    radioLinkAdditionTDD
    radioLinkDeletion
    reset.
    synchronisedRadioLinkReconfigurationPreparationFDD
    synchronisedRadioLinkReconfigurationPreparationTDD
    unSynchronisedRadioLinkReconfigurationFDD
    unSynchronisedRadioLinkReconfigurationTDD
    dedicatedMeasurementInitiation
    physicalSharedChannelReconfiguration
    informationExchangeInitiation
    cellSynchronisationInitiationTDD
    cellSynchronisationReconfigurationTDD
    cellSynchronisationAdjustmentTDD
NBAP-ELEMENTARY-PROCEDURES-CLASS-2 NBAP-ELEMENTARY-PROCEDURE ::= {
    resourceStatusIndication
    auditRequired
    commonMeasurementReport
    commonMeasurementTermination
    commonMeasurementFailure
    synchronisedRadioLinkReconfigurationCommit
    synchronisedRadioLinkReconfigurationCancellation
    radioLinkFailure
    radioLinkPreemption
    radioLinkRestoration
    dedicatedMeasurementReport
    dedicatedMeasurementTermination
    dedicatedMeasurementFailure
    downlinkPowerControlFDD
    downlinkPowerTimeslotControl
    compressedModeCommand
    unblockResource
    errorIndicationForDedicated
    errorIndicationForCommon
    privateMessageForDedicated
    privateMessageForCommon
    informationReporting
    informationExchangeTermination
    informationExchangeFailure
    cellSynchronisationReportingTDD
    cellSynchronisationTerminationTDD
    cellSynchronisationFailureTDD
-- Interface Elementary Procedures
```

```
-- Class 1
-- *** CellSetup (FDD) ***
cellSetupFDD NBAP-ELEMENTARY-PROCEDURE ::= {
                            CellSetupRequestFDD
    INITIATING MESSAGE
    SUCCESSFUL OUTCOME
                            CellSetupResponse
    UNSUCCESSFUL OUTCOME
                            CellSetupFailure
    MESSAGE DISCRIMINATOR
                            { procedureCode id-cellSetup, ddMode fdd }
    PROCEDURE ID
    CRITICALITY
                            reject
-- *** CellSetup (TDD) ***
cellSetupTDD NBAP-ELEMENTARY-PROCEDURE ::= {
                            CellSetupRequestTDD
    INITIATING MESSAGE
                            CellSetupResponse
    SUCCESSFUL OUTCOME
                            CellSetupFailure
    UNSUCCESSFUL OUTCOME
    MESSAGE DISCRIMINATOR
                            common
    PROCEDURE ID
                            { procedureCode id-cellSetup, ddMode tdd }
    CRITICALITY
                            reject
-- *** CellReconfiguration(FDD) ***
cellReconfigurationFDD NBAP-ELEMENTARY-PROCEDURE ::= {
                            CellReconfigurationRequestFDD
    INITIATING MESSAGE
    SUCCESSFUL OUTCOME
                            CellReconfigurationResponse
                            CellReconfigurationFailure
    UNSUCCESSFUL OUTCOME
    MESSAGE DISCRIMINATOR
                            common
                            { procedureCode id-cellReconfiguration, ddMode fdd }
    PROCEDURE ID
    CRITICALITY
                            reject
-- *** CellReconfiguration(TDD) ***
cellReconfigurationTDD NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE
                            CellReconfigurationRequestTDD
                            CellReconfigurationResponse
    SUCCESSFUL OUTCOME
                            CellReconfigurationFailure
    UNSUCCESSFUL OUTCOME
    MESSAGE DISCRIMINATOR
                            { procedureCode id-cellReconfiguration, ddMode tdd }
    PROCEDURE ID
    CRITICALITY
                            reject
-- *** CellDeletion ***
cellDeletion NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE
                            CellDeletionRequest
    SUCCESSFUL OUTCOME
                            CellDeletionResponse
   MESSAGE DISCRIMINATOR
                            { procedureCode id-cellDeletion, ddMode common }
    PROCEDURE ID
    CRITICALITY
                            reject
-- *** CommonTransportChannelSetup (FDD) ***
```

```
commonTransportChannelSetupFDD NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE
                            CommonTransportChannelSetupRequestFDD
    SUCCESSFUL OUTCOME
                            CommonTransportChannelSetupResponse
    UNSUCCESSFUL OUTCOME
                            CommonTransportChannelSetupFailure
    MESSAGE DISCRIMINATOR
                            { procedureCode id-commonTransportChannelSetup, ddMode fdd }
    PROCEDURE ID
    CRITICALITY
                            reject
-- *** CommonTransportChannelSetup (TDD) ***
commonTransportChannelSetupTDD NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE
                            CommonTransportChannelSetupRequestTDD
    SUCCESSFUL OUTCOME
                            CommonTransportChannelSetupResponse
                            CommonTransportChannelSetupFailure
    UNSUCCESSFUL OUTCOME
    MESSAGE DISCRIMINATOR
    PROCEDURE ID
                            { procedureCode id-commonTransportChannelSetup, ddMode tdd }
    CRITICALITY
                            reject
-- *** CommonTransportChannelReconfigure (FDD) ***
commonTransportChannelReconfigureFDD NBAP-ELEMENTARY-PROCEDURE ::= {
                            CommonTransportChannelReconfigurationRequestFDD
    INITIATING MESSAGE
                            CommonTransportChannelReconfigurationResponse
    SUCCESSFUL OUTCOME
    UNSUCCESSFUL OUTCOME
                            CommonTransportChannelReconfigurationFailure
    MESSAGE DISCRIMINATOR
    PROCEDURE ID
                            { procedureCode id-commonTransportChannelReconfigure, ddMode fdd }
    CRITICALITY
                            reject
-- *** CommonTransportChannelReconfigure (TDD) ***
commonTransportChannelReconfigureTDD NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE
                            CommonTransportChannelReconfigurationRequestTDD
    SUCCESSFUL OUTCOME
                            CommonTransportChannelReconfigurationResponse
                            CommonTransportChannelReconfigurationFailure
    UNSUCCESSFUL OUTCOME
    MESSAGE DISCRIMINATOR
    PROCEDURE ID
                            { procedureCode id-commonTransportChannelReconfigure, ddMode tdd }
    CRITICALITY
                            reject
-- *** CommonTransportChannelDelete ***
commonTransportChannelDelete NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE
                            CommonTransportChannelDeletionRequest
                            CommonTransportChannelDeletionResponse
    SUCCESSFUL OUTCOME
    MESSAGE DISCRIMINATOR
                            common
                            { procedureCode id-commonTransportChannelDelete, ddMode common }
    PROCEDURE ID
    CRITICALITY
                            reject
-- *** Audit ***
audit NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE
                            AuditRequest
    SUCCESSFUL OUTCOME
                            AuditResponse
                            AuditFailure
    UNSUCCESSFUL OUTCOME
    MESSAGE DISCRIMINATOR
                            common
```

```
{ procedureCode id-audit, ddMode common }
    PROCEDURE ID
    CRITICALITY
-- *** BlockResourceRequest ***
blockResource NBAP-ELEMENTARY-PROCEDURE ::= {
                            BlockResourceRequest
    INITIATING MESSAGE
    SUCCESSFUL OUTCOME
                            BlockResourceResponse
    UNSUCCESSFUL OUTCOME
                            BlockResourceFailure
    MESSAGE DISCRIMINATOR
                            { procedureCode id-blockResource, ddMode common }
    PROCEDURE ID
    CRITICALITY
                            reject
-- *** RadioLinkSetup (FDD) ***
radioLinkSetupFDD NBAP-ELEMENTARY-PROCEDURE ::= {
                            RadioLinkSetupRequestFDD
    INITIATING MESSAGE
                            RadioLinkSetupResponseFDD
    SUCCESSFUL OUTCOME
                            RadioLinkSetupFailureFDD
    UNSUCCESSFUL OUTCOME
    MESSAGE DISCRIMINATOR
                            common
    PROCEDURE ID
                            { procedureCode id-radioLinkSetup, ddMode fdd }
    CRITICALITY
-- *** RadioLinkSetup (TDD) ***
radioLinkSetupTDD NBAP-ELEMENTARY-PROCEDURE ::= {
                            RadioLinkSetupRequestTDD
    INITIATING MESSAGE
    SUCCESSFUL OUTCOME
                            RadioLinkSetupResponseTDD
                            RadioLinkSetupFailureTDD
    UNSUCCESSFUL OUTCOME
    MESSAGE DISCRIMINATOR
                            common
    PROCEDURE ID
                            { procedureCode id-radioLinkSetup, ddMode tdd }
    CRITICALITY
                            reject
-- *** SystemInformationUpdate ***
systemInformationUpdate NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE
                            {\tt SystemInformationUpdateRequest}
                            SystemInformationUpdateResponse
    SUCCESSFUL OUTCOME
                            SystemInformationUpdateFailure
    UNSUCCESSFUL OUTCOME
    MESSAGE DISCRIMINATOR
                            { procedureCode id-systemInformationUpdate, ddMode common }
    PROCEDURE ID
    CRITICALITY
                            reject
-- *** Reset ***
reset NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE
                            ResetRequest
    SUCCESSFUL OUTCOME
                            ResetResponse
    MESSAGE DISCRIMINATOR
                            common
    PROCEDURE ID
                            { procedureCode id-reset, ddMode common }
    CRITICALITY
                            reject
```

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```
-- *** CommonMeasurementInitiation ***
commonMeasurementInitiation NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE
                            CommonMeasurementInitiationRequest
                            CommonMeasurementInitiationResponse
    SUCCESSFUL OUTCOME
                            CommonMeasurementInitiationFailure
    UNSUCCESSFUL OUTCOME
    MESSAGE DISCRIMINATOR
                            common
                            { procedureCode id-commonMeasurementInitiation, ddMode common }
    PROCEDURE ID
    CRITICALITY
-- *** RadioLinkAddition (FDD) ***
radioLinkAdditionFDD NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE
                            RadioLinkAdditionRequestFDD
                            RadioLinkAdditionResponseFDD
    SUCCESSFUL OUTCOME
    UNSUCCESSFUL OUTCOME
                            RadioLinkAdditionFailureFDD
    MESSAGE DISCRIMINATOR
                            dedicated
                            { procedureCode id-radioLinkAddition, ddMode fdd }
    PROCEDURE ID
    CRITICALITY
                            reject
-- *** RadioLinkAddition (TDD) ***
radioLinkAdditionTDD NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE
                            RadioLinkAdditionRequestTDD
    SUCCESSFUL OUTCOME
                            RadioLinkAdditionResponseTDD
                            RadioLinkAdditionFailureTDD
    UNSUCCESSFUL OUTCOME
                            dedicated
    MESSAGE DISCRIMINATOR
    PROCEDURE ID
                            { procedureCode id-radioLinkAddition, ddMode tdd }
    CRITICALITY
                            reject
-- *** RadioLinkDeletion
radioLinkDeletion NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE
                            RadioLinkDeletionRequest
    SUCCESSFUL OUTCOME
                            RadioLinkDeletionResponse
   MESSAGE DISCRIMINATOR
                            dedicated
    PROCEDURE ID
                            { procedureCode id-radioLinkDeletion, ddMode common }
    CRITICALITY
                            reject
-- *** SynchronisedRadioLinkReconfigurationPreparation (FDD) ***
synchronisedRadioLinkReconfigurationPreparationFDD NBAP-ELEMENTARY-PROCEDURE ::= {
                            RadioLinkReconfigurationPrepareFDD
    INITIATING MESSAGE
                            RadioLinkReconfigurationReady
    SUCCESSFUL OUTCOME
                            RadioLinkReconfigurationFailure
    UNSUCCESSFUL OUTCOME
    MESSAGE DISCRIMINATOR
                            dedicated
    PROCEDURE ID
                            { procedureCode id-synchronisedRadioLinkReconfigurationPreparation, ddMode fdd }
    CRITICALITY
                            reject
-- *** SynchronisedRadioLinkReconfigurationPreparation (TDD) ***
synchronisedRadioLinkReconfigurationPreparationTDD NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE
                            RadioLinkReconfigurationPrepareTDD
                            RadioLinkReconfigurationReady
    SUCCESSFUL OUTCOME
```

```
RadioLinkReconfigurationFailure
    UNSUCCESSFUL OUTCOME
    MESSAGE DISCRIMINATOR
                            dedicated
    PROCEDURE ID
                            { procedureCode id-synchronisedRadioLinkReconfigurationPreparation, ddMode tdd }
    CRITICALITY
-- *** UnSynchronisedRadioLinkReconfiguration (FDD) ***
unSynchronisedRadioLinkReconfigurationFDD NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE
                            RadioLinkReconfigurationRequestFDD
                            RadioLinkReconfigurationResponse
    SUCCESSFUL OUTCOME
                            RadioLinkReconfigurationFailure
    UNSUCCESSFUL OUTCOME
    MESSAGE DISCRIMINATOR
                            dedicated
                            { procedureCode id-unSynchronisedRadioLinkReconfiguration, ddMode fdd }
    PROCEDURE ID
    CRITICALITY
-- *** UnSynchronisedRadioLinkReconfiguration (TDD) ***
unSynchronisedRadioLinkReconfigurationTDD NBAP-ELEMENTARY-PROCEDURE ::=
                            RadioLinkReconfigurationRequestTDD
    INITIATING MESSAGE
                            RadioLinkReconfigurationResponse
    SUCCESSFUL OUTCOME
    UNSUCCESSFUL OUTCOME
                            RadioLinkReconfigurationFailure
                            dedicated
    MESSAGE DISCRIMINATOR
                            { procedureCode id-unSynchronisedRadioLinkReconfiguration, ddMode tdd }
    PROCEDURE ID
    CRITICALITY
                            reject
-- *** DedicatedMeasurementInitiation ***
dedicatedMeasurementInitiation NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE
                            DedicatedMeasurementInitiationRequest
                            DedicatedMeasurementInitiationResponse
    SUCCESSFUL OUTCOME
    UNSUCCESSFUL OUTCOME
                            DedicatedMeasurementInitiationFailure
                            dedicated
    MESSAGE DISCRIMINATOR
    PROCEDURE ID
                            { procedureCode id-dedicatedMeasurementInitiation, ddMode common }
    CRITICALITY
                            reject
-- *** PhysicalSharedChannelReconfiguration (TDD only) ***
physicalSharedChannelReconfiguration NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE PhysicalSharedChannelReconfigurationRequestTDD
    SUCCESSFUL OUTCOME PhysicalSharedChannelReconfigurationResponseTDD
                            PhysicalSharedChannelReconfigurationFailureTDD
    UNSUCCESSFUL OUTCOME
    MESSAGE DISCRIMINATOR
                        { procedureCode id-physicalSharedChannelReconfiguration, ddMode tdd }
    PROCEDURE ID
    CRITICALITY
                        reject
--*** InformationExchangeInitiation ***
informationExchangeInitiation NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE
                            InformationExchangeInitiationRequest
    SUCCESSFUL OUTCOME
                            InformationExchangeInitiationResponse
    UNSUCCESSFUL OUTCOME
                            InformationExchangeInitiationFailure
    MESSAGE DISCRIMINATOR
                            { procedureCode id-informationExchangeInitiation,
                                                                                ddMode common }
    PROCEDURE ID
    CRITICALITY
                            reject
```

```
-- *** CellSynchronisationInitiation (TDD only) ***
cellSynchronisationInitiationTDD NBAP-ELEMENTARY-PROCEDURE ::=
    INITIATING MESSAGE CellSynchronisationInitiationRequestTDD
    SUCCESSFUL OUTCOME CellSynchronisationInitiationResponseTDD
                            CellSynchronisationInitiationFailureTDD
    UNSUCCESSFUL OUTCOME
    MESSAGE DISCRIMINATOR
    PROCEDURE ID
                        { procedureCode id-cellSynchronisationInitiation, ddMode tdd }
    CRITICALITY
                        reject
-- *** CellSynchronisationReconfiguration (TDD only) ***
cellSynchronisationReconfigurationTDD NBAP-ELEMENTARY-PROCEDURE ::=
    INITIATING MESSAGE CellSynchronisationReconfigurationRequestTDD
    SUCCESSFUL OUTCOME CellSynchronisationReconfigurationResponseTDD
                           CellSynchronisationReconfigurationFailureTDD
    UNSUCCESSFUL OUTCOME
    MESSAGE DISCRIMINATOR
                        { procedureCode id-cellSynchronisationReconfiguration, ddMode tdd }
    PROCEDURE ID
    CRITICALITY
                        reject
-- *** CellSynchronisationAdjustment (TDD only) ***
cellSynchronisationAdjustmentTDD NBAP-ELEMENTARY-PROCEDURE ::=
    INITIATING MESSAGE CellSynchronisationAdjustmentRequestTDD
    SUCCESSFUL OUTCOME CellSynchronisationAdjustmentResponseTDD
                           CellSynchronisationAdjustmentFailureTDD
    UNSUCCESSFUL OUTCOME
    MESSAGE DISCRIMINATOR
                           common
                        { procedureCode id-cellSynchronisationAdjustment, ddMode tdd }
    PROCEDURE ID
    CRITICALITY
                        reject
-- Class 2
-- *** ResourceStatusIndication ***
resourceStatusIndication NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE
                           ResourceStatusIndication
    MESSAGE DISCRIMINATOR
                           common
                            { procedureCode id-resourceStatusIndication, ddMode common }
    PROCEDURE ID
    CRITICALITY
                            ignore
-- *** AuditRequired ***
auditRequired NBAP-ELEMENTARY-PROCEDURE ::= {
                           AuditRequiredIndication
    INITIATING MESSAGE
   MESSAGE DISCRIMINATOR
                           common
    PROCEDURE ID
                            { procedureCode id-auditRequired, ddMode common }
    CRITICALITY
                            ignore
-- *** CommonMeasurementReport ***
commonMeasurementReport NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE
                            CommonMeasurementReport
    MESSAGE DISCRIMINATOR common
```

```
{ procedureCode id-commonMeasurementReport, ddMode common }
    PROCEDURE ID
    CRITICALITY
                            ignore
-- *** CommonMeasurementTermination ***
commonMeasurementTermination NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE
                            CommonMeasurementTerminationRequest
   MESSAGE DISCRIMINATOR
    PROCEDURE ID
                            { procedureCode id-commonMeasurementTermination, ddMode common }
    CRITICALITY
                            ignore
-- *** CommonMeasurementFailure ***
commonMeasurementFailure NBAP-ELEMENTARY-PROCEDURE ::= {
                            CommonMeasurementFailureIndication
    INITIATING MESSAGE
   MESSAGE DISCRIMINATOR
                            common
    PROCEDURE ID
                             procedureCode id-commonMeasurementFailure, ddMode common }
    CRITICALITY
-- *** SynchronisedRadioLinkReconfirurationCommit ***
synchronisedRadioLinkReconfigurationCommit NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE
                            RadioLinkReconfigurationCommit
    MESSAGE DISCRIMINATOR
                            dedicated
    PROCEDURE ID
                            { procedureCode id-synchronisedRadioLinkReconfigurationCommit, ddMode common }
    CRITICALITY
                            ignore
-- *** SynchronisedRadioReconfigurationCancellation ***
synchronisedRadioLinkReconfigurationCancellation NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE
                            RadioLinkReconfigurationCancel
   MESSAGE DISCRIMINATOR
                            dedicated
    PROCEDURE ID
                            { procedureCode id-synchronisedRadioLinkReconfigurationCancellation, ddMode common }
    CRITICALITY
                            ignore
-- *** RadioLinkFailure ***
radioLinkFailure NBAP-ELEMENTARY-PROCEDURE ::= {
                            RadioLinkFailureIndication
    INITIATING MESSAGE
    MESSAGE DISCRIMINATOR
                            dedicated
                            { procedureCode id-radioLinkFailure, ddMode common }
    PROCEDURE ID
    CRITICALITY
                            ignore
-- *** RadioLinkPreemption ***
radioLinkPreemption NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE RadioLinkPreemptionRequiredIndication
   MESSAGE DISCRIMINATOR dedicated
    PROCEDURE ID
                        { procedureCode id-radioLinkPreemption, ddMode common }
    CRITICALITY
                    ignore
-- *** RadioLinkRestoration ***
radioLinkRestoration NBAP-ELEMENTARY-PROCEDURE ::=
```

```
RadioLinkRestoreIndication
    INITIATING MESSAGE
   MESSAGE DISCRIMINATOR
                           dedicated
                            { procedureCode id-radioLinkRestoration, ddMode common }
    PROCEDURE ID
    CRITICALITY
-- *** DedicatedMeasurementReport ***
dedicatedMeasurementReport NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE
                            DedicatedMeasurementReport
   MESSAGE DISCRIMINATOR
                           dedicated
                            { procedureCode id-dedicatedMeasurementReport, ddMode common }
    PROCEDURE ID
    CRITICALITY
                            ignore
-- *** DedicatedMeasurementTermination ***
dedicatedMeasurementTermination NBAP-ELEMENTARY-PROCEDURE ::= {
                            DedicatedMeasurementTerminationRequest
    INITIATING MESSAGE
                           dedicated
   MESSAGE DISCRIMINATOR
                            { procedureCode id-dedicatedMeasurementTermination, ddMode common }
    PROCEDURE ID
    CRITICALITY
                            ignore
-- *** DedicatedMeasurementFailure ***
dedicatedMeasurementFailure NBAP-ELEMENTARY-PROCEDURE ::=
                            DedicatedMeasurementFailureIndication
    INITIATING MESSAGE
    MESSAGE DISCRIMINATOR
                           dedicated
                            { procedureCode id-dedicatedMeasurementFailure, ddMode common }
    PROCEDURE ID
    CRITICALITY
                            ignore
-- *** DLPowerControl (FDD only) ***
downlinkPowerControlFDD NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE
                            DL-PowerControlRequest
   MESSAGE DISCRIMINATOR
                           dedicated
   PROCEDURE ID
                            { procedureCode id-downlinkPowerControl, ddMode fdd }
    CRITICALITY
                            ignore
-- *** DLPowerTimeslotControl (TDD only) ***
downlinkPowerTimeslotControl NBAP-ELEMENTARY-PROCEDURE ::= {
                            DL-PowerTimeslotControlRequest
    INITIATING MESSAGE
   MESSAGE DISCRIMINATOR
                           dedicated
                            { procedureCode id-downlinkPowerTimeslotControl, ddMode tdd }
    PROCEDURE ID
    CRITICALITY
                            ignore
-- *** CompressedModeCommand (FDD only) ***
compressedModeCommand NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE
                            CompressedModeCommand
   MESSAGE DISCRIMINATOR
                           dedicated
                            { procedureCode id-compressedModeCommand, ddMode fdd }
    PROCEDURE ID
    CRITICALITY
                            ignore
```

```
-- *** UnblockResourceIndication ***
unblockResource NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE
                            UnblockResourceIndication
   MESSAGE DISCRIMINATOR
                           common
    PROCEDURE ID
                            { procedureCode id-unblockResource, ddMode common }
    CRITICALITY
                            ignore
-- *** ErrorIndication for Dedicated procedures ***
errorIndicationForDedicated NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE
                            ErrorIndication
    MESSAGE DISCRIMINATOR
                            dedicated
    PROCEDURE ID
                            { procedureCode id-errorIndicationForDedicated, ddMode common }
    CRITICALITY
                            ignore
-- *** ErrorIndication for Common procedures ***
errorIndicationForCommon NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE
                            ErrorIndication
    MESSAGE DISCRIMINATOR
                            common
    PROCEDURE ID
                            { procedureCode id-errorIndicationForCommon, ddMode common }
    CRITICALITY
                            ignore
-- *** CellSynchronisationReporting (TDD only) ***
cellSynchronisationReportingTDD NBAP-ELEMENTARY-PROCEDURE ::= {
                            CellSynchronisationReportTDD
    INITIATING MESSAGE
   MESSAGE DISCRIMINATOR
                            common
                            { procedureCode id-cellSynchronisationReporting, ddMode tdd }
    PROCEDURE ID
    CRITICALITY
                            ignore
-- *** CellSynchronisationTermination (TDD only) ***
cellSynchronisationTerminationTDD NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE
                            CellSynchronisationTerminationRequestTDD
   MESSAGE DISCRIMINATOR
                            common
    PROCEDURE ID
                            { procedureCode id-cellSynchronisationTermination, ddMode tdd }
    CRITICALITY
                            ignore
-- *** CellSynchronisationFailure (TDD only) ***
cellSynchronisationFailureTDD NBAP-ELEMENTARY-PROCEDURE ::= {
                            {\tt CellSynchronisationFailureIndicationTDD}
    INITIATING MESSAGE
    MESSAGE DISCRIMINATOR
                            common
                            { procedureCode id-cellSynchronisationFailure, ddMode tdd }
    PROCEDURE ID
    CRITICALITY
                            ignore
-- *** PrivateMessage for Dedicated procedures ***
privateMessageForDedicated NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE
                            PrivateMessage
    MESSAGE DISCRIMINATOR
                            dedicated
    PROCEDURE ID
                            { procedureCode id-privateMessageForDedicated, ddMode common }
    CRITICALITY
                            ignore
```

```
-- *** PrivateMessage for Common procedures ***
privateMessageForCommon NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE
                            PrivateMessage
   MESSAGE DISCRIMINATOR
                           common
                            { procedureCode id-privateMessageForCommon, ddMode common }
    PROCEDURE ID
    CRITICALITY
                            ignore
-- *** InformationReporting ***
informationReporting NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE
                            InformationReport
   MESSAGE DISCRIMINATOR
                           common
                            { procedureCode id-informationReporting, ddMode common }
    PROCEDURE ID
    CRITICALITY
-- *** InformationExchangeTermination ***
informationExchangeTermination NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE
                            InformationExchangeTerminationRequest
   MESSAGE DISCRIMINATOR
                            { procedureCode id-informationExchangeTermination, ddMode common }
    PROCEDURE ID
    CRITICALITY
                            ignore
-- *** InformationExchangeFailure ***
informationExchangeFailure NBAP-ELEMENTARY-PROCEDURE ::= {
                            InformationExchangeFailureIndication
    INITIATING MESSAGE
   MESSAGE DISCRIMINATOR
    PROCEDURE ID
                            { procedureCode id-informationExchangeFailure, ddMode common }
    CRITICALITY
                            ignore
END
```

9.3.3 PDU Definitions

```
__ *******************
-- IE parameter types from other modules.
__ ********************
IMPORTS
   Active-Pattern-Sequence-Information,
   AddorDeleteIndicator,
   AICH-Power,
   AICH-TransmissionTiming,
   AllocationRetentionPriority,
   APPreambleSignature,
   APSubChannelNumber,
   AvailabilityStatus,
   BCCH-ModificationTime,
   BindingID,
   BlockingPriorityIndicator,
   SCTD-Indicator,
   Cause,
   CCTrCH-ID,
   CDSubChannelNumbers,
   CellParameterID,
   CellSyncBurstCode,
   CellSyncBurstCodeShift,
   CellSyncBurstRepetitionPeriod,
   CellSyncBurstSIR,
   CellSyncBurstTiming,
   CellSyncBurstTimingThreshold,
   Channel-Assignment-Indication,
   ChipOffset,
   C-ID,
   Closedlooptimingadjustmentmode,
   CommonChannelsCapacityConsumptionLaw,
   Compressed-Mode-Deactivation-Flag,
   CommonMeasurementAccuracy,
   CommonMeasurementType,
   CommonMeasurementValue,
   CommonMeasurementValueInformation,
   CommonPhysicalChannelID,
   Common-PhysicalChannel-Status-Information,
   Common-TransportChannel-Status-Information,
   CommonTransportChannelID,
   CommonTransportChannel-InformationResponse,
   CommunicationControlPortID,
   ConfigurationGenerationID,
   ConstantValue,
   CriticalityDiagnostics,
   CPCH-Allowed-Total-Rate,
   CPCHScramblingCodeNumber,
   CPCH-UL-DPCCH-SlotFormat,
   CRNC-CommunicationContextID,
   CSBMeasurementID,
```

```
CSBTransmissionID,
DCH-FDD-Information.
DCH-InformationResponse,
DCH-ID,
FDD-DCHs-to-Modify,
TDD-DCHs-to-Modify,
DCH-TDD-Information,
DedicatedChannelsCapacityConsumptionLaw,
DedicatedMeasurementType,
DedicatedMeasurementValue,
DedicatedMeasurementValueInformation,
DiversityControlField,
DiversityMode,
DL-DPCH-SlotFormat,
DL-or-Global-CapacityCredit,
DL-Power,
DLPowerAveragingWindowSize,
DL-ScramblingCode,
DL-TimeslotISCP,
DL-Timeslot-Information,
DL-TimeslotLCR-Information,
DL-TimeslotISCPInfo,
DL-TimeslotISCPInfoLCR,
DL-TPC-Pattern01Count,
DPC-Mode,
DPCH-ID,
DSCH-ID,
DSCH-FDD-Common-Information,
DSCH-FDD-Information,
DSCH-InformationResponse,
DSCH-TDD-Information,
DwPCH-Power,
End-Of-Audit-Sequence-Indicator,
EnhancedDSCHPC,
EnhancedDSCHPCCounter.
EnhancedDSCHPCIndicator,
EnhancedDSCHPCWnd,
EnhancedDSCHPowerOffset,
FDD-DL-ChannelisationCodeNumber,
FDD-DL-CodeInformation,
FDD-S-CCPCH-Offset,
FDD-TPC-DownlinkStepSize,
FirstRLS-Indicator,
FNReportingIndicator,
FPACH-Power,
FrameAdjustmentValue,
FrameHandlingPriority,
FrameOffset,
IB-OC-ID,
IB-SG-DATA,
IB-SG-POS,
IB-SG-REP,
IB-Type,
InformationExchangeID,
```

```
InformationReportCharacteristics,
InformationType,
InnerLoopDLPCStatus,
IPDL-FDD-Parameters,
IPDL-TDD-Parameters.
IPDL-Indicator,
LimitedPowerIncrease,
Local-Cell-ID,
MaximumDL-PowerCapability,
MaximumTransmissionPower,
Max-Number-of-PCPCHes,
MaxNrOfUL-DPDCHs,
MaxPRACH-MidambleShifts,
MeasurementFilterCoefficient.
MeasurementID,
MidambleAllocationMode,
MidambleShiftAndBurstType,
MidambleShiftLCR,
MinimumDL-PowerCapability,
MinSpreadingFactor,
MinUL-ChannelisationCodeLength,
MultiplexingPosition,
NEOT,
NCvclesPerSFNperiod.
NFmax,
NRepetitionsPerCyclePeriod,
N-INSYNC-IND,
N-OUTSYNC-IND,
NeighbouringCellMeasurementInformation,
NeighbouringFDDCellMeasurementInformation,
NeighbouringTDDCellMeasurementInformation,
NodeB-CommunicationContextID,
NStartMessage,
PagingIndicatorLength,
PayloadCRC-PresenceIndicator,
PCCPCH-Power,
PCP-Length,
PDSCH-CodeMapping,
PDSCHSet-ID,
PDSCH-ID,
PICH-Mode,
PICH-Power,
PowerAdjustmentType,
PowerOffset,
PowerRaiseLimit,
PRACH-Midamble,
PreambleSignatures,
PreambleThreshold,
PredictedSFNSFNDeviationLimit,
PredictedTUTRANGPSDeviationLimit,
PrimaryCPICH-Power,
PrimaryScramblingCode,
PropagationDelay,
SCH-TimeSlot,
```

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PunctureLimit,
PUSCHSet-ID,
PUSCH-ID.
OE-Selector,
RACH-SlotFormat.
RACH-SubChannelNumbers,
ReferenceClockAvailability,
ReferenceSFNoffset,
RepetitionLength,
RepetitionPeriod,
ReportCharacteristics,
RequestedDataValue,
RequestedDataValueInformation,
ResourceOperationalState,
RL-Set-ID,
RL-ID,
Received-total-wide-band-power-Value,
AdjustmentPeriod,
ScaledAdjustmentRatio,
MaxAdjustmentStep,
RNC-ID,
ScramblingCodeNumber,
SecondaryCCPCH-SlotFormat,
Segment-Type,
S-FieldLength,
SFN,
SFNSFNChangeLimit,
SFNSFNDriftRate,
SFNSFNDriftRateOuality,
SFNSFNQuality,
ShutdownTimer,
SIB-Originator,
SpecialBurstScheduling,
SSDT-Cell-Identity,
SSDT-CellID-Length,
SSDT-Indication,
Start-Of-Audit-Sequence-Indicator,
STTD-Indicator,
SSDT-SupportIndicator,
SyncCase,
SyncFrameNumber,
SynchronisationReportCharacteristics,
SynchronisationReportType,
T-Cell,
T-RLFAILURE,
TDD-ChannelisationCode,
TDD-ChannelisationCodeLCR,
TDD-DL-Code-LCR-Information,
TDD-DPCHOffset,
TDD-TPC-DownlinkStepSize,
TDD-PhysicalChannelOffset,
TDD-UL-Code-LCR-Information,
TFCI2-BearerInformationResponse,
TFCI-Coding,
```

```
TFCI-Presence,
   TFCI-SignallingMode,
   TFCS.
   TimeSlot,
   TimeSlotLCR.
   TimeSlotDirection,
   TimeSlotStatus,
   TimingAdjustmentValue,
   TimingAdvanceApplied,
   ToAWE,
   ToAWS,
   TransmissionDiversityApplied,
   TransmitDiversityIndicator,
   TransmissionGapPatternSequenceCodeInformation,
    Transmission-Gap-Pattern-Sequence-Information,
    TransportBearerRequestIndicator,
    TransportFormatSet,
   TransportLayerAddress,
    TSTD-Indicator,
   TUTRANGPS,
   TUTRANGPSChangeLimit,
   TUTRANGPSDriftRate,
   TUTRANGPSDriftRateOuality,
   TUTRANGPSQuality,
    UARFCN,
   UC-Id,
    USCH-Information,
    USCH-InformationResponse,
   UL-CapacityCredit,
   UL-DPCCH-SlotFormat,
    UL-SIR,
   UL-FP-Mode,
   UL-PhysCH-SF-Variation,
    UL-ScramblingCode,
    UL-Timeslot-Information,
   UL-TimeslotLCR-Information,
   UL-TimeSlot-ISCP-Info,
   UL-TimeSlot-ISCP-LCR-Info,
   UL-TimeslotISCP-Value,
   UL-TimeslotISCP-Value-IncrDecrThres,
   USCH-ID,
    UL-Synchronisation-Parameters-LCR,
   TDD-DL-DPCH-TimeSlotFormat-LCR,
   TDD-UL-DPCH-TimeSlotFormat-LCR,
    TDD-TPC-UplinkStepSize-LCR
FROM NBAP-IEs
    PrivateIE-Container{},
    ProtocolExtensionContainer{},
    ProtocolIE-Container{},
    ProtocolIE-Single-Container{},
    ProtocolIE-ContainerList{},
    NBAP-PRIVATE-IES,
    NBAP-PROTOCOL-IES,
```

NBAP-PROTOCOL-EXTENSION FROM NBAP-Containers id-Active-Pattern-Sequence-Information, id-AdjustmentRatio, id-AICH-Information, id-AICH-ParametersListIE-CTCH-ReconfRgstFDD. id-AP-AICH-Information, id-AP-AICH-ParametersListIE-CTCH-ReconfRqstFDD, id-BCH-Information, id-BCCH-ModificationTime, id-BlockingPriorityIndicator, id-Cause. id-CauseLevel-PSCH-ReconfFailureTDD. id-CauseLevel-RL-AdditionFailureFDD. id-CauseLevel-RL-AdditionFailureTDD. id-CauseLevel-RL-ReconfFailure, id-CauseLevel-RL-SetupFailureFDD, id-CauseLevel-RL-SetupFailureTDD, id-CauseLevel-SyncAdjustmntFailureTDD, id-CCP-InformationItem-AuditRsp, id-CCP-InformationList-AuditRsp, id-CCP-InformationItem-ResourceStatusInd, id-CCTrCH-InformationItem-RL-FailureInd, id-CCTrCH-InformationItem-RL-RestoreInd, id-CDCA-ICH-Information. id-CDCA-ICH-ParametersListIE-CTCH-ReconfRqstFDD, id-CellAdjustmentInfo-SyncAdjustmntRgstTDD, id-CellAdjustmentInfoItem-SyncAdjustmentRgstTDD, id-Cell-InformationItem-AuditRsp, id-Cell-InformationItem-ResourceStatusInd, id-Cell-InformationList-AuditRsp. id-CellParameterID, id-CellSyncBurstTransInit-CellSyncInitiationRqstTDD, id-CellSyncBurstMeasureInit-CellSyncInitiationRgstTDD. id-cellSyncBurstRepetitionPeriod, id-CellSyncBurstTransReconfiguration-CellSyncReconfRqstTDD, id-CellSyncBurstTransReconfInfo-CellSyncReconfRgstTDD, id-CellSyncBurstMeasReconfiguration-CellSyncReconfRqstTDD, id-CellSyncBurstMeasInfoList-CellSyncReconfRqstTDD, id-CellSyncBurstInfoList-CellSyncReconfRgstTDD, id-CellSyncInfo-CellSyncReprtTDD, id-CFN, id-CFNReportingIndicator, id-C-ID, id-Closed-Loop-Timing-Adjustment-Mode, id-CommonMeasurementAccuracy, id-CommonMeasurementObjectType-CM-Rprt, id-CommonMeasurementObjectType-CM-Rgst, id-CommonMeasurementObjectType-CM-Rsp, id-CommonMeasurementType, id-CommonPhysicalChannelID, id-CommonPhysicalChannelType-CTCH-ReconfRqstFDD, id-CommonPhysicalChannelType-CTCH-SetupRqstFDD,

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id-CommonPhysicalChannelType-CTCH-SetupRqstTDD,
id-CommunicationContextInfoItem-Reset.
id-CommunicationControlPortID.
id-CommunicationControlPortInfoItem-Reset.
id-Compressed-Mode-Deactivation-Flag,
id-ConfigurationGenerationID,
id-CPCH-Information,
id-CPCH-Parameters-CTCH-SetupRsp.
id-CPCH-ParametersListIE-CTCH-ReconfRgstFDD.
id-CRNC-CommunicationContextID,
id-CriticalityDiagnostics,
id-CSBTransmissionID,
id-CSBMeasurementID.
id-DCHs-to-Add-FDD.
id-DCHs-to-Add-TDD.
id-DCH-AddList-RL-ReconfPrepTDD,
id-DCH-DeleteList-RL-ReconfPrepFDD,
id-DCH-DeleteList-RL-ReconfPrepTDD,
id-DCH-DeleteList-RL-ReconfRqstFDD,
id-DCH-DeleteList-RL-ReconfRqstTDD,
id-DCH-FDD-Information,
id-DCH-TDD-Information,
id-DCH-InformationResponse,
id-FDD-DCHs-to-Modify,
id-TDD-DCHs-to-Modify,
id-DedicatedMeasurementObjectType-DM-Rprt,
id-DedicatedMeasurementObjectType-DM-Rgst,
id-DedicatedMeasurementObjectType-DM-Rsp,
id-DedicatedMeasurementType,
id-DL-CCTrCH-InformationAddList-RL-ReconfPrepTDD,
id-DL-CCTrCH-InformationDeleteItem-RL-ReconfRgstTDD,
id-DL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD,
id-DL-CCTrCH-InformationDeleteList-RL-ReconfRgstTDD,
id-DL-CCTrCH-InformationItem-RL-SetupRqstTDD,
id-DL-CCTrCH-InformationList-RL-AdditionRgstTDD,
id-DL-CCTrCH-InformationList-RL-SetupRqstTDD,
id-DL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD,
id-DL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD,
id-DL-CCTrCH-InformationModifyList-RL-ReconfRgstTDD,
id-DL-DPCH-InformationAddListIE-RL-ReconfPrepTDD,
id-DL-DPCH-InformationItem-RL-AdditionRgstTDD,
id-DL-DPCH-InformationList-RL-SetupRqstTDD,
id-DL-DPCH-InformationModify-AddListIE-RL-ReconfPrepTDD,
id-DL-DPCH-InformationModify-DeleteListIE-RL-ReconfPrepTDD,
id-DL-DPCH-InformationModify-ModifyListIE-RL-ReconfPrepTDD.
id-DL-DPCH-Information-RL-ReconfPrepFDD,
id-DL-DPCH-Information-RL-ReconfRgstFDD,
id-DL-DPCH-Information-RL-SetupRqstFDD,
id-DL-ReferencePowerInformationItem-DL-PC-Rgst,
id-DLReferencePower,
id-DLReferencePowerList-DL-PC-Rgst,
id-DL-TPC-Pattern01Count,
id-DPC-Mode.
id-DPCHConstant,
```

```
id-DSCH-AddItem-RL-ReconfPrepFDD,
id-DSCHs-to-Add-FDD,
id-DSCH-DeleteItem-RL-ReconfPrepFDD.
id-DSCH-DeleteList-RL-ReconfPrepFDD,
id-DSCHs-to-Add-TDD.
id-DSCH-Information-DeleteList-RL-ReconfPrepTDD,
id-DSCH-Information-ModifyList-RL-ReconfPrepTDD,
id-DSCH-InformationResponse,
id-DSCH-FDD-Information,
id-DSCH-FDD-Common-Information,
id-DSCH-TDD-Information,
id-DSCH-ModifyItem-RL-ReconfPrepFDD,
id-DSCH-ModifyList-RL-ReconfPrepFDD,
id-End-Of-Audit-Sequence-Indicator.
id-EnhancedDSCHPC.
id-EnhancedDSCHPCIndicator.
id-FACH-Information.
id-FACH-ParametersList-CTCH-ReconfRgstTDD,
id-FACH-ParametersList-CTCH-SetupRsp,
id-FACH-ParametersListIE-CTCH-ReconfRgstFDD,
id-FACH-ParametersListIE-CTCH-SetupRqstFDD,
id-FACH-ParametersListIE-CTCH-SetupRqstTDD,
id-IndicationType-ResourceStatusInd,
id-InformationExchangeID,
id-InformationExchangeObjectType-InfEx-Rqst,
id-InformationExchangeObjectType-InfEx-Rsp,
id-InformationExchangeObjectType-InfEx-Rprt,
id-InformationReportCharacteristics,
id-InformationType,
id-InitDL-Power,
id-InnerLoopDLPCStatus,
id-IntStdPhCellSyncInfoItem-CellSyncReprtTDD,
id-IPDLParameter-Information-Cell-ReconfRqstFDD,
id-IPDLParameter-Information-Cell-SetupRqstFDD,
id-IPDLParameter-Information-Cell-ReconfRgstTDD,
id-IPDLParameter-Information-Cell-SetupRqstTDD,
id-LateEntranceCellSyncInfoItem-CellSyncReprtTDD,
id-Limited-power-increase-information-Cell-SetupRqstFDD,
id-Local-Cell-ID,
id-Local-Cell-Group-InformationItem-AuditRsp,
id-Local-Cell-Group-InformationItem-ResourceStatusInd,
id-Local-Cell-Group-InformationItem2-ResourceStatusInd,
id-Local-Cell-Group-InformationList-AuditRsp,
id-Local-Cell-InformationItem-AuditRsp,
id-Local-Cell-InformationItem-ResourceStatusInd,
id-Local-Cell-InformationItem2-ResourceStatusInd,
id-Local-Cell-InformationList-AuditRsp.
id-AdjustmentPeriod,
id-MaxAdjustmentStep,
id-MaximumTransmissionPower,
id-MeasurementFilterCoefficient,
id-MeasurementID,
id-MIB-SB-SIB-InformationList-SystemInfoUpdateRqst,
id-NCyclesPerSFNperiod,
```

```
id-NeighbouringCellMeasurementInformation,
id-NodeB-CommunicationContextID.
id-NRepetitionsPerCvclePeriod.
id-P-CCPCH-Information.
id-P-CPICH-Information.
id-P-SCH-Information,
id-PCCPCH-Information-Cell-ReconfRgstTDD,
id-PCCPCH-Information-Cell-SetupRgstTDD,
id-PCH-Parameters-CTCH-ReconfRqstTDD,
id-PCH-Parameters-CTCH-SetupRsp,
id-PCH-ParametersItem-CTCH-ReconfRqstFDD,
id-PCH-ParametersItem-CTCH-SetupRqstFDD,
id-PCH-ParametersItem-CTCH-SetupRgstTDD.
id-PCH-Information.
id-PCPCH-Information.
id-PICH-ParametersItem-CTCH-ReconfRqstFDD,
id-PDSCH-Information-AddListIE-PSCH-ReconfRqst,
id-PDSCH-Information-ModifyListIE-PSCH-ReconfRqst,
id-PDSCH-RL-ID,
id-PDSCHSets-AddList-PSCH-ReconfRgst,
id-PDSCHSets-DeleteList-PSCH-ReconfRast,
id-PDSCHSets-ModifyList-PSCH-ReconfRqst,
id-PICH-Information,
id-PICH-Parameters-CTCH-ReconfRgstTDD.
id-PICH-ParametersItem-CTCH-SetupRgstTDD,
id-PowerAdjustmentType,
id-PRACH-Information,
id-PRACHConstant.
id-PRACH-ParametersItem-CTCH-SetupRqstTDD,
id-PRACH-ParametersListIE-CTCH-ReconfRgstFDD,
id-PrimaryCCPCH-Information-Cell-ReconfRqstFDD,
id-PrimaryCCPCH-Information-Cell-SetupRqstFDD,
id-PrimaryCPICH-Information-Cell-ReconfRqstFDD,
id-PrimaryCPICH-Information-Cell-SetupRqstFDD,
id-PrimarySCH-Information-Cell-ReconfRgstFDD,
id-PrimarySCH-Information-Cell-SetupRqstFDD,
id-PrimaryScramblingCode,
id-SCH-Information-Cell-ReconfRqstTDD,
id-SCH-Information-Cell-SetupRgstTDD,
id-PUSCH-Information-AddListIE-PSCH-ReconfRqst,
id-PUSCH-Information-ModifyListIE-PSCH-ReconfRqst,
id-PUSCHConstant.
id-PUSCHSets-AddList-PSCH-ReconfRqst,
id-PUSCHSets-DeleteList-PSCH-ReconfRqst,
id-PUSCHSets-ModifyList-PSCH-ReconfRast,
id-RACH-Information,
id-RACH-Parameters-CTCH-SetupRsp.
id-RACH-ParametersItem-CTCH-SetupRqstFDD,
id-RACH-ParameterItem-CTCH-SetupRqstTDD,
id-ReferenceClockAvailability,
id-ReferenceSFNoffset,
id-ReportCharacteristics,
id-Reporting-Object-RL-FailureInd,
id-Reporting-Object-RL-RestoreInd,
```

```
id-ResetIndicator,
id-RL-InformationItem-DM-Rprt.
id-RL-InformationItem-DM-Rost.
id-RL-InformationItem-DM-Rsp,
id-RL-InformationItem-RL-AdditionRgstFDD.
id-RL-informationItem-RL-DeletionRgst,
id-RL-InformationItem-RL-FailureInd,
id-RL-InformationItem-RL-PreemptRequiredInd,
id-RL-InformationItem-RL-ReconfPrepFDD,
id-RL-InformationItem-RL-ReconfRgstFDD,
id-RL-InformationItem-RL-RestoreInd,
id-RL-InformationItem-RL-SetupRgstFDD.
id-RL-InformationList-RL-AdditionRgstFDD.
id-RL-informationList-RL-DeletionRgst.
id-RL-InformationList-RL-PreemptRequiredInd,
id-RL-InformationList-RL-ReconfPrepFDD,
id-RL-InformationList-RL-ReconfRgstFDD,
id-RL-InformationList-RL-SetupRqstFDD,
id-RL-InformationResponseItem-RL-AdditionRspFDD,
id-RL-InformationResponseItem-RL-ReconfReady,
id-RL-InformationResponseItem-RL-ReconfRsp,
id-RL-InformationResponseItem-RL-SetupRspFDD,
id-RL-InformationResponseList-RL-AdditionRspFDD,
id-RL-InformationResponseList-RL-ReconfReady,
id-RL-InformationResponseList-RL-ReconfRsp,
id-RL-InformationResponseList-RL-SetupRspFDD,
id-RL-InformationResponse-RL-AdditionRspTDD,
id-RL-InformationResponse-RL-SetupRspTDD,
id-RL-Information-RL-AdditionRgstTDD,
id-RL-Information-RL-ReconfRqstTDD,
id-RL-Information-RL-ReconfPrepTDD,
id-RL-Information-RL-SetupRqstTDD,
id-RL-ReconfigurationFailureItem-RL-ReconfFailure.
id-RL-Set-InformationItem-DM-Rprt,
id-RL-Set-InformationItem-DM-Rsp.
id-RL-Set-InformationItem-RL-FailureInd,
id-RL-Set-InformationItem-RL-RestoreInd,
id-S-CCPCH-Information,
id-S-CPICH-Information,
id-SCH-Information,
id-S-SCH-Information,
id-Secondary-CCPCHListIE-CTCH-ReconfRqstTDD,
id-Secondary-CCPCH-parameterListIE-CTCH-SetupRqstTDD,
id-Secondary-CCPCH-Parameters-CTCH-ReconfRqstTDD,
id-SecondaryCPICH-InformationItem-Cell-ReconfRgstFDD,
id-SecondaryCPICH-InformationItem-Cell-SetupRqstFDD,
id-SecondaryCPICH-InformationList-Cell-ReconfRgstFDD,
id-SecondaryCPICH-InformationList-Cell-SetupRqstFDD,
id-SecondarySCH-Information-Cell-ReconfRqstFDD,
id-SecondarySCH-Information-Cell-SetupRgstFDD,
id-SegmentInformationListIE-SystemInfoUpdate,
id-SFN,
id-SFNReportingIndicator,
id-ShutdownTimer,
```

```
id-SSDT-CellIDforEDSCHPC.
id-Start-Of-Audit-Sequence-Indicator,
id-Successful-RL-InformationRespItem-RL-AdditionFailureFDD.
id-Successful-RL-InformationRespItem-RL-SetupFailureFDD,
id-Synchronisation-Configuration-Cell-ReconfRqst,
id-Synchronisation-Configuration-Cell-SetupRqst,
id-SyncCase,
id-SyncCaseIndicatorItem-Cell-SetupRgstTDD-PSCH,
id-SyncFrameNumber,
id-SynchronisationReportType,
id-SynchronisationReportCharacteristics,
id-SyncReportType-CellSyncReprtTDD,
id-T-Cell.
id-TFCI2-Bearer-Information-RL-SetupRgstFDD.
id-TFCI2-BearerInformationResponse,
id-TFCI2-BearerSpecificInformation-RL-ReconfPrepFDD,
id-Transmission-Gap-Pattern-Sequence-Information,
id-TimeSlotConfigurationList-Cell-ReconfRqstTDD,
id-TimeSlotConfigurationList-Cell-SetupRgstTDD,
id-timeslotInfo-CellSyncInitiationRgstTDD,
id-TimeslotISCPInfo,
id-TimingAdvanceApplied,
id-TransmissionDiversityApplied.
id-UARFCNforNt,
id-UARFCNforNd,
id-UARFCNforNu.
id-UL-CCTrCH-InformationAddList-RL-ReconfPrepTDD,
id-UL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD,
id-UL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD,
id-UL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD,
id-UL-CCTrCH-InformationItem-RL-SetupRgstTDD,
id-UL-CCTrCH-InformationList-RL-AdditionRqstTDD,
id-UL-CCTrCH-InformationList-RL-SetupRgstTDD,
id-UL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD,
id-UL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD,
id-UL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD,
id-UL-DPCH-InformationAddListIE-RL-ReconfPrepTDD.
id-UL-DPCH-InformationItem-RL-AdditionRgstTDD,
id-UL-DPCH-InformationList-RL-SetupRgstTDD,
id-UL-DPCH-InformationModify-AddListIE-RL-ReconfPrepTDD,
id-UL-DPCH-InformationModify-DeleteListIE-RL-ReconfPrepTDD,
id-UL-DPCH-InformationModify-ModifyListIE-RL-ReconfPrepTDD,
id-UL-DPCH-Information-RL-ReconfPrepFDD,
id-UL-DPCH-Information-RL-ReconfRqstFDD,
id-UL-DPCH-Information-RL-SetupRgstFDD,
id-Unsuccessful-cell-InformationRespItem-SyncAdjustmntFailureTDD,
id-Unsuccessful-PDSCHSetItem-PSCH-ReconfFailureTDD,
id-Unsuccessful-PUSCHSetItem-PSCH-ReconfFailureTDD,
id-Unsuccessful-RL-InformationRespItem-RL-AdditionFailureFDD,
id-Unsuccessful-RL-InformationRespItem-RL-SetupFailureFDD,
id-Unsuccessful-RL-InformationResp-RL-AdditionFailureTDD,
id-Unsuccessful-RL-InformationResp-RL-SetupFailureTDD,
id-USCH-Information-Add,
id-USCH-Information-DeleteList-RL-ReconfPrepTDD,
```

```
id-USCH-Information-ModifyList-RL-ReconfPrepTDD,
   id-USCH-InformationResponse.
  id-USCH-Information.
   id-DL-DPCH-LCR-Information-RL-SetupRqstTDD,
   id-DwPCH-LCR-Information.
   id-DwPCH-LCR-InformationList-AuditRsp,
   id-DwPCH-LCR-Information-Cell-SetupRqstTDD,
   id-DwPCH-LCR-Information-Cell-ReconfRgstTDD,
   id-DwPCH-LCR-Information-ResourceStatusInd,
   id-maxFACH-Power-LCR-CTCH-SetupRqstTDD,
   id-maxFACH-Power-LCR-CTCH-ReconfRqstTDD,
   id-FPACH-LCR-Information,
   id-FPACH-LCR-Information-AuditRsp,
   id-FPACH-LCR-InformationList-AuditRsp,
   id-FPACH-LCR-InformationList-ResourceStatusInd,
   id-FPACH-LCR-Parameters-CTCH-SetupRqstTDD,
   id-FPACH-LCR-Parameters-CTCH-ReconfRgstTDD,
   id-PCCPCH-LCR-Information-Cell-SetupRgstTDD,
   id-PCH-Power-LCR-CTCH-SetupRgstTDD,
  id-PCH-Power-LCR-CTCH-ReconfRgstTDD,
  id-PICH-LCR-Parameters-CTCH-SetupRqstTDD,
      id-PRACH-LCR-ParametersList-CTCH-SetupRqstTDD,
  id-RL-InformationResponse-LCR-RL-SetupRspTDD,
   id-Secondary-CCPCH-LCR-parameterList-CTCH-SetupRgstTDD,
   id-TimeSlot,
   id-TimeSlotConfigurationList-LCR-Cell-ReconfRgstTDD,
   id-TimeSlotConfigurationList-LCR-Cell-SetupRgstTDD,
   id-TimeslotISCP-LCR-InfoList-RL-SetupRgstTDD,
   id-TimeSlotLCR-CM-Rgst,
id-UL-DPCH-LCR-Information-RL-SetupRgstTDD,
  id-DL-DPCH-InformationItem-LCR-RL-AdditionRgstTDD,
  id-UL-DPCH-InformationItem-LCR-RL-AdditionRqstTDD,
  id-TimeslotISCP-InformationList-LCR-RL-AdditionRqstTDD,
  id-DL-DPCH-LCR-InformationAddList-RL-ReconfPrepTDD,
  id-DL-DPCH-LCR-InformationModify-AddList-RL-ReconfPrepTDD.
  id-DL-Timeslot-LCR-InformationModify-ModifyList-RL-ReconfPrepTDD,
  id-TimeslotISCPInfoList-LCR-DL-PC-RgstTDD.
   id-UL-DPCH-LCR-InformationAddListIE-RL-ReconfPrepTDD,
   id-UL-DPCH-LCR-InformationModify-AddList,
  id-UL-TimeslotLCR-Information-RL-ReconfPrepTDD,
  id-UL-SIRTarget,
  id-PDSCH-AddInformation-LCR-PSCH-ReconfRqst,
  id-PDSCH-AddInformation-LCR-AddListIE-PSCH-ReconfRqst,
  id-PDSCH-ModifyInformation-LCR-PSCH-ReconfRqst,
  id-PDSCH-ModifyInformation-LCR-ModifyListIE-PSCH-ReconfRgst,
   id-PUSCH-AddInformation-LCR-PSCH-ReconfRgst,
  id-PUSCH-AddInformation-LCR-AddListIE-PSCH-ReconfRgst,
  id-PUSCH-ModifyInformation-LCR-PSCH-ReconfRqst,
  id-PUSCH-ModifyInformation-LCR-ModifyListIE-PSCH-ReconfRgst,
  id-PUSCH-Info-DM-Rqst,
   id-PUSCH-Info-DM-Rsp,
   id-PUSCH-Info-DM-Rprt,
   id-RL-InformationResponse-LCR-RL-AdditionRspTDD,
  id-UL-Synchronisation-Parameters-LCR,
```

maxNrOfReceptsPerSyncFrame,

```
id-DL-DPCH-TimeSlotFormat-LCR-ModifyItem-RL-ReconfPrepTDD,
id-UL-DPCH-TimeSlotFormat-LCR-ModifyItem-RL-ReconfPrepTDD,
id-TDD-TPC-UplinkStepSize-LCR-RL-SetupRgstTDD,
id-TDD-TPC-UplinkStepSize-LCR-RL-AdditionRgstTDD,
id-TDD-TPC-DownlinkStepSize-RL-AdditionRgstTDD,
id-TDD-TPC-UplinkStepSize-InformationAdd-LCR-RL-ReconfPrepTDD,
id-TDD-TPC-UplinkStepSize-InformationModify-LCR-RL-ReconfPrepTDD,
id-TDD-TPC-DownlinkStepSize-InformationModify-RL-ReconfPrepTDD,
id-TDD-TPC-DownlinkStepSize-InformationAdd-RL-ReconfPrepTDD,
maxNrOfCCTrCHs,
maxNrOfCellSyncBursts,
maxNrOfCodes.
maxNrOfCPCHs.
maxNrOfDCHs,
maxNrOfDLTSs,
maxNrOfDLTSLCRs,
maxNrOfDPCHs,
maxNrOfDPCHLCRs,
maxNrOfDSCHs,
maxNrOfFACHs,
maxNrOfRLs,
maxNrOfRLs-1,
maxNrOfRLs-2,
maxNrOfRLSets,
maxNrOfPCPCHs.
maxNrOfPDSCHs,
maxNrOfPUSCHs,
maxNrOfPRACHLCRs,
maxNrOfPDSCHSets,
maxNrOfPUSCHSets,
maxNrOfReceptsPerSyncFrame,
maxNrOfSCCPCHs,
maxNrOfSCCPCHLCRs,
maxNrOfULTSs.
maxNrOfULTSLCRs,
maxNrOfUSCHs.
maxAPSiqNum,
maxCPCHCell,
maxFACHCell,
maxFPACHCell,
maxNoofLen.
maxRACHCell,
maxPCPCHCell,
maxPRACHCell,
maxSCCPCHCell,
maxSCPICHCell,
maxCellinNodeB,
maxCCPinNodeB,
maxCommunicationContext,
maxLocalCellinNodeB,
maxNrOfSlotFormatsPRACH,
maxNrOfCellSyncBursts,
```

```
maxIB,
   maxIBSEG
FROM NBAP-Constants;
  *****************
-- COMMON TRANSPORT CHANNEL SETUP REQUEST FDD
         CommonTransportChannelSetupRequestFDD ::= SEQUENCE {
                                                 {{CommonTransportChannelSetupRequestFDD-IEs}},
   protocolIEs
                          ProtocolIE-Container
                          ProtocolExtensionContainer {{CommonTransportChannelSetupRequestFDD-Extensions}}
   protocolExtensions
                                                                                                           OPTIONAL.
CommonTransportChannelSetupRequestFDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
CommonTransportChannelSetupRequestFDD-IEs NBAP-PROTOCOL-IES ::= {
          id-C-ID
                                                                                                              C-ID
                                                            CRITICALITY
                                                                            reject
                                                                                       TYPE
       PRESENCE mandatory } |
    { ID
          id-ConfigurationGenerationID
                                                            CRITICALITY
                                                                            reject
                                                                                       TYPE
                                                                                                              ConfigurationGenerationID
               PRESENCE mandatory } |
           id-CommonPhysicalChannelType-CTCH-SetupRqstFDD
                                                            CRITICALITY
                                                                            ignore
                                                                                       TYPE
                                                                                                              CommonPhysicalChannelType-CTCH-
    { ID
                  PRESENCE mandatory },
SetupRqstFDD
CommonPhysicalChannelType-CTCH-SetupRqstFDD ::= CHOICE {
    secondary-CCPCH-parameters
                                  Secondary-CCPCH-CTCH-SetupRqstFDD,
   pRACH-parameters
                                  PRACH-CTCH-SetupRqstFDD,
                                  PCPCH-CTCH-SetupRqstFDD,
   pCPCHes-parameters
Secondary-CCPCH-CTCH-SetupRgstFDD ::= SEQUENCE {
    commonPhysicalChannelID
                                         CommonPhysicalChannelID,
    fdd-S-CCPCH-Offset
                                         FDD-S-CCPCH-Offset,
   dl-ScramblingCode
                                         DL-ScramblingCode OPTIONAL,
    -- This IE shall be present if the PCH Parameters IE is not present
    fdd-DL-ChannelisationCodeNumber
                                         FDD-DL-ChannelisationCodeNumber,
                  TFCS,
    secondary-CCPCH-SlotFormat
                                         SecondaryCCPCH-SlotFormat,
    tFCI-Presence
                                         TFCI-Presence OPTIONAL,
    -- This IE shall be present if the Secondary CCPCH Slot Format is set to any of the values from 8 to 17
   multiplexingPosition
                                         MultiplexingPosition,
   powerOffsetInformation
                                         PowerOffsetInformation-CTCH-SetupRqstFDD,
    sTTD-Indicator
                                         STTD-Indicator,
    fACH-Parameters
                                         FACH-ParametersList-CTCH-SetupRqstFDD
                                                                                   OPTIONAL,
    pCH-Parameters
                                         PCH-Parameters-CTCH-SetupRqstFDD
                                                                                   OPTIONAL,
    iE-Extensions
                                         ProtocolExtensionContainer { { Secondary-CCPCHItem-CTCH-SetupRqstFDD-ExtIEs} }
                                                                                                                         OPTIONAL,
    . . .
```

```
Secondary-CCPCHItem-CTCH-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
PowerOffsetInformation-CTCH-SetupRqstFDD ::= SEQUENCE {
   pO1-ForTFCI-Bits
                                   PowerOffset,
   pO3-ForPilotBits
                                   PowerOffset,
                                   ProtocolExtensionContainer { { PowerOffsetInformation-CTCH-SetupRqstFDD-ExtIEs} } OPTIONAL,
   iE-Extensions
PowerOffsetInformation-CTCH-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
FACH-ParametersList-CTCH-SetupRqstFDD ::= ProtocolIE-Single-Container {{ FACH-ParametersListIEs-CTCH-SetupRqstFDD }}
FACH-ParametersListIEs-CTCH-SetupRqstFDD NBAP-PROTOCOL-IES ::= {
   FACH-ParametersListIE-CTCH-SetupRgstFDD ::= SEOUENCE (SIZE (1..maxNrOfFACHs)) OF FACH-ParametersItem-CTCH-SetupRgstFDD
FACH-ParametersItem-CTCH-SetupRqstFDD ::= SEQUENCE {
   commonTransportChannelID
                                CommonTransportChannelID,
   transportFormatSet
                                TransportFormatSet,
   toAWS
                                ToAWS,
   toAWE
                                TOAWE,
   maxFACH-Power
                                DL-Power,
                                iE-Extensions
                                                                                                     OPTIONAL,
   . . .
FACH-ParametersItem-CTCH-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
PCH-Parameters-CTCH-SetupRqstFDD ::= ProtocolIE-Single-Container {{ PCH-ParametersIE-CTCH-SetupRqstFDD }}
PCH-ParametersIE-CTCH-SetupRqstFDD NBAP-PROTOCOL-IES ::= {
   PCH-ParametersItem-CTCH-SetupRqstFDD ::= SEQUENCE {
   commonTransportChannelID
                                CommonTransportChannelID,
   transportFormatSet
                                TransportFormatSet,
   toAWS
                                ToAWS,
   toAWE
                                TOAWE,
   pCH-Power
                                DL-Power,
   pICH-Parameters
                                   PICH-Parameters-CTCH-SetupRqstFDD,
                                ProtocolExtensionContainer { { PCH-ParametersItem-CTCH-SetupRqstFDD-ExtIEs} }
   iE-Extensions
                                                                                                  OPTIONAL,
   . . .
```

```
PCH-ParametersItem-CTCH-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
PICH-Parameters-CTCH-SetupRqstFDD ::= SEQUENCE {
   commonPhysicalChannelID
                                            CommonPhysicalChannelID,
   fdd-dl-ChannelisationCodeNumber
                                            FDD-DL-ChannelisationCodeNumber,
   pICH-Power
                                            PICH-Power,
   pICH-Mode
                                            PICH-Mode,
   sTTD-Indicator
                                            STTD-Indicator,
   iE-Extensions
                                            ProtocolExtensionContainer { { PICH-Parameters-CTCH-SetupRgstFDD-ExtIEs} } }
                                                                                                                     OPTIONAL,
PICH-Parameters-CTCH-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
PRACH-CTCH-SetupRqstFDD ::= SEQUENCE {
   commonPhysicalChannelID
                                            CommonPhysicalChannelID,
   scramblingCodeNumber
                                        ScramblingCodeNumber,
   tFCS
                                            TFCS,
   preambleSignatures
                                            PreambleSignatures,
   allowedSlotFormatInformation
                                            AllowedSlotFormatInformationList-CTCH-SetupRqstFDD,
   rACH-SubChannelNumbers
                                            RACH-SubChannelNumbers,
   ul-punctureLimit
                                            PunctureLimit,
                                            PreambleThreshold,
   preambleThreshold
   rACH-Parameters
                                            RACH-Parameters-CTCH-SetupRqstFDD,
   aICH-Parameters
                                            AICH-Parameters-CTCH-SetupRgstFDD,
                                            iE-Extensions
                                                                                                               OPTIONAL,
   . . .
PRACHItem-CTCH-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
AllowedSlotFormatInformationList-CTCH-SetupRqstFDD ::= SEOUENCE (SIZE (1.. maxNrOfSlotFormatsPRACH)) OF AllowedSlotFormatInformationItem-CTCH-
SetupRqstFDD
AllowedSlotFormatInformationItem-CTCH-SetupRqstFDD ::= SEQUENCE {
   rACHSlotFormat
                                            RACH-SlotFormat,
                                            iE-Extensions
   OPTIONAL,
   . . .
AllowedSlotFormatInformationItem-CTCH-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
RACH-Parameters-CTCH-SetupRqstFDD ::= ProtocolIE-Single-Container {{ RACH-ParametersIE-CTCH-SetupRqstFDD }}
```

```
RACH-ParametersIE-CTCH-SetupRqstFDD NBAP-PROTOCOL-IES ::= {
   RACH-ParametersItem-CTCH-SetupRgstFDD ::= SEQUENCE {
   commonTransportChannelID
                                         CommonTransportChannelID,
   transportFormatSet
                                         TransportFormatSet,
   iE-Extensions
                                         OPTIONAL,
RACH-ParametersItem-CTCH-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
AICH-Parameters-CTCH-SetupRgstFDD ::= SEQUENCE
   commonPhysicalChannelID
                                         CommonPhysicalChannelID,
   aICH-TransmissionTiming
                                         AICH-TransmissionTiming,
   fdd-dl-ChannelisationCodeNumber
                                         FDD-DL-ChannelisationCodeNumber,
   aTCH-Power
                                         AICH-Power,
   sTTD-Indicator
                                         STTD-Indicator,
                                         ProtocolExtensionContainer { { AICH-Parameters-CTCH-SetupRqstFDD-ExtIEs} }
   iE-Extensions
                                                                                                            OPTIONAL,
   . . .
AICH-Parameters-CTCH-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
PCPCH-CTCH-SetupRqstFDD ::= SEQUENCE
   cPCH-Parameters
                              CPCH-Parameters-CTCH-SetupRqstFDD,
   iE-Extensions
                              OPTIONAL,
   . . .
PCPCHItem-CTCH-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
CPCH-Parameters-CTCH-SetupRqstFDD ::= SEQUENCE {
   commonTransportChannelID
                              CommonTransportChannelID,
   transportFormatSet
                              TransportFormatSet,
   aPPreambleScramblingCode
                              CPCHScramblingCodeNumber,
   cDPreambleScramblingCode
                              CPCHScramblingCodeNumber,
   tFCS
                              TFCS,
   cDSignatures
                               PreambleSignatures
                                                      OPTIONAL,
   cDSubChannelNumbers
                              CDSubChannelNumbers
                                                      OPTIONAL,
   punctureLimit
                               PunctureLimit,
   cPCH-UL-DPCCH-SlotFormat
                              CPCH-UL-DPCCH-SlotFormat,
   uL-SIR
                              UL-SIR,
   initialDL-transmissionPower
                              DL-Power,
   maximumDLPower
                              DL-Power,
   minimumDLPower
                              DL-Power,
```

```
pO2-ForTPC-Bits
                                  PowerOffset,
   fDD-TPC-DownlinkStepSize
                                 FDD-TPC-DownlinkStepSize,
   nStartMessage
                                 NStartMessage.
   nEOT
                                 NEOT,
   channel-Assignment-Indication
                                 Channel-Assignment-Indication,
   cPCH-Allowed-Total-Rate
                                 CPCH-Allowed-Total-Rate,
   pCPCHChannelInfomation
                                 PCPCHChannelInformationList-CTCH-SetupRqstFDD,
   vCAMMapping-Information
                                 VCAMMapping-InformationList-CTCH-SetupRgstFDD
   -- this IE shall be present if the Channel Assignment Indication is set to 'CA Active' --
   aP-AICH-Parameters
                                 AP-AICH-Parameters-CTCH-SetupRqstFDD,
                                 CDCA-ICH-Parameters-CTCH-SetupRqstFDD,
   cDCA-ICH-Parameters
   iE-Extensions
                                 ProtocolExtensionContainer { { CPCH-Parameters-CTCH-SetupRqstFDD-ExtIEs} }
                                                                                                               OPTIONAL,
   . . .
CPCH-Parameters-CTCH-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
PCPCHChannelInformationList-CTCH-SetupRgstFDD ::= SEOUENCE (SIZE (1..maxNrOfPCPCHs)) OF PCPCHChannelInformationItem-CTCH-SetupRgstFDD
PCPCHChannelInformationItem-CTCH-SetupRqstFDD ::= SEQUENCE {
                                     CommonPhysicalChannelID,
   commonPhysicalChannelID
   cPCHScramblingCodeNumber
                                     CPCHScramblingCodeNumber,
   dL-ScramblingCode
                                     DL-ScramblingCode,
   fdd-dl-ChannelisationCodeNumber
                                     FDD-DL-ChannelisationCodeNumber,
   pCP-Length
                                     PCP-Length,
   uCSM-Information
                                     UCSM-Information-CTCH-SetupRqstFDD
                                                                           OPTIONAL,
   -- this IE shall be present if the Channel Assignment Indication is equal to 'CA Inactive' --
                                     iE-Extensions
                                                                                                                          OPTIONAL,
   . . .
PCPCHChannelInformationItem-CTCH-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
UCSM-Information-CTCH-SetupRgstFDD ::= SEQUENCE {
   minUL-ChannelisationCodeLength
                                     MinUL-ChannelisationCodeLength,
   nFmax
                                     NFmax,
                                     ChannelRequestParametersList-CTCH-SetupRqstFDD
   channelRequestParameters
                                     iE-Extensions
                                                                                                                    OPTIONAL,
   . . .
UCSM-InformationItem-CTCH-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
ChannelRequestParametersList-CTCH-SetupRqstFDD ::= SEOUENCE (SIZE (1..maxAPSiqNum)) OF ChannelRequestParametersItem-CTCH-SetupRqstFDD
ChannelRequestParametersItem-CTCH-SetupRqstFDD ::= SEQUENCE {
   aPPreambleSignature
                             APPreambleSignature,
   aPSubChannelNumber
                             APSubChannelNumber
                                                    OPTIONAL,
```

```
ProtocolExtensionContainer { { ChannelRequestParametersItem-CTCH-SetupRqstFDD-ExtIEs} }
    iE-Extensions
                                                                                                                             OPTIONAL,
ChannelRequestParametersItem-CTCH-SetupRgstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
VCAMMapping-InformationList-CTCH-SetupRqstFDD ::= SEQUENCE (SIZE (1..maxNoofLen)) OF VCAMMapping-InformationItem-CTCH-SetupRqstFDD
VCAMMapping-InformationItem-CTCH-SetupRqstFDD ::= SEQUENCE {
    minUL-ChannelisationCodeLength
                                        MinUL-ChannelisationCodeLength,
    nFmax
                                        NFmax,
    max-Number-of-PCPCHes
                                        Max-Number-of-PCPCHes,
                                        SFRequestParametersList-CTCH-SetupRqstFDD,
    sFRequestParameters
    iE-Extensions
                                        ProtocolExtensionContainer { { VCAMMapping-InformationItem-CTCH-SetupRgstFDD-ExtIEs} }
                                                                                                                                   OPTIONAL,
    . . .
VCAMMapping-InformationItem-CTCH-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
SFRequestParametersList-CTCH-SetupRqstFDD ::= SEQUENCE (SIZE (1..maxAPSiqNum)) OF SFRequestParametersItem-CTCH-SetupRqstFDD
SFRequestParametersItem-CTCH-SetupRqstFDD ::= SEQUENCE {
    aPPreambleSignature
                                APPreambleSignature,
    aPSubChannelNumber
                                APSubChannelNumber
                                                        OPTIONAL,
                                ProtocolExtensionContainer { { SFRequestParametersItem-CTCH-SetupRqstFDD-ExtIEs} }
    iE-Extensions
SFRequestParametersItem-CTCH-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION::= {
AP-AICH-Parameters-CTCH-SetupRqstFDD ::= SEQUENCE {
    commonPhysicalChannelID
                                                CommonPhysicalChannelID,
    fdd-dl-ChannelisationCodeNumber
                                                FDD-DL-ChannelisationCodeNumber,
    aP-AICH-Power
                                                AICH-Power,
    cSICH-Power
                                                AICH-Power,
    sTTD-Indicator
                                                STTD-Indicator,
                                                ProtocolExtensionContainer { { AP-AICH-Parameters-CTCH-SetupRqstFDD-ExtIEs} }
    iE-Extensions
                                                                                                                                   OPTIONAL,
AP-AICH-Parameters-CTCH-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::=
CDCA-ICH-Parameters-CTCH-SetupRqstFDD ::= SEQUENCE {
    commonPhysicalChannelID
                                                CommonPhysicalChannelID,
    fdd-dl-ChannelisationCodeNumber
                                                FDD-DL-ChannelisationCodeNumber,
    cDCA-ICH-Power
                                                AICH-Power,
```

```
sTTD-Indicator
                                           STTD-Indicator,
   iE-Extensions
                                           OPTIONAL.
CDCA-ICH-Parameters-CTCH-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    COMMON TRANSPORT CHANNEL SETUP REQUEST TDD
  *********************
CommonTransportChannelSetupRequestTDD ::= SEQUENCE {
                        ProtocolIE-Container
                                              {{CommonTransportChannelSetupRequestTDD-IEs}},
   protocolIEs
   protocolExtensions
                        ProtocolExtensionContainer {{CommonTransportChannelSetupRequestTDD-Extensions}}
                                                                                                          OPTIONAL,
   . . .
CommonTransportChannelSetupRequestTDD-IEs NBAP-PROTOCOL-IES ::= {
                                                                                                        C-TD
   { ID
         id-C-ID
                                                             CRITICALITY reject
                                                                                  TYPE
       PRESENCE mandatory } |
          id-ConfigurationGenerationID
                                                             CRITICALITY reject
                                                                                  TYPE
                                                                                                        ConfigurationGenerationID
              PRESENCE mandatory } |
          id-CommonPhysicalChannelType-CTCH-SetupRgstTDD
                                                                                                        CommonPhysicalChannelType-CTCH-
   { ID
                                                             CRITICALITY ignore
                                                                                  TYPE
SetupRastTDD
                 PRESENCE
                           mandatory },
CommonTransportChannelSetupRequestTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
CommonPhysicalChannelType-CTCH-SetupRqstTDD ::= CHOICE {
   secondary-CCPCH-parameters
                                           Secondary-CCPCH-CTCH-SetupRqstTDD,
   pRACH-parameters
                                           PRACH-CTCH-SetupRgstTDD,
Secondary-CCPCH-CTCH-SetupRqstTDD ::= SEQUENCE {
   sCCPCH-CCTrCH-ID
                                           CCTrCH-ID,
   t FCS
                                           TFCS,
   tFCI-Coding
                                           TFCI-Coding.
   punctureLimit
                                           PunctureLimit,
   secondaryCCPCH-parameterList
                                           Secondary-CCPCH-parameterList-CTCH-SetupRqstTDD,
   fACH-ParametersList
                                           FACH-ParametersList-CTCH-SetupRqstTDD
                                                                                  OPTIONAL,
   pCH-Parameters
                                           PCH-Parameters-CTCH-SetupRqstTDD
                                                                                  OPTIONAL,
   iE-Extensions
                                           ProtocolExtensionContainer {{Secondary-CCPCHItem-CTCH-SetupRqstTDD-ExtIEs}}
Secondary-CCPCHItem-CTCH-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
```

```
Secondary-CCPCH-parameterList-CTCH-SetupRqstTDD ::= ProtocolIE-Single-Container {{ Secondary-CCPCH-parameterListIEs-CTCH-SetupRqstTDD }}
Secondary-CCPCH-parameterListIEs-CTCH-SetupRgstTDD NBAP-PROTOCOL-IES ::= {
   { ID id-Secondary-CCPCH-LCR-parameterList-CTCH-SetupRqstTDD CRITICALITY reject TYPE Secondary-CCPCH-LCR-parameterList-CTCH-SetupRqstTDD
PRESENCE optional
Secondary-CCPCH-parameterListIE-CTCH-SetupRgstTDD ::= SEOUENCE (SIZE (1..maxNrOfSCCPCHs)) OF Secondary-CCPCH-parameterItem-CTCH-SetupRgstTDD
Secondary-CCPCH-parameterItem-CTCH-SetupRqstTDD ::= SEQUENCE {
   commonPhysicalChannelID
                                         CommonPhysicalChannelID,
   tdd-ChannelisationCode
                                         TDD-ChannelisationCode,
   timeslot
                                         TimeSlot,
   midambleShiftandBurstType
                                         MidambleShiftAndBurstType,
   tdd-PhysicalChannelOffset
                                         TDD-PhysicalChannelOffset,
   repetitionPeriod
                                         RepetitionPeriod,
                                         RepetitionLength,
   repetitionLength
   s-CCPCH-Power
                                         DL-Power,
   iE-Extensions
                                         ProtocolExtensionContainer { { Secondary-CCPCH-parameterItem-CTCH-SetupRgstTDD-ExtIEs} }
   OPTIONAL,
   . . .
Secondary-CCPCH-parameterItem-CTCH-SetupRgstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
FACH-ParametersList-CTCH-SetupRqstTDD ::= ProtocolIE-Single-Container {{ FACH-ParametersListIEs-CTCH-SetupRqstTDD }}
FACH-ParametersListIEs-CTCH-SetupRgstTDD NBAP-PROTOCOL-IES ::= {
   FACH-ParametersListIE-CTCH-SetupRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfFACHs)) OF FACH-ParametersItem-CTCH-SetupRqstTDD
FACH-ParametersItem-CTCH-SetupRqstTDD ::= SEQUENCE {
                                      CommonTransportChannelID,
   commonTransportChannelID
   fACH-CCTrCH-ID
                                      CCTrCH-ID,
   dl-TransportFormatSet
                                      TransportFormatSet,
   toAWS
                                      ToAWS,
   toAWE
                                      TOAWE,
   iE-Extensions
                                      ProtocolExtensionContainer { FACH-ParametersItem-CTCH-SetupRgstTDD-ExtIEs} }
FACH-ParametersItem-CTCH-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
   { ID id-maxFACH-Power-LCR-CTCH-SetupRqstTDD
                                              CRITICALITY reject
                                                                         EXTENSION DL-Power
                                                                                                       PRESENCE
                                                                                                                 optional },
   -- Applicable to 1.28Mcps TDD only
```

```
PCH-Parameters-CTCH-SetupRqstTDD ::= ProtocolIE-Single-Container {{ PCH-ParametersIE-CTCH-SetupRqstTDD }}
PCH-ParametersIE-CTCH-SetupRqstTDD NBAP-PROTOCOL-IES ::= {
   PCH-ParametersItem-CTCH-SetupRqstTDD ::= SEQUENCE {
   commonTransportChannelID
                                   CommonTransportChannelID,
   pCH-CCTrCH-ID
                                   CCTrCH-ID,
   dl-TransportFormatSet
                                   TransportFormatSet,
                                   ToAWS,
   t.oAWS
   t.oAWE
                                   TOAWE.
                                   PICH-Parameters-CTCH-SetupRqstTDD,
   pICH-Parameters
   iE-Extensions
                                   ProtocolExtensionContainer { { PCH-ParametersItem-CTCH-SetupRqstTDD-ExtIEs} }
                                                                                                        OPTIONAL,
PCH-ParametersItem-CTCH-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
         id-PCH-Power-LCR-CTCH-SetupRqstTDD
                                             CRITICALITY reject
                                                                 EXTENSION DL-Power
                                                                                                 PRESENCE
                                                                                                          optional },
   . . .
PICH-Parameters-CTCH-SetupRqstTDD ::= ProtocolIE-Single-Container {{ PICH-ParametersIE-CTCH-SetupRqstTDD }}
PICH-ParametersIE-CTCH-SetupRgstTDD NBAP-PROTOCOL-IES ::= {
    PICH-ParametersItem-CTCH-SetupRqstTDD ::= SEQUENCE
   commonPhysicalChannelID
                                   CommonPhysicalChannelID,
   tdd-ChannelisationCode
                                   TDD-ChannelisationCode,
   timeSlot
                                   TimeSlot,
   midambleshiftAndBurstType
                                   MidambleShiftAndBurstType,
   tdd-PhysicalChannelOffset
                                   TDD-PhysicalChannelOffset,
   repetitionPeriod
                                   RepetitionPeriod,
                                   RepetitionLength,
   repetitionLength
   pagingIndicatorLength
                                   PagingIndicatorLength,
   pICH-Power
                                   PICH-Power,
                                   ProtocolExtensionContainer { { PICH-ParametersItem-CTCH-SetupRqstTDD-ExtIEs} }
   iE-Extensions
                                                                                                        OPTIONAL,
PICH-ParametersItem-CTCH-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
PICH-LCR-Parameters-CTCH-SetupRqstTDD ::= SEQUENCE
   commonPhysicalChannelID
                                   CommonPhysicalChannelID,
   tdd-ChannelisationCodeLCR
                                   TDD-ChannelisationCodeLCR,
   timeSlotLCR
                                   TimeSlotLCR,
   midambleShiftLCR
                                   MidambleShiftLCR,
```

```
tdd-PhysicalChannelOffset
                                        TDD-PhysicalChannelOffset,
   repetitionPeriod
                                        RepetitionPeriod,
   repetitionLength
                                        RepetitionLength,
   pagingIndicatorLength
                                        PagingIndicatorLength,
   pICH-Power
                                        PICH-Power.
   second-TDD-ChannelisationCodeLCR
                                        TDD-ChannelisationCodeLCR,
   iE-Extensions
                                        ProtocolExtensionContainer { { PICH-LCR-ParametersItem-CTCH-SetupRqstTDD-ExtIEs} }
                                                                                                                       OPTIONAL,
   . . .
PICH-LCR-ParametersItem-CTCH-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
Secondary-CCPCH-LCR-parameterList-CTCH-SetupRgstTDD ::= SEQUENCE (SIZE (1..maxNrOfSCCPCHLCRs)) OF Secondary-CCPCH-LCR-parameterItem-CTCH-
SetupRastTDD
Secondary-CCPCH-LCR-parameterItem-CTCH-SetupRqstTDD ::= SEQUENCE
   commonPhysicalChannelID
                                            CommonPhysicalChannelID,
   tdd-ChannelisationCodeLCR
                                            TDD-ChannelisationCodeLCR,
   timeslotLCR
                                            TimeSlotLCR,
   midambleShiftLCR
                                            MidambleShiftLCR,
                                            TDD-PhysicalChannelOffset,
   tdd-PhysicalChannelOffset
   repetitionPeriod
                                            RepetitionPeriod,
   repetitionLength
                                            RepetitionLength,
   s-CCPCH-Power
                                            DL-Power,
                                            TDD-DL-DPCH-TimeSlotFormat-LCR,
   s-CCPCH-TimeSlotFormat-LCR
   iE-Extensions
                                            ProtocolExtensionContainer { { Secondary-CCPCH-LCR-parameterItem-CTCH-SetupRgstTDD-ExtIEs} }
   OPTIONAL,
Secondary-CCPCH-LCR-parameterItem-CTCH-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
PRACH-CTCH-SetupRqstTDD ::= SEQUENCE {
   pRACH-Parameters-CTCH-SetupRqstTDD
                                            PRACH-Parameters-CTCH-SetupRqstTDD,
                                            iE-Extensions
                                                                                                            OPTIONAL,
   . . .
PRACH-CTCH-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
         id-FPACH-LCR-Parameters-CTCH-SetupRqstTDD
                                                          CRITICALITY reject
                                                                                 EXTENSION
                                                                                                          FPACH-LCR-Parameters-CTCH-
   { ID
                                        }, -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD
SetupRastTDD
                             optional
PRACH-Parameters-CTCH-SetupRqstTDD ::= ProtocolIE-Single-Container {{ PRACH-ParametersIE-CTCH-SetupRqstTDD }}
PRACH-ParametersIE-CTCH-SetupRqstTDD NBAP-PROTOCOL-IES ::= {
     id-PRACH-LCR-ParametersList-CTCH-SetupRqstTDD
                                                              CRITICALITY reject
                                                                                                          PRACH-LCR-ParametersList-CTCH-
     ID
                                                                                    TYPE
SetupRastTDD
                  PRESENCE
                             optional
```

```
PRACH-ParametersItem-CTCH-SetupRgstTDD ::= SEQUENCE {
   commonPhysicalChannelID
                                            CommonPhysicalChannelID,
   t.FCS
                                            TFCS.
   timeslot
                                            TimeSlot,
                                            TDD-ChannelisationCode,
   tdd-ChannelisationCode
   maxPRACH-MidambleShifts
                                            MaxPRACH-MidambleShifts,
   pRACH-Midamble
                                            PRACH-Midamble,
   rACH
                                             RACH-Parameter-CTCH-SetupRqstTDD,
                                             ProtocolExtensionContainer { { PRACH-ParametersItem-CTCH-SetupRqstTDD-ExtIEs} }
   iE-Extensions
                                                                                                                             OPTIONAL,
   . . .
PRACH-ParametersItem-CTCH-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
RACH-Parameter-CTCH-SetupRqstTDD ::= ProtocolIE-Single-Container {{ RACH-ParameterIE-CTCH-SetupRqstTDD }}
RACH-ParameterIE-CTCH-SetupRqstTDD NBAP-PROTOCOL-IES ::= {
   RACH-ParameterItem-CTCH-SetupRqstTDD ::= SEQUENCE {
   commonTransportChannelID
                                             CommonTransportChannelID,
   uL-TransportFormatSet
                                             TransportFormatSet,
   iE-Extensions
                                            ProtocolExtensionContainer { { RACH-ParameterItem-CTCH-SetupRgstTDD-ExtIEs} }
                                                                                                                          OPTIONAL,
RACH-ParameterItem-CTCH-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
PRACH-LCR-ParametersList-CTCH-SetupRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfPRACHLCRs)) OF PRACH-LCR-ParametersItem-CTCH-SetupRqstTDD
PRACH-LCR-ParametersItem-CTCH-SetupRqstTDD ::= SEQUENCE {
   commonPhysicalChannelID
                                            CommonPhysicalChannelID,
   tFCS
                                            TFCS,
   timeslotLCR
                                            TimeSlotLCR,
   tdd-ChannelisationCodeLCR
                                            TDD-ChannelisationCodeLCR,
   midambleShiftLCR
                                            MidambleShiftLCR,
   rACH
                                            RACH-Parameter-CTCH-SetupRqstTDD,
                                             ProtocolExtensionContainer { { PRACH-LCR-ParametersItem-CTCH-SetupRqstTDD-ExtIEs} }
   iE-Extensions
                                                                                                                               OPTIONAL,
PRACH-LCR-ParametersItem-CTCH-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
FPACH-LCR-Parameters-CTCH-SetupRqstTDD ::= SEQUENCE {
                                             CommonPhysicalChannelID,
   commonPhysicalChannelID
```

```
tdd-ChannelisationCodeLCR
                                           TDD-ChannelisationCodeLCR,
   timeslotLCR
                                           TimeSlotLCR.
   midambleShiftLCR
                                           MidambleShiftLCR.
   fPACH-Power
                                        FPACH-Power,
                                            ProtocolExtensionContainer { { FPACH-LCR-ParametersItem-CTCH-SetupRqstTDD-ExtIEs} }
   iE-Extensions
                                                                                                                            OPTIONAL.
FPACH-LCR-ParametersItem-CTCH-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  *****************
-- COMMON TRANSPORT CHANNEL SETUP RESPONSE
  ******************
CommonTransportChannelSetupResponse ::= SEQUENCE {
                                               {{CommonTransportChannelSetupResponse-IEs}},
   protocolIEs
                         ProtocolIE-Container
   protocolExtensions
                         ProtocolExtensionContainer {{CommonTransportChannelSetupResponse-Extensions}}
                                                                                                    OPTIONAL,
   . . .
CommonTransportChannelSetupResponse-IEs NBAP-PROTOCOL-IES ::= {
          id-FACH-ParametersList-CTCH-SetupRsp
                                               CRITICALITY ignore
                                                                             FACH-CommonTransportChannel-InformationResponse
   { ID
                                                                     TYPE
                                                                                                                             PRESENCE
   optional }|
   { ID
          id-PCH-Parameters-CTCH-SetupRsp
                                               CRITICALITY ignore
                                                                     TYPE
                                                                             CommonTransportChannel-InformationResponse
                                                                                                                             PRESENCE
   optional }|
   { ID
          id-RACH-Parameters-CTCH-SetupRsp
                                               CRITICALITY ignore
                                                                     TYPE
                                                                             CommonTransportChannel-InformationResponse
                                                                                                                          PRESENCE
   optional
   { ID
          id-CPCH-Parameters-CTCH-SetupRsp
                                               CRITICALITY ignore
                                                                                    CommonTransportChannel-InformationResponse
                                                                             TYPE
   PRESENCE
              optional
          id-CriticalityDiagnostics
                                                      CRITICALITY
                                                                                       CriticalityDiagnostics
                                                                                                                             PRESENCE
   { ID
                                                                     ignore
                                                                                TYPE
   optional },
   . . .
CommonTransportChannelSetupResponse-Extensions NBAP-PROTOCOL-EXTENSION ::= {
FACH-CommonTransportChannel-InformationResponse ::= SEQUENCE (SIZE (1..maxNrOfFACHs)) OF CommonTransportChannel-InformationResponse
  *****************
  COMMON TRANSPORT CHANNEL SETUP FAILURE
  *****************
CommonTransportChannelSetupFailure ::= SEQUENCE {
   protocolIEs
                         ProtocolIE-Container
                                               {{CommonTransportChannelSetupFailure-IEs}},
                         ProtocolExtensionContainer {{CommonTransportChannelSetupFailure-Extensions}}
   protocolExtensions
                                                                                                     OPTIONAL,
   . . .
```

```
CommonTransportChannelSetupFailure-IEs NBAP-PROTOCOL-IES ::= {
     ID
           id-Cause
                                        CRITICALITY ignore
                                                                TYPE
                                                                                                                     PRESENCE mandatory
                                                                         Cause
    { ID
           id-CriticalityDiagnostics CRITICALITY ignore
                                                                TYPE
                                                                         CriticalityDiagnostics
                                                                                                                     PRESENCE optional
    . . .
CommonTransportChannelSetupFailure-Extensions NBAP-PROTOCOL-EXTENSION ::= {
  COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST FDD
CommonTransportChannelReconfigurationRequestFDD ::= SEQUENCE {
                                                    {{CommonTransportChannelReconfigurationRequestFDD-IEs}},
    protocolIEs
                            ProtocolIE-Container
   protocolExtensions
                            ProtocolExtensionContainer {{CommonTransportChannelReconfigurationRequestFDD-Extensions}}
                                                                                                                          OPTIONAL,
    . . .
CommonTransportChannelReconfigurationRequestFDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID
           id-C-ID
                                                        CRITICALITY reject
                                                                                 TYPE
                                                                                         C-ID
    PRESENCE mandatory } |
           id-ConfigurationGenerationID
                                                        CRITICALITY reject
                                                                                 TYPE
                                                                                         ConfigurationGenerationID
                                                                                                                             PRESENCE mandatory
                                                                                         CommonPhysicalChannelType-CTCH-ReconfRgstFDD PRESENCE
           id-CommonPhysicalChannelType-CTCH-ReconfRqstFDD CRITICALITY reject TYPE
    mandatory },
    . . .
CommonTransportChannelReconfigurationRequestFDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
CommonPhysicalChannelType-CTCH-ReconfRqstFDD ::= CHOICE
    secondary-CCPCH-parameters
                                    Secondary-CCPCHList-CTCH-ReconfRqstFDD,
    pRACH-parameters
                                    PRACHList-CTCH-ReconfRqstFDD,
    cPCH-parameters
                                    CPCHList-CTCH-ReconfRqstFDD,
Secondary-CCPCHList-CTCH-ReconfRgstFDD ::= SEQUENCE {
    fACH-ParametersList-CTCH-ReconfRqstFDD
                                                FACH-ParametersList-CTCH-ReconfRgstFDD OPTIONAL,
    pCH-Parameters-CTCH-ReconfRqstFDD
                                                PCH-Parameters-CTCH-ReconfRqstFDD
                                                                                         OPTIONAL,
   pICH-Parameters-CTCH-ReconfRqstFDD
                                                PICH-Parameters-CTCH-ReconfRqstFDD
                                                                                         OPTIONAL,
    iE-Extensions
                                                ProtocolExtensionContainer { { Secondary-CCPCH-CTCH-ReconfRqstFDD-ExtIEs} } OPTIONAL,
    . . .
Secondary-CCPCH-CTCH-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    . . .
```

```
FACH-ParametersList-CTCH-ReconfRgstFDD ::= ProtocolIE-Single-Container {{ FACH-ParametersListIEs-CTCH-ReconfRgstFDD }}
FACH-ParametersListIEs-CTCH-ReconfRqstFDD NBAP-PROTOCOL-IES ::= {
   { ID id-FACH-ParametersListIE-CTCH-ReconfRqstFDD
                                               CRITICALITY reject TYPE FACH-ParametersListIE-CTCH-ReconfRqstFDD
                                                                                                            PRESENCE mandatory }
FACH-ParametersListIE-CTCH-ReconfRqstFDD ::= SEQUENCE (SIZE (1..maxFACHCell)) OF FACH-ParametersItem-CTCH-ReconfRqstFDD
FACH-ParametersItem-CTCH-ReconfRqstFDD ::= SEQUENCE {
   commonTransportChannelID
                                      CommonTransportChannelID,
   maxFACH-Power
                                      DL-Power
                                                    OPTIONAL,
   toAWS
                                      TOAWS
                                                    OPTIONAL,
   t.oAWE
                                      TOAWE
                                                    OPTIONAL,
   iE-Extensions
                                      ProtocolExtensionContainer
                                                              { FACH-ParametersItem-CTCH-ReconfRgstFDD-ExtIEs} }
                                                                                                              OPTIONAL,
FACH-ParametersItem-CTCH-ReconfRgstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
PCH-Parameters-CTCH-ReconfRgstFDD ::= ProtocolIE-Single-Container {{ PCH-ParametersIE-CTCH-ReconfRgstFDD }}
PCH-ParametersIE-CTCH-ReconfRqstFDD NBAP-PROTOCOL-IES ::= {
   PCH-ParametersItem-CTCH-ReconfRqstFDD ::= SEQUENCE {
   commonTransportChannelID
                                      CommonTransportChannelID,
   pCH-Power
                                      DL-Power
                                                    OPTIONAL,
   toAWS
                                      ToAWS
                                                    OPTIONAL,
   toAWE
                                      ToAWE
                                                    OPTIONAL,
   iE-Extensions
                                      ProtocolExtensionContainer { { PCH-ParametersItem-CTCH-ReconfRgstFDD-ExtIEs} }
                                                                                                                 OPTIONAL.
PCH-ParametersItem-CTCH-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
PICH-Parameters-CTCH-ReconfRqstFDD ::= ProtocolIE-Single-Container {{ PICH-ParametersIE-CTCH-ReconfRqstFDD }}
PICH-ParametersIE-CTCH-ReconfRgstFDD NBAP-PROTOCOL-IES ::= {
   PICH-ParametersItem-CTCH-ReconfRqstFDD ::= SEQUENCE {
   commonPhysicalChannelID
                                  CommonPhysicalChannelID,
   pICH-Power
                                      PICH-Power
                                                    OPTIONAL,
   iE-Extensions
                                      ProtocolExtensionContainer { { PICH-ParametersItem-CTCH-ReconfRqstFDD-ExtIEs} }
```

```
PICH-ParametersItem-CTCH-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
PRACHList-CTCH-ReconfRqstFDD ::= SEQUENCE {
   pRACH-ParametersList-CTCH-ReconfRqstFDD
                                              PRACH-ParametersList-CTCH-ReconfRqstFDD OPTIONAL,
   aICH-ParametersList-CTCH-ReconfRgstFDD
                                              AICH-ParametersList-CTCH-ReconfRqstFDD OPTIONAL,
   iE-Extensions
                                              ProtocolExtensionContainer { { PRACH-CTCH-ReconfRqstFDD-ExtIEs} } OPTIONAL,
    . . .
PRACH-CTCH-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
PRACH-ParametersList-CTCH-ReconfRgstFDD ::= ProtocolIE-Single-Container {{ PRACH-ParametersListIEs-CTCH-ReconfRgstFDD }}
PRACH-ParametersListIEs-CTCH-ReconfRqstFDD NBAP-PROTOCOL-IES ::= {
    { ID id-PRACH-ParametersListIE-CTCH-ReconfRqstFDD CRITICALITY reject TYPE PRACH-ParametersListIE-CTCH-ReconfRqstFDD PRESENCE mandatory }
PRACH-ParametersListIE-CTCH-ReconfRqstFDD ::= SEQUENCE (SIZE (1..maxPRACHCell)) OF PRACH-ParametersItem-CTCH-ReconfRqstFDD
PRACH-ParametersItem-CTCH-ReconfRqstFDD ::= SEQUENCE {
    commonPhysicalChannelID
                                      CommonPhysicalChannelID,
   preambleSignatures
                                          PreambleSignatures
                                                                 OPTIONAL,
   allowedSlotFormatInformation
                                          AllowedSlotFormatInformationList-CTCH-ReconfRqstFDD
                                                                                                                OPTIONAL,
   rACH-SubChannelNumbers
                                          RACH-SubChannelNumbers
                                                                     OPTIONAL,
   iE-Extensions
                                          OPTIONAL,
    . . .
PRACH-ParametersItem-CTCH-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
AllowedSlotFormatInformationList-CTCH-ReconfRgstFDD ::= SEQUENCE (SIZE (1.. maxNrOfSlotFormatsPRACH)) OF AllowedSlotFormatInformationItem-CTCH-
ReconfRqstFDD
AllowedSlotFormatInformationItem-CTCH-ReconfRgstFDD ::= SEQUENCE
   rACH-SlotFormat
                                          RACH-SlotFormat,
                                          ProtocolExtensionContainer { { AllowedSlotFormatInformationItem-CTCH-ReconfRqstFDD-ExtIEs} }
   iE-Extensions
   OPTIONAL,
    . . .
AllowedSlotFormatInformationItem-CTCH-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
AICH-ParametersList-CTCH-ReconfRqstFDD ::= ProtocolIE-Single-Container {{ AICH-ParametersListIEs-CTCH-ReconfRqstFDD }}
AICH-ParametersListIEs-CTCH-ReconfRqstFDD NBAP-PROTOCOL-IES ::= {
```

```
{ ID id-AICH-ParametersListIE-CTCH-ReconfRqstFDD
                                                        CRITICALITY reject TYPE AICH-ParametersListIE-CTCH-ReconfRqstFDD
                                                                                                                             PRESENCE mandatory }
AICH-ParametersListIE-CTCH-ReconfRgstFDD ::= SEQUENCE (SIZE (1..maxPRACHCell)) OF AICH-ParametersItem-CTCH-ReconfRgstFDD
AICH-ParametersItem-CTCH-ReconfRqstFDD ::= SEQUENCE {
    commonPhysicalChannelID
                                        CommonPhysicalChannelID,
    aICH-Power
                                            AICH-Power
    iE-Extensions
                                            ProtocolExtensionContainer { { AICH-ParametersItemIE-CTCH-ReconfRqstFDD-ExtIEs} }
                                                                                                                                   OPTIONAL,
AICH-ParametersItemIE-CTCH-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
CPCHList-CTCH-ReconfRqstFDD ::= SEQUENCE {
    cPCH-ParametersList-CTCH-ReconfRqstFDD
                                                    CPCH-ParametersList-CTCH-ReconfRgstFDD
                                                                                                                          OPTIONAL,
    aP-AICH-ParametersList-CTCH-ReconfRqstFDD
                                                    AP-AICH-ParametersList-CTCH-ReconfRqstFDD
                                                                                                                    OPTIONAL,
    cDCA-ICH-ParametersList-CTCH-ReconfRqstFDD
                                                    CDCA-ICH-ParametersList-CTCH-ReconfRqstFDD
                                                                                                                    OPTIONAL,
    iE-Extensions
                                                    ProtocolExtensionContainer { { CPCHListItem-CTCH-ReconfRqstFDD-ExtIEs} }
                                                                                                                                   OPTIONAL,
    . . .
CPCHListItem-CTCH-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
CPCH-ParametersList-CTCH-ReconfRgstFDD ::= ProtocolIE-Single-Container {{ CPCH-ParametersListIEs-CTCH-ReconfRgstFDD }}
CPCH-ParametersListIEs-CTCH-ReconfRqstFDD NBAP-PROTOCOL-IES ::= {
    { ID id-CPCH-ParametersListIE-CTCH-ReconfRqstFDD
                                                       CRITICALITY reject TYPE CPCH-ParametersListIE-CTCH-ReconfRqstFDD
                                                                                                                             PRESENCE mandatory }
CPCH-ParametersListIE-CTCH-ReconfRgstFDD ::= SEOUENCE (SIZE (1..maxNrOfCPCHs)) OF CPCH-ParametersItem-CTCH-ReconfRgstFDD
CPCH-ParametersItem-CTCH-ReconfRqstFDD ::= SEQUENCE {
    commonTransportChannelID
                                    CommonTransportChannelID,
    uL-SIR
                                    UL-SIR
                                                    OPTIONAL,
    initialDL-transmissionPower
                                    DL-Power
                                                    OPTIONAL,
  maximumDLPower
                                    DL-Power
                                                    OPTIONAL,
   minimumDLPower
                                    DL-Power
                                                    OPTIONAL,
                                    ProtocolExtensionContainer { { CPCH-ParametersItem-CTCH-ReconfRqstFDD-ExtIEs} }
   iE-Extensions
                                                                                                                          OPTIONAL,
CPCH-ParametersItem-CTCH-ReconfRgstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
AP-AICH-ParametersList-CTCH-ReconfRqstFDD ::= ProtocolIE-Single-Container {{ AP-AICH-ParametersListIEs-CTCH-ReconfRqstFDD }}
AP-AICH-ParametersListIEs-CTCH-ReconfRqstFDD NBAP-PROTOCOL-IES ::= {
    { ID id-AP-AICH-ParametersListIE-CTCH-ReconfRqstFDD CRITICALITY reject TYPE AP-AICH-ParametersListIE-CTCH-ReconfRqstFDD
                                                                                                                                PRESENCE mandatory }
```

```
AP-AICH-ParametersListIE-CTCH-ReconfRgstFDD ::= SEOUENCE (SIZE (1..maxNrOfCPCHs)) OF AP-AICH-ParametersItem-CTCH-ReconfRgstFDD
AP-AICH-ParametersItem-CTCH-ReconfRqstFDD ::= SEQUENCE {
   commonPhysicalChannelID
                                  CommonPhysicalChannelID,
   aP-AICH-Power
                                      AICH-Power
                                                    OPTIONAL,
   cSICH-Power
                                      AICH-Power
                                                    OPTIONAL,
   iE-Extensions
                                      ProtocolExtensionContainer { { AP-AICH-ParametersItemIE-CTCH-ReconfRqstFDD-ExtIEs} }
                                                                                                                     OPTIONAL,
AP-AICH-ParametersItemIE-CTCH-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
CDCA-ICH-ParametersList-CTCH-ReconfRqstFDD ::= ProtocolIE-Single-Container {{ CDCA-ICH-ParametersListIEs-CTCH-ReconfRqstFDD }}
CDCA-ICH-ParametersListIEs-CTCH-ReconfRqstFDD NBAP-PROTOCOL-IES ::= {
   mandatory }
CDCA-ICH-ParametersListIE-CTCH-ReconfrastFDD ::= SEOUENCE (SIZE (1...maxNrOfCPCHs)) OF CDCA-ICH-ParametersItem-CTCH-ReconfrastFDD
CDCA-ICH-ParametersItem-CTCH-ReconfRqstFDD ::= SEQUENCE {
                                  CommonPhysicalChannelID,
   commonPhysicalChannelID
   cDCA-ICH-Power
                                      AICH-Power
                                                    OPTIONAL,
                                      ProtocolExtensionContainer { { CDCA-ICH-ParametersItemIE-CTCH-ReconfRqstFDD-ExtIEs} }
   iE-Extensions
                                                                                                                    OPTIONAL,
CDCA-ICH-ParametersItemIE-CTCH-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  -- COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST TDD
__ ********************
CommonTransportChannelReconfigurationRequestTDD ::= SEQUENCE {
                                            {{CommonTransportChannelReconfigurationRequestTDD-IEs}},
   protocolIEs
                        ProtocolIE-Container
                        ProtocolExtensionContainer {{CommonTransportChannelReconfigurationRequestTDD-Extensions}} OPTIONAL,
   protocolExtensions
CommonTransportChannelReconfigurationRequestTDD-IEs NBAP-PROTOCOL-IES ::= {
         id-C-ID
   { ID
                                                        CRITICALITY reject
                                                                             TYPE
                                                                                    C-ID
   PRESENCE
             mandatory }|
        id-ConfigurationGenerationID
                                                        CRITICALITY reject
                                                                             TYPE
                                                                                    ConfigurationGenerationID
                                                                                                                       PRESENCE
   mandatory } |
```

```
{ ID id-Secondary-CCPCH-Parameters-CTCH-ReconfRqstTDD
                                                                   CRITICALITY reject TYPE
                                                                                                 Secondary-CCPCH-Parameters-CTCH-ReconfRqstTDD
       PRESENCE optional }|
     ID id-PICH-Parameters-CTCH-ReconfRqstTDD
                                                    CRITICALITY reject TYPE
                                                                             PICH-Parameters-CTCH-ReconfRgstTDD
                                                                                                                         PRESENCE optional }|
     ID id-FACH-ParametersList-CTCH-ReconfRgstTDD CRITICALITY reject TYPE FACH-ParametersList-CTCH-ReconfRgstTDD PRESENCE optional }
    { ID id-PCH-Parameters-CTCH-ReconfRgstTDD
                                                    CRITICALITY reject TYPE
                                                                               PCH-Parameters-CTCH-ReconfRqstTDD
                                                                                                                         PRESENCE optional },
CommonTransportChannelReconfigurationRequestTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-FPACH-LCR-Parameters-CTCH-ReconfRqstTDD
                                                      CRITICALITY reject EXTENSION FPACH-LCR-Parameters-CTCH-ReconfRqstTDD
                                                                                                                                     PRESENCE
          }, -- Mandatory For 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD
optional
    . . .
Secondary-CCPCH-Parameters-CTCH-ReconfRqstTDD::= SEQUENCE {
    cCTrCH-ID
                                   CCTrCH-ID,
    secondaryCCPCHList
                                    Secondary-CCPCHList-CTCH-ReconfRqstTDD
                                   ProtocolExtensionContainer { { Secondary-CCPCH-CTCH-ReconfRgstTDD-ExtIEs} }
    iE-Extensions
                                                                                                                      OPTIONAL,
    . . .
Secondary-CCPCH-CTCH-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
Secondary-CCPCHList-CTCH-ReconfRgstTDD ::= ProtocolIE-Single-Container {{ Secondary-CCPCHListIEs-CTCH-ReconfRgstTDD }}
Secondary-CCPCHListIEs-CTCH-ReconfRqstTDD NBAP-PROTOCOL-IES ::= {
    { ID id-Secondary-CCPCHListIE-CTCH-ReconfRqstTDD
                                                      CRITICALITY reject TYPE Secondary-CCPCHListIE-CTCH-ReconfRqstTDD
                                                                                                                            PRESENCE mandatory }
Secondary-CCPCHListIE-CTCH-ReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfSCCPCHs)) OF Secondary-CCPCHItem-CTCH-ReconfRqstTDD
Secondary-CCPCHItem-CTCH-ReconfRqstTDD ::= SEQUENCE {
    commonPhysicalChannelID
                                       CommonPhysicalChannelID,
    sCCPCH-Power
                                       DL-Power
                                                       OPTIONAL.
    iE-Extensions
                                       ProtocolExtensionContainer { { Secondary-CCPCHItem-CTCH-ReconfRqstTDD-ExtIEs} }
                                                                                                                            OPTIONAL,
Secondary-CCPCHItem-CTCH-ReconfRgstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
PICH-Parameters-CTCH-ReconfRgstTDD ::= SEOUENCE
                                       CommonPhysicalChannelID,
    commonPhysicalChannelID
    pICH-Power
                                       PICH-Power
                                                       OPTIONAL,
    iE-Extensions
                                       ProtocolExtensionContainer { { PICH-Parameters-CTCH-ReconfRqstTDD-ExtIEs} }
                                                                                                                         OPTIONAL,
PICH-Parameters-CTCH-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
```

```
FACH-ParametersList-CTCH-ReconfRgstTDD ::= SEOUENCE (SIZE (0..maxNrOfFACHs)) OF FACH-ParametersItem-CTCH-ReconfRgstTDD
FACH-ParametersItem-CTCH-ReconfRgstTDD ::= SEQUENCE {
    commonTransportChannelID
                                  CommonTransportChannelID,
    toAWS
                                  ToAWS
                                                 OPTIONAL,
   toAWE
                                  ToAWE
                                                 OPTIONAL,
                                  ProtocolExtensionContainer { { FACH-ParametersItem-CTCH-ReconfRqstTDD-ExtIEs} }
   iE-Extensions
                                                                                                                   OPTIONAL.
FACH-ParametersItem-CTCH-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
          id-maxFACH-Power-LCR-CTCH-ReconfRgstTDD
                                                        CRITICALITY reject
                                                                                                                            optional },
                                                                                EXTENSION DL-Power
                                                                                                                 PRESENCE
    -- Applicable to 1.28Mcps TDD only
PCH-Parameters-CTCH-ReconfRgstTDD ::= SEQUENCE {
    commonTransportChannelID
                                  CommonTransportChannelID,
    toAWS
                                  ToAWS
                                                 OPTIONAL,
   TOAWE
                                  TOAWE
                                                 OPTIONAL,
                                  ProtocolExtensionContainer { { PCH-Parameters-CTCH-ReconfRqstTDD-ExtIEs} }
   iE-Extensions
                                                                                                                OPTIONAL,
PCH-Parameters-CTCH-ReconfRqstTDD-ExtlEs NBAP-PROTOCOL-EXTENSION ::= {
          id-PCH-Power-LCR-CTCH-ReconfRqstTDD
                                                     CRITICALITY reject
                                                                                                                 PRESENCE
                                                                                                                            optional },
                                                                            EXTENSION DL-Power
    ... -- Applicable to 1.28Mcps TDD only
FPACH-LCR-Parameters-CTCH-ReconfRqstTDD ::= SEQUENCE {
   commonPhysicalChannelId
                                  CommonPhysicalChannelID,
    fPACHPower
                              FPACH-Power
                                             OPTIONAL,
                                  ProtocolExtensionContainer { { FPACH-LCR-Parameters-CTCH-ReconfRqstTDD-ExtIEs} }
   iE-Extensions
                                                                                                                   OPTIONAL,
FPACH-LCR-Parameters-CTCH-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
   -- COMMON TRANSPORT CHANNEL RECONFIGURATION RESPONSE
__ *********************
CommonTransportChannelReconfigurationResponse ::= SEQUENCE {
   protocolIEs
                          ProtocolIE-Container
                                                 {{CommonTransportChannelReconfigurationResponse-IEs}},
   protocolExtensions
                          ProtocolExtensionContainer {{CommonTransportChannelReconfigurationResponse-Extensions}}
                                                                                                                   OPTIONAL,
CommonTransportChannelReconfigurationResponse-IES NBAP-PROTOCOL-IES ::= {
```

```
PRESENCE optional },
   { ID
          id-CriticalityDiagnostics
                                       CRITICALITY
                                                                    TYPE
                                                                           CriticalityDiagnostics
                                                     ignore
CommonTransportChannelReconfigurationResponse-Extensions NBAP-PROTOCOL-EXTENSION ::= {
       COMMON TRANSPORT CHANNEL RECONFIGURATION FAILURE
__ *********************
CommonTransportChannelReconfigurationFailure ::= SEQUENCE {
   protocolIEs
                        ProtocolIE-Container
                                             {{CommonTransportChannelReconfigurationFailure-IEs}},
                        ProtocolExtensionContainer {{CommonTransportChannelReconfigurationFailure-Extensions}}
   protocolExtensions
                                                                                                                OPTIONAL,
CommonTransportChannelReconfigurationFailure-IES NBAP-PROTOCOL-IES ::= {
          id-Cause
                                       CRITICALITY ignore
                                                                                                            PRESENCE mandatory } |
          id-CriticalityDiagnostics
                                                                                                          PRESENCE optional },
    ID
                                       CRITICALITY ignore
                                                                TYPE
                                                                       CriticalityDiagnostics
   . . .
CommonTransportChannelReconfigurationFailure-Extensions NBAP-PROTOCOL-EXTENSION ::= {
  COMMON TRANSPORT CHANNEL DELETION REQUEST
  CommonTransportChannelDeletionRequest ::= SEQUENCE {
                                                  {{CommonTransportChannelDeletionRequest-IEs}},
   protocolIEs
                            ProtocolIE-Container
                            ProtocolExtensionContainer {{CommonTransportChannelDeletionRequest-Extensions}}
   protocolExtensions
                                                                                                            OPTIONAL,
   . . .
CommonTransportChannelDeletionRequest-IEs NBAP-PROTOCOL-IES ::= {
     ID
          id-C-ID
                                          CRITICALITY reject
                                                                TYPE
                                                                       C-ID
                                                                                                                       mandatory}
                                                                                                            PRESENCE
     ID
          id-CommonPhysicalChannelID
                                                                       CommonPhysicalChannelID
                                                                                                          PRESENCE mandatory } |
                                           CRITICALITY reject
                                                                TYPE
     ID
          id-ConfigurationGenerationID
                                          CRITICALITY reject
                                                                TYPE
                                                                       ConfigurationGenerationID
                                                                                                       PRESENCE mandatory },
   . . .
CommonTransportChannelDeletionRequest-Extensions NBAP-PROTOCOL-EXTENSION ::= {
__ **********************
```

```
-- COMMON TRANSPORT CHANNEL DELETION RESPONSE
  ******************
CommonTransportChannelDeletionResponse ::= SEQUENCE {
                                               {{CommonTransportChannelDeletionResponse-IEs}},
   protocolIEs
                         ProtocolIE-Container
   protocolExtensions
                         ProtocolExtensionContainer {{CommonTransportChannelDeletionResponse-Extensions}}
                                                                                                           OPTIONAL,
CommonTransportChannelDeletionResponse-IEs NBAP-PROTOCOL-IES ::= {
   { ID
          id-CriticalityDiagnostics
                                       CRITICALITY
                                                                        CriticalityDiagnostics
                                                                                                           PRESENCE optional },
                                                                 TYPE
   . . .
CommonTransportChannelDeletionResponse-Extensions NBAP-PROTOCOL-EXTENSION ::= {
-- BLOCK RESOURCE REQUEST
  BlockResourceRequest ::= SEQUENCE {
   protocolIEs
                        ProtocolIE-Container
                                                  {{BlockResourceRequest-IEs}},
                         ProtocolExtensionContainer {{BlockResourceRequest-Extensions}}
   protocolExtensions
                                                                                                   OPTIONAL,
BlockResourceRequest-IEs NBAP-PROTOCOL-IES ::= {
          id-C-ID
   { ID
                                           CRITICALITY reject
                                                                 TYPE C-ID
                                                                                                                 PRESENCE mandatory } |
     ID
         id-BlockingPriorityIndicator
                                           CRITICALITY reject
                                                                 TYPE BlockingPriorityIndicator
                                                                                                           PRESENCE mandatory } |
   { ID id-ShutdownTimer
                                           CRITICALITY reject
                                                                 TYPE
                                                                        ShutdownTimer
                                                                                                                PRESENCE conditional },
   -- The IE shall be present if the Blocking Priority Indicator IE indicates "Normal Priority"--
   . . .
BlockResourceRequest-Extensions NBAP-PROTOCOL-EXTENSION ::= {
-- BLOCK RESOURCE RESPONSE
  *****************
BlockResourceResponse ::= SEQUENCE {
   protocolIEs
                            ProtocolIE-Container
                                                     {{BlockResourceResponse-IEs}},
   protocolExtensions
                            ProtocolExtensionContainer {{BlockResourceResponse-Extensions}}
                                                                                                           OPTIONAL,
   . . .
```

```
BlockResourceResponse-IEs NBAP-PROTOCOL-IES ::= {
         id-CriticalityDiagnostics
                                  CRITICALITY
                                                   ignore
                                                             TYPE
                                                                    CriticalityDiagnostics
                                                                                                     PRESENCE optional },
   . . .
BlockResourceResponse-Extensions NBAP-PROTOCOL-EXTENSION ::= {
__ *********************
-- BLOCK RESOURCE FAILURE
   ***************
BlockResourceFailure ::= SEOUENCE {
                                               {{BlockResourceFailure-IEs}},
   protocolIEs
                       ProtocolIE-Container
                       ProtocolExtensionContainer {{BlockResourceFailure-Extensions}}
   protocolExtensions
                                                                                  OPTIONAL,
BlockResourceFailure-IEs NBAP-PROTOCOL-IES ::= {
    ID
         id-Cause
                                     CRITICALITY
                                                   ignore
                                                             TYPE
                                                                    Cause
                                                                                                        PRESENCE mandatory } |
   { ID
         id-CriticalityDiagnostics
                                     CRITICALITY
                                                   ignore
                                                             TYPE
                                                                    CriticalityDiagnostics
                                                                                                     PRESENCE optional },
BlockResourceFailure-Extensions NBAP-PROTOCOL-EXTENSION ::= {
  -- UNBLOCK RESOURCE INDICATION
__ **********************
UnblockResourceIndication ::= SEQUENCE {
                ProtocolIE-Container {{UnblockResourceIndication-IEs}},
   protocolIEs
                       ProtocolExtensionContainer {{UnblockResourceIndication-Extensions}}
   protocolExtensions
                                                                                      OPTIONAL,
UnblockResourceIndication-IEs NBAP-PROTOCOL-IES ::= {
   { ID
          id-C-ID
                       CRITICALITY
                                     ignore
                                                      C-ID
                                                                 PRESENCE
                                                                           mandatory},
   . . .
UnblockResourceIndication-Extensions NBAP-PROTOCOL-EXTENSION ::= {
   . . .
```

```
__ *********************
-- AUDIT REQUIRED INDICATION
  *****************
AuditRequiredIndication ::= SEQUENCE {
   protocolIEs
                      ProtocolIE-Container
                                           {{AuditRequiredIndication-IEs}},
   protocolExtensions
                      ProtocolExtensionContainer {{AuditRequiredIndication-Extensions}}
                                                                                               OPTIONAL,
AuditRequiredIndication-IEs NBAP-PROTOCOL-IES ::= {
AuditRequiredIndication-Extensions NBAP-PROTOCOL-EXTENSION ::= {
  -- AUDIT REQUEST
__ ********************
AuditRequest ::= SEQUENCE {
   protocolIEs
                          ProtocolIE-Container
                                              {{AuditRequest-IEs}},
                          ProtocolExtensionContainer {{AuditRequest-Extensions}}
   protocolExtensions
                                                                            OPTIONAL,
AuditRequest-IEs NBAP-PROTOCOL-IES ::= {
         id-Start-Of-Audit-Sequence-Indicator
   { ID
                                              CRITICALITY
                                                           reject TYPE Start-Of-Audit-Sequence-Indicator PRESENCE mandatory },
   . . .
AuditRequest-Extensions NBAP-PROTOCOL-EXTENSION ::= {
-- AUDIT RESPONSE
__ *********************
AuditResponse ::= SEQUENCE {
   protocolIEs
                          ProtocolIE-Container
                                              {{AuditResponse-IEs}},
                          ProtocolExtensionContainer {{AuditResponse-Extensions}}
   protocolExtensions
                                                                               OPTIONAL,
AuditResponse-IEs NBAP-PROTOCOL-IES ::= {
```

```
id-End-Of-Audit-Sequence-Indicator
                                                                         ignore TYPE
                                                                                          End-Of-Audit-Sequence-Indicator
                                                                                                                               PRESENCE mandatory } |
     ID
                                                         CRITICALITY
     ID
           id-Cell-InformationList-AuditRsp
                                                         CRITICALITY
                                                                         ignore
                                                                                         TYPE
                                                                                                  Cell-InformationList-AuditRsp
                                                                                                                                        PRESENCE
    optional
            id-CCP-InformationList-AuditRsp
     ID
                                                         CRITICALITY
                                                                         ignore
                                                                                         TYPE
                                                                                                  CCP-InformationList-AuditRsp
                                                                                                                                     PRESENCE optional
    -- CCP (Communication Control Port) --
    { ID
            id-Local-Cell-InformationList-AuditRsp
                                                         CRITICALITY
                                                                         ignore
                                                                                          TYPE
                                                                                                  Local-Cell-InformationList-AuditRsp
                                                                                                                                           PRESENCE
    optional
    { ID
           id-Local-Cell-Group-InformationList-AuditRsp
                                                             CRITICALITY
                                                                             ignore
                                                                                         TYPE
                                                                                                  Local-Cell-Group-InformationList-AuditRsp PRESENCE
    optional
     ID
           id-CriticalityDiagnostics
                                                                                         TYPE
                                                         CRITICALITY
                                                                         ignore
                                                                                                  CriticalityDiagnostics
                                                                                                                                     PRESENCE optional
    },
    . . .
AuditResponse-Extensions NBAP-PROTOCOL-EXTENSION ::= {
Cell-InformationList-AuditRsp ::= SEQUENCE (SIZE (1..maxCellinNodeB)) OF ProtocolIE-Single-Container {{ Cell-InformationItemIE-AuditRsp}}
Cell-InformationItemIE-AuditRsp NBAP-PROTOCOL-IES ::= {
           id-Cell-InformationItem-AuditRsp
                                                     CRITICALITY
                                                                     ignore
                                                                                 TYPE
                                                                                         Cell-InformationItem-AuditRsp
                                                                                                                               PRESENCE
                                                                                                                                           optional }
Cell-InformationItem-AuditRsp ::= SEOUENCE {
                                            C-ID,
    configurationGenerationID
                                            ConfigurationGenerationID,
    resourceOperationalState
                                            ResourceOperationalState,
    availabilityStatus
                                            AvailabilityStatus,
    local-Cell-ID
                                            Local-Cell-ID,
    primary-SCH-Information
                                            P-SCH-Information-AuditRsp
                                                                                         OPTIONAL,
    secondary-SCH-Information
                                            S-SCH-Information-AuditRsp
                                                                                         OPTIONAL,
    primary-CPICH-Information
                                            P-CPICH-Information-AuditRsp
                                                                                         OPTIONAL,
    secondary-CPICH-InformationList
                                            S-CPICH-InformationList-AuditRsp
                                                                                         OPTIONAL,
    primary-CCPCH-Information
                                            P-CCPCH-Information-AuditRsp
                                                                                         OPTIONAL,
    bCH-Information
                                            BCH-Information-AuditRsp
                                                                                         OPTIONAL,
                                            S-CCPCH-InformationList-AuditRsp
    secondary-CCPCH-InformationList
                                                                                         OPTIONAL,
    pCH-Information
                                            PCH-Information-AuditRsp
                                                                                         OPTIONAL,
    pICH-Information
                                            PICH-Information-AuditRsp
                                                                                         OPTIONAL,
    fACH-InformationList
                                            FACH-InformationList-AuditRsp
                                                                                         OPTIONAL,
    pRACH-InformationList
                                             PRACH-InformationList-AuditRsp
                                                                                         OPTIONAL,
    rACH-InformationList
                                            RACH-InformationList-AuditRsp
                                                                                         OPTIONAL,
    aICH-InformationList
                                            AICH-InformationList-AuditRsp
                                                                                         OPTIONAL,
                                            PCPCH-InformationList-AuditRsp
    pCPCH-InformationList
                                                                                         OPTIONAL,
    cPCH-InformationList
                                            CPCH-InformationList-AuditRsp
                                                                                         OPTIONAL,
    aP-AICH-InformationList
                                            AP-AICH-InformationList-AuditRsp
                                                                                         OPTIONAL,
    cDCA-ICH-InformationList
                                            CDCA-ICH-InformationList-AuditRsp
                                                                                         OPTIONAL,
    sCH-Information
                                            SCH-Information-AuditRsp
                                                                                         OPTIONAL,
    iE-Extensions
                                            ProtocolExtensionContainer { { Cell-InformationItem-AuditRsp-ExtIEs} }
                                                                                                                        OPTIONAL,
Cell-InformationItem-AuditRsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
```

```
PRESENCE optional } |
   { ID id-FPACH-LCR-InformationList-AuditRsp
                                                CRITICALITY ignore EXTENSION
                                                                             FPACH-LCR-InformationList-AuditRsp
   -- Applicable to 1.28Mcps TDD only
   { ID id-DwPCH-LCR-InformationList-AuditRsp
                                                CRITICALITY ignore EXTENSION
                                                                             Common-PhysicalChannel-Status-Information
                                                                                                                           PRESENCE
optional },
   -- Applicable to 1.28Mcps TDD only
P-SCH-Information-AuditRsp ::= ProtocolIE-Single-Container {{ P-SCH-InformationIE-AuditRsp }}
P-SCH-InformationIE-AuditRsp NBAP-PROTOCOL-IES ::= {
    PRESENCE mandatory }
S-SCH-Information-AuditRsp ::= ProtocolIE-Single-Container {{ S-SCH-InformationIE-AuditRsp }}
S-SCH-InformationIE-AuditRsp NBAP-PROTOCOL-IES ::= {
    PRESENCE mandatory }
P-CPICH-Information-AuditRsp ::= ProtocolIE-Single-Container {{ P-CPICH-InformationIE-AuditRsp }}
P-CPICH-InformationIE-AuditRsp NBAP-PROTOCOL-IES ::= {
    { ID id-P-CPICH-Information CRITICALITY ignore TYPE Common-PhysicalChannel-Status-Information
                                                                                                           PRESENCE mandatory }
S-CPICH-InformationList-AuditRsp ::= SEQUENCE (SIZE (1..maxSCPICHCell)) OF ProtocolIE-Single-Container {{ S-CPICH-InformationItemIE-AuditRsp }}
S-CPICH-InformationItemIE-AuditRsp NBAP-PROTOCOL-IES ::= {
    { ID id-S-CPICH-Information CRITICALITY ignore
                                                   TYPE Common-PhysicalChannel-Status-Information
                                                                                                             PRESENCE mandatory }
P-CCPCH-Information-AuditRsp ::= ProtocolIE-Single-Container {{ P-CCPCH-InformationIE-AuditRsp }}
P-CCPCH-InformationIE-AuditRsp NBAP-PROTOCOL-IES ::= {
    { ID id-P-CCPCH-Information CRITICALITY ignore
                                                   TYPE Common-PhysicalChannel-Status-Information
                                                                                                             PRESENCE mandatory }
BCH-Information-AuditRsp ::= ProtocolIE-Single-Container {{ BCH-InformationIE-AuditRsp }}
BCH-InformationIE-AuditRsp NBAP-PROTOCOL-IES ::= {
    { ID id-BCH-Information CRITICALITY ignore
                                               TYPE Common-TransportChannel-Status-Information
                                                                                                             PRESENCE mandatory }
S-CCPCH-InformationList-AuditRsp ::= SEOUENCE (SIZE (1..maxSCCPCHCell)) OF ProtocolIE-Single-Container {{ S-CCPCH-InformationItemIE-AuditRsp }}
S-CCPCH-InformationItemIE-AuditRsp NBAP-PROTOCOL-IES ::= {
    { ID id-S-CCPCH-Information CRITICALITY ignore
                                                 TYPE Common-PhysicalChannel-Status-Information
                                                                                                             PRESENCE mandatory }
PCH-Information-AuditRsp ::= ProtocolIE-Single-Container {{ PCH-InformationIE-AuditRsp }}
PCH-InformationIE-AuditRsp NBAP-PROTOCOL-IES ::= {
    { ID id-PCH-Information CRITICALITY ignore
                                               TYPE Common-TransportChannel-Status-Information
                                                                                                             PRESENCE mandatory }
```

```
PICH-Information-AuditRsp ::= ProtocolIE-Single-Container {{ PICH-InformationIE-AuditRsp }}
PICH-InformationIE-AuditRsp NBAP-PROTOCOL-IES ::= {
   PRESENCE mandatory }
FACH-InformationList-AuditRsp ::= SEQUENCE (SIZE (1..maxFACHCell)) OF ProtocolIE-Single-Container {{ FACH-InformationItemIE-AuditRsp }}
FACH-InformationItemIE-AuditRsp NBAP-PROTOCOL-IES ::= {
   PRESENCE mandatory }
PRACH-InformationList-AuditRsp ::= SEOUENCE (SIZE (1..maxPRACHCell)) OF ProtocolIE-Single-Container {{ PRACH-InformationItemIE-AuditRsp }}
PRACH-InformationItemIE-AuditRsp NBAP-PROTOCOL-IES ::= {
   PRESENCE mandatory }
RACH-InformationList-AuditRsp ::= SEQUENCE (SIZE (1..maxRACHCell)) OF ProtocolIE-Single-Container {{ RACH-InformationItemIE-AuditRsp }}
RACH-InformationItemIE-AuditRsp NBAP-PROTOCOL-IES ::= {
   PRESENCE mandatory }
AICH-InformationList-AuditRsp ::= SEOUENCE (SIZE (1..maxPRACHCell)) OF ProtocolIE-Single-Container {{ AICH-InformationItemIE-AuditRsp }}
AICH-InformationItemIE-AuditRsp NBAP-PROTOCOL-IES ::= {
   { ID id-AICH-Information CRITICALITY ignore TYPE Common-PhysicalChannel-Status-Information
                                                                                          PRESENCE mandatory }
PCPCH-InformationList-AuditRsp ::= SEQUENCE (SIZE (1..maxPCPCHCell)) OF ProtocolIE-Single-Container {{ PCPCH-InformationItemIE-AuditRsp }}
PCPCH-InformationItemIE-AuditRsp NBAP-PROTOCOL-IES ::= {
   PRESENCE optional }
CPCH-InformationList-AuditRsp ::= SEQUENCE (SIZE (1..maxCPCHCell)) OF ProtocolIE-Single-Container {{ CPCH-InformationItemIE-AuditRsp }}
CPCH-InformationItemIE-AuditRsp NBAP-PROTOCOL-IES ::= {
   PRESENCE optional }
AP-AICH-InformationList-AuditRsp ::= SEQUENCE (SIZE (1..maxCPCHCell)) OF ProtocolIE-Single-Container {{ AP-AICH-InformationItemIE-AuditRsp }}
AP-AICH-InformationItemIE-AuditRsp NBAP-PROTOCOL-IES ::= {
   { ID id-AP-AICH-Information CRITICALITY ignore TYPE Common-PhysicalChannel-Status-Information
                                                                                         PRESENCE mandatory }
CDCA-ICH-InformationList-AuditRsp ::= SEOUENCE (SIZE (1..maxCPCHCell)) OF ProtocolIE-Single-Container {{ CDCA-ICH-InformationItemIE-AuditRsp }}
CDCA-ICH-InformationItemIE-AuditRsp NBAP-PROTOCOL-IES ::= {
   PRESENCE mandatory }
```

```
SCH-Information-AuditRsp ::= ProtocolIE-Single-Container {{ SCH-InformationIE-AuditRsp }}
SCH-InformationIE-AuditRsp NBAP-PROTOCOL-IES ::= {
    { ID id-SCH-Information CRITICALITY ignore
                                                  TYPE Common-PhysicalChannel-Status-Information
                                                                                                                  PRESENCE mandatory }
CCP-InformationList-AuditRsp ::=SEQUENCE (SIZE (1..maxCCPinNodeB)) OF ProtocolIE-Single-Container {{ CCP-InformationItemIE-AuditRsp }}
CCP-InformationItemIE-AuditRsp NBAP-PROTOCOL-IES ::= {
    {ID id-CCP-InformationItem-AuditRsp
                                              CRITICALITY
                                                             ignore
                                                                             TYPE
                                                                                     CCP-InformationItem-AuditRsp
                                                                                                                        PRESENCE mandatory }
CCP-InformationItem-AuditRsp ::= SEQUENCE {
    communicationControlPortID
                                      CommunicationControlPortID,
    resourceOperationalState
                                      ResourceOperationalState,
    availabilityStatus
                                      AvailabilityStatus,
                                      ProtocolExtensionContainer {{ CCP-InformationItem-AuditRsp-ExtIEs }}
   iE-Extensions
                                                                                                                  OPTIONAL,
    . . .
CCP-InformationItem-AuditRsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
FPACH-LCR-InformationList-AuditRsp ::= SEQUENCE (SIZE (1..maxFPACHCell)) OF ProtocolIE-Single-Container {{ FPACH-LCR-InformationItemIE-AuditRsp }}
FPACH-LCR-InformationItemIE-AuditRsp NBAP-PROTOCOL-IES ::= {
    PRESENCE mandatory }
Local-Cell-InformationList-AuditRsp ::=SEQUENCE (SIZE (1..maxLocalCellinNodeB)) OF ProtocolIE-Single-Container {{ Local-Cell-InformationItemIE-
AuditRsp }}
Local-Cell-InformationItemIE-AuditRsp NBAP-PROTOCOL-IES ::= {
    { ID
           id-Local-Cell-InformationItem-AuditRsp
                                                         CRITICALITY
                                                                         ignore
                                                                                        TYPE
                                                                                                               Local-Cell-InformationItem-
AuditRsp
               PRESENCE
                          mandatory}
Local-Cell-InformationItem-AuditRsp ::= SEQUENCE
   local-Cell-ID
                                              Local-Cell-ID,
   dl-or-global-capacityCredit
                                              DL-or-Global-CapacityCredit,
    ul-capacityCredit
                                              UL-CapacityCredit
                                                                     OPTIONAL,
    commonChannelsCapacityConsumptionLaw
                                              CommonChannelsCapacityConsumptionLaw,
    dedicatedChannelsCapacityConsumptionLaw
                                              DedicatedChannelsCapacityConsumptionLaw,
   maximumDL-PowerCapability
                                              MaximumDL-PowerCapability
                                                                             OPTIONAL,
    minSpreadingFactor
                                              MinSpreadingFactor
                                                                             OPTIONAL,
   minimumDL-PowerCapability
                                              MinimumDL-PowerCapability
                                                                             OPTIONAL,
    local-Cell-Group-ID
                                              Local-Cell-ID
                                                                             OPTIONAL,
   iE-Extensions
                                              ProtocolExtensionContainer {{ Local-Cell-InformationItem-AuditRsp-ExtIEs}}
                                                                                                                           OPTIONAL,
Local-Cell-InformationItem-AuditRsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
```

```
{ ID
          id-ReferenceClockAvailability
                                           CRITICALITY
                                                                        EXTENSION ReferenceClockAvailability
                                                                                                                PRESENCE optional },
                                                          ignore
Local-Cell-Group-InformationList-AuditRsp
                                         ::= SEQUENCE (SIZE (1..maxLocalCellinNodeB)) OF ProtocolIE-Single-Container {{ Local-Cell-Group-
InformationItemIE-AuditRsp }}
Local-Cell-Group-InformationItemIE-AuditRsp NBAP-PROTOCOL-IES ::= {
   { ID id-Local-Cell-Group-InformationItem-AuditRsp
                                                             CRITICALITY
                                                                            ignore
                                                                                                        TYPE Local-Cell-Group-
InformationItem-AuditRsp
                             PRESENCE
                                       mandatory}
Local-Cell-Group-InformationItem-AuditRsp ::= SEQUENCE {
   local-Cell-Group-ID
                                           Local-Cell-ID,
   dl-or-global-capacityCredit
                                           DL-or-Global-CapacityCredit,
   ul-capacityCredit
                                           UL-CapacityCredit
                                                                               OPTIONAL,
   commonChannelsCapacityConsumptionLaw
                                           CommonChannelsCapacityConsumptionLaw,
   dedicatedChannelsCapacityConsumptionLaw
                                           DedicatedChannelsCapacityConsumptionLaw,
   iE-Extensions
                                           ProtocolExtensionContainer {{ Local-Cell-Group-InformationItem-AuditRsp-ExtIEs}}
                                                                                                                        OPTIONAL,
Local-Cell-Group-InformationItem-AuditRsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  -- AUDIT FAILURE
__ **********************
AuditFailure ::= SEQUENCE {
                                               {{AuditFailure-IEs}},
   protocolIEs
                         ProtocolIE-Container
                         ProtocolExtensionContainer {{AuditFailure-Extensions}}
   protocolExtensions
                                                                                   OPTIONAL,
AuditFailure-IEs NBAP-PROTOCOL-IES ::= {
     ID
          id-Cause
                                           CRITICALITY
                                                          ignore
                                                                        TYPE
                                                                                Cause
                                                                                                                   PRESENCE mandatory
   { ID
                                                                               CriticalityDiagnostics
          id-CriticalityDiagnostics
                                           CRITICALITY
                                                          ignore
                                                                        TYPE
                                                                                                           PRESENCE optional },
   . . .
AuditFailure-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    *****************
-- COMMON MEASUREMENT INITIATION REQUEST
__ **********************
```

```
CommonMeasurementInitiationRequest ::= SEQUENCE {
    protocolIEs
                            ProtocolIE-Container
                                                     {{CommonMeasurementInitiationRequest-IEs}},
    protocolExtensions
                            ProtocolExtensionContainer {{CommonMeasurementInitiationRequest-Extensions}}
                                                                                                                        OPTIONAL,
    . . .
CommonMeasurementInitiationRequest-IEs NBAP-PROTOCOL-IES ::= {
           id-MeasurementID
                                                             CRITICALITY reject
                                                                                         TYPE
                                                                                                 MeasurementID
                                                                                                                                       PRESENCE
    mandatory } |
    { ID
            id-CommonMeasurementObjectType-CM-Rqst
                                                                                         TYPE
                                                             CRITICALITY reject
                                                                                                 CommonMeasurementObjectType-CM-Rqst
                                                                                                                                           PRESENCE
    mandatory } |
    { ID
            id-CommonMeasurementType
                                                             CRITICALITY reject
                                                                                         TYPE
                                                                                                 CommonMeasurementType
                                                                                                                                    PRESENCE
    mandatory } |
    { ID
            id-MeasurementFilterCoefficient
                                                                                                 MeasurementFilterCoefficient
                                                             CRITICALITY reject
                                                                                         TYPE
                                                                                                                                        PRESENCE
    optional
    { ID
           id-ReportCharacteristics
                                                                                                 ReportCharacteristics
                                                             CRITICALITY reject
                                                                                         TYPE
                                                                                                                                     PRESENCE
    mandatory } |
            id-SFNReportingIndicator
                                                             CRITICALITY reject
                                                                                         TYPE
                                                                                                 FNReportingIndicator
                                                                                                                                     PRESENCE
    mandatory
     ID
           id-SFN
                                                             CRITICALITY reject
                                                                                          TYPE
                                                                                                 SFN
                                                                                                                                     PRESENCE optional
    . . .
CommonMeasurementInitiationRequest-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    {ID id-CommonMeasurementAccuracy
                                                             CRITICALITY reject
                                                                                         EXTENSION CommonMeasurementAccuracy
                                                                                                                                     PRESENCE
optional},
CommonMeasurementObjectType-CM-Rqst ::= CHOICE {
    cell
                                    Cell-CM-Rqst,
    rACH
                                    RACH-CM-Rqst,
    cPCH
                                    CPCH-CM-Rqst,
    . . .
Cell-CM-Rast ::= SEQUENCE {
    c-ID
                                    C-ID,
                                                OPTIONAL, -- Applicable to 3.84Mcps TDD only
    timeSlot
                                    TimeSlot
    iE-Extensions
                                    ProtocolExtensionContainer { { CellItem-CM-Rqst-ExtIEs} }
                                                                                                                      OPTIONAL,
Cellitem-CM-Rqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-TimeSlotLCR-CM-Rqst
                                    CRITICALITY reject
                                                             EXTENSION
                                                                       TimeSlotLCR
                                                                                              PRESENCE optional
                                                                                                                      } |
    -- Applicable to 1.28Mcps TDD only
    {ID id-NeighbouringCellMeasurementInformation
                                                         CRITICALITY ignore
                                                                                      EXTENSION NeighbouringCellMeasurementInformation
                                                                                                                                              PRESENCE
optional},
    . . .
```

```
RACH-CM-Rqst ::= SEQUENCE {
   c-ID
                               C-ID.
   commonTransportChannelID
                               CommonTransportChannelID,
   iE-Extensions
                               OPTIONAL,
RACHItem-CM-Rqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
CPCH-CM-Rqst ::= SEQUENCE {
   c-ID
                               C-ID,
   commonTransportChannelID
                               CommonTransportChannelID,
   spreadingfactor
                               MinUL-ChannelisationCodeLength
   iE-Extensions
                               OPTIONAL,
CPCHItem-CM-Rqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    *****************
  COMMON MEASUREMENT INITIATION RESPONSE
     CommonMeasurementInitiationResponse ::= SEQUENCE {
                                             {{CommonMeasurementInitiationResponse-IEs}},
   protocolIEs
                        ProtocolIE-Container
   protocolExtensions
                        ProtocolExtensionContainer {{CommonMeasurementInitiationResponse-Extensions}}
                                                                                                       OPTIONAL,
   . . .
CommonMeasurementInitiationResponse-IEs NBAP-PROTOCOL-IES ::= {
   { ID
         id-MeasurementID
                                                CRITICALITY ignore
                                                                         TYPE
                                                                                MeasurementID
                                                                                                                    PRESENCE
   mandatory } |
    ID
          id-CommonMeasurementObjectType-CM-Rsp
                                                                                CommonMeasurementObjectType-CM-Rsp
                                                CRITICALITY ignore
                                                                         TYPE
                                                                                                                 PRESENCE optional
                                                 CRITICALITY ignore
                                                                                                                         PRESENCE
   { ID
          id-SFN
                                                                         TYPE
                                                                                SFN
   optional }
   { ID
         id-CriticalityDiagnostics
                                                                         TYPE
                                                                                CriticalityDiagnostics
                                                                                                               PRESENCE optional },
                                                CRITICALITY ignore
CommonMeasurementInitiationResponse-Extensions NBAP-PROTOCOL-EXTENSION ::= {
   {ID id-CommonMeasurementAccuracy
                                      CRITICALITY ignore
                                                           EXTENSION CommonMeasurementAccuracy
                                                                                                     PRESENCE optional },
   . . .
CommonMeasurementObjectType-CM-Rsp ::= CHOICE {
   cell
                           Cell-CM-Rsp,
   rACH
                           RACH-CM-Rsp,
```

```
cPCH
                              CPCH-CM-Rsp,
Cell-CM-Rsp ::= SEOUENCE {
   commonMeasurementValue
                                  CommonMeasurementValue,
                                  ProtocolExtensionContainer { { CellItem-CM-Rsp-ExtIEs} }
   iE-Extensions
                                                                                                             OPTIONAL,
Cellitem-CM-Rsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
RACH-CM-Rsp ::= SEOUENCE {
   commonMeasurementValue
                                  CommonMeasurementValue,
                                  ProtocolExtensionContainer { { RACHItem-CM-Rsp-ExtIEs} }
   iE-Extensions
                                                                                                             OPTIONAL,
RACHItem-CM-Rsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
CPCH-CM-Rsp ::= SEQUENCE {
   commonMeasurementValue
                                  CommonMeasurementValue,
                                  ProtocolExtensionContainer { { CPCHItem-CM-Rsp-ExtIEs} }
   iE-Extensions
                                                                                                             OPTIONAL,
CPCHItem-CM-Rsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
   *****************
-- COMMON MEASUREMENT INITIATION FAILURE
  ****************
CommonMeasurementInitiationFailure ::= SEQUENCE {
   protocolIEs
                          ProtocolIE-Container
                                                 {{CommonMeasurementInitiationFailure-IEs}},
                          ProtocolExtensionContainer {{CommonMeasurementInitiationFailure-Extensions}}
   protocolExtensions
                                                                                                                OPTIONAL,
CommonMeasurementInitiationFailure-IES NBAP-PROTOCOL-IES ::= {
          id-MeasurementID
                                         CRITICALITY
                                                                                                                     PRESENCE mandatory
                                                        ignore
                                                                       TYPE
                                                                               MeasurementID
     ID
          id-Cause
                                         CRITICALITY
                                                        ignore
                                                                       TYPE
                                                                               Cause
                                                                                                                     PRESENCE mandatory
    { ID
          id-CriticalityDiagnostics
                                         CRITICALITY
                                                        ignore
                                                                       TYPE
                                                                               CriticalityDiagnostics
                                                                                                                PRESENCE optional },
CommonMeasurementInitiationFailure-Extensions NBAP-PROTOCOL-EXTENSION ::= {
```

```
-- COMMON MEASUREMENT REPORT
__ **********************
CommonMeasurementReport ::= SEQUENCE {
   protocolIEs
                ProtocolIE-Container {{CommonMeasurementReport-IEs}},
   protocolExtensions ProtocolExtensionContainer {{CommonMeasurementReport-Extensions}}
                                                                                                         OPTIONAL,
CommonMeasurementReport-IEs NBAP-PROTOCOL-IES ::= {
   { ID id-MeasurementID
                                                   CRITICALITY ignore
                                                                            TYPE
                                                                                   MeasurementID
                                                                                                                         PRESENCE
   mandatory } |
         id-CommonMeasurementObjectType-CM-Rprt
                                                  CRITICALITY ignore
                                                                            TYPE
                                                                                   CommonMeasurementObjectType-CM-Rprt
   mandatory } |
   { ID id-SFN
                                                   CRITICALITY ignore
                                                                            TYPE
                                                                                   SFN
                                                                                                                              PRESENCE
   optional },
CommonMeasurementReport-Extensions NBAP-PROTOCOL-EXTENSION ::= {
CommonMeasurementObjectType-CM-Rprt ::= CHOICE {
   cell
                                Cell-CM-Rprt,
   rACH
                                RACH-CM-Rprt,
   cPCH
                                CPCH-CM-Rprt,
   . . .
Cell-CM-Rprt ::= SEQUENCE {
   commonMeasurementValueInformation CommonMeasurementValueInformation,
                                ProtocolExtensionContainer {{ CellItem-CM-Rprt-ExtIEs }}
   iE-Extensions
                                                                                                         OPTIONAL,
   . . .
CellItem-CM-Rprt-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
RACH-CM-Rprt ::= SEQUENCE {
   commonMeasurementValueInformation CommonMeasurementValueInformation,
                                ProtocolExtensionContainer {{     RACHItem-CM-Rprt-ExtIEs }}
   iE-Extensions
                                                                                                           OPTIONAL,
   . . .
```

```
RACHItem-CM-Rprt-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
CPCH-CM-Rprt ::= SEQUENCE {
   commonMeasurementValueInformation CommonMeasurementValueInformation,
                                ProtocolExtensionContainer {{    CPCHItem-CM-Rprt-ExtIEs }}
   iE-Extensions
                                                                                                          OPTIONAL,
CPCHItem-CM-Rprt-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ****************
-- COMMON MEASUREMENT TERMINATION REQUEST
  CommonMeasurementTerminationRequest ::= SEQUENCE {
                                             {{CommonMeasurementTerminationRequest-IEs}},
                ProtocolIE-Container
   protocolIEs
                        ProtocolExtensionContainer {{CommonMeasurementTerminationRequest-Extensions}}
   protocolExtensions
                                                                                                          OPTIONAL,
CommonMeasurementTerminationRequest-IEs NBAP-PROTOCOL-IES ::= {
   { ID
          id-MeasurementID
                                   CRITICALITY
                                                 ignore
                                                                   TYPE
                                                                           MeasurementID
                                                                                                            PRESENCE mandatory },
   . . .
CommonMeasurementTerminationRequest-Extensions NBAP-PROTOCOL-EXTENSION ::= {
-- COMMON MEASUREMENT FAILURE INDICATION
    *****************
CommonMeasurementFailureIndication ::= SEQUENCE {
                                             {{CommonMeasurementFailureIndication-IEs}},
   protocolIEs
                        ProtocolIE-Container
                            ProtocolExtensionContainer {{CommonMeasurementFailureIndication-Extensions}}
   protocolExtensions
                                                                                                               OPTIONAL,
CommonMeasurementFailureIndication-IEs NBAP-PROTOCOL-IES ::= {
         id-MeasurementID
                                  CRITICALITY ignore
                                                            TYPE
                                                                                                       PRESENCE mandatory
                                                                   MeasurementID
   { ID
          id-Cause
                                   CRITICALITY ignore
                                                            TYPE
                                                                   Cause
                                                                                                       PRESENCE mandatory },
CommonMeasurementFailureIndication-Extensions NBAP-PROTOCOL-EXTENSION ::= {
```

```
*****************
-- CELL SETUP REQUEST FDD
__ *********************
CellSetupRequestFDD ::= SEQUENCE {
   protocolIEs
                          ProtocolIE-Container
                                                {{CellSetupRequestFDD-IEs}},
                          ProtocolExtensionContainer {{CellSetupRequestFDD-Extensions}}
   protocolExtensions
                                                                                            OPTIONAL,
CellSetupRequestFDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID
           id-Local-Cell-ID
                                                                 CRITICALITY
                                                                                 reject
                                                                                                               TYPE Local-Cell-ID
                   PRESENCE
                              mandatory
           id-C-ID
                                                                 CRITICALITY
                                                                                 reject
                                                                                                               TYPE C-ID
               PRESENCE
                          mandatory }|
    { ID
           id-ConfigurationGenerationID
                                                                 CRITICALITY
                                                                                 reject
                                                                                                               TYPE ConfigurationGenerationID
                       PRESENCE
                                  mandatory
           id-T-Cell
    { ID
                                                                 CRITICALITY
                                                                                 reject
                                                                                                               TYPE T-Cell
                   PRESENCE
                              mandatory
    { ID
           id-UARFCNforNu
                                                                 CRITICALITY
                                                                                 reject
                                                                                                               TYPE UARFCN
                   PRESENCE
                              mandatory
           id-UARFCNforNd
                                                                                                               TYPE UARFCN
    { ID
                                                                 CRITICALITY
                                                                                 reject
                   PRESENCE
                              mandatory
           id-MaximumTransmissionPower
                                                                                                               TYPE MaximumTransmissionPower
    { ID
                                                                 CRITICALITY
                                                                                 reject
                       PRESENCE
                                  mandatory } |
    { ID
           id-Closed-Loop-Timing-Adjustment-Mode
                                                                 CRITICALITY
                                                                                 reject
                                                                                                               TYPE
    Closedlooptimingadjustmentmode
                                                  PRESENCE
                                                             optional
           id-PrimaryScramblingCode
                                                                 CRITICALITY
                                                                                 reject
                                                                                                               TYPE PrimaryScramblingCode
                       PRESENCE
                                  mandatory }
    ID
           id-Synchronisation-Configuration-Cell-SetupRqst
                                                                 CRITICALITY
                                                                                 reject
                                                                                                               TYPE Synchronisation-
Configuration-Cell-SetupRqst
                                      PRESENCE
                                                 mandatory }
    { ID
           id-DL-TPC-Pattern01Count
                                                                 CRITICALITY
                                                                                 reject
                                                                                                                  TYPE DL-TPC-Pattern01Count
                          PRESENCE
                                      mandatory
           id-PrimarySCH-Information-Cell-SetupRqstFDD
                                                                                                               TYPE PrimarySCH-Information-
    { ID
                                                                 CRITICALITY
                                                                                 reject
Cell-SetupRqstFDD
                          PRESENCE
                                      mandatory
           id-SecondarySCH-Information-Cell-SetupRqstFDD
    { ID
                                                                 CRITICALITY
                                                                                 reject
                                                                                                               TYPE SecondarySCH-Information-
Cell-SetupRqstFDD
                      PRESENCE
                                  mandatory }
           id-PrimaryCPICH-Information-Cell-SetupRqstFDD
                                                                                                               TYPE PrimaryCPICH-Information-
    { ID
                                                                 CRITICALITY
                                                                                 reject
                                  mandatory }
Cell-SetupRqstFDD
                      PRESENCE
           id-SecondaryCPICH-InformationList-Cell-SetupRqstFDD
                                                                                                               TYPE SecondaryCPICH-
                                                                 CRITICALITY
                                                                                 reject
InformationList-Cell-SetupRqstFDD
                                      PRESENCE
                                                  optional
          id-PrimaryCCPCH-Information-Cell-SetupRqstFDD
                                                                 CRITICALITY
                                                                                 reject
                                                                                                               TYPE PrimaryCCPCH-Information-
Cell-SetupRqstFDD
                       PRESENCE
                                  mandatory } |
           id-Limited-power-increase-information-Cell-SetupRqstFDD CRITICALITY
                                                                                 reject
                                                                                                               TYPE Limited-power-increase-
information-Cell-SetupRqstFDD
                                  PRESENCE mandatory },
CellSetupRequestFDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
```

```
{ID id-IPDLParameter-Information-Cell-SetupRqstFDD
                                                                     CRITICALITY
                                                                                     reject
                                                                                                 EXTENSION
                                                                                                                        IPDLParameter-Information-
Cell-SetupRqstFDD
                        PRESENCE
                                    optional
    . . .
Synchronisation-Configuration-Cell-SetupRqst ::= SEQUENCE {
   n-INSYNC-IND
                           N-INSYNC-IND,
   n-OUTSYNC-IND
                            N-OUTSYNC-IND,
    t-RLFAILURE
                            T-RLFAILURE,
                            ProtocolExtensionContainer { { Synchronisation-Configuration-Cell-SetupRqst-ExtIEs} }
   iE-Extensions
                                                                                                                        OPTIONAL,
Synchronisation-Configuration-Cell-SetupRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
PrimarySCH-Information-Cell-SetupRgstFDD ::= SEQUENCE
                                            CommonPhysicalChannelID,
    commonPhysicalChannelID
    primarySCH-Power
                                            DL-Power,
    tSTD-Indicator
                                            TSTD-Indicator,
                                            ProtocolExtensionContainer { { PrimarySCH-Information-Cell-SetupRqstFDD-ExtIEs} }
    iE-Extensions
                                                                                                                                    OPTIONAL,
PrimarySCH-Information-Cell-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
SecondarySCH-Information-Cell-SetupRqstFDD ::= SEQUENCE {
                                            CommonPhysicalChannelID,
    commonPhysicalChannelID
    secondarySCH-Power
                                            DL-Power,
    tSTD-Indicator
                                            TSTD-Indicator,
                                            ProtocolExtensionContainer { { SecondarySCH-Information-Cell-SetupRqstFDD-ExtIEs} }
    iE-Extensions
    . . .
SecondarySCH-Information-Cell-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
PrimaryCPICH-Information-Cell-SetupRqstFDD ::= SEQUENCE {
    commonPhysicalChannelID
                                            CommonPhysicalChannelID,
                                            PrimaryCPICH-Power,
   primaryCPICH-Power
    transmitDiversityIndicator
                                            TransmitDiversityIndicator,
                                            ProtocolExtensionContainer { { PrimaryCPICH-Information-Cell-SetupRqstFDD-ExtIEs} }
    iE-Extensions
                                                                                                                                    OPTIONAL,
    . . .
PrimaryCPICH-Information-Cell-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
```

```
SecondaryCPICH-InformationList-Cell-SetupRqstFDD ::= SEQUENCE (SIZE (1..maxSCPICHCell)) OF ProtocolIE-Single-Container {{ SecondaryCPICH-
InformationItemIE-Cell-SetupRgstFDD }}
SecondaryCPICH-InformationItemIE-Cell-SetupRqstFDD NBAP-PROTOCOL-IES ::= {
          id-SecondaryCPICH-InformationItem-Cell-SetupRgstFDD
                                                                                 reject
                                                                                                                TYPE SecondaryCPICH-
                                                                  CRITICALITY
InformationItem-Cell-SetupRqstFDD
                                      PRESENCE
                                                  mandatory}
SecondaryCPICH-InformationItem-Cell-SetupRqstFDD ::= SEQUENCE {
    commonPhysicalChannelID
                                          CommonPhysicalChannelID,
   dl-ScramblingCode
                                          DL-ScramblingCode,
    fDD-DL-ChannelisationCodeNumber
                                          FDD-DL-ChannelisationCodeNumber,
    secondaryCPICH-Power
                                          DL-Power.
    transmitDiversityIndicator
                                          TransmitDiversityIndicator,
   iE-Extensions
                                          ProtocolExtensionContainer { { SecondaryCPICH-InformationItem-Cell-SetupRgstFDD-ExtIEs} }
SecondaryCPICH-InformationItem-Cell-SetupRgstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
PrimaryCCPCH-Information-Cell-SetupRqstFDD ::= SEQUENCE {
   commonPhysicalChannelID
                                          CommonPhysicalChannelID,
   bCH-information
                                          BCH-Information-Cell-SetupRqstFDD,
    sTTD-Indicator
                                          STTD-Indicator,
                                          ProtocolExtensionContainer { { PrimaryCCPCH-Information-Cell-SetupRqstFDD-ExtIEs} }
   iE-Extensions
PrimaryCCPCH-Information-Cell-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
BCH-Information-Cell-SetupRqstFDD ::= SEQUENCE {
   commonTransportChannelID
                                          CommonTransportChannelID,
   bCH-Power
                                          DL-Power,
                                          iE-Extensions
                                                                                                                     OPTIONAL,
BCH-Information-Cell-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
Limited-power-increase-information-Cell-SetupRqstFDD ::= SEQUENCE {
   powerRaiseLimit
                                          PowerRaiseLimit,
   dLPowerAveragingWindowSize
                                          DLPowerAveragingWindowSize,
   iE-Extensions
                                          ProtocolExtensionContainer { { Limited-power-increase-information-Cell-SetupRqstFDD-ExtIEs} }
   OPTIONAL,
Limited-power-increase-information-Cell-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
```

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```
IPDLParameter-Information-Cell-SetupRgstFDD::= SEQUENCE {
   iPDL-FDD-Parameters
                                             IPDL-FDD-Parameters.
   iPDL-Indicator
                                             IPDL-Indicator,
                                         ProtocolExtensionContainer { { IPDLParameter-Information-Cell-SetupRqstFDD-ExtIEs} }
   iE-Extensions
                                                                                                                             OPTIONAL,
IPDLParameter-Information-Cell-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ************
-- CELL SETUP REQUEST TDD
  *****************
CellSetupRequestTDD ::= SEQUENCE {
   protocolIEs
                          ProtocolIE-Container
                                               {{CellSetupRequestTDD-IEs}},
                          ProtocolExtensionContainer {{CellSetupRequestTDD-Extensions}}
   protocolExtensions
                                                                                          OPTIONAL,
CellSetupRequestTDD-IEs NBAP-PROTOCOL-IES ::= {
        id-Local-Cell-ID
                                                            CRITICALITY
                                                                           reject
                                                                                      TYPE
                                                                                                             Local-Cell-ID
           PRESENCE mandatory } |
       { ID
             id-C-ID
                                                                CRITICALITY
                                                                               reject
                                                                                          TYPE
                                                                                                             C-ID
       PRESENCE mandatory } |
          id-ConfigurationGenerationID
                                                                                      TYPE
                                                                                                             ConfigurationGenerationID
                                                            CRITICALITY
                                                                           reject
               PRESENCE
                         mandatory }|
                                                                                                             UARFCN
   { ID
           id-UARFCNforNt
                                                                CRITICALITY
                                                                                          TYPE
                                                                               reject
           PRESENCE
                   mandatory }
   { ID
           id-CellParameterID
                                                            CRITICALITY
                                                                           reject
                                                                                      TYPE
                                                                                                             CellParameterID
               PRESENCE
                         mandatory }
          id-MaximumTransmissionPower
                                                                                                             MaximumTransmissionPower
   { ID
                                                            CRITICALITY
                                                                           reject
                                                                                      TYPE
               PRESENCE
                          mandatory }
           id-TransmissionDiversityApplied
                                                            CRITICALITY
                                                                           reject
                                                                                      TYPE
                                                                                                             TransmissionDiversityApplied
               PRESENCE
                         mandatory }|
   { ID
          id-SyncCase
                                                            CRITICALITY
                                                                           reject
                                                                                      TYPE
                                                                                                             SyncCase
       PRESENCE mandatory } |
          id-Synchronisation-Configuration-Cell-SetupRqst
   { ID
                                                                                      TYPE
                                                                                                             Synchronisation-Configuration-
                                                            CRITICALITY
                                                                           reject
Cell-SetupRqst
                  PRESENCE
                             mandatory }|
   { ID
          id-DPCHConstant
                                                            CRITICALITY
                                                                           reject
                                                                                      TYPE
                                                                                                             ConstantValue
               PRESENCE
                          mandatory }|
    { ID
           id-PUSCHConstant
                                                            CRITICALITY
                                                                           reject
                                                                                      TYPE
                                                                                                             ConstantValue
               PRESENCE
                          mandatory
   { ID
           id-PRACHConstant
                                                            CRITICALITY
                                                                           reject
                                                                                      TYPE
                                                                                                             ConstantValue
               PRESENCE
                          mandatory
   { ID
           id-TimingAdvanceApplied
                                                            CRITICALITY
                                                                           reject
                                                                                      TYPE
                                                                                                             TimingAdvanceApplied
               PRESENCE
                         mandatory }|
```

```
id-SCH-Information-Cell-SetupRqstTDD
                                                            CRITICALITY
                                                                           reject
                                                                                                             SCH-Information-Cell-
                                                                                      TYPE
Set.upRast.TDD
                         PRESENCE
                                     optional
                                                 } -- Mandatory for 3.84Mcps TDD, Not Applicable to 1.28Mcps TDD
   { ID id-PCCPCH-Information-Cell-SetupRgstTDD
                                                            CRITICALITY
                                                                           reject.
                                                                                      TYPE
                                                                                                             PCCPCH-Information-Cell-
                                                 } -- Mandatory for 3.84Mcps TDD, Not Applicable to 1.28Mcps TDD
Set.upRast.TDD
                          PRESENCE
                                     optional
          id-TimeSlotConfigurationList-Cell-SetupRqstTDD
                                                            CRITICALITY
                                                                           reject.
                                                                                                             TimeSlotConfigurationList-Cell-
                  PRESENCE optional }, -- Mandatory for 3.84Mcps TDD, Not Applicable to 1.28Mcps TDD
SetupRastTDD
CellSetupRequestTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
          id-TimeSlotConfigurationList-LCR-Cell-SetupRqstTDD
                                                                                                             TimeSlotConfigurationList-LCR-
                                                                CRITICALITY
                                                                               reject
                                                                                          EXTENSION
Cell-SetupRqstTDD
                      PRESENCE
                                 optional } -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD
   { ID
           id-PCCPCH-LCR-Information-Cell-SetupRgstTDD
                                                                CRITICALITY
                                                                               reject
                                                                                          EXTENSION
                                                                                                             PCCPCH-LCR-Information-Cell-
SetupRast.TDD
                          PRESENCE
                                     optional
                                               } -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD
          id-DwPCH-LCR-Information-Cell-SetupRgstTDD
                                                                                          EXTENSION
                                                                                                             DwPCH-LCR-Information-Cell-
    { ID
                                                                CRITICALITY
                                                                               reject
SetupRqstTDD
                         PRESENCE
                                     optional
                                                 } -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD
                                     CRITICALITY
     ID id-ReferenceSFNoffset
                                                    ignore
                                                                    EXTENSION ReferenceSFNoffset
                                                                                                                  PRESENCE optional }
          id-IPDLParameter-Information-Cell-SetupRqstTDD
                                                                                                               IPDLParameter-Information-
     ID
                                                                CRITICALITY
                                                                               reject
                                                                                          EXTENSION
Cell-SetupRgstTDD PRESENCE optional },
SCH-Information-Cell-SetupRqstTDD ::= SEOUENCE {
   commonPhysicalChannelID
                                         CommonPhysicalChannelID,
                                         SyncCaseIndicator-Cell-SetupRgstTDD-PSCH,
   svncCaseIndicator
   sCH-Power
                                         DL-Power.
   tSTD-Indicator
                                         TSTD-Indicator,
   iE-Extensions
                                         ProtocolExtensionContainer { { SCH-Information-Cell-SetupRgstTDD-ExtIEs} } OPTIONAL,
SCH-Information-Cell-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
SyncCaseIndicator-Cell-SetupRqstTDD-PSCH ::= ProtocolIE-Single-Container {{ SyncCaseIndicatorIE-Cell-SetupRqstTDD-PSCH }}
SyncCaseIndicatorIE-Cell-SetupRgstTDD-PSCH NBAP-PROTOCOL-IES ::= {
   PRESENCE
mandatory }
SyncCaseIndicatorItem-Cell-SetupRqstTDD-PSCH ::= CHOICE {
   case1
                                     Case1-Cell-SetupRqstTDD,
                                     Case2-Cell-SetupRgstTDD,
   case2
Case1-Cell-SetupRgstTDD ::= SEOUENCE {
   timeSlot
                                     ProtocolExtensionContainer { CaselItem-Cell-SetupRqstTDD-ExtIEs} }
   iE-Extensions
                                                                                                               OPTIONAL,
   . . .
```

```
CaselItem-Cell-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
Case2-Cell-SetupRgstTDD ::= SEQUENCE {
    sCH-TimeSlot
                                        SCH-TimeSlot,
                                        ProtocolExtensionContainer { { Case2Item-Cell-SetupRqstTDD-ExtIEs} }
    iE-Extensions
                                                                                                                        OPTIONAL,
Case2Item-Cell-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
PCCPCH-Information-Cell-SetupRgstTDD ::= SEQUENCE
    commonPhysicalChannelID
                                            CommonPhysicalChannelID,
    tdd-PhysicalChannelOffset
                                            TDD-PhysicalChannelOffset,
    repetitionPeriod
                                            RepetitionPeriod,
    repetitionLength
                                            RepetitionLength,
    pCCPCH-Power
                                            PCCPCH-Power,
    sCTD-Indicator
                                        SCTD-Indicator,
                                            ProtocolExtensionContainer { { PCCPCH-Information-Cell-SetupRqstTDD-ExtIEs} }
    iE-Extensions
                                                                                                                              OPTIONAL,
    . . .
PCCPCH-Information-Cell-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
TimeSlotConfigurationList-Cell-SetupRqstTDD ::= SEOUENCE (SIZE (1..15)) OF TimeSlotConfigurationItem-Cell-SetupRqstTDD
TimeSlotConfigurationItem-Cell-SetupRqstTDD ::= SEQUENCE {
    timeSlot
                                            TimeSlot,
    timeSlotStatus
                                            TimeSlotStatus,
    timeSlotDirection
                                            TimeSlotDirection,
    iE-Extensions
                                            ProtocolExtensionContainer { { TimeSlotConfigurationItem-Cell-SetupRqstTDD-ExtIEs} }
                                                                                                                                       OPTIONAL,
TimeSlotConfigurationItem-Cell-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
TimeSlotConfigurationList-LCR-Cell-SetupRqstTDD ::= SEQUENCE (SIZE (1..7)) OF TimeSlotConfigurationItem-LCR-Cell-SetupRqstTDD
TimeSlotConfigurationItem-LCR-Cell-SetupRqstTDD ::= SEQUENCE {
    timeSlotLCR
                                            TimeSlotLCR,
    timeSlotStatus
                                            TimeSlotStatus,
    timeSlotDirection
                                            TimeSlotDirection,
                                            ProtocolExtensionContainer { { TimeSlotConfigurationItem-LCR-Cell-SetupRqstTDD-ExtIEs} }
    iE-Extensions
                                                                                                                                          OPTIONAL,
    . . .
```

```
TimeSlotConfigurationItem-LCR-Cell-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
PCCPCH-LCR-Information-Cell-SetupRgstTDD ::= SEQUENCE
   commonPhysicalChannelID
                                         CommonPhysicalChannelID,
   tdd-PhysicalChannelOffset
                                         TDD-PhysicalChannelOffset,
   repetitionPeriod
                                         RepetitionPeriod,
   repetitionLength
                                         RepetitionLength,
   pCCPCH-Power
                                         PCCPCH-Power,
                                     SCTD-Indicator,
   sCTD-Indicator
   tSTD-Indicator
                                         TSTD-Indicator,
                                         ProtocolExtensionContainer { { PCCPCH-LCR-Information-Cell-SetupRqstTDD-ExtIEs} }
   iE-Extensions
                                                                                                                          OPTIONAL,
PCCPCH-LCR-Information-Cell-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
DwPCH-LCR-Information-Cell-SetupRqstTDD ::= SEQUENCE {
                                 CommonPhysicalChannelID,
   commonPhysicalChannelId
   tSTD-Indicator
                                 TSTD-Indicator,
   dwPCH-Power
                                 DwPCH-Power,
                                 ProtocolExtensionContainer { { DwPCH-LCR-Information-Cell-SetupRqstTDD-ExtIEs} }
   iE-Extensions
                                                                                                                  OPTIONAL,
DwPCH-LCR-Information-Cell-SetupRgstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
IPDLParameter-Information-Cell-SetupRqstTDD ::= SEQUENCE {
   iPDL-TDD-Parameters
                                             IPDL-TDD-Parameters,
   iPDL-Indicator
                                             IPDL-Indicator,
                                         ProtocolExtensionContainer { { IPDLParameter-Information-Cell-SetupRqstTDD-ExtIEs} }
   iE-Extensions
                                                                                                                             OPTIONAL,
IPDLParameter-Information-Cell-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  -- CELL SETUP RESPONSE
__ ******************
CellSetupResponse ::= SEQUENCE {
                                                    {{CellSetupResponse-IEs}},
   protocolIEs
                              ProtocolIE-Container
   protocolExtensions
                              ProtocolExtensionContainer {{CellSetupResponse-Extensions}}
                                                                                                             OPTIONAL,
```

```
CellSetupResponse-IEs NBAP-PROTOCOL-IES ::= {
   { ID
          id-CriticalityDiagnostics
                                       CRITICALITY
                                                     ignore
                                                                    TYPE
                                                                           CriticalityDiagnostics
                                                                                                          PRESENCE optional },
CellSetupResponse-Extensions NBAP-PROTOCOL-EXTENSION ::= {
      CELL SETUP FAILURE
__ *********************
CellSetupFailure ::= SEOUENCE {
   protocolIEs
                         ProtocolIE-Container
                                             {{CellSetupFailure-IEs}},
                         ProtocolExtensionContainer {{CellSetupFailure-Extensions}}
   protocolExtensions
                                                                                      OPTIONAL,
CellSetupFailure-IEs NBAP-PROTOCOL-IES ::= {
     ID
         id-Cause
                                           CRITICALITY
                                                         ignore
                                                                       TYPE
                                                                               Cause
                                                                                                                  PRESENCE mandatory
          id-CriticalityDiagnostics
                                                         ignore
                                                                               CriticalityDiagnostics
                                                                                                          PRESENCE optional },
   { ID
                                           CRITICALITY
                                                                       TYPE
CellSetupFailure-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    *****************
  CELL RECONFIGURATION REQUEST FDD
  ************************
CellReconfigurationRequestFDD ::= SEQUENCE {
                                             {{CellReconfigurationRequestFDD-IEs}},
   protocolIEs
                         ProtocolIE-Container
                         ProtocolExtensionContainer {{CellReconfigurationRequestFDD-Extensions}}
   protocolExtensions
                                                                                                          OPTIONAL,
   . . .
CellReconfigurationRequestFDD-IES NBAP-PROTOCOL-IES ::= {
   { ID
          id-C-ID
                                                             CRITICALITY reject
                                                                                      TYPE
                                                                                                        C-ID
          PRESENCE
                    mandatory }|
          id-ConfigurationGenerationID
                                                             CRITICALITY reject
                                                                                      TYPE
                                                                                                        ConfigurationGenerationID
                 PRESENCE
                            mandatory
                                                                                                        MaximumTransmissionPower
   { ID
          id-MaximumTransmissionPower
                                                             CRITICALITY reject
                                                                                      TYPE
                 PRESENCE
                            optional
   { ID
          id-Synchronisation-Configuration-Cell-ReconfRqst
                                                                                      TYPE
                                                                                                        Synchronisation-Configuration-
                                                             CRITICALITY
                                                                           reject
Cell-ReconfRqst
                 PRESENCE
                            optional
                                       } |
```

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```
id-PrimarySCH-Information-Cell-ReconfRqstFDD
                                                                     CRITICALITY reject
                                                                                                 TYPE
                                                                                                                     PrimarySCH-Information-Cell-
ReconfRqstFDD
                        PRESENCE
                                    optional
    { ID
           id-SecondarySCH-Information-Cell-ReconfRgstFDD
                                                                    CRITICALITY reject
                                                                                                 TYPE
                                                                                                                     SecondarySCH-Information-Cell-
ReconfRqstFDD
                        PRESENCE
                                    optional
    { ID
           id-PrimaryCPICH-Information-Cell-ReconfRgstFDD
                                                                     CRITICALITY reject
                                                                                                 TYPE
                                                                                                                     PrimaryCPICH-Information-Cell-
                        PRESENCE
ReconfRastFDD
                                    optional
    { ID
                                                                    CRITICALITY reject
           id-SecondaryCPICH-InformationList-Cell-ReconfRqstFDD
                                                                                                 TYPE
                                                                                                                     SecondaryCPICH-InformationList-
Cell-ReconfRastFDD
                        PRESENCE
                                    optional
                                               } |
    { ID
           id-PrimaryCCPCH-Information-Cell-ReconfRqstFDD
                                                                    CRITICALITY reject
                                                                                                 TYPE
                                                                                                                     PrimaryCCPCH-Information-Cell-
ReconfRqstFDD
                        PRESENCE
                                    optional
CellReconfigurationRequestFDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    {ID id-IPDLParameter-Information-Cell-ReconfRqstFDD
                                                                                                                       IPDLParameter-Information-
                                                                    CRITICALITY
                                                                                     reject
                                                                                                 EXTENSION
Cell-ReconfRqstFDD
                        PRESENCE
                                    optional
    . . .
Synchronisation-Configuration-Cell-ReconfRqst ::= SEOUENCE {
    n-INSYNC-IND
                           N-INSYNC-IND
   n-OUTSYNC-IND
                            N-OUTSYNC-IND,
    t-RLFAILURE
                            T-RLFAILURE,
                            ProtocolExtensionContainer { { Synchronisation-Configuration-Cell-ReconfRqst-ExtIEs} }
    iE-Extensions
                                                                                                                       OPTIONAL,
Synchronisation-Configuration-Cell-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
PrimarySCH-Information-Cell-ReconfRqstFDD ::= SEQUENCE {
    commonPhysicalChannelID
                                            CommonPhysicalChannelID,
    primarySCH-Power
                                            DL-Power,
    iE-Extensions
                                            ProtocolExtensionContainer { { PrimarySCH-Information-Cell-ReconfRgstFDD-ExtIEs} }
                                                                                                                                   OPTIONAL,
PrimarySCH-Information-Cell-ReconfRgstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
SecondarySCH-Information-Cell-ReconfRqstFDD ::= SEQUENCE {
    commonPhysicalChannelID
                                            CommonPhysicalChannelID,
    secondarySCH-Power
                                            DL-Power,
    iE-Extensions
                                            ProtocolExtensionContainer { { SecondarySCH-Information-Cell-ReconfRqstFDD-ExtIEs} }
                                                                                                                                      OPTIONAL,
SecondarySCH-Information-Cell-ReconfRgstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
PrimaryCPICH-Information-Cell-ReconfRqstFDD ::= SEQUENCE {
```

```
commonPhysicalChannelID
                                          CommonPhysicalChannelID,
   primaryCPICH-Power
                                          PrimaryCPICH-Power,
   iE-Extensions
                                          ProtocolExtensionContainer { { PrimaryCPICH-Information-Cell-ReconfRqstFDD-ExtIEs} }
PrimaryCPICH-Information-Cell-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
SecondaryCPICH-InformationList-Cell-ReconfRqstFDD ::= SEQUENCE (SIZE (1..maxSCPICHCell)) OF ProtocolIE-Single-Container {{
InformationItemIE-Cell-ReconfRqstFDD }}
SecondaryCPICH-InformationItemIE-Cell-ReconfRqstFDD NBAP-PROTOCOL-IES ::= {
          id-SecondaryCPICH-InformationItem-Cell-ReconfRgstFDD
                                                                     CRITICALITY
                                                                                                                 TYPE SecondaryCPICH-
InformationItem-Cell-ReconfRqstFDD
                                      PRESENCE
                                                 mandatory}
SecondaryCPICH-InformationItem-Cell-ReconfRqstFDD ::= SEQUENCE
    commonPhysicalChannelID
                                             CommonPhysicalChannelID,
    secondaryCPICH-Power
                                             DL-Power,
   iE-Extensions
                                              ProtocolExtensionContainer { { SecondaryCPICH-InformationItem-Cell-ReconfRqstFDD-ExtIEs} }
   OPTIONAL,
    . . .
SecondaryCPICH-InformationItem-Cell-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
PrimaryCCPCH-Information-Cell-ReconfRqstFDD ::= SEQUENCE {
   bCH-information
                                          BCH-information-Cell-ReconfRqstFDD,
   iE-Extensions
                                          ProtocolExtensionContainer { { PrimaryCCPCH-Information-Cell-ReconfRqstFDD-ExtIEs} }
                                                                                                                               OPTIONAL,
PrimaryCCPCH-Information-Cell-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
BCH-information-Cell-ReconfRqstFDD ::= SEQUENCE {
    commonTransportChannelID
                                          CommonTransportChannelID,
   bCH-Power
                                          DL-Power,
                                          iE-Extensions
                                                                                                                       OPTIONAL,
    . . .
BCH-information-Cell-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
IPDLParameter-Information-Cell-ReconfRqstFDD::= SEQUENCE {
   iPDL-FDD-Parameters
                                             IPDL-FDD-Parameters
                                                                     OPTIONAL,
   iPDL-Indicator
                                              IPDL-Indicator,
```

```
ProtocolExtensionContainer { { IPDLParameter-Information-Cell-ReconfRqstFDD-ExtIEs} }
    iE-Extensions
IPDLParameter-Information-Cell-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
        ****************
-- CELL RECONFIGURATION REQUEST TDD
__ *********************
CellReconfigurationRequestTDD ::= SEQUENCE {
   protocolIEs
                          ProtocolIE-Container
                                              {{CellReconfigurationRequestTDD-IEs}},
                          ProtocolExtensionContainer {{CellReconfigurationRequestTDD-Extensions}}
   protocolExtensions
                                                                                                                OPTIONAL,
CellReconfigurationRequestTDD-IEs NBAP-PROTOCOL-IES ::= {
                                                                                                             C-ID
          id-C-ID
                                                            CRITICALITY
                                                                           reject
                                                                                       TYPE
       PRESENCE mandatory } |
          id-ConfigurationGenerationID
                                                            CRITICALITY
                                                                           reject
                                                                                       TYPE
                                                                                                              ConfigurationGenerationID
               PRESENCE mandatory } |
          id-Synchronisation-Configuration-Cell-ReconfRqst
                                                                                                              Synchronisation-Configuration-
                                                            CRITICALITY
                                                                           reject
                                                                                       TYPE
Cell-ReconfRqst PRESENCE optional }
          id-TimingAdvanceApplied
                                                            CRITICALITY
                                                                           reject
                                                                                       TYPE
                                                                                                             TimingAdvanceApplied
           PRESENCE optional }
   { ID
           id-SCH-Information-Cell-ReconfRqstTDD
                                                                                                             SCH-Information-Cell-
                                                            CRITICALITY
                                                                           reject
                                                                                       TYPE
ReconfRqstTDD
                          PRESENCE optional
                                                 } -- Applicable to 3.84Mcps TDD only
    { ID id-PCCPCH-Information-Cell-ReconfRgstTDD
                                                                                                              PCCPCH-Information-Cell-
                                                            CRITICALITY
                                                                           reject
                                                                                       TYPE
ReconfRqstTDD
                      PRESENCE
                                  optional }|
                                                                                                             MaximumTransmissionPower
    { ID
          id-MaximumTransmissionPower
                                                                           reject
                                                            CRITICALITY
                                                                                       TYPE
                         optional }|
               PRESENCE
    { ID
           id-DPCHConstant
                                                            CRITICALITY
                                                                           reject
                                                                                       TYPE
                                                                                                             ConstantValue
               PRESENCE
                         optional
    { ID
           id-PUSCHConstant
                                                            CRITICALITY
                                                                           reject
                                                                                       TYPE
                                                                                                             ConstantValue
               PRESENCE
                              optional
   { ID
           id-PRACHConstant
                                                            CRITICALITY
                                                                           reject
                                                                                       TYPE
                                                                                                              ConstantValue
               PRESENCE
                         optional }|
    { ID
           id-TimeSlotConfigurationList-Cell-ReconfRqstTDD
                                                            CRITICALITY
                                                                           reject
                                                                                       TYPE
                                                                                                             TimeSlotConfigurationList-Cell-
                  PRESENCE optional }, -- Applicable to 3.84Mcps TDD only
ReconfRqstTDD
CellReconfigurationRequestTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-TimeSlotConfigurationList-LCR-Cell-ReconfRqstTDD
                                                                CRITICALITY
                                                                                                             TimeSlotConfigurationList-LCR-
Cell-ReconfRqstTDD PRESENCE optional} | -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD
    { ID id-DwPCH-LCR-Information-Cell-ReconfRqstTDD
                                                        CRITICALITY
                                                                       reject
                                                                                                             DwPCH-LCR-Information-Cell-
                  PRESENCE optional} | -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD
ReconfRastTDD
    { ID id-IPDLParameter-Information-Cell-ReconfRqstTDD
                                                                CRITICALITY
                                                                               reject
                                                                                           EXTENSION
                                                                                                                IPDLParameter-Information-
Cell-ReconfRqstTDD PRESENCE optional },
```

```
SCH-Information-Cell-ReconfRgstTDD ::= SEQUENCE {
    commonPhysicalChannelID
                                            CommonPhysicalChannelID,
    sCH-Power
                                            DL-Power,
                                            ProtocolExtensionContainer { { PSCH-Information-Cell-ReconfRqstTDD-ExtIEs} }
    iE-Extensions
                                                                                                                             OPTIONAL,
PSCH-Information-Cell-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
PCCPCH-Information-Cell-ReconfRqstTDD ::= SEQUENCE {
                                            CommonPhysicalChannelID,
    commonPhysicalChannelID
   pCCPCH-Power
                                            PCCPCH-Power,
                                            ProtocolExtensionContainer { { PCCPCH-Information-Cell-ReconfRqstTDD-ExtIEs} }
   iE-Extensions
                                                                                                                                OPTIONAL,
PCCPCH-Information-Cell-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
TimeSlotConfigurationList-Cell-ReconfRqstTDD ::= SEQUENCE (SIZE (1..15)) OF TimeSlotConfigurationItem-Cell-ReconfRqstTDD
TimeSlotConfigurationItem-Cell-ReconfRgstTDD ::= SEQUENCE {
    timeSlot
                                            TimeSlot,
    timeSlotStatus
                                            TimeSlotStatus,
    timeSlotDirection
                                            TimeSlotDirection,
                                            ProtocolExtensionContainer { { TimeSlotConfigurationItem-Cell-ReconfRqstTDD-ExtIEs} }
   iE-Extensions
TimeSlotConfigurationItem-Cell-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
TimeSlotConfigurationList-LCR-Cell-ReconfRqstTDD ::= SEQUENCE (SIZE (1..7)) OF TimeSlotConfigurationItem-LCR-Cell-ReconfRqstTDD
TimeSlotConfigurationItem-LCR-Cell-ReconfRqstTDD ::= SEQUENCE {
    timeSlotLCR
                                            TimeSlotLCR,
    timeSlotStatus
                                            TimeSlotStatus,
    timeSlotDirection
                                            TimeSlotDirection,
                                            ProtocolExtensionContainer { TimeSlotConfigurationItem-LCR-Cell-ReconfRqstTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
TimeSlotConfigurationItem-LCR-Cell-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
DwPCH-LCR-Information-Cell-ReconfRqstTDD ::= SEQUENCE
                                            CommonPhysicalChannelID,
    commonPhysicalChannelId
```

```
dwPCH-Power
                                     DwPCH-Power,
   iE-Extensions
                                     OPTIONAL,
DwPCH-LCR-Information-Cell-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
IPDLParameter-Information-Cell-ReconfRgstTDD ::= SEQUENCE {
   iPDL-TDD-Parameters
                                         IPDL-TDD-Parameters
                                                             OPTIONAL,
   iPDL-Indicator
                                         IPDL-Indicator,
   iE-Extensions
                                     ProtocolExtensionContainer { { IPDLParameter-Information-Cell-ReconfRqstTDD-ExtIEs} }
                                                                                                                  OPTIONAL,
IPDLParameter-Information-Cell-ReconfRgstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  -- CELL RECONFIGURATION RESPONSE
  *****************
CellReconfigurationResponse ::= SEQUENCE {
   protocolIEs
                           ProtocolIE-Container
                                               {{CellReconfigurationResponse-IEs}},
                           ProtocolExtensionContainer {{CellReconfigurationResponse-Extensions}}
   protocolExtensions
                                                                                                     OPTIONAL,
CellReconfigurationResponse-IEs NBAP-PROTOCOL-IES ::= {
         id-CriticalityDiagnostics
   { ID
                                     CRITICALITY
                                                                 TYPE
                                                                        CriticalityDiagnostics
                                                                                                     PRESENCE optional },
                                                   ignore
   . . .
CellReconfigurationResponse-Extensions NBAP-PROTOCOL-EXTENSION ::= {
-- CELL RECONFIGURATION FAILURE
__ *********************
CellReconfigurationFailure ::= SEQUENCE {
   protocolIEs
                       ProtocolIE-Container
                                            {{CellReconfigurationFailure-IEs}},
                       ProtocolExtensionContainer {{CellReconfigurationFailure-Extensions}}
   protocolExtensions
                                                                                                     OPTIONAL,
CellReconfigurationFailure-IEs NBAP-PROTOCOL-IES ::= {
```

```
id-Cause
   { ID
                                    CRITICALITY
                                                              TYPE
                                                                                                         PRESENCE
                                                 ignore
                                                                     Cause
   mandatory }
   { ID
         id-CriticalityDiagnostics
                                    CRITICALITY
                                                 ignore
                                                              TYPE
                                                                     CriticalityDiagnostics
                                                                                                    PRESENCE optional },
CellReconfigurationFailure-Extensions NBAP-PROTOCOL-EXTENSION ::= {
     ****************
-- CELL DELETION REQUEST
__ *********************
CellDeletionRequest ::= SEQUENCE {
   protocolIEs
                      ProtocolIE-Container {{CellDeletionRequest-IEs}},
                      ProtocolExtensionContainer {{CellDeletionRequest-Extensions}}
   protocolExtensions
                                                                               OPTIONAL,
CellDeletionRequest-IEs NBAP-PROTOCOL-IES ::= {
   { ID
         id-C-ID
                      CRITICALITY
                                                        C-ID
                                                                  PRESENCE
                                                                           mandatory },
CellDeletionRequest-Extensions NBAP-PROTOCOL-EXTENSION ::= {
  -- CELL DELETION RESPONSE
__ *********************
CellDeletionResponse ::= SEQUENCE {
                      ProtocolIE-Container
                                         {{CellDeletionResponse-IEs}},
   protocolIEs
   protocolExtensions
                      ProtocolExtensionContainer {{CellDeletionResponse-Extensions}}
                                                                               OPTIONAL,
CellDeletionResponse-IEs NBAP-PROTOCOL-IES ::= {
   { ID
         id-CriticalityDiagnostics
                                                                     CriticalityDiagnostics
                                                                                                 PRESENCE optional },
                                    CRITICALITY
                                                 ignore
                                                              TYPE
CellDeletionResponse-Extensions NBAP-PROTOCOL-EXTENSION ::= {
  ******************
```

```
-- RESOURCE STATUS INDICATION
  *****************
ResourceStatusIndication ::= SEQUENCE {
                         ProtocolIE-Container
                                               {{ResourceStatusIndication-IEs}},
   protocolIEs
                         ProtocolExtensionContainer {{ResourceStatusIndication-Extensions}}
   protocolExtensions
                                                                                                          OPTIONAL,
ResourceStatusIndication-IEs NBAP-PROTOCOL-IES ::= {
   { ID
          id-IndicationType-ResourceStatusInd
                                                   CRITICALITY
                                                                  ignore
                                                                                        IndicationType-ResourceStatusInd
                                                                                                                          PRESENCE
   mandatory } |
   { ID
         id-Cause
                                                   CRITICALITY
                                                                  ignore
                                                                                 TYPE
                                                                                                                                PRESENCE
                                                                                        Cause
   optional },
ResourceStatusIndication-Extensions NBAP-PROTOCOL-EXTENSION ::= {
IndicationType-ResourceStatusInd ::= CHOICE {
   no-Failure
                                        No-Failure-ResourceStatusInd,
   serviceImpacting
                                        ServiceImpacting-ResourceStatusInd,
   . . .
No-Failure-ResourceStatusInd ::= SEQUENCE {
   local-Cell-InformationList
                                        Local-Cell-InformationList-ResourceStatusInd,
   local-Cell-Group-InformationList
                                        Local-Cell-Group-InformationList-ResourceStatusInd OPTIONAL,
                                        ProtocolExtensionContainer { { No-FailureItem-ResourceStatusInd-ExtIEs} } OPTIONAL,
   iE-Extensions
   . . .
No-FailureItem-ResourceStatusInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
Local-Cell-InformationList-ResourceStatusInd ::= SEOUENCE(SIZE (1..maxLocalCellinNodeB)) OF ProtocolIE-Single-Container {{ Local-Cell-
InformationItemIE-ResourceStatusInd }}
Local-Cell-InformationItemIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
   PRESENCE
mandatory }
Local-Cell-InformationItem-ResourceStatusInd ::= SEQUENCE {
   local-CellID
                                            Local-Cell-ID,
   addorDeleteIndicator
                                            AddorDeleteIndicator,
   dl-or-global-capacityCredit
                                            DL-or-Global-CapacityCredit
                                                                         OPTIONAL,
   -- This IE shall be present if AddorDeleteIndicator IE is set to 'add'
   ul-capacityCredit
                                            UL-CapacityCredit
                                                                  OPTIONAL,
   commonChannelsCapacityConsumptionLaw
                                            CommonChannelsCapacityConsumptionLaw
                                                                                 OPTIONAL,
```

```
-- This IE shall be present if AddorDeleteIndicator IE is set to 'add'
   dedicatedChannelsCapacityConsumptionLaw
                                              DedicatedChannelsCapacityConsumptionLaw
                                                                                        OPTIONAL.
    -- This IE shall be present if AddorDeleteIndicator IE is set to 'add'
   maximumDL-PowerCapability
                                              MaximumDL-PowerCapability
                                                                             OPTIONAL.
    -- This IE shall be present if AddorDeleteIndicator IE is set to 'add'
   minSpreadingFactor
                                              MinSpreadingFactor
                                                                                 OPTIONAL,
    -- This IE shall be present if AddorDeleteIndicator IE is set to 'add'
   minimumDL-PowerCapability
                                              MinimumDL-PowerCapability
                                                                             OPTIONAL,
    -- This IE shall be present if AddorDeleteIndicator IE is set to 'add'
    local-Cell-Group-ID
                                              Local-Cell-ID
                                                                             OPTIONAL,
    iE-Extensions
                                              ProtocolExtensionContainer { { Local-Cell-InformationItem-ResourceStatusInd-ExtIEs} } OPTIONAL,
    . . .
Local-Cell-InformationItem-ResourceStatusInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
          id-ReferenceClockAvailability
                                              CRITICALITY
                                                             ignore
                                                                             EXTENSION ReferenceClockAvailability
                                                                                                                       PRESENCE optional },
    -- This IE shall be present if AddorDeleteIndicator IE is set to 'add' and the Local Cell is related to a TDD cell
Local-Cell-Group-InformationList-ResourceStatusInd ::= SEQUENCE(SIZE (1..maxLocalCellinNodeB)) OF ProtocolIE-Single-Container {{ Local-Cell-Group-
InformationItemIE-ResourceStatusInd }}
Local-Cell-Group-InformationItemIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
    PRESENCE mandatory }
Local-Cell-Group-InformationItem-ResourceStatusInd::= SEQUENCE {
    local-Cell-Group-ID
                                              Local-Cell-ID,
    dl-or-global-capacityCredit
                                              DL-or-Global-CapacityCredit,
    ul-capacityCredit
                                              UL-CapacityCredit
                                                                     OPTIONAL,
    commonChannelsCapacityConsumptionLaw
                                              CommonChannelsCapacityConsumptionLaw,
    dedicatedChannelsCapacityConsumptionLaw
                                              DedicatedChannelsCapacityConsumptionLaw,
   iE-Extensions
                                              ProtocolExtensionContainer { { Local-Cell-Group-InformationItem-ResourceStatusInd-ExtIEs} }
   OPTIONAL,
Local-Cell-Group-InformationItem-ResourceStatusInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::=
ServiceImpacting-ResourceStatusInd ::= SEQUENCE {
   local-Cell-InformationList
                                          Local-Cell-InformationList2-ResourceStatusInd
   local-Cell-Group-InformationList
                                          Local-Cell-Group-InformationList2-ResourceStatusInd OPTIONAL.
    cCP-InformationList
                                          CCP-InformationList-ResourceStatusInd
                                                                                        OPTIONAL,
                                          Cell-InformationList-ResourceStatusInd
   cell-InformationList
                                                                                        OPTIONAL,
   iE-Extensions
                                          ProtocolExtensionContainer { { ServiceImpactingItem-ResourceStatusInd-ExtIEs} }
                                                                                                                          OPTIONAL,
    . . .
ServiceImpactingItem-ResourceStatusInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
```

```
Local-Cell-InformationList2-ResourceStatusInd ::= SEQUENCE(SIZE (1..maxLocalCellinNodeB)) OF ProtocolIE-Single-Container {{ Local-Cell-
InformationItemIE2-ResourceStatusInd }}
Local-Cell-InformationItemIE2-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
    PRESENCE
mandatory }
Local-Cell-InformationItem2-ResourceStatusInd ::= SEQUENCE {
   local-Cell-ID
                                        Local-Cell-ID,
   dl-or-global-capacityCredit
                                        DL-or-Global-CapacityCredit
                                                                      OPTIONAL.
   ul-capacityCredit
                                        UL-CapacityCredit
                                                                      OPTIONAL.
   commonChannelsCapacityConsumptionLaw
                                            CommonChannelsCapacityConsumptionLaw
                                                                                 OPTIONAL,
   dedicatedChannelsCapacityConsumptionLaw
                                            DedicatedChannelsCapacityConsumptionLaw OPTIONAL,
                                        MaximumDL-PowerCapability
   maximum-DL-PowerCapability
                                                                      OPTIONAL,
   minSpreadingFactor
                                        MinSpreadingFactor
                                                                      OPTIONAL,
                                        MinimumDL-PowerCapability
   minimumDL-PowerCapability
                                                                      OPTIONAL,
                                        ProtocolExtensionContainer { { Local-Cell-InformationItem2-ResourceStatusInd-ExtIEs} }
   iE-Extensions
   . . .
Local-Cell-InformationItem2-ResourceStatusInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::=
    { ID
          id-ReferenceClockAvailability
                                            CRITICALITY
                                                           ignore
                                                                          EXTENSION ReferenceClockAvailability
                                                                                                                   PRESENCE optional },
   . . .
Local-Cell-Group-InformationList2-ResourceStatusInd ::= SEOUENCE(SIZE (1..maxLocalCellinNodeB)) OF ProtocolIE-Single-Container {{ Local-Cell-Group-
InformationItemIE2-ResourceStatusInd }}
Local-Cell-Group-InformationItemIE2-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
    TYPE Local-Cell-Group-InformationItem2-ResourceStatusInd
   PRESENCE mandatory }
Local-Cell-Group-InformationItem2-ResourceStatusInd ::= SEQUENCE {
   local-Cell-Group-ID
                                        Local-Cell-ID,
   dl-or-global-capacityCredit
                                        DL-or-Global-CapacityCredit
                                                                      OPTIONAL,
   ul-capacityCredit
                                        UL-CapacityCredit
                                                                      OPTIONAL,
   commonChannelsCapacityConsumptionLaw
                                            CommonChannelsCapacityConsumptionLaw
                                                                                 OPTIONAL,
   dedicatedChannelsCapacityConsumptionLaw
                                            DedicatedChannelsCapacityConsumptionLaw OPTIONAL,
                                        ProtocolExtensionContainer { { Local-Cell-Group-InformationItem2-ResourceStatusInd-ExtIEs} }
   iE-Extensions
   OPTIONAL,
   . . .
Local-Cell-Group-InformationItem2-ResourceStatusInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
CCP-InformationList-ResourceStatusInd ::= SEOUENCE (SIZE (1..maxCCPinNodeB)) OF ProtocolIE-Single-Container {{ CCP-InformationItemIE-
ResourceStatusInd }}
```

```
CCP-InformationItemIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
   PRESENCE mandatory }
CCP-InformationItem-ResourceStatusInd ::= SEOUENCE {
   communicationControlPortID
                                       CommunicationControlPortID,
   resourceOperationalState
                                       ResourceOperationalState,
   availabilityStatus
                                       AvailabilityStatus,
   iE-Extensions
                                       OPTIONAL,
CCP-InformationItem-ResourceStatusInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
Cell-InformationList-ResourceStatusInd ::= SEOUENCE (SIZE (1..maxCellinNodeB)) OF ProtocolIE-Single-Container {{ Cell-InformationItemIE-
ResourceStatusInd }}
Cell-InformationItemIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
   PRESENCE mandatory }
Cell-InformationItem-ResourceStatusInd ::= SEOUENCE {
                                       C-ID,
   resourceOperationalState
                                       ResourceOperationalState
                                                                                   OPTIONAL.
   availabilityStatus
                                       AvailabilityStatus
                                                                                   OPTIONAL,
   primary-SCH-Information
                                       P-SCH-Information-ResourceStatusInd
                                                                                   OPTIONAL, -- FDD only
   secondary-SCH-Information
                                       S-SCH-Information-ResourceStatusInd
                                                                                   OPTIONAL, -- FDD only
                                                                                   OPTIONAL, -- FDD only
   primary-CPICH-Information
                                        P-CPICH-Information-ResourceStatusInd
                                                                                   OPTIONAL, -- FDD only
   secondary-CPICH-Information
                                       S-CPICH-InformationList-ResourceStatusInd
   primary-CCPCH-Information
                                                                                   OPTIONAL,
                                       P-CCPCH-Information-ResourceStatusInd
   bCH-Information
                                       BCH-Information-ResourceStatusInd
                                                                                   OPTIONAL,
   secondary-CCPCH-InformationList
                                       S-CCPCH-InformationList-ResourceStatusInd
                                                                                   OPTIONAL,
   pCH-Information
                                       PCH-Information-ResourceStatusInd
                                                                                   OPTIONAL,
   pICH-Information
                                       PICH-Information-ResourceStatusInd
                                                                                   OPTIONAL,
   fACH-InformationList
                                       FACH-InformationList-ResourceStatusInd
                                                                                   OPTIONAL,
   pRACH-InformationList
                                       PRACH-InformationList-ResourceStatusInd
                                                                                   OPTIONAL,
                                       RACH-InformationList-ResourceStatusInd
   rACH-InformationList
                                                                                   OPTIONAL,
   aICH-InformationList
                                       AICH-InformationList-ResourceStatusInd
                                                                                   OPTIONAL, -- FDD only
                                                                                   OPTIONAL, -- FDD only
   pCPCH-InformationList
                                       PCPCH-InformationList-ResourceStatusInd
   cPCH-InformationList
                                       CPCH-InformationList-ResourceStatusInd
                                                                                   OPTIONAL, -- FDD only
                                                                                   OPTIONAL, -- FDD only
   aP-AICH-InformationList
                                       AP-AICH-InformationList-ResourceStatusInd
   cDCA-ICH-InformationList
                                       CDCA-ICH-InformationList-ResourceStatusInd
                                                                                   OPTIONAL, -- FDD only
                                                                                   OPTIONAL, -- Applicable to 3.84Mcps TDD only
   sCH-Information
                                       SCH-Information-ResourceStatusInd
   iE-Extensions
                                       ProtocolExtensionContainer { { Cell-InformationItem-ResourceStatusInd-ExtIEs} } OPTIONAL,
Cell-InformationItem-ResourceStatusInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-FPACH-LCR-InformationList-ResourceStatusInd
                                                      CRITICALITY ignore
                                                                            EXTENSION
                                                                                       FPACH-LCR-InformationList-ResourceStatusInd
   PRESENCE optional } | -- Applicable to 1.28Mcps TDD only
   { ID id-DwPCH-LCR-Information-ResourceStatusInd
                                                      CRITICALITY ignore
                                                                                       DwPCH-LCR-Information-ResourceStatusInd
                                                                            EXTENSION
   PRESENCE optional }, -- Applicable to 1.28Mcps TDD only
```

```
P-SCH-Information-ResourceStatusInd ::= ProtocolIE-Single-Container {{ P-SCH-InformationIE-ResourceStatusInd }}
P-SCH-InformationIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
   PRESENCE mandatory }
S-SCH-Information-ResourceStatusInd ::= ProtocolIE-Single-Container {{ S-SCH-InformationIE-ResourceStatusInd }}
S-SCH-InformationIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
   PRESENCE mandatory }
P-CPICH-Information-ResourceStatusInd ::= ProtocolIE-Single-Container {{ P-CPICH-InformationIE-ResourceStatusInd }}
P-CPICH-InformationIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
   { ID id-P-CPICH-Information CRITICALITY ignore
                                        TYPE Common-PhysicalChannel-Status-Information
                                                                                         PRESENCE mandatory }
S-CPICH-InformationList-ResourceStatusInd ::= SEQUENCE (SIZE (1..maxSCPICHCell)) OF ProtocolIE-Single-Container {{ S-CPICH-InformationItemIE-
ResourceStatusInd }}
S-CPICH-InformationItemIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
   PRESENCE mandatory }
P-CCPCH-Information-ResourceStatusInd ::= ProtocolIE-Single-Container {{ P-CCPCH-InformationIE-ResourceStatusInd }}
P-CCPCH-InformationIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
   TYPE Common-PhysicalChannel-Status-Information
                                                                                         PRESENCE mandatory }
BCH-Information-ResourceStatusInd ::= ProtocolIE-Single-Container {{ BCH-InformationIE-ResourceStatusInd }}
BCH-InformationIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
   PRESENCE mandatory }
S-CCPCH-InformationList-ResourceStatusInd ::= SEQUENCE (SIZE (1..maxSCCPCHCell)) OF ProtocolIE-Single-Container {{ S-CCPCH-InformationItemIE-
ResourceStatusInd }}
S-CCPCH-InformationItemIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
   PRESENCE mandatory }
PCH-Information-ResourceStatusInd ::= ProtocolIE-Single-Container {{ PCH-InformationIE-ResourceStatusInd }}
PCH-InformationIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
   PRESENCE mandatory }
PICH-Information-ResourceStatusInd ::= ProtocolIE-Single-Container {{ PICH-InformationIE-ResourceStatusInd }}
```

```
PICH-InformationIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
   PRESENCE mandatory }
FACH-InformationList-ResourceStatusInd ::= SEOUENCE (SIZE (1..maxFACHCell)) OF ProtocolIE-Single-Container {{ FACH-InformationItemIE-
ResourceStatusInd }}
FACH-InformationItemIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
  PRESENCE mandatory }
PRACH-InformationList-ResourceStatusInd ::= SEOUENCE (SIZE (1..maxPRACHCell)) OF ProtocolIE-Single-Container {{ PRACH-InformationItemIE-
ResourceStatusInd }}
PRACH-InformationItemIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
  PRESENCE mandatory }
RACH-InformationList-ResourceStatusInd ::= SEQUENCE (SIZE (1..maxPRACHCell)) OF ProtocolIE-Single-Container {{ RACH-InformationItemIE-
ResourceStatusInd }}
RACH-InformationItemIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
  PRESENCE mandatory }
AICH-InformationList-ResourceStatusInd ::= SEQUENCE (SIZE (1..maxPRACHCell)) OF ProtocolIE-Single-Container {{ AICH-InformationItemIE-
ResourceStatusInd }}
AICH-InformationItemIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
  PRESENCE mandatory }
PCPCH-InformationList-ResourceStatusInd ::= SEQUENCE (SIZE (1..maxPCPCHCell)) OF ProtocolIE-Single-Container {{ PCPCH-InformationItemIE-
ResourceStatusInd }}
PCPCH-InformationItemIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
   PRESENCE optional }
CPCH-InformationList-ResourceStatusInd ::= SEQUENCE (SIZE (1..maxCPCHCell)) OF ProtocolIE-Single-Container {{ CPCH-InformationItemIE-
ResourceStatusInd }}
CPCH-InformationItemIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
   PRESENCE optional }
AP-AICH-InformationList-ResourceStatusInd ::= SEQUENCE (SIZE (1..maxCPCHCell)) OF ProtocolIE-Single-Container {{ AP-AICH-InformationItemIE-
ResourceStatusInd }}
AP-AICH-InformationItemIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
  { ID id-AP-AICH-Information CRITICALITY ignore TYPE Common-PhysicalChannel-Status-Information
                                                                                       PRESENCE optional }
```

```
CDCA-ICH-InformationList-ResourceStatusInd ::= SEQUENCE (SIZE (1..maxCPCHCell)) OF ProtocolIE-Single-Container {{ CDCA-ICH-InformationItemIE-
ResourceStatusInd }}
CDCA-ICH-InformationItemIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
   PRESENCE optional }
SCH-Information-ResourceStatusInd ::= ProtocolIE-Single-Container {{ SCH-InformationIE-ResourceStatusInd }}
SCH-InformationIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
   { ID id-SCH-Information CRITICALITY ignore TYPE Common-PhysicalChannel-Status-Information
                                                                                                   PRESENCE mandatory }
FPACH-LCR-InformationList-ResourceStatusInd ::= SEQUENCE (SIZE (1..maxFPACHCell)) OF ProtocolIE-Single-Container {{ FPACH-LCR-InformationItemIE-
ResourceStatusInd }}
FPACH-LCR-InformationItemIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
   PRESENCE mandatory }
DwPCH-LCR-Information-ResourceStatusInd ::= ProtocolIE-Single-Container {{ DwPCH-LCR-InformationIE-ResourceStatusInd }}
DwPCH-LCR-InformationIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
   PRESENCE mandatory }
     *****************
-- SYSTEM INFORMATION UPDATE REQUEST
SystemInformationUpdateRequest ::= SEQUENCE {
                      ProtocolIE-Container
                                          {{SystemInformationUpdateRequest-IEs}},
   protocolIEs
                      ProtocolExtensionContainer {{SystemInformationUpdateRequest-Extensions}}
   protocolExtensions
                                                                                                   OPTIONAL,
SystemInformationUpdateRequest-IEs NBAP-PROTOCOL-IES ::= {
   { ID
         id-C-ID
                                                     CRITICALITY reject
                                                                         TYPE
                                                                                C-ID
   PRESENCE mandatory }
         id-BCCH-ModificationTime
                                                     CRITICALITY reject
                                                                         TYPE
                                                                                BCCH-ModificationTime
                                                                                                             PRESENCE optional
                                                        CRITICALITY reject
   { ID id-MIB-SB-SIB-InformationList-SystemInfoUpdateRqst
                                                                            TYPE
                                                                                                MIB-SB-SIB-InformationList-
SystemInfoUpdateRgst PRESENCE mandatory },
SystemInformationUpdateRequest-Extensions NBAP-PROTOCOL-EXTENSION ::= {
MIB-SB-SIB-InformationList-SystemInfoUpdateRqst ::= SEQUENCE (SIZE (1..maxIB)) OF MIB-SB-SIB-InformationItem-SystemInfoUpdateRqst
```

```
MIB-SB-SIB-InformationItem-SystemInfoUpdateRqst ::= SEQUENCE {
   iB-Type
                                     IB-Type,
   iB-OC-ID
                                     IB-OC-ID.
   deletionIndicator
                                     DeletionIndicator-SystemInfoUpdate,
   iE-Extensions
                                     ProtocolExtensionContainer { { MIB-SB-SIB-InformationItem-SystemInfoUpdateRqst-ExtIEs} }
                                                                                                                            OPTIONAL.
MIB-SB-SIB-InformationItem-SystemInfoUpdateRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
DeletionIndicator-SystemInfoUpdate ::= CHOICE {
   no-Deletion
                                     No-Deletion-SystemInfoUpdate,
   yes-Deletion
                                     NULL
No-Deletion-SystemInfoUpdate ::= SEQUENCE {
   sIB-Originator
                                        SIB-Originator
                                                                   OPTIONAL,
   -- This IE shall be present if the IB-Type IE is set to "SIB"
   iB-SG-REP
                                        IB-SG-REP
                                                                   OPTIONAL,
   segmentInformationList
                                        SegmentInformationList-SystemInfoUpdate,
   iE-Extensions
                                        ProtocolExtensionContainer { { No-DeletionItem-SystemInfoUpdate-ExtIEs} } }
                                                                                                                 OPTIONAL.
No-DeletionItem-SystemInfoUpdate-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
SegmentInformationList-SystemInfoUpdate ::= ProtocolIE-Single-Container {{ SegmentInformationListIEs-SystemInfoUpdate }}
SegmentInformationListIEs-SystemInfoUpdate NBAP-PROTOCOL-IES ::= {
    PRESENCE mandatory
SegmentInformationListIE-SystemInfoUpdate ::= SEQUENCE (SIZE (1..maxIBSEG)) OF SegmentInformationItem-SystemInfoUpdate
SegmentInformationItem-SystemInfoUpdate ::= SEQUENCE {
   iB-SG-POS
                                        IB-SG-POS
                                                           OPTIONAL,
   segment-Type
                                        Segment-Type
                                                           OPTIONAL,
   -- This IE shall be present if the SIB Originator IE is set to "CRNC" or the IB-Type IE is set to "MIB", "SB1" or "SB2"
                                        IB-SG-DATA
                                                           OPTIONAL,
   -- This IE shall be present if the SIB Originator IE is set to "CRNC" or the IB-Type IE is set to "MIB", "SB1" or "SB2"
   iE-Extensions
                                        ProtocolExtensionContainer { { SegmentInformationItem-SystemInfoUpdate-ExtIEs} } OPTIONAL,
   . . .
SegmentInformationItem-SystemInfoUpdate-ExtlEs NBAP-PROTOCOL-EXTENSION ::= {
__ **********************
```

```
-- SYSTEM INFORMATION UPDATE RESPONSE
  *****************
SystemInformationUpdateResponse ::= SEQUENCE {
                                            {{SystemInformationUpdateResponse-IEs}},
   protocolIEs
                       ProtocolIE-Container
   protocolExtensions
                       ProtocolExtensionContainer {{SystemInformationUpdateResponse-Extensions}}
                                                                                                      OPTIONAL,
SystemInformationUpdateResponse-IEs NBAP-PROTOCOL-IES ::= {
         id-CriticalityDiagnostics
                                                                 TYPE
                                                                        CriticalityDiagnostics
                                                                                                      PRESENCE optional },
                                     CRITICALITY
                                                   ignore
SystemInformationUpdateResponse-Extensions NBAP-PROTOCOL-EXTENSION ::= {
   SYSTEM INFORMATION UPDATE FAILURE
  SystemInformationUpdateFailure ::= SEQUENCE
   protocolIEs
                       ProtocolIE-Container
                                            {{SystemInformationUpdateFailure-IEs}},
                        ProtocolExtensionContainer {{SystemInformationUpdateFailure-Extensions}}
   protocolExtensions
                                                                                                      OPTIONAL,
SystemInformationUpdateFailure-IES NBAP-PROTOCOL-IES ::= {
    ID
         id-Cause
                                         CRITICALITY
                                                                                                              PRESENCE mandatory
                                                       ignore
                                                                     TYPE
                                                                            Cause
          id-CriticalityDiagnostics
   { ID
                                         CRITICALITY
                                                       ignore
                                                                     TYPE
                                                                            CriticalityDiagnostics
                                                                                                      PRESENCE optional },
SystemInformationUpdateFailure-Extensions NBAP-PROTOCOL-EXTENSION ::= {
-- RADIO LINK SETUP REQUEST FDD
  ******************
RadioLinkSetupRequestFDD ::= SEQUENCE {
                                           {{RadioLinkSetupRequestFDD-IEs}},
   protocolIEs
                       ProtocolIE-Container
   protocolExtensions
                       ProtocolExtensionContainer {{RadioLinkSetupRequestFDD-Extensions}}
                                                                                                      OPTIONAL,
```

```
RadioLinkSetupRequestFDD-IEs NBAP-PROTOCOL-IES ::= {
           id-CRNC-CommunicationContextID
                                                            CRITICALITY reject.
                                                                                            TYPE
                                                                                                                    CRNC-CommunicationContextID
                PRESENCE
                           mandatory }|
           id-UL-DPCH-Information-RL-SetupRqstFDD
                                                            CRITICALITY reject
                                                                                            TYPE
                                                                                                                    UL-DPCH-Information-RL-
    { ID
                        PRESENCE
                                    mandatory }|
SetupRastFDD
    { ID
                                                                                                                    DL-DPCH-Information-RL-
           id-DL-DPCH-Information-RL-SetupRgstFDD
                                                            CRITICALITY reject
                                                                                            TYPE
                                   mandatory }|
SetupRastFDD
                       PRESENCE
     TD
           id-DCH-FDD-Information
                                           CRITICALITY reject
                                                                            TYPE
                                                                                    DCH-FDD-Information
                                                                                                                         PRESENCE mandatory } |
                                                                                                                      PRESENCE optional }
     TD
           id-DSCH-FDD-Information
                                            CRITICALITY reject
                                                                            TYPE
                                                                                    DSCH-FDD-Information
           id-TFCI2-Bearer-Information-RL-SetupRqstFDD
                                                                                            TYPE
                                                                                                                    TFCI2-Bearer-Information-RL-
     TD
                                                            CRITICALITY ignore
SetupRastFDD
               PRESENCE
                           optional
    { ID
           id-RL-InformationList-RL-SetupRqstFDD
                                                            CRITICALITY notify
                                                                                            TYPE
                                                                                                                    RL-InformationList-RL-
SetupRast.FDD
                        PRESENCE
                                   mandatory } |
  { ID id-Transmission-Gap-Pattern-Sequence-Information
                                                                                            TYPE Transmission-Gap-Pattern-Sequence-Information
                                                            CRITICALITY reject
  PRESENCE optional } |
{ ID id-Active-Pattern-Sequence-Information
                                                        CRITICALITY reject
                                                                                        TYPE Active-Pattern-Sequence-Information
  optional },
    . . .
RadioLinkSetupRequestFDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
     ID id-DSCH-FDD-Common-Information
                                                        CRITICALITY ignore EXTENSION DSCH-FDD-Common-Information
                                                                                                                                  PRESENCE optional
UL-DPCH-Information-RL-SetupRgstFDD ::= SEOUENCE {
    ul-ScramblingCode
                                            UL-ScramblingCode,
    minUL-ChannelisationCodeLength
                                            MinUL-ChannelisationCodeLength,
    maxNrOfUL-DPDCHs
                                            MaxNrOfUL-DPDCHs
                                                                    OPTIONAL.
    -- This IE shall be present if Min UL Channelisation Code length IE is set to 4 --
    ul-PunctureLimit
                                            PunctureLimit,
    t FCS
                                            TFCS,
    ul-DPCCH-SlotFormat
                                            UL-DPCCH-SlotFormat,
    ul-SIR-Target
                                            UL-SIR,
    diversityMode
                                            DiversityMode,
    sSDT-CellID-Length
                                            SSDT-CellID-Length
                                                                    OPTIONAL,
    s-FieldLength
                                            S-FieldLength
                                                                    OPTIONAL,
    iE-Extensions
                                            ProtocolExtensionContainer { { UL-DPCH-Information-RL-SetupRgstFDD-ExtIEs} } OPTIONAL,
UL-DPCH-Information-RL-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
                           CRITICALITY reject EXTENSION DPC-Mode
    {ID id-DPC-Mode
                                                                        PRESENCE optional
DL-DPCH-Information-RL-SetupRqstFDD ::= SEQUENCE {
    t.FCS
                                            TFCS,
    dl-DPCH-SlotFormat
                                            DL-DPCH-SlotFormat,
    tFCI-SignallingMode
                                            TFCI-SignallingMode,
                                           TFCI-Presence OPTIONAL,
    tFCI-Presence
    -- this IE shall be present if the DL DPCH slot format IE is set to any of the values from 12 to 16 --
```

```
multiplexingPosition
                                            MultiplexingPosition,
    pDSCH-RL-ID
                                            RL-ID
                                                         OPTIONAL.
    -- This IE shall be present if the DSCH Information IE is present --
    pDSCH-CodeMapping
                                            PDSCH-CodeMapping
                                                                    OPTIONAL,
    -- This IE shall be present if the DSCH Information IE is present --
    powerOffsetInformation
                                            PowerOffsetInformation-RL-SetupRqstFDD,
    fdd-TPC-DownlinkStepSize
                                            FDD-TPC-DownlinkStepSize,
    limitedPowerIncrease
                                            LimitedPowerIncrease,
    innerLoopDLPCStatus
                                            InnerLoopDLPCStatus,
                                            ProtocolExtensionContainer { { DL-DPCH-Information-RL-SetupRqstFDD-ExtIEs} } OPTIONAL,
    iE-Extensions
DL-DPCH-Information-RL-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
PowerOffsetInformation-RL-SetupRgstFDD ::= SEQUENCE {
                                            PowerOffset.
    pO1-ForTFCI-Bits
                                            PowerOffset,
   pO2-ForTPC-Bits
   pO3-ForPilotBits
                                            PowerOffset,
                                            ProtocolExtensionContainer { { PowerOffsetInformation-RL-SetupRqstFDD-ExtIEs} } OPTIONAL,
   iE-Extensions
PowerOffsetInformation-RL-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
TFCI2-Bearer-Information-RL-SetupRqstFDD ::= SEQUENCE {
    toAWS
                                        ToAWS,
    toAWE
                                        ToAWE,
    iE-Extensions
                                        ProtocolExtensionContainer { { TFCI2-Bearer-Information-RL-SetupRqstFDD-ExtIEs} }
TFCI2-Bearer-Information-RL-SetupRqstFDD-ExtlEs NBAP-PROTOCOL-EXTENSION ::= {
RL-InformationList-RL-SetupRqstFDD ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF
    ProtocolIE-Single-Container{{    RL-InformationItemIE-RL-SetupRqstFDD }}
RL-InformationItemIE-RL-SetupRqstFDD NBAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationItem-RL-SetupRgstFDD
                                                            CRITICALITY
                                                                                                                    RL-InformationItem-RL-
                                                                            notify
                                                                                            TYPE
SetupRqstFDD
                   PRESENCE mandatory}
RL-InformationItem-RL-SetupRqstFDD ::= SEQUENCE {
    rL-ID
                                        RL-ID,
    c-ID
                                        C-ID,
    firstRLS-indicator
                                        FirstRLS-Indicator,
    frameOffset
                                        FrameOffset,
    chipOffset
                                        ChipOffset,
```

```
propagationDelay
                                     PropagationDelay
                                                               OPTIONAL,
   diversityControlField
                                     DiversityControlField
                                                               OPTIONAL.
   -- This IE shall be present if the RL is not the first one in the RL Information IE
   dl-CodeInformation
                                     FDD-DL-CodeInformation.
   initialDL-transmissionPower
                                     DL-Power.
   maximumDL-power
                                     DL-Power,
   minimumDL-power
                                     DL-Power,
   sSDT-Cell-Identity
                                     SSDT-Cell-Identity
                                                               OPTIONAL,
   transmitDiversityIndicator
                                     TransmitDiversityIndicator
                                                                   OPTIONAL,
   -- This IE shall be present if Diversity Mode IE in UL DPCH Information group is not set to 'none'
                                     iE-Extensions
                                                                                                              OPTIONAL,
   . . .
RL-InformationItem-RL-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
   { ID id-SSDT-CellIDforEDSCHPC CRITICALITY ignore EXTENSION SSDT-Cell-Identity
                                                                                  PRESENCE conditional },
   -- This IE shall be present if Enhanced DSCH PC IE is present in the DSCH Common Information IE.
   -- RADIO LINK SETUP REQUEST TDD
  ******************
RadioLinkSetupRequestTDD ::= SEOUENCE {
   protocolIEs
                          ProtocolIE-Container
                                                {{RadioLinkSetupRequestTDD-IEs}},
                         ProtocolExtensionContainer {{RadioLinkSetupRequestTDD-Extensions}}
   protocolExtensions
                                                                                                            OPTIONAL,
RadioLinkSetupRequestTDD-IEs NBAP-PROTOCOL-IES ::= {
          id-CRNC-CommunicationContextID
                                                           CRITICALITY reject
                                                                                     TYPE
                                                                                                            CRNC-CommunicationContextID
    { ID
                  PRESENCE
                             mandatory } |
    { ID
           id-UL-CCTrCH-InformationList-RL-SetupRgstTDD
                                                           CRITICALITY notify
                                                                                     TYPE
                                                                                                           UL-CCTrCH-InformationList-RL-
SetupRastTDD
                  PRESENCE
                             optional
                                        } |
                                                                                                           DL-CCTrCH-InformationList-RL-
    { ID id-DL-CCTrCH-InformationList-RL-SetupRqstTDD
                                                           CRITICALITY notify
                                                                                     TYPE
SetupRastTDD
                  PRESENCE
                             optional
          id-DCH-TDD-Information
                                            CRITICALITY reject
                                                                      TYPE
                                                                              DCH-TDD-Information
                                                                                                                    PRESENCE optional }
                                                                              DSCH-TDD-Information
                                                                                                                 PRESENCE optional }
     ID
          id-DSCH-TDD-Information
                                            CRITICALITY reject
                                                                      TYPE
     ID
          id-USCH-Information
                                         CRITICALITY reject
                                                                   TYPE
                                                                          USCH-Information
                                                                                                                 PRESENCE optional }
                                                                                                            RL-Information-RL-SetupRqstTDD
     ID
           id-RL-Information-RL-SetupRqstTDD
                                                           CRITICALITY reject
                                                                                     TYPE
                  PRESENCE
                             mandatory },
    . . .
RadioLinkSetupRequestTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
   { ID id-PDSCH-RL-ID
                                 CRITICALITY ignore
                                                                              PRESENCE optional },
                                                           EXTENSION RL-ID
   . . .
UL-CCTrCH-InformationList-RL-SetupRqstTDD ::= SEQUENCE (SIZE(1..maxNrOfCCTrCHs)) OF
   ProtocolIE-Single-Container{{ UL-CCTrCH-InformationItemIE-RL-SetupRqstTDD }}
```

```
UL-CCTrCH-InformationItemIE-RL-SetupRgstTDD NBAP-PROTOCOL-IES ::= {
          id-UL-CCTrCH-InformationItem-RL-SetupRgstTDD
                                                            CRITICALITY
                                                                           notify
                                                                                          TYPE
                                                                                                             UL-CCTrCH-InformationItem-RL-
SetupRqstTDD
                  PRESENCE
                              mandatory}
UL-CCTrCH-InformationItem-RL-SetupRqstTDD ::= SEQUENCE {
   cCTrCH-ID
                                         CCTrCH-ID,
   t FCS
                                         TFCS.
   tFCI-Coding
                                         TFCI-Coding,
   punctureLimit
                                         PunctureLimit,
   uL-DPCH-Information
                                         UL-DPCH-Information-RL-SetupRgstTDD
                                                                               OPTIONAL, -- Applicable to 3.84Mcps TDD only
                                         ProtocolExtensionContainer { { UL-CCTrCH-InformationItem-RL-SetupRqstTDD-ExtIEs} }
   iE-Extensions
                                                                                                                           OPTIONAL.
UL-CCTrCH-InformationItem-RL-SetupRgstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::=
                                                                        EXTENSION UL-DPCH-LCR-Information-RL-SetupRqstTDD
     ID id-UL-DPCH-LCR-Information-RL-SetupRgstTDD CRITICALITY notify
                                                                                                                           PRESENCE optional
    -- Applicable to 1.28Mcps TDD only
    { ID id-UL-SIRTarget
                              CRITICALITY reject
                                                     EXTENSION
                                                                    UL-SIR
                                                                               PRESENCE optional
   -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD.
   -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD.
   . . .
UL-DPCH-Information-RL-SetupRqstTDD ::= ProtocolIE-Single-Container{{ UL-DPCH-InformationIE-RL-SetupRqstTDD }}
UL-DPCH-InformationIE-RL-SetupRqstTDD NBAP-PROTOCOL-IES ::= {
    { ID id-UL-DPCH-InformationList-RL-SetupRgstTDD
                                                    CRITICALITY notify TYPE UL-DPCH-InformationItem-RL-SetupRqstTDD
                                                                                                                     PRESENCE mandatory
UL-DPCH-InformationItem-RL-SetupRqstTDD ::= SEQUENCE {
   repetitionPeriod
                                         RepetitionPeriod,
   repetitionLength
                                         RepetitionLength,
   tdd-DPCHOffset
                                         TDD-DPCHOffset,
   uL-Timeslot-Information
                                         UL-Timeslot-Information,
                                         ProtocolExtensionContainer { { UL-DPCH-InformationItem-RL-SetupRgstTDD-ExtIEs} }
   iE-Extensions
UL-DPCH-InformationItem-RL-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
UL-DPCH-LCR-Information-RL-SetupRqstTDD ::= SEQUENCE {
   repetitionPeriod
                                         RepetitionPeriod,
   repetitionLength
                                         RepetitionLength,
   tdd-DPCHOffset
                                         TDD-DPCHOffset,
   uL-TimeslotLCR-Information
                                         UL-TimeslotLCR-Information
   iE-Extensions
                                         ProtocolExtensionContainer { { UL-DPCH-LCR-InformationItem-RL-SetupRqstTDD-ExtIEs} }
                                                                                                                              OPTIONAL,
   . . .
```

```
UL-DPCH-LCR-InformationItem-RL-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
DL-CCTrCH-InformationList-RL-SetupRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container{{ DL-CCTrCH-InformationItemIE-RL-
SetupRqstTDD }}
DL-CCTrCH-InformationItemIE-RL-SetupRgstTDD NBAP-PROTOCOL-IES ::= {
    { ID id-DL-CCTrCH-InformationItem-RL-SetupRqstTDD
                                                                    CRITICALITY
                                                                                    notify
                                                                                                                   TYPE DL-CCTrCH-InformationItem-
RL-SetupRastTDD
                   PRESENCE
                               mandatory}
DL-CCTrCH-InformationItem-RL-SetupRgstTDD ::= SEQUENCE {
    cCTrCH-ID
                                           CCTrCH-ID.
    t.FCS
                                           TFCS,
    tFCI-Coding
                                           TFCI-Coding,
    punctureLimit
                                           PunctureLimit,
    tdd-TPC-DownlinkStepSize
                                           TDD-TPC-DownlinkStepSize,
    cCTrCH-TPCList
                                           CCTrCH-TPCList-RL-SetupRqstTDD
                                                                                    OPTIONAL,
    dL-DPCH-Information
                                           DL-DPCH-Information-RL-SetupRgstTDD
                                                                                    OPTIONAL,
                                                                                               -- Applicable to 3.84Mcps TDD only
    iE-Extensions
                                           ProtocolExtensionContainer { { DL-CCTrCH-InformationItem-RL-SetupRqstTDD-ExtIEs} }
                                                                                                                                  OPTIONAL,
DL-CCTrCH-InformationItem-RL-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
     ID id-DL-DPCH-LCR-Information-RL-SetupRqstTDD CRITICALITY notify
                                                                            EXTENSION DL-DPCH-LCR-Information-RL-SetupRgstTDD
                                                                                                                                PRESENCE optional
    }, -- Applicable to 1.28Mcps TDD only
CCTrCH-TPCList-RL-SetupRqstTDD ::= SEOUENCE (SIZE (1..maxNrOfCCTrCHs)) OF CCTrCH-TPCItem-RL-SetupRqstTDD
CCTrCH-TPCItem-RL-SetupRqstTDD ::= SEQUENCE {
    cCTrCH-ID
   iE-Extensions
                                           ProtocolExtensionContainer { { CCTrCH-TPCItem-RL-SetupRgstTDD-ExtIEs} }
CCTrCH-TPCItem-RL-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
DL-DPCH-Information-RL-SetupRqstTDD ::= ProtocolIE-Single-Container {{ DL-DPCH-InformationIE-RL-SetupRqstTDD }}
DL-DPCH-InformationIE-RL-SetupRgstTDD NBAP-PROTOCOL-IES ::= {
    { ID id-DL-DPCH-InformationList-RL-SetupRqstTDD
                                                       CRITICALITY notify TYPE DL-DPCH-InformationItem-RL-SetupRgstTDD
                                                                                                                            PRESENCE mandatory
DL-DPCH-InformationItem-RL-SetupRgstTDD ::= SEQUENCE {
    repetitionPeriod
                                           RepetitionPeriod,
    repetitionLength
                                           RepetitionLength,
    tdd-DPCHOffset
                                           TDD-DPCHOffset,
    dL-Timeslot-Information
                                       DL-Timeslot-Information,
    iE-Extensions
                                           ProtocolExtensionContainer { { DL-DPCH-InformationItem-RL-SetupRqstTDD-ExtIEs} }
```

```
DL-DPCH-InformationItem-RL-SetupRgstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
DL-DPCH-LCR-Information-RL-SetupRqstTDD ::= SEQUENCE {
   repetitionPeriod
                                        RepetitionPeriod,
   repetitionLength
                                        RepetitionLength,
   tdd-DPCHOffset
                                        TDD-DPCHOffset,
   dL-TimeslotLCR-Information
                                        DL-TimeslotLCR-Information,
   tstdIndicator
                                        TSTD-Indicator.
   iE-Extensions
                                        ProtocolExtensionContainer { { DL-DPCH-LCR-InformationItem-RL-SetupRqstTDD-ExtIEs} }
                                                                                                                         OPTIONAL.
DL-DPCH-LCR-InformationItem-RL-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
RL-Information-RL-SetupRqstTDD ::= SEQUENCE {
                                        RL-ID.
   c-ID
                                        C-ID,
   frameOffset
                                        FrameOffset,
   specialBurstScheduling
                                        SpecialBurstScheduling,
   initialDL-transmissionPower
                                        DL-Power,
   maximumDL-power
                                        DL-Power,
   minimumDL-power
                                        DL-Power,
   dL-TimeSlotISCPInfo
                                        DL-TimeslotISCPInfo OPTIONAL, -- Applicable to 3.84Mcps TDD only
                                        ProtocolExtensionContainer { { RL-Information-RL-SetupRgstTDD-ExtIEs} }
   iE-Extensions
RL-Information-RL-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
   EXTENSION
                                                                                  DL-TimeslotISCPInfoLCR
                                                                                                            PRESENCE optional } |
   -- Applicable to 1.28Mcps TDD only
   { ID id-UL-Synchronisation-Parameters-LCR
                                                  CRITICALITY ignore
                                                                         EXTENSION
                                                                                   UL-Synchronisation-Parameters-LCR
                                                                                                                       PRESENCE
   optional }, -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD
   . . .
    ******************
-- RADIO LINK SETUP RESPONSE FDD
  *****************
RadioLinkSetupResponseFDD ::= SEQUENCE {
                                               {{RadioLinkSetupResponseFDD-IEs}},
   protocolIEs
                         ProtocolIE-Container
                         ProtocolExtensionContainer {{RadioLinkSetupResponseFDD-Extensions}}
   protocolExtensions
                                                                                                            OPTIONAL,
   . . .
```

```
RadioLinkSetupResponseFDD-IEs NBAP-PROTOCOL-IES ::= {
           id-CRNC-CommunicationContextID
                                                                CRITICALITY ignore
                                                                                            TYPE
                                                                                                                     CRNC-CommunicationContextID
                    PRESENCE
                                mandat.orv
     ID
            id-NodeB-CommunicationContextID
                                                                CRITICALITY ignore
                                                                                            TYPE
                                                                                                                     NodeB-CommunicationContextID
                PRESENCE
                           mandatory } |
                                                                                                                     CommunicationControlPortID
           id-CommunicationControlPortID
                                                                CRITICALITY ignore
                                                                                            TYPE
    { ID
                            mandatory }|
                PRESENCE
    { ID
           id-RL-InformationResponseList-RL-SetupRspFDD
                                                                CRITICALITY ignore
                                                                                            TYPE
                                                                                                                     RL-InformationResponseList-RL-
SetupRspFDD
                PRESENCE
                           mandatory }
           id-TFCI2-BearerInformationResponse CRITICALITY ignore
                                                                                    TFCI2-BearerInformationResponse PRESENCE optional } |
     ID
                                                                            TYPE
     ID
           id-CriticalityDiagnostics
                                                                CRITICALITY ignore
                                                                                            TYPE
                                                                                                                     CriticalityDiagnostics
                PRESENCE
                           optional
RadioLinkSetupResponseFDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
RL-InformationResponseList-RL-SetupRspFDD ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container (RL-InformationResponseItemIE-RL-
SetupRspFDD }}
RL-InformationResponseItemIE-RL-SetupRspFDD NBAP-PROTOCOL-IES ::= {
           id-RL-InformationResponseItem-RL-SetupRspFDD
                                                                    CRITICALITY
                                                                                    ignore
                                                                                                 TYPE
                                                                                                                     RL-InformationResponseItem-RL-
SetupRspFDD
                PRESENCE
                           mandatory}
RL-InformationResponseItem-RL-SetupRspFDD ::= SEQUENCE {
    rL-ID
                                                    RL-ID,
    rL-Set-ID
                                                    RL-Set-ID,
    received-total-wide-band-power
                                                                            Received-total-wide-band-power-Value,
    diversityIndication
                                    DiversityIndication-RL-SetupRspFDD,
    dSCH-InformationResponseList
                                                    DSCH-InformationResponseList-RL-SetupRspFDD
                                                                                                                     OPTIONAL,
    sSDT-SupportIndicator
                                                    SSDT-SupportIndicator,
                                                    ProtocolExtensionContainer { { RL-InformationResponseItem-RL-SetupRspFDD-ExtIEs} }
    iE-Extensions
    OPTIONAL,
RL-InformationResponseItem-RL-SetupRspFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
DiversityIndication-RL-SetupRspFDD ::= CHOICE {
    combining
                                                Combining-RL-SetupRspFDD,
    nonCombiningOrFirstRL
                                                NonCombiningOrFirstRL-RL-SetupRspFDD
Combining-RL-SetupRspFDD ::= SEQUENCE {
    rL-ID
    iE-Extensions
                                                ProtocolExtensionContainer { { Combining-RL-SetupRspFDD-ExtIEs} } }
                                                                                                                       OPTIONAL,
    . . .
```

```
Combining-RL-SetupRspFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
NonCombiningOrFirstRL-RL-SetupRspFDD ::= SEOUENCE
   dCH-InformationResponse
                                             DCH-InformationResponse,
                                                 ProtocolExtensionContainer { { NonCombiningOrFirstRLItem-RL-SetupRspFDD-ExtIEs} }
   iE-Extensions
                                                                                                                                OPTIONAL,
   . . .
NonCombiningOrFirstRLItem-RL-SetupRspFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
DSCH-InformationResponseList-RL-SetupRspFDD ::= ProtocolIE-Single-Container {{ DSCH-InformationResponseListIEs-RL-SetupRspFDD }}
DSCH-InformationResponseListIEs-RL-SetupRspFDD NBAP-PROTOCOL-IES ::= {
    ID id-DSCH-InformationResponse CRITICALITY ignore TYPE DSCH-InformationResponse
                                                                                          PRESENCE mandatory }
   -- RADIO LINK SETUP RESPONSE TDD
  *****************
RadioLinkSetupResponseTDD ::= SEQUENCE {
   protocolIEs
                          ProtocolIE-Container
                                                 {{RadioLinkSetupResponseTDD-IEs}},
   protocolExtensions
                          ProtocolExtensionContainer {{RadioLinkSetupResponseTDD-Extensions}}
                                                                                                                OPTIONAL,
RadioLinkSetupResponseTDD-IEs NBAP-PROTOCOL-IES ::= {
          id-CRNC-CommunicationContextID
                                                            CRITICALITY
                                                                                          TYPE
                                                                                                             CRNC-CommunicationContextID
    { ID
                                                                           ignore
                  PRESENCE mandatory } |
   { ID
           id-NodeB-CommunicationContextID
                                                            CRITICALITY
                                                                           ignore
                                                                                          TYPE
                                                                                                             NodeB-CommunicationContextID
               PRESENCE
                         mandatory }|
    { ID
           id-CommunicationControlPortID
                                                            CRITICALITY
                                                                           ignore
                                                                                          TYPE
                                                                                                             CommunicationControlPortID
               PRESENCE
                          mandatory } |
    { ID
           id-RL-InformationResponse-RL-SetupRspTDD
                                                            CRITICALITY
                                                                           ignore
                                                                                          TYPE
                                                                                                             RL-InformationResponse-RL-
                                         } -- Mandatory for 3.84Mcps TDD, Not Applicable to 1.28Mcps TDD
SetupRspTDD
                  PRESENCE
                              optional
    { ID
          id-CriticalityDiagnostics
                                                            CRITICALITY
                                                                           ignore
                                                                                                             CriticalityDiagnostics
               PRESENCE optional
RadioLinkSetupResponseTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
          id-RL-InformationResponse-LCR-RL-SetupRspTDD
                                                                CRITICALITY
                                                                               ignore
InformationResponse-LCR-RL-SetupRspTDD
                                             PRESENCE
                                                        optional
                                                                  }, -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD
RL-InformationResponse-RL-SetupRspTDD ::= SEQUENCE
   rL-ID
                                                 RL-ID,
```

```
uL-TimeSlot-ISCP-Info
                                UL-TimeSlot-ISCP-Info,
   ul-PhysCH-SF-Variation
                                         UL-PhysCH-SF-Variation,
   dCH-InformationResponseList
                                         DCH-InformationResponseList-RL-SetupRspTDD
                                                                                               OPTIONAL.
   dSCH-InformationResponseList
                                         DSCH-InformationResponseList-RL-SetupRspTDD
                                                                                              OPTIONAL,
   uSCH-InformationResponseList
                                         USCH-InformationResponseList-RL-SetupRspTDD
                                                                                              OPTIONAL.
                                         ProtocolExtensionContainer { { RL-InformationResponseList-RL-SetupRspTDD-ExtIEs} }
   iE-Extensions
   OPTIONAL,
   . . .
RL-InformationResponseList-RL-SetupRspTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
DCH-InformationResponseListIEs-RL-SetupRspTDD NBAP-PROTOCOL-IES ::= {
   { ID id-DCH-InformationResponse CRITICALITY
                                                         DCH-InformationResponse PRESENCE
                                         ignore
                                                   TYPE
                                                                                            mandatory }
DSCH-InformationResponseList-RL-SetupRspTDD ::= ProtocolIE-Single-Container {{ DSCH-InformationResponseListIEs-RL-SetupRspTDD }}
DSCH-InformationResponseListIEs-RL-SetupRspTDD NBAP-PROTOCOL-IES ::= {
   PRESENCE mandatory }
USCH-InformationResponseList-RL-SetupRspTDD ::= ProtocolIE-Single-Container {{ USCH-InformationResponseListIEs-RL-SetupRspTDD }}
USCH-InformationResponseListIEs-RL-SetupRspTDD NBAP-PROTOCOL-IES ::= {
   PRESENCE mandatory }
RL-InformationResponse-LCR-RL-SetupRspTDD ::= SEQUENCE
   uL-TimeSlot-ISCP-LCR-Info
                                         UL-TimeSlot-ISCP-LCR-Info,
                                         UL-PhysCH-SF-Variation,
   ul-PhysCH-SF-Variation
   dCH-InformationResponseList
                                         DCH-InformationResponseList-RL-SetupRspTDD
                                                                                              OPTIONAL,
   dSCH-InformationResponseList
                                         DSCH-InformationResponseList-RL-SetupRspTDD
                                                                                              OPTIONAL,
   uSCH-InformationResponseList
                                         USCH-InformationResponseList-RL-SetupRspTDD
                                                                                              OPTIONAL,
   iE-Extensions
                                         OPTIONAL,
   . . .
RL-InformationResponseList-LCR-RL-SetupRspTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
-- RADIO LINK SETUP FAILURE FDD
```

```
RadioLinkSetupFailureFDD ::= SEQUENCE {
    protocolIEs
                           ProtocolIE-Container
                                                   {{RadioLinkSetupFailureFDD-IEs}},
   protocolExtensions
                           ProtocolExtensionContainer {{RadioLinkSetupFailureFDD-Extensions}}
                                                                                                                   OPTIONAL.
RadioLinkSetupFailureFDD-IEs NBAP-PROTOCOL-IES ::= {
           id-CRNC-CommunicationContextID
                                                                            CRITICALITY
                                                                                            ignore
                                                                                                                         TYPE CRNC-
CommunicationContextID
                                                        PRESENCE
                                                                   mandatory }|
    { ID id-NodeB-CommunicationContextID
                                                                            CRITICALITY
                                                                                            ignore
                                                                                                                         TYPE NodeB-
CommunicationContextID
                                                    PRESENCE
                                                               conditional }
    -- This IE shall be present if at least one of the radio links has been successfully set up
           id-CommunicationControlPortID
                                                                            CRITICALITY
                                                                                                                         TYPE
                                                                                            ignore
    CommunicationControlPortID
                                                               PRESENCE
                                                                           optional
           id-CauseLevel-RL-SetupFailureFDD
                                                                           CRITICALITY
                                                                                            ignore
                                                                                                                         TYPE CauseLevel-RL-
SetupFailureFDD
                   PRESENCE mandatory
    { ID id-CriticalityDiagnostics
                                                                            CRITICALITY
                                                                                            ignore
                                                                                                                         TYPE
    CriticalityDiagnostics
                                                               PRESENCE
                                                                           optional
RadioLinkSetupFailureFDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
CauseLevel-RL-SetupFailureFDD ::= CHOICE {
                       GeneralCauseList-RL-SetupFailureFDD,
    generalCause
    rLSpecificCause
                       RLSpecificCauseList-RL-SetupFailureFDD,
GeneralCauseList-RL-SetupFailureFDD ::= SEQUENCE
    cause
                                               Cause,
                                               ProtocolExtensionContainer { GeneralCauseItem-RL-SetupFailureFDD-ExtIEs} }
    iE-Extensions
GeneralCauseItem-RL-SetupFailureFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
RLSpecificCauseList-RL-SetupFailureFDD ::= SEQUENCE {
    unsuccessful-RL-InformationRespList-RL-SetupFailureFDD
                                                               Unsuccessful-RL-InformationRespList-RL-SetupFailureFDD,
    successful-RL-InformationRespList-RL-SetupFailureFDD
                                                               Successful-RL-InformationRespList-RL-SetupFailureFDD OPTIONAL,
                                               ProtocolExtensionContainer { { RLSpecificCauseItem-RL-SetupFailureFDD-ExtIEs} }
    iE-Extensions
RLSpecificCauseItem-RL-SetupFailureFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
Unsuccessful-RL-InformationRespList-RL-SetupFailureFDD ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container {{ Unsuccessful-RL-
InformationRespItemIE-RL-SetupFailureFDD }}
```

```
Unsuccessful-RL-InformationRespItemIE-RL-SetupFailureFDD NBAP-PROTOCOL-IES ::= {
           id-Unsuccessful-RL-InformationRespItem-RL-SetupFailureFDD
                                                                             CRITICALITY
                                                                                             ignore
                                                                                                                        TYPE Unsuccessful-RL-
InformationRespItem-RL-SetupFailureFDD
                                            PRESENCE
                                                        mandatory }
Unsuccessful-RL-InformationRespItem-RL-SetupFailureFDD ::= SEQUENCE {
   rL-ID
                                                RL-ID,
    cause
                                                Cause,
                                                ProtocolExtensionContainer { { Unsuccessful-RL-InformationRespItem-RL-SetupFailureFDD-ExtIEs} }
    iE-Extensions
    OPTIONAL,
    . . .
Unsuccessful-RL-InformationRespItem-RL-SetupFailureFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
Successful-RL-InformationRespList-RL-SetupFailureFDD ::= SEOUENCE (SIZE (1.. maxNrOfRLs)) OF ProtocolIE-Single-Container {{ Successful-RL-
InformationRespItemIE-RL-SetupFailureFDD }}
Successful-RL-InformationRespItemIE-RL-SetupFailureFDD NBAP-PROTOCOL-IES ::= {
          id-Successful-RL-InformationRespItem-RL-SetupFailureFDD
                                                                             CRITICALITY
                                                                                             ignore
                                                                                                                        TYPE Successful-RL-
InformationRespItem-RL-SetupFailureFDD
                                            PRESENCE
                                                        mandatory}
Successful-RL-InformationRespItem-RL-SetupFailureFDD ::= SEOUENCE {
    rL-ID
                                                RL-ID,
    rL-Set-ID
                                                RL-Set-ID,
    received-total-wide-band-power
                                                                         Received-total-wide-band-power-Value,
    diversityIndication
                                                DiversityIndication-RL-SetupFailureFDD,
    dSCH-InformationResponseList
                                                DSCH-InformationRespList-RL-SetupFailureFDD
                                                                                                 OPTIONAL,
    tFCI2-BearerInformationResponse
                                                TFCI2-BearerInformationResponse
    -- There shall be only one TFCI2 bearer per Node B Communication Context.
    sSDT-SupportIndicator
                                                SSDT-SupportIndicator,
    iE-Extensions
                                                ProtocolExtensionContainer { { Successful-RL-InformationRespItem-RL-SetupFailureFDD-ExtIEs} }
    OPTIONAL,
Successful-RL-InformationRespItem-RL-SetupFailureFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
DiversityIndication-RL-SetupFailureFDD ::= CHOICE
    combining
                                                Combining-RL-SetupFailureFDD,
    nonCombiningOrFirstRL
                                            NonCombiningOrFirstRL-RL-SetupFailureFDD
Combining-RL-SetupFailureFDD ::= SEQUENCE {
    rL-ID
                                                RL-ID,
    iE-Extensions
                                                ProtocolExtensionContainer { { CombiningItem-RL-SetupFailureFDD-ExtIEs} } }
                                                                                                                              OPTIONAL,
```

```
CombiningItem-RL-SetupFailureFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
NonCombiningOrFirstRL-RL-SetupFailureFDD ::= SEOUENCE {
   dCH-InformationResponse
                                          DCH-InformationResponse,
   iE-Extensions
                                              ProtocolExtensionContainer { { NonCombiningOrFirstRLItem-RL-SetupFailureFDD-ExtIEs} }
   OPTIONAL,
   . . .
NonCombiningOrFirstRLItem-RL-SetupFailureFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
DSCH-InformationRespList-RL-SetupFailureFDD ::= ProtocolIE-Single-Container {{ DSCH-InformationRespListIEs-RL-SetupFailureFDD }}
DSCH-InformationRespListIEs-RL-SetupFailureFDD NBAP-PROTOCOL-IES ::= {
   PRESENCE mandatory }
      -- RADIO LINK SETUP FAILURE TDD
__ ********************************
RadioLinkSetupFailureTDD ::= SEQUENCE {
                                           {{RadioLinkSetupFailureTDD-IEs}},
   protocolIEs
                        ProtocolIE-Container
                        ProtocolExtensionContainer {{RadioLinkSetupFailureTDD-Extensions}}
   protocolExtensions
                                                                                                         OPTIONAL,
RadioLinkSetupFailureTDD-IEs NBAP-PROTOCOL-IES ::= {
   { ID id-CRNC-CommunicationContextID
                                                                CRITICALITY ignore
                                                                                     TYPE
                                                                                                       CRNC-CommunicationContextID
                        PRESENCE
                                   mandatory } |
   { ID id-CauseLevel-RL-SetupFailureTDD
                                                                                                            TYPE CauseLevel-RL-
                                                                   CRITICALITY
                                                                                  ignore
               PRESENCE mandatory
SetupFailureTDD
          id-CriticalityDiagnostics
                                                                CRITICALITY ignore
                                                                                     TYPE
                                                                                                       CriticalityDiagnostics
                               optional
                     PRESENCE
RadioLinkSetupFailureTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
CauseLevel-RL-SetupFailureTDD ::= CHOICE {
   generalCause
                     GeneralCauseList-RL-SetupFailureTDD,
                     RLSpecificCauseList-RL-SetupFailureTDD,
   rLSpecificCause
   . . .
```

```
GeneralCauseList-RL-SetupFailureTDD ::= SEQUENCE {
   cause
   iE-Extensions
                              ProtocolExtensionContainer { GeneralCauseItem-RL-SetupFailureTDD-ExtIEs} }
                                                                                                                OPTIONAL.
GeneralCauseItem-RL-SetupFailureTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
RLSpecificCauseList-RL-SetupFailureTDD ::= SEQUENCE {
    unsuccessful-RL-InformationRespItem-RL-SetupFailureTDD Unsuccessful-RL-InformationRespItem-RL-SetupFailureTDD,
   iE-Extensions
                                                        ProtocolExtensionContainer { { RLSpecificCauseItem-RL-SetupFailureTDD-ExtIEs} }
   OPTIONAL,
    . . .
RLSpecificCauseItem-RL-SetupFailureTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
Unsuccessful-RL-InformationRespItem-RL-SetupFailureTDD ::= ProtocolIE-Single-Container { {Unsuccessful-RL-InformationRespItemIE-RL-SetupFailureTDD}
Unsuccessful-RL-InformationRespItemIE-RL-SetupFailureTDD NBAP-PROTOCOL-IES ::= {
           id-Unsuccessful-RL-InformationResp-RL-SetupFailureTDD
                                                                    CRITICALITY ignore
                                                                                                             Unsuccessful-RL-InformationResp-
                                                                                          TYPE
RL-SetupFailureTDD
                      PRESENCE
                                 mandatory }
Unsuccessful-RL-InformationResp-RL-SetupFailureTDD ::= SEQUENCE {
   rL-ID
                                             RL-ID,
   cause
                                             Cause,
   iE-Extensions
                                             ProtocolExtensionContainer { { Unsuccessful-RL-InformationResp-RL-SetupFailureTDD-ExtIEs} }
   OPTIONAL,
    . . .
Unsuccessful-RL-InformationResp-RL-SetupFailureTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  -- RADIO LINK ADDITION REQUEST FDD
__ **********************
RadioLinkAdditionRequestFDD ::= SEQUENCE {
   protocolIEs
                          ProtocolIE-Container
                                                 {{RadioLinkAdditionRequestFDD-IEs}},
   protocolExtensions
                          ProtocolExtensionContainer {{RadioLinkAdditionRequestFDD-Extensions}}
                                                                                                                   OPTIONAL,
RadioLinkAdditionRequestFDD-IEs NBAP-PROTOCOL-IES ::= {
```

```
id-NodeB-CommunicationContextID
   { ID
                                                      CRITICALITY reject
                                                                                TYPE
                                                                                       NodeB-CommunicationContextID
                                                                                                                            PRESENCE
   mandatory } |
   { ID id-Compressed-Mode-Deactivation-Flag
                                               CRITICALITY reject
                                                                            TYPE Compressed-Mode-Deactivation-Flag PRESENCE optional }
        id-RL-InformationList-RL-AdditionRgstFDD
                                                          CRITICALITY notify
                                                                                                         RL-InformationList-RL-
AdditionRgstFDD
                     PRESENCE
                                mandatory }.
RadioLinkAdditionRequestFDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
RL-InformationList-RL-AdditionRgstFDD ::= SEQUENCE (SIZE (1..maxNrOfRLs-1)) OF ProtocolIE-Single-Container {{ RL-InformationItemIE-RL-
AdditionRgstFDD}}
RL-InformationItemIE-RL-AdditionRqstFDD NBAP-PROTOCOL-IES ::= {
         id-RL-InformationItem-RL-AdditionRqstFDD
                                                          CRITICALITY
                                                                                                         RL-InformationItem-RL-
                                                                        notify
                                                                                       TYPE
AdditionRgstFDD
                     PRESENCE
                                mandatory}
RL-InformationItem-RL-AdditionRqstFDD ::= SEQUENCE
   rL-ID
                                           RL-ID,
   c-TD
                                           C-ID,
   frameOffset
                                           FrameOffset,
   chipOffset
                                           ChipOffset,
   diversityControlField
                                           DiversityControlField,
   dl-CodeInformation
                                        FDD-DL-CodeInformation,
   initialDL-TransmissionPower
                                           DL-Power
                                                                        OPTIONAL,
   maximumDL-Power
                                           DL-Power
                                                                        OPTIONAL,
   minimumDL-Power
                                           DL-Power
                                                                        OPTIONAL,
   sSDT-CellIdentity
                                           SSDT-Cell-Identity
                                                                        OPTIONAL,
   transmitDiversityIndicator
                                           TransmitDiversityIndicator
                                                                        OPTIONAL,
   iE-Extensions
                                           OPTIONAL,
RL-InformationItem-RL-AdditionRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    *****************
-- RADIO LINK ADDITION REQUEST TDD
  *****************
RadioLinkAdditionRequestTDD ::= SEOUENCE {
   protocolIEs
                         ProtocolIE-Container
                                              {{RadioLinkAdditionRequestTDD-IEs}},
                         ProtocolExtensionContainer {{RadioLinkAdditionRequestTDD-Extensions}}
   protocolExtensions
                                                                                                           OPTIONAL,
   . . .
RadioLinkAdditionRequestTDD-IEs NBAP-PROTOCOL-IES ::= {
```

```
id-NodeB-CommunicationContextID
                                                                   CRITICALITY
                                                                                  reject
                                                                                                                 TYPE NodeB-
CommunicationContextID
                                           PRESENCE
                                                      mandatory
    { ID
          id-UL-CCTrCH-InformationList-RL-AdditionRgstTDD
                                                                   CRITICALITY
                                                                                  reject.
                                                                                                                 TYPE UL-CCTrCH-InformationList-
RL-AdditionRqstTDD
                    PRESENCE
                                       optional
           id-DL-CCTrCH-InformationList-RL-AdditionRqstTDD
                                                                   CRITICALITY
                                                                                  reject
                                                                                                                 TYPE DL-CCTrCH-InformationList-
   { ID
RL-AdditionRgstTDD PRESENCE
                                       optional
                                                                                                                 TYPE RL-Information-RL-
           id-RL-Information-RL-AdditionRgstTDD
                                                                  CRITICALITY
                                                                                  reiect
AdditionRgstTDD
                              PRESENCE
                                          mandatory },
RadioLinkAdditionRequestTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
UL-CCTrCH-InformationList-RL-AdditionRgstTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF UL-CCTrCH-InformationItem-RL-AdditionRgstTDD
UL-CCTrCH-InformationItem-RL-AdditionRqstTDD ::= SEQUENCE
   cCTrCH-ID
                                               CCTrCH-ID,
   uL-DPCH-Information
                                               UL-DPCH-InformationList-RL-AdditionRgstTDD
                                                                                              OPTIONAL, -- Applicable to 3.84cps TDD only
   iE-Extensions
                                               ProtocolExtensionContainer { { UL-CCTrCH-InformationItem-RL-AdditionRqstTDD-ExtIEs} } OPTIONAL,
UL-CCTrCH-InformationItem-RL-AdditionRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
          id-UL-DPCH-InformationItem-LCR-RL-AdditionRqstTDD CRITICALITY notify EXTENSION UL-DPCH-InformationItem-LCR-RL-AdditionRqstTDD
                   optional } -- Applicable to 1.28cps TDD only
          id-TDD-TPC-UplinkStepSize-LCR-RL-AdditionRqstTDD CRITICALITY reject EXTENSION TDD-TPC-UplinkStepSize-LCR
                                                                                                                             PRESENCE optional },
-- Applicable to 1.28cps TDD only
UL-DPCH-InformationList-RL-AdditionRqstTDD ::= ProtocolIE-Single-Container {{ UL-DPCH-InformationItemIE-RL-AdditionRqstTDD }}
UL-DPCH-InformationItemIE-RL-AdditionRgstTDD NBAP-PROTOCOL-IES ::= {
          id-UL-DPCH-InformationItem-RL-AdditionRgstTDD
                                                                  CRITICALITY
                                                                                  notify
                                                                                                                 TYPE UL-DPCH-InformationItem-
                                     optional } -- For 3.84Mcps TDD only
RL-AdditionRgstTDD
                          PRESENCE
UL-DPCH-InformationItem-RL-AdditionRqstTDD ::= SEQUENCE
   repetitionPeriod
                                           RepetitionPeriod,
                                           RepetitionLength,
   repetitionLength
   tdd-DPCHOffset
                                           TDD-DPCHOffset,
   uL-Timeslot-Information
                                       UL-Timeslot-Information,
                                               ProtocolExtensionContainer { { UL-DPCH-InformationItem-RL-AdditionRgstTDD-ExtIEs} }
   iE-Extensions
                                                                                                                                     OPTIONAL,
UL-DPCH-InformationItem-RL-AdditionRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    . . .
DL-CCTrCH-InformationList-RL-AdditionRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF DL-CCTrCH-InformationItem-RL-AdditionRqstTDD
```

```
DL-CCTrCH-InformationItem-RL-AdditionRqstTDD ::= SEQUENCE {
   cCTrCH-ID
                                            CCTrCH-ID.
   dL-DPCH-Information
                                            DL-DPCH-InformationList-RL-AdditionRgstTDD
                                                                                        OPTIONAL.
   iE-Extensions
                                            DL-CCTrCH-InformationItem-RL-AdditionRgstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
   { ID id-DL-DPCH-InformationItem-LCR-RL-AdditionRqstTDD
                                                                  CRITICALITY
                                                                                 notify
                                                                                                             EXTENSION DI-DPCH-
InformationItem-LCR-RL-AdditionRgstTDD
                                            PRESENCE
                                                       optional } | -- Applicable to 1.28Mcps TDD only
   { ID id-TDD-TPC-DownlinkStepSize-RL-AdditionRqstTDD
                                                       CRITICALITY reject
                                                                             EXTENSION TDD-TPC-DownlinkStepSize
                                                                                                                  PRESENCE optional },
   . . .
DL-DPCH-InformationList-RL-AdditionRgstTDD ::= ProtocolIE-Single-Container {{ DL-DPCH-InformationItemIE-RL-AdditionRgstTDD }}
DL-DPCH-InformationItemIE-RL-AdditionRqstTDD NBAP-PROTOCOL-IES ::= {
                                                                             notify
         id-DL-DPCH-InformationItem-RL-AdditionRgstTDD
                                                              CRITICALITY
                                                                                                          TYPE DL-DPCH-InformationItem-
                         PRESENCE
                                    mandatory } -- Applicable to 3.84Mcps TDD only
RL-AdditionRgstTDD
DL-DPCH-InformationItem-RL-AdditionRqstTDD ::= SEQUENCE {
   repetitionPeriod
                                        RepetitionPeriod,
   repetitionLength
                                        RepetitionLength,
   tdd-DPCHOffset
                                        TDD-DPCHOffset,
   dL-Timeslot-Information
                                    DL-Timeslot-Information.
   iE-Extensions
                                            ProtocolExtensionContainer { { DL-DPCH-InformationItem-RL-AdditionRqstTDD-ExtIEs} }
   OPTIONAL,
   . . .
DL-DPCH-InformationItem-RL-AdditionRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
RL-Information-RL-AdditionRqstTDD ::= SEQUENCE {
                                            RL-ID,
   c-ID
                                            C-ID,
   frameOffset
                                            FrameOffset,
   diversityControlField
                                            DiversityControlField,
   initial-DL-Transmission-Power
                                            DL-Power
                                                              OPTIONAL,
   maximumDL-Power
                                            DL-Power
                                                              OPTIONAL.
   minimumDL-Power
                                                              OPTIONAL,
                                            DL-Power
   dL-TimeSlotISCPInfo
                                            DL-TimeslotISCPInfo OPTIONAL,
                                                                         -- Applicable to 3.84Mcps TDD only
                                            iE-Extensions
                                                                                                                        OPTIONAL,
RL-information-RL-AdditionRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
          id-TimeslotISCP-InformationList-LCR-RL-AdditionRqstTDD
   { ID
                                                                                                                EXTENSION
                                                                                                                          DL-
TimeslotISCPInfoLCR
                         PRESENCE optional } | -- Applicable to 1.28Mcps TDD only
   { ID id-UL-Synchronisation-Parameters-LCR
                                                     CRITICALITY ignore
                                                                             EXTENSION UL-Synchronisation-Parameters-LCR
                                                                                                                           PRESENCE
   optional }, -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD
```

```
UL-DPCH-InformationItem-LCR-RL-AdditionRqstTDD ::= SEQUENCE {
   repetitionPeriod
                                          RepetitionPeriod,
   repetitionLength
                                          RepetitionLength,
   tdd-DPCHOffset
                                          TDD-DPCHOffset,
   uL-TimeslotLCR-Information
                                          UL-TimeslotLCR-Information.
   iE-Extensions
                                          ProtocolExtensionContainer { { UL-DPCH-InformationItem-LCR-RL-AdditionRqstTDD-ExtIEs} }
                                                                                                                                  OPTIONAL,
UL-DPCH-InformationItem-LCR-RL-AdditionRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
DL-DPCH-InformationItem-LCR-RL-AdditionRqstTDD ::= SEQUENCE {
                                          RepetitionPeriod,
   repetitionPeriod
   repetitionLength
                                          RepetitionLength,
    tdd-DPCHOffset
                                          TDD-DPCHOffset,
   dL-TimeslotLCR-Information
                                          DL-TimeslotLCR-Information,
   iE-Extensions
                                          ProtocolExtensionContainer { { DL-DPCH-InformationItem-LCR-RL-AdditionRqstTDD-ExtIEs} }
                                                                                                                                  OPTIONAL,
    . . .
DL-DPCH-InformationItem-LCR-RL-AdditionRqstTDD-ExtIES NBAP-PROTOCOL-EXTENSION ::= {
    **************
-- RADIO LINK ADDITION RESPONSE FDD
  *****************
RadioLinkAdditionResponseFDD ::= SEOUENCE {
   protocolIEs
                          ProtocolIE-Container
                                                 {{RadioLinkAdditionResponseFDD-IEs}},
   protocolExtensions
                          ProtocolExtensionContainer {{RadioLinkAdditionResponseFDD-Extensions}}
                                                                                                                    OPTIONAL,
RadioLinkAdditionResponseFDD-IEs NBAP-PROTOCOL-IES ::= {
          id-CRNC-CommunicationContextID
                                                                 CRITICALITY
                                                                                ignore
                                                                                                                 TYPE CRNC-
CommunicationContextID
                                          PRESENCE
                                                     mandatory
    { ID
          id-RL-InformationResponseList-RL-AdditionRspFDD
                                                                 CRITICALITY
                                                                                ignore
                                                                                                                 TYPE RL-
InformationResponseList-RL-AdditionRspFDD
                                         PRESENCE
                                                     mandatory
    { ID
          id-CriticalityDiagnostics
                                                                 CRITICALITY
                                                                                ignore
                                                                                                                 TYPE CriticalityDiagnostics
                          PRESENCE
                                      optional
    . . .
RadioLinkAdditionResponseFDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    . . .
```

```
RL-InformationResponseList-RL-AdditionRspFDD ::= SEQUENCE (SIZE (1..maxNrOfRLs-1)) OF ProtocolIE-Single-Container {{ RL-InformationResponseItemIE-
RL-AdditionRspFDD }}
RL-InformationResponseItemIE-RL-AdditionRspFDD NBAP-PROTOCOL-IES ::= {
           id-RL-InformationResponseItem-RL-AdditionRspFDD
                                                                CRITICALITY
                                                                               ignore
                                                                                                             TYPE RL-
InformationResponseItem-RL-AdditionRspFDD
                                             PRESENCE
                                                        mandatory}
RL-InformationResponseItem-RL-AdditionRspFDD ::= SEQUENCE {
   rL-ID
                                                 RL-ID,
   rL-Set-ID
                                                 RL-Set-ID,
   received-total-wide-band-power
                                                                       Received-total-wide-band-power-Value,
   diversityIndication
                                                 DiversityIndication-RL-AdditionRspFDD,
    sSDT-SupportIndicator
                                                 SSDT-SupportIndicator,
   iE-Extensions
                                                 ProtocolExtensionContainer { { RL-InformationResponseItem-RL-AdditionRspFDD-ExtIEs} }
   OPTIONAL,
    . . .
RL-InformationResponseItem-RL-AdditionRspFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
DiversityIndication-RL-AdditionRspFDD ::= CHOICE {
   combining
                                                 Combining-RL-AdditionRspFDD,
   non-combining
                                                 Non-Combining-RL-AdditionRspFDD
Combining-RL-AdditionRspFDD ::= SEQUENCE {
   rL-ID
                                                 RL-ID,
                                                 ProtocolExtensionContainer { { CombiningItem-RL-AdditionRspFDD-ExtIEs} } }
   iE-Extensions
CombiningItem-RL-AdditionRspFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
Non-Combining-RL-AdditionRspFDD ::= SEQUENCE {
   dCH-InformationResponse
                                             DCH-InformationResponse,
                                                 ProtocolExtensionContainer { { Non-CombiningItem-RL-AdditionRspFDD-ExtIEs} } }
   iE-Extensions
                                                                                                                             OPTIONAL,
    . . .
Non-CombiningItem-RL-AdditionRspFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
   -- RADIO LINK ADDITION RESPONSE TDD
```

```
RadioLinkAdditionResponseTDD ::= SEQUENCE {
   protocolIEs
                          ProtocolIE-Container
                                                 {{RadioLinkAdditionResponseTDD-IEs}},
   protocolExtensions
                          ProtocolExtensionContainer {{RadioLinkAdditionResponseTDD-Extensions}}
                                                                                                                 OPTIONAL.
RadioLinkAdditionResponseTDD-IES NBAP-PROTOCOL-IES ::= {
           id-CRNC-CommunicationContextID
                                                             CRITICALITY ignore
                                                                                        TYPE
                                                                                                               CRNC-CommunicationContextID
                   PRESENCE
                             mandatory } |
    { ID
           id-RL-InformationResponse-RL-AdditionRspTDD
                                                             CRITICALITY ignore
                                                                                        TYPE
                                                                                                               RL-InformationResponse-RL-
                   PRESENCE
                              optional } -- Mandatory for 3.84Mcps TDD, Not Applicable to 1.28Mcps TDD
AdditionRspTDD
          id-CriticalityDiagnostics
                                                             CRITICALITY ignore
                                                                                                               CriticalityDiagnostics
               PRESENCE
                        optional
RadioLinkAdditionResponseTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-RL-InformationResponse-LCR-RL-AdditionRspTDD
                                                                                                               RL-InformationResponse-LCR-RL-
                                                             CRITICALITY ignore
                                                                                        EXTENSION
AdditionRspTDD PRESENCE optional }, -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD
RL-InformationResponse-RL-AdditionRspTDD ::= SEQUENCE {
   rL-ID
                                              RL-ID,
   uL-TimeSlot-ISCP-Info
                                              UL-TimeSlot-ISCP-Info,
   ul-PhysCH-SF-Variation
                                              UL-PhysCH-SF-Variation,
                                              DCH-Information-RL-AdditionRspTDD
   dCH-Information
                                                                                            OPTIONAL,
   dSCH-InformationResponseList
                                              DSCH-InformationResponseList-RL-AdditionRspTDD
                                                                                                               OPTIONAL,
   uSCH-InformationResponseList
                                              USCH-InformationResponseList-RL-AdditionRspTDD
                                                                                                               OPTIONAL,
                                              iE-Extensions
                                                                                                                                OPTIONAL,
    . . .
RL-InformationResponse-RL-AdditionRspTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
DCH-Information-RL-AdditionRspTDD ::= SEQUENCE {
   diversityIndication
                                      DiversityIndication-RL-AdditionRspTDD,
   iE-Extensions
                                  ProtocolExtensionContainer { { DCH-Information-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    . . .
DCH-Information-RL-AdditionRspTDD-ExtlEs NBAP-PROTOCOL-EXTENSION ::= {
    . . .
DiversityIndication-RL-AdditionRspTDD ::= CHOICE {
    combining
                                              Combining-RL-AdditionRspTDD,
   non-Combining
                                              Non-Combining-RL-AdditionRspTDD
Combining-RL-AdditionRspTDD ::= SEQUENCE {
   rL-ID
                                              RL-ID,
```

```
ProtocolExtensionContainer { { CombiningItem-RL-AdditionRspTDD-ExtIEs} }
   iE-Extensions
                                                                                                               OPTIONAL,
CombiningItem-RL-AdditionRspTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
Non-Combining-RL-AdditionRspTDD ::= SEQUENCE
   dCH-InformationResponse
                                       DCH-InformationResponse,
   iE-Extensions
                                           ProtocolExtensionContainer { { Non-CombiningItem-RL-AdditionRspTDD-ExtIEs} } }
                                                                                                                    OPTIONAL
   . . .
Non-CombiningItem-RL-AdditionRspTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
DSCH-InformationResponseList-RL-AdditionRspTDD ::= ProtocolIE-Single-Container {{ DSCH-InformationResponseListIEs-RL-AdditionRspTDD }}
DSCH-InformationResponseListIEs-RL-AdditionRspTDD NBAP-PROTOCOL-IES ::= {
   PRESENCE mandatory }
USCH-InformationResponseList-RL-AdditionRspTDD ::= ProtocolIE-Single-Container {{ USCH-InformationResponseListIEs-RL-AdditionRspTDD }}
USCH-InformationResponseListIEs-RL-AdditionRspTDD NBAP-PROTOCOL-IES ::= {
    { ID id-USCH-InformationResponse CRITICALITY ignore TYPE USCH-InformationResponse
                                                                                      PRESENCE mandatory }
RL-InformationResponse-LCR-RL-AdditionRspTDD ::= SEQUENCE
                                          RL-ID,
   uL-TimeSlot-ISCP-InfoLCR
                                          UL-TimeSlot-ISCP-LCR-Info.
   ul-PhysCH-SF-Variation
                                          UL-PhysCH-SF-Variation,
   dCH-Information
                                          DCH-Information-RL-AdditionRspTDD
                                                                                      OPTIONAL.
   dSCH-InformationResponseList
                                          DSCH-InformationResponseList-RL-AdditionRspTDD
                                                                                                       OPTIONAL.
                                          USCH-InformationResponseList-RL-AdditionRspTDD
   uSCH-InformationResponseList
                                                                                                       OPTIONAL,
                                           iE-Extensions
RL-InformationResponse-LCR-RL-AdditionRspTDD-ExtIES NBAP-PROTOCOL-EXTENSION ::= {
-- RADIO LINK ADDITION FAILURE FDD
  *******************
RadioLinkAdditionFailureFDD ::= SEQUENCE {
   protocolIEs
                        ProtocolIE-Container
                                              {{RadioLinkAdditionFailureFDD-IEs}},
                        ProtocolExtensionContainer {{RadioLinkAdditionFailureFDD-Extensions}}
   protocolExtensions
                                                                                                          OPTIONAL,
```

```
RadioLinkAdditionFailureFDD-IEs NBAP-PROTOCOL-IES ::= {
            id-CRNC-CommunicationContextID
                                                                    ignore
                                                                                TYPE
                                                                                         CRNC-CommunicationContextID
                                                                                                                              PRESENCE mandatory
                                                    CRITICALITY
                                                                                         CauseLevel-RL-AdditionFailureFDD
     ID
           id-CauseLevel-RL-AdditionFailureFDD
                                                                    ignore
                                                                                TYPE
                                                                                                                             PRESENCE mandatory
                                                    CRITICALITY
     TD
           id-CriticalityDiagnostics
                                                    CRITICALITY
                                                                    ignore
                                                                                TYPE
                                                                                         CriticalityDiagnostics
                                                                                                                                 PRESENCE optional
    },
RadioLinkAdditionFailureFDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
CauseLevel-RL-AdditionFailureFDD ::= CHOICE {
                        GeneralCauseList-RL-AdditionFailureFDD,
    generalCause
    rLSpecificCause
                        RLSpecificCauseList-RL-AdditionFailureFDD,
    . . .
GeneralCauseList-RL-AdditionFailureFDD ::= SEQUENCE {
    cause
    iE-Extensions
                                                ProtocolExtensionContainer { { GeneralCauseItem-RL-AdditionFailureFDD-ExtIEs} }
                                                                                                                                      OPTIONAL,
GeneralCauseItem-RL-AdditionFailureFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
RLSpecificCauseList-RL-AdditionFailureFDD ::= SEQUENCE {
    unsuccessful-RL-InformationRespList-RL-AdditionFailureFDD
                                                                    Unsuccessful-RL-InformationRespList-RL-AdditionFailureFDD,
    successful-RL-InformationRespList-RL-AdditionFailureFDD
                                                                    Successful-RL-InformationRespList-RL-AdditionFailureFDD OPTIONAL,
                                                ProtocolExtensionContainer { { RLSpecificCauseItem-RL-AdditionFailureFDD-ExtIEs} }
    iE-Extensions
                                                                                                                                         OPTIONAL,
RLSpecificCauseItem-RL-AdditionFailureFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
Unsuccessful-RL-InformationRespList-RL-AdditionFailureFDD ::= SEQUENCE (SIZE (1..maxNrOfRLs-1)) OF ProtocolIE-Single-Container {{ Unsuccessful-RL-
InformationRespItemIE-RL-AdditionFailureFDD }}
Unsuccessful-RL-InformationRespItemIE-RL-AdditionFailureFDD NBAP-PROTOCOL-IES ::= {
           id-Unsuccessful-RL-InformationRespItem-RL-AdditionFailureFDD
                                                                                CRITICALITY
                                                                                                 ignore
                                                                                                                       TYPE Unsuccessful-RL-
InformationRespItem-RL-AdditionFailureFDD PRESENCE
Unsuccessful-RL-InformationRespItem-RL-AdditionFailureFDD ::= SEQUENCE {
   rL-ID
                                                RL-ID,
    cause
                                                Cause,
```

```
ProtocolExtensionContainer { { Unsuccessful-RL-InformationRespItem-RL-AdditionFailureFDD-ExtIEs} }
    iE-Extensions
           OPTIONAL.
    . . .
Unsuccessful-RL-InformationRespItem-RL-AdditionFailureFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
Successful-RL-InformationRespList-RL-AdditionFailureFDD ::= SEQUENCE (SIZE (1..maxNrOfRLs-2)) OF ProtocolIE-Single-Container {{ Successful-RL-
InformationRespItemIE-RL-AdditionFailureFDD }}
Successful-RL-InformationRespItemIE-RL-AdditionFailureFDD NBAP-PROTOCOL-IES ::= {
           id-Successful-RL-InformationRespItem-RL-AdditionFailureFDD
                                                                             CRITICALITY
                                                                                             ignore
                                                                                                                        TYPE Successful-RL-
InformationRespItem-RL-AdditionFailureFDD
                                                PRESENCE
                                                            mandatory}
Successful-RL-InformationRespItem-RL-AdditionFailureFDD ::= SEQUENCE {
   rL-ID
                                                RL-ID,
    rL-Set-ID
                                                RL-Set-ID,
    received-total-wide-band-power
                                                Received-total-wide-band-power-Value,
    diversityIndication
                                                DiversityIndication-RL-AdditionFailureFDD,
    sSDT-SupportIndicator
                                                SSDT-SupportIndicator,
    iE-Extensions
                                                ProtocolExtensionContainer { { Successful-RL-InformationRespItem-RL-AdditionFailureFDD-ExtIEs} }
    OPTIONAL,
Successful-RL-InformationRespItem-RL-AdditionFailureFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= -
DiversityIndication-RL-AdditionFailureFDD ::= CHOICE {
    combining
                                    Combining-RL-AdditionFailureFDD,
    non-Combining
                                    Non-Combining-RL-AdditionFailureFDD
Combining-RL-AdditionFailureFDD ::= SEQUENCE {
    rL-ID
                                                RL-ID,
    iE-Extensions
                                                ProtocolExtensionContainer { { CombiningItem-RL-AdditionFailureFDD-ExtIEs} } }
                                                                                                                                    OPTIONAL,
CombiningItem-RL-AdditionFailureFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    . . .
Non-Combining-RL-AdditionFailureFDD ::= SEQUENCE
    dCH-InformationResponse
                                                DCH-InformationResponse,
                                                     ProtocolExtensionContainer { { Non-CombiningItem-RL-AdditionFailureFDD-ExtIEs} }
    iE-Extensions
    OPTIONAL,
    . . .
```

```
Non-CombiningItem-RL-AdditionFailureFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  *****************
-- RADIO LINK ADDITION FAILURE TDD
          RadioLinkAdditionFailureTDD ::= SEQUENCE {
   protocolIEs
                          ProtocolIE-Container
                                                 {{RadioLinkAdditionFailureTDD-IEs}},
   protocolExtensions
                          ProtocolExtensionContainer {{RadioLinkAdditionFailureTDD-Extensions}}
                                                                                                                OPTIONAL,
RadioLinkAdditionFailureTDD-IEs NBAP-PROTOCOL-IES ::= {
          id-CRNC-CommunicationContextID
                                                     CRITICALITY
                                                                    ignore
                                                                               TYPE
                                                                                       CRNC-CommunicationContextID
    PRESENCE
              mandatory } |
          id-CauseLevel-RL-AdditionFailureTDD
    { ID
                                                     CRITICALITY
                                                                    ignore
                                                                               TYPE
                                                                                       CauseLevel-RL-AdditionFailureTDD
    PRESENCE
              mandatory } |
          id-CriticalityDiagnostics
                                                     CRITICALITY
                                                                    ignore
                                                                                       CriticalityDiagnostics
    { ID
                                                                               TYPE
    PRESENCE
              optional },
    . . .
RadioLinkAdditionFailureTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
CauseLevel-RL-AdditionFailureTDD ::= CHOICE {
                      GeneralCauseList-RL-AdditionFailureTDD,
   generalCause
   rLSpecificCause
                      RLSpecificCauseList-RL-AdditionFailureTDD,
    . . .
GeneralCauseList-RL-AdditionFailureTDD ::= SEQUENCE {
    cause
   iE-Extensions
                              ProtocolExtensionContainer { GeneralCauseItem-RL-AdditionFailureTDD-ExtIEs} }
                                                                                                                OPTIONAL,
GeneralCauseItem-RL-AdditionFailureTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
RLSpecificCauseList-RL-AdditionFailureTDD ::= SEQUENCE {
   unsuccessful\hbox{-RL-InformationRespItem-RL-AdditionFailureTDD}
                                                            Unsuccessful-RL-InformationRespItem-RL-AdditionFailureTDD,
   iE-Extensions
                                                            ProtocolExtensionContainer { { RLSpecificCauseItem-RL-AdditionFailureTDD-ExtIEs} }
       OPTIONAL,
RLSpecificCauseItem-RL-AdditionFailureTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
```

```
Unsuccessful-RL-InformationRespItem-RL-AdditionFailureTDD ::= ProtocolIE-Single-Container { {Unsuccessful-RL-InformationRespItemIE-RL-
AdditionFailureTDD} }
Unsuccessful-RL-InformationRespItemIE-RL-AdditionFailureTDD NBAP-PROTOCOL-IES ::= {
    { ID id-Unsuccessful-RL-InformationResp-RL-AdditionFailureTDD CRITICALITY ignore TYPE Unsuccessful-RL-InformationResp-RL-AdditionFailureTDD
    PRESENCE mandatory }
Unsuccessful-RL-InformationResp-RL-AdditionFailureTDD ::= SEQUENCE {
                                           RL-ID.
   cause
                                           Cause.
                                           ProtocolExtensionContainer { { Unsuccessful-RL-InformationResp-RL-AdditionFailureTDD-ExtIEs} }
   iE-Extensions
   OPTIONAL,
    . . .
Unsuccessful-RL-InformationResp-RL-AdditionFailureTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
-- RADIO LINK RECONFIGURATION PREPARE FDD
      ******************
RadioLinkReconfigurationPrepareFDD ::= SEQUENCE {
   protocolIEs
                           ProtocolIE-Container
                                                   {{RadioLinkReconfigurationPrepareFDD-IEs}},
                           ProtocolExtensionContainer {{RadioLinkReconfigurationPrepareFDD-Extensions}}
   protocolExtensions
                                                                                                                    OPTIONAL,
    . . .
RadioLinkReconfigurationPrepareFDD-IEs NBAP-PROTOCOL-IES ::= {
           id-NodeB-CommunicationContextID
                                                          CRITICALITY
                                                                          reject
                                                                                          TYPE
                                                                                                                 NodeB-CommunicationContextID
           PRESENCE mandatory }
           id-UL-DPCH-Information-RL-ReconfPrepFDD
                                                                                                                 UL-DPCH-Information-RL-
    { ID
                                                          CRITICALITY
                                                                          reject
                                                                                          TYPE
ReconfPrepFDD
                   PRESENCE
                               optional
                                                                                                                 DL-DPCH-Information-RL-
    { ID
           id-DL-DPCH-Information-RL-ReconfPrepFDD
                                                          CRITICALITY
                                                                          reject
                                                                                          TYPE
                              optional
ReconfPrepFDD
                   PRESENCE
     ID
           id-FDD-DCHs-to-Modify
                                                                                                                          PRESENCE optional }
                                              CRITICALITY
                                                              reject
                                                                              TYPE
                                                                                      FDD-DCHs-to-Modify
                                                                                                                          PRESENCE optional }
           id-DCHs-to-Add-FDD
                                               CRITICALITY
                                                              reject
                                                                              TYPE
                                                                                      DCH-FDD-Information
     ID
           id-DCH-DeleteList-RL-ReconfPrepFDD
                                                                                                                 DCH-DeleteList-RL-ReconfPrepFDD
     ID
                                                          CRITICALITY
                                                                          reject
                                                                                          TYPE
               PRESENCE
                         optional } |
           id-DSCH-ModifyList-RL-ReconfPrepFDD
                                                          CRITICALITY
                                                                          reject
                                                                                          TYPE
                                                                                                                 DSCH-ModifyList-RL-ReconfPrepFDD
               PRESENCE
                           optional } |
     ID
           id-DSCHs-to-Add-FDD
                                           CRITICALITY
                                                          reject
                                                                          TYPE
                                                                                  DSCH-FDD-Information
                                                                                                                             PRESENCE optional }
    { ID
           id-DSCH-DeleteList-RL-ReconfPrepFDD
                                                          CRITICALITY
                                                                          reject
                                                                                          TYPE
                                                                                                                 DSCH-DeleteList-RL-ReconfPrepFDD
               PRESENCE
                         optional } |
   { ID
           id-TFCI2-BearerSpecificInformation-RL-ReconfPrepFDD
                                                                                                                 TFCI2-BearerSpecificInformation-
                                                                  CRITICALITY
                                                                                  reject
                                                                                              TYPE
RL-ReconfPrepFDD
```

```
PRESENCE optional } |
    { ID id-RL-InformationList-RL-ReconfPrepFDD
                                                             CRITICALITY
                                                                                             TYPE
                                                                                                                     RL-InformationList-RL-
                                                                            reject
Reconf PrepFDD
                        PRESENCE
                                    optional
    { ID id-Transmission-Gap-Pattern-Sequence-Information
                                                            CRITICALITY
                                                                             reject
                                                                                             TYPE Transmission-Gap-Pattern-Sequence-Information
PRESENCE optional },
RadioLinkReconfigurationPrepareFDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
     ID id-DSCH-FDD-Common-Information
                                                        CRITICALITY ignore EXTENSION DSCH-FDD-Common-Information
                                                                                                                                    PRESENCE optional
    . . .
UL-DPCH-Information-RL-ReconfPrepFDD ::= SEQUENCE {
    ul-ScramblingCode
                                                    UL-ScramblingCode
                                                                                         OPTIONAL,
    ul-SIR-Target
                                                    UL-SIR
                                                                                         OPTIONAL,
    minUL-ChannelisationCodeLength
                                                    MinUL-ChannelisationCodeLength
                                                                                         OPTIONAL,
    maxNrOfUL-DPDCHs
                                                    MaxNrOfUL-DPDCHs
                                                                                         OPTIONAL,
    -- This IE shall be present if minUL-ChannelisationCodeLength Ie is set to 4
    ul-PunctureLimit
                                                    PunctureLimit
                                                                                         OPTIONAL,
    t FCS
                                                    TFCS
                                                                OPTIONAL,
    ul-DPCCH-SlotFormat
                                                    UL-DPCCH-SlotFormat
                                                                                         OPTIONAL,
    diversityMode
                                                    DiversityMode
                                                                                         OPTIONAL,
    sSDT-CellIDLength
                                                    SSDT-CellID-Length
                                                                                         OPTIONAL,
    s-FieldLength
                                                    S-FieldLength
                                                                                         OPTIONAL,
                                                    ProtocolExtensionContainer { { UL-DPCH-Information-RL-ReconfPrepFDD-ExtIEs} }
    iE-Extensions
                                                                                                                                       OPTIONAL,
UL-DPCH-Information-RL-ReconfPrepFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
DL-DPCH-Information-RL-ReconfPrepFDD ::= SEOUENCE {
    tFCS
                                                    TECS
                                                                                         OPTIONAL,
    dl-DPCH-SlotFormat
                                                    DL-DPCH-SlotFormat
                                                                                         OPTIONAL,
    tFCI-SignallingMode
                                                    TFCI-SignallingMode
                                                                                         OPTIONAL,
    tFCI-Presence
                                                    TFCI-Presence
                                                                                         OPTIONAL,
    -- This IE shall be present if the DL DPCH Slot Format IE is set to any of the values from 12 to 16
    multiplexingPosition
                                                    MultiplexingPosition
                                                                                         OPTIONAL,
    pDSCH-CodeMapping
                                                    PDSCH-CodeMapping
                                                                                         OPTIONAL,
                                                    RL-ID
                                                                                         OPTIONAL,
    pDSCH-RL-ID
   limitedPowerIncrease
                                                    LimitedPowerIncrease
                                                                                         OPTIONAL,
                                                    ProtocolExtensionContainer { { DL-DPCH-Information-RL-ReconfPrepFDD-ExtIEs} }
    iE-Extensions
DL-DPCH-Information-RL-ReconfPrepFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
DCH-DeleteList-RL-ReconfPrepFDD ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-DeleteItem-RL-ReconfPrepFDD
```

```
DCH-DeleteItem-RL-ReconfPrepFDD ::= SEQUENCE {
   dCH-ID
                                                  DCH-ID.
   iE-Extensions
                                                  DCH-DeleteItem-RL-ReconfPrepFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
DSCH-ModifyList-RL-ReconfPrepFDD ::= SEQUENCE (SIZE (1..maxNrOfDSCHs)) OF ProtocolIE-Single-Container {{DSCH-ModifyItemIE-RL-ReconfPrepFDD }}
DSCH-ModifyItemIE-RL-ReconfPrepFDD NBAP-PROTOCOL-IES ::= {
          id-DSCH-ModifyItem-RL-ReconfPrepFDD
                                                  CRITICALITY reject
                                                                         TYPE
                                                                                 DSCH-ModifyItem-RL-ReconfPrepFDD PRESENCE mandatory}
DSCH-ModifyItem-RL-ReconfPrepFDD ::= SEQUENCE {
   dscH-ID
                                                  DSCH-ID,
    dl-TransportFormatSet
                                                  TransportFormatSet
                                                                             OPTIONAL,
   allocationRetentionPriority
                                                  AllocationRetentionPriority OPTIONAL,
    frameHandlingPriority
                                                  FrameHandlingPriority
                                                                             OPTIONAL,
    toAWS
                                                  ToAWS
                                                                             OPTIONAL,
                                                  TOAWE
    toAWE
                                                                             OPTIONAL,
    transportBearerRequestIndicator
                                                  TransportBearerRequestIndicator,
   iE-Extensions
                                                  ProtocolExtensionContainer { { DSCH-ModifyItem-RL-ReconfPrepFDD-ExtIEs} } }
                                                                                                                              OPTIONAL,
    . . .
DSCH-ModifyItem-RL-ReconfPrepFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
DSCH-DeleteList-RL-ReconfPrepFDD ::= SEQUENCE (SIZE (1..maxNrOfDSCHs)) OF ProtocolIE-Single-Container {{DSCH-DeleteItemIE-RL-ReconfPrepFDD }}
DSCH-DeleteItemIE-RL-ReconfPrepFDD NBAP-PROTOCOL-IES ::= {
          id-DSCH-DeleteItem-RL-ReconfPrepFDD
                                                  CRITICALITY reject
                                                                         TYPE
                                                                                 DSCH-DeleteItem-RL-ReconfPrepFDD PRESENCE mandatory}
DSCH-DeleteItem-RL-ReconfPrepFDD ::= SEQUENCE {
   dSCH-ID
                                                  DSCH-ID,
                                                  ProtocolExtensionContainer { { DSCH-DeleteItem-RL-ReconfPrepFDD-ExtIEs} } 
   iE-Extensions
                                                                                                                              OPTIONAL,
DSCH-DeleteItem-RL-ReconfPrepFDD-ExtIES NBAP-PROTOCOL-EXTENSION ::= {
TFCI2-BearerSpecificInformation-RL-ReconfPrepFDD ::= CHOICE {
   add0rModify
                          AddOrModify-TFCI2-RL-ReconfPrepFDD,
   delete
AddOrModify-TFCI2-RL-ReconfPrepFDD ::= SEQUENCE {
```

```
ToAWS,
    toAWS
    t.oAWE
                                     TOAWE.
   iE-Extensions
                                     AddOrModify-TFCI2-RL-ReconfPrepFDD-ExtIES NBAP-PROTOCOL-EXTENSION ::= {
RL-InformationList-RL-ReconfPrepFDD ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container {{ RL-InformationItemIE-RL-ReconfPrepFDD }}
RL-InformationItemIE-RL-ReconfPrepFDD NBAP-PROTOCOL-IES ::= {
         id-RL-InformationItem-RL-ReconfPrepFDD
                                                        CRITICALITY
                                                                                       TYPE
                                                                                                             RL-InformationItem-RL-
                                                                       reject
ReconfPrepFDD
                  PRESENCE
                             mandatory}
RL-InformationItem-RL-ReconfPrepFDD ::= SEQUENCE
                                                 RL-ID,
   dl-CodeInformation
                                             FDD-DL-CodeInformation
                                                                        OPTIONAL.
   maxDI_-Power
                                                 DI-Power
                                                                                           OPTIONAL,
   minDL-Power
                                                 DL-Power
                                                                                           OPTIONAL,
   sSDT-Indication
                                                 SSDT-Indication
                                                                                           OPTIONAL,
    sSDT-Cell-Identity
                                                 SSDT-Cell-Identity
                                                                                           OPTIONAL.
    -- The IE shall be present if the SSDT Indication IE is set to 'SSDT Active in the UE'
    transmitDiversityIndicator
                                                 TransmitDiversityIndicator
                                                                                           OPTIONAL,
    -- This IE shall be present if Diversity Mode IE is present in UL DPCH Information IE and it is not set to 'none'
                                                 ProtocolExtensionContainer { { RL-InformationItem-RL-ReconfPrepFDD-ExtIEs} }
   iE-Extensions
                                                                                                                              OPTIONAL,
RL-InformationItem-RL-ReconfPrepFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-SSDT-CellIDforEDSCHPC CRITICALITY ignore EXTENSION SSDT-Cell-Identity
                                                                                   PRESENCE conditional },
    -- This IE shall be present if Enhanced DSCH PC IE is present in the DSCH Common Information IE.
-- RADIO LINK RECONFIGURATION PREPARE TDD
  *******************
RadioLinkReconfigurationPrepareTDD ::= SEQUENCE {
                                                 {{RadioLinkReconfigurationPrepareTDD-IEs}},
   protocolIEs
                          ProtocolIE-Container
                          ProtocolExtensionContainer {{RadioLinkReconfigurationPrepareTDD-Extensions}}
   protocolExtensions
                                                                                                                OPTIONAL,
RadioLinkReconfigurationPrepareTDD-IES NBAP-PROTOCOL-IES ::= {
          id-NodeB-CommunicationContextID
                                                                CRITICALITY
                                                                               reject
                                                                                           TYPE
                                                                                                             NodeB-CommunicationContextID
                  PRESENCE mandatory }
    { ID
          id-UL-CCTrCH-InformationAddList-RL-ReconfPrepTDD
                                                                    CRITICALITY
                                                                                                             TYPE UL-CCTrCH-
                                                                                   reject
InformationAddList-RL-ReconfPrepTDD
                                         PRESENCE
```

```
id-UL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD
                                                                        CRITICALITY
                                                                                                                     TYPE UL-CCTrCH-
                                                                                        reject
InformationModifyList-RL-ReconfPrepTDD
                                                PRESENCE
                                                            optional
           id-UL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD
                                                                        CRITICALITY
                                                                                        reject
                                                                                                                     TYPE UL-CCTrCH-
InformationDeleteList-RL-ReconfPrepTDD
                                                PRESENCE
                                                            optional
           id-DL-CCTrCH-InformationAddList-RL-ReconfPrepTDD
                                                                                        reject
                                                                                                                     TYPE DL-CCTrCH-
                                                                        CRITICALITY
InformationAddList-RL-ReconfPrepTDD
                                            PRESENCE
                                                        optional
           id-DL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD
                                                                        CRITICALITY
                                                                                        reject
                                                                                                                    TYPE DL-CCTrCH-
InformationModifyList-RL-ReconfPrepTDD
                                                PRESENCE
                                                                           } |
           id-DL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD
                                                                        CRITICALITY
                                                                                        reject
                                                                                                                    TYPE DL-CCTrCH-
InformationDeleteList-RL-ReconfPrepTDD
                                                PRESENCE
                                                            optional
                                                                            } |
    { ID
           id-TDD-DCHs-to-Modify
                                                        CRITICALITY
                                                                        reject
                                                                                     TYPE
                                                                                            TDD-DCHs-to-Modify
                                                                                                                                   PRESENCE optional
       } |
    { ID
            id-DCHs-to-Add-TDD
                                                        CRITICALITY
                                                                        reject
                                                                                    TYPE
                                                                                            DCH-TDD-Information
                                                                                                                                   PRESENCE optional
       }
            id-DCH-DeleteList-RL-ReconfPrepTDD
                                                                    CRITICALITY
                                                                                    reject
                                                                                                TYPE
                                                                                                                     DCH-DeleteList-RL-ReconfPrepTDD
                        PRESENCE
                                   optional
                                                                                                                     DSCH-Information-ModifyList-RL-
    { ID
           id-DSCH-Information-ModifyList-RL-ReconfPrepTDD
                                                                    CRITICALITY
                                                                                    reject
                                                                                                TYPE
                    PRESENCE
                                optional
ReconfPrepTDD
           id-DSCHs-to-Add-TDD
                                        CRITICALITY
                                                        reject
                                                                            DSCH-TDD-Information
                                                                                                                          PRESENCE
                                                                                                                                      optional
    { ID
           id-DSCH-Information-DeleteList-RL-ReconfPrepTDD
                                                                    CRITICALITY
                                                                                    reject
                                                                                                TYPE
                                                                                                                     DSCH-Information-DeleteList-RL-
ReconfPrepTDD
                    PRESENCE
                                optional
           id-USCH-Information-ModifyList-RL-ReconfPrepTDD
                                                                                                                    USCH-Information-ModifyList-RL-
    { ID
                                                                    CRITICALITY
                                                                                    reject
                                                                                                TYPE
ReconfPrepTDD
                    PRESENCE
                                optional
    { ID
           id-USCH-Information-Add
                                            CRITICALITY
                                                            reject
                                                                        TYPE
                                                                                USCH-Information
                                                                                                                          PRESENCE
                                                                                                                                      optional
            id-USCH-Information-DeleteList-RL-ReconfPrepTDD
    ID
                                                                    CRITICALITY
                                                                                     reject
                                                                                                TYPE
                                                                                                                     USCH-Information-DeleteList-RL-
ReconfPrepTDD
                    PRESENCE
                                optional
    { ID
           id-RL-Information-RL-ReconfPrepTDD
                                                                    CRITICALITY
                                                                                     reject
                                                                                                TYPE
                                                                                                                    RL-Information-RL-ReconfPrepTDD
                        PRESENCE
                                    optional
    . . .
RadioLinkReconfigurationPrepareTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-PDSCH-RL-ID
                                    CRITICALITY ignore
                                                                EXTENSION RL-ID
                                                                                    PRESENCE optional },
    . . .
UL-CCTrCH-InformationAddList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF UL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD
UL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD ::= SEQUENCE {
    cCTrCH-ID
                                                CCTrCH-ID,
    tFCS
                                                TFCS,
    tFCI-Coding
                                                TFCI-Coding,
                                                PunctureLimit,
    punctureLimit
    ul-DPCH-InformationList
                                                UL-DPCH-InformationAddList-RL-ReconfPrepTDD OPTIONAL,
    iE-Extensions
                                                ProtocolExtensionContainer { { UL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD-ExtIEs} }
    OPTIONAL,
    . . .
UL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-UL-DPCH-LCR-InformationAddListIE-RL-ReconfPrepTDD CRITICALITY reject
                                                                                        EXTENSION UL-DPCH-LCR-InformationAddList-RL-ReconfPrepTDD
        PRESENCE optional }
                             -- Applicable to 1.28Mcps TDD only
```

. . .

```
} |
   { ID id-UL-SIRTarget
                                                                                  PRESENCE optional
                               CRITICALITY reject
                                                       EXTENSION
                                                                      UL-SIR
    -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD.
    { ID id-TDD-TPC-UplinkStepSize-InformationAdd-LCR-RL-ReconfPrepTDD CRITICALITY reject EXTENSION
                                                                                                                 TDD-TPC-UplinkStepSize-LCR
   PRESENCE optional },
    -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD.
UL-DPCH-InformationAddList-RL-ReconfPrepTDD ::= ProtocolIE-Single-Container {{ UL-DPCH-InformationAddListIEs-RL-ReconfPrepTDD }}
UL-DPCH-InformationAddListIEs-RL-ReconfPrepTDD NBAP-PROTOCOL-IES ::= {
    TYPE UL-DPCH-InformationAddItem-RL-ReconfPrepTDD
                                                                                                                                     PRESENCE
mandatory }
UL-DPCH-InformationAddItem-RL-ReconfPrepTDD ::= SEQUENCE
   repetitionPeriod
                                           RepetitionPeriod,
   repetitionLength
                                           RepetitionLength,
    tdd-DPCHOffset
                                           TDD-DPCHOffset,
   uL-Timeslot-Information
                                           UL-Timeslot-Information,
   iE-Extensions
                                           ProtocolExtensionContainer { { UL-DPCH-InformationAddItem-RL-ReconfPrepTDD-ExtIEs} }
                                                                                                                                  OPTIONAL,
    . . .
UL-DPCH-InformationAddItem-RL-ReconfPrepTDD-ExtIES NBAP-PROTOCOL-EXTENSION ::= {
UL-DPCH-LCR-InformationAddList-RL-ReconfPrepTDD ::= SEQUENCE {
   repetitionPeriod
                                          RepetitionPeriod,
   repetitionLength
                                           RepetitionLength,
    tdd-DPCHOffset
                                           TDD-DPCHOffset,
   uL-Timeslot-InformationLCR
                                           UL-TimeslotLCR-Information,
                                           ProtocolExtensionContainer { { UL-DPCH-LCR-InformationAddItem-RL-ReconfPrepTDD-ExtIEs} }
   iE-Extensions
                                                                                                                                     OPTIONAL,
    . . .
UL-DPCH-LCR-InformationAddItem-RL-ReconfPrepTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
UL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD ::= SEOUENCE (SIZE (1..maxNrOfCCTrCHs)) OF UL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD
UL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD ::= SEQUENCE {
   cCTrCH-ID
                                               CCTrCH-ID,
    tFCS
                                               TFCS
                                                                                                                      OPTIONAL,
    tFCI-Coding
                                               TFCI-Coding
                                                                                                                      OPTIONAL,
   punctureLimit
                                               PunctureLimit
                                                                                                                      OPTIONAL,
    ul-DPCH-InformationAddList
                                               UL-DPCH-InformationModify-AddList-RL-ReconfPrepTDD
                                                                                                                    OPTIONAL,
    ul-DPCH-InformationModifyList
                                               UL-DPCH-InformationModify-ModifyList-RL-ReconfPrepTDD
                                                                                                                 OPTIONAL,
   ul-DPCH-InformationDeleteList
                                               UL-DPCH-InformationModify-DeleteList-RL-ReconfPrepTDD
                                                                                                                 OPTIONAL,
   iE-Extensions
                                               ProtocolExtensionContainer { { UL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD-ExtIEs} }
   OPTIONAL,
```

```
UL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::=
    UL-DPCH-LCR-InformationModify-AddList-RL-ReconfPrepTDD
   PRESENCE optional }
                       -- Applicable to 1.28Mcps TDD only
                             CRITICALITY reject
   { ID id-UL-SIRTarget
                                                                              PRESENCE optional
                                                    EXTENSION
                                                                   UL-SIR
   -- Applicable to 1.28Mcps TDD only.
   { ID id-TDD-TPC-UplinkStepSize-InformationModify-LCR-RL-ReconfPrepTDD CRITICALITY reject EXTENSION
                                                                                                            TDD-TPC-UplinkStepSize-LCR
   PRESENCE optional },
   -- Applicable to 1.28Mcps TDD only
UL-DPCH-InformationModify-AddList-RL-ReconfPrepTDD ::= ProtocolIE-Single-Container {{ UL-DPCH-InformationModify-AddListIEs-RL-ReconfPrepTDD }}
UL-DPCH-InformationModify-AddListIEs-RL-ReconfPrepTDD NBAP-PROTOCOL-IES ::= {
   TYPE UL-DPCH-InformationModify-AddItem-RL-ReconfPrepTDD
       PRESENCE mandatory }
UL-DPCH-InformationModify-AddItem-RL-ReconfPrepTDD ::= SEQUENCE {
   repetitionPeriod
                                        RepetitionPeriod,
   repetitionLength
                                         RepetitionLength,
                                        TDD-DPCHOffset,
   tdd-DPCHOffset
   uL-Timeslot-Information
                                     UL-Timeslot-Information,
   iE-Extensions
                                            ProtocolExtensionContainer { { UL-DPCH-InformationModify-AddItem-RL-ReconfPrepTDD-ExtIEs} }
   OPTIONAL,
   . . .
UL-DPCH-InformationModify-AddItem-RL-ReconfPrepTDD-ExtIES NBAP-PROTOCOL-EXTENSION ::= {
UL-DPCH-LCR-InformationModify-AddList-RL-ReconfPrepTDD ::= SEQUENCE {
   repetitionPeriod
                                        RepetitionPeriod,
   repetitionLength
                                         RepetitionLength,
                                         TDD-DPCHOffset,
   tdd-DPCHOffset
   uL-Timeslot-InformationLCR
                                        UL-TimeslotLCR-Information,
   iE-Extensions
                                            ProtocolExtensionContainer { { UL-DPCH-LCR-InformationModify-AddItem-RL-ReconfPrepTDD-ExtIEs} }
   OPTIONAL,
   . . .
UL-DPCH-LCR-InformationModify-AddItem-RL-ReconfPrepTDD-ExtIES NBAP-PROTOCOL-EXTENSION ::= {
UL-DPCH-InformationModify-ModifyList-RL-ReconfPrepTDD ::= ProtocolIE-Single-Container {{ UL-DPCH-InformationModify-ModifyListIEs-RL-ReconfPrepTDD
}}
UL-DPCH-InformationModify-ModifyListIEs-RL-ReconfPrepTDD NBAP-PROTOCOL-IES ::= {
   { ID id-UL-DPCH-InformationModify-ModifyListIE-RL-ReconfPrepTDD CRITICALITY reject
                                                                                         TYPE UL-DPCH-InformationModify-ModifyItem-RL-
ReconfPrepTDD
                  PRESENCE mandatory }
```

```
UL-DPCH-InformationModify-ModifyItem-RL-ReconfPrepTDD ::= SEQUENCE {
    repetitionPeriod
                                            RepetitionPeriod
                                                                OPTIONAL,
    repetitionLength
                                            RepetitionLength
                                                                OPTIONAL,
    tdd-DPCHOffset
                                            TDD-DPCHOffset
                                                                OPTIONAL,
                                                                            UL-Timeslot-InformationModify-ModifyList-RL-ReconfPrepTDD
    uL-Timeslot-InformationModify-ModifyList-RL-ReconfPrepTDD
    iE-Extensions
                                                ProtocolExtensionContainer { { UL-DPCH-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs} }
    OPTIONAL,
UL-DPCH-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::=
    { ID id-UL-TimeslotLCR-Information-RL-ReconfPrepTDD
                                                                                               UL-TimeslotLCR-InformationModify-ModifyList-RL-
                                                            CRITICALITY reject
                                                                                    EXTENSION
ReconfPrepTDD
                    PRESENCE optional },
                                          -- Applicable to 1.28Mcps TDD only
    . . .
UL-Timeslot-InformationModify-ModifyList-RL-ReconfPrepTDD ::= SEOUENCE (SIZE (1..maxNrOfULTSs)) OF UL-Timeslot-InformationModify-ModifyItem-RL-
ReconfPrepTDD -- Applicable to 3.84Mcps TDD only
UL-Timeslot-InformationModify-ModifyItem-RL-ReconfPrepTDD ::= SEQUENCE {
    timeSlot
                                            TimeSlot,
                                            MidambleShiftAndBurstType
    midambleShiftAndBurstType
                                                                            OPTIONAL,
                                            TFCI-Presence
    tFCI-Presence
                                                                OPTIONAL.
    uL-Code-InformationModify-ModifyList-RL-ReconfPrepTDD
                                                                        UL-Code-InformationModify-ModifyList-RL-ReconfPrepTDD
    iE-Extensions
                                            ProtocolExtensionContainer { { UL-Timeslot-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs} }
    OPTIONAL,
UL-Timeslot-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIES NBAP-PROTOCOL-EXTENSION ::= {
UL-Code-InformationModify-ModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfDPCHs)) OF UL-Code-InformationModify-ModifyItem-RL-
ReconfPrepTDD
UL-Code-InformationModify-ModifyItem-RL-ReconfPrepTDD ::= SEQUENCE {
    dPCH-ID
                                            DPCH-ID,
    tdd-ChannelisationCode
                                            TDD-ChannelisationCode
                                                                        OPTIONAL.
    iE-Extensions
                                            ProtocolExtensionContainer { { UL-Code-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs} }
    OPTIONAL,
    . . .
UL-Code-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
UL-TimeslotLCR-InformationModify-ModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfULTSLCRs)) OF UL-Timeslot-LCR-InformationModify-
ModifyItem-RL-ReconfPrepTDD -- Applicable to 1.28Mcps TDD only
```

```
UL-Timeslot-LCR-InformationModify-ModifyItem-RL-ReconfPrepTDD ::= SEQUENCE {
    timeSlotLCR
                                            TimeSlotLCR.
    midambleShiftLCR
                                MidambleShiftLCR
                                                        OPTIONAL.
    tFCI-Presence
                                            TFCI-Presence
                                                                OPTIONAL.
    uL-Code-InformationModify-ModifyList-RL-ReconfPrepTDDLCR
                                                                            UL-Code-InformationModify-ModifyList-RL-ReconfPrepTDDLCR
                                            ProtocolExtensionContainer { { UL-Timeslot-LCR-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs} }
    iE-Extensions
       OPTIONAL,
    . . .
UL-Timeslot-LCR-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
UL-Code-InformationModify-ModifyList-RL-ReconfPrepTDDLCR ::= SEQUENCE (SIZE (1..maxNrOfDPCHLCRs)) OF UL-Code-InformationModify-ModifyItem-RL-
ReconfPrepTDDLCR
UL-Code-InformationModify-ModifyItem-RL-ReconfPrepTDDLCR ::= SEQUENCE
    dPCH-ID
                                            DPCH-ID,
    tdd-ChannelisationCodeLCR
                                            TDD-ChannelisationCodeLCR
                                                                            OPTIONAL.
    iE-Extensions
                                            ProtocolExtensionContainer { { UL-Code-InformationModify-ModifyItem-RL-ReconfPrepTDDLCR-ExtIEs} }
    OPTIONAL,
UL-Code-InformationModify-ModifyItem-RL-ReconfPrepTDDLCR-ExtIEs NBAP-PROTOCOL-EXTENSION ::=
    { ID id-UL-DPCH-TimeSlotFormat-LCR-ModifyItem-RL-ReconfPrepTDD CRITICALITY reject EXTENSION TDD-UL-DPCH-TimeSlotFormat-LCR PRESENCE
optional},
UL-DPCH-InformationModify-DeleteList-RL-ReconfPrepTDD ::= ProtocolIE-Single-Container {{ UL-DPCH-InformationModify-DeleteListIEs-RL-ReconfPrepTDD
}}
UL-DPCH-InformationModify-DeleteListIEs-RL-ReconfPrepTDD NBAP-PROTOCOL-IES ::= {
    { ID id-UL-DPCH-InformationModify-DeleteListIE-RL-ReconfPrepTDD CRITICALITY reject
                                                                                                TYPE UL-DPCH-InformationModify-DeleteListIE-RL-
ReconfPrepTDD
                   PRESENCE mandatory }
UL-DPCH-InformationModify-DeleteListIE-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfDPCHs)) OF UL-DPCH-InformationModify-DeleteItem-RL-
ReconfPrepTDD
UL-DPCH-InformationModify-DeleteItem-RL-ReconfPrepTDD ::= SEQUENCE {
    dPCH-ID
                                                DPCH-ID,
    iE-Extensions
                                                ProtocolExtensionContainer { { UL-DPCH-InformationModify-DeleteItem-RL-ReconfPrepTDD-ExtIEs} }
    OPTIONAL,
UL-DPCH-InformationModify-DeleteItem-RL-ReconfPrepTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
```

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```
UL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF UL-CCTrCH-InformationDeleteItem-RL-ReconfPrepTDD
UL-CCTrCH-InformationDeleteItem-RL-ReconfPrepTDD ::= SEQUENCE {
   cCTrCH-ID
   iE-Extensions
                                              ProtocolExtensionContainer { { UL-CCTrCH-InformationDeleteItem-RL-ReconfPrepTDD-ExtIEs} }
   OPTIONAL,
UL-CCTrCH-InformationDeleteItem-RL-ReconfPrepTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
DL-CCTrCH-InformationAddList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF DL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD
DL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD ::= SEQUENCE {
   cCTrCH-ID
                                                  CCTrCH-ID,
   t.FCS
                                                  TFCS,
    tFCI-Coding
                                                  TFCI-Coding
   punctureLimit
                                                  PunctureLimit,
   cCTrCH-TPCList
                                                  CCTrCH-TPCAddList-RL-ReconfPrepTDD
                                                                                                               OPTIONAL,
   dl-DPCH-InformationList
                                                  DL-DPCH-InformationAddList-RL-ReconfPrepTDD
                                                                                                               OPTIONAL,
                                                  ProtocolExtensionContainer { { DL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD-ExtIEs} }
   iE-Extensions
   OPTIONAL,
DL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD-ExtIES NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-DL-DPCH-LCR-InformationAddList-RL-ReconfPrepTDD CRITICALITY reject
                                                                                                                   DL-DPCH-LCR-
InformationAddList-RL-ReconfPrepTDD
                                      PRESENCE optional } -- Applicable to 1.28Mcps TDD only
   { ID id-TDD-TPC-DownlinkStepSize-InformationAdd-RL-ReconfPrepTDD CRITICALITY reject EXTENSION TDD-TPC-DownlinkStepSize PRESENCE optional },
CCTrCH-TPCAddList-RL-ReconfPrepTDD ::= SEOUENCE (SIZE (1..maxNrOfCCTrCHs)) OF CCTrCH-TPCAddItem-RL-ReconfPrepTDD
                                                                                                                  -- Applicable to 3.84Mcps TDD
only
CCTrCH-TPCAddItem-RL-ReconfPrepTDD ::= SEQUENCE {
   cCTrCH-ID
                                          CCTrCH-ID,
   iE-Extensions
                                          OPTIONAL,
CCTrCH-TPCAddItem-RL-ReconfPrepTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    . . .
DL-DPCH-InformationAddList-RL-ReconfPrepTDD ::= ProtocolIE-Single-Container {{ DL-DPCH-InformationAddListIEs-RL-ReconfPrepTDD }}
DL-DPCH-InformationAddListIEs-RL-ReconfPrepTDD NBAP-PROTOCOL-IES ::= {
    { ID id-DL-DPCH-InformationAddListIE-RL-ReconfPrepTDD CRITICALITY reject
                                                                                TYPE DL-DPCH-InformationAddItem-RL-ReconfPrepTDD
                                                                                                                                   PRESENCE
mandatory }
```

```
DL-DPCH-InformationAddItem-RL-ReconfPrepTDD ::= SEQUENCE {
    repetitionPeriod
                                            RepetitionPeriod.
    repetitionLength
                                            RepetitionLength.
    tdd-DPCHOffset
                                            TDD-DPCHOffset.
    dL-Timeslot-Information
                                            DL-Timeslot-Information.
                                            ProtocolExtensionContainer { { DL-DPCH-InformationAddItem-RL-ReconfPrepTDD-ExtIEs} }
    iE-Extensions
                                                                                                                                       OPTIONAL,
DL-DPCH-InformationAddItem-RL-ReconfPrepTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
DL-DPCH-LCR-InformationAddList-RL-ReconfPrepTDD ::= SEQUENCE {
    repetitionPeriod
                                            RepetitionPeriod,
    repetitionLength
                                            RepetitionLength,
    tdd-DPCHOffset
                                            TDD-DPCHOffset,
    dL-Timeslot-InformationLCR
                                            DL-TimeslotLCR-Information,
   iE-Extensions
                                            ProtocolExtensionContainer { { DL-DPCH-LCR-InformationAddItem-RL-ReconfPrepTDD-ExtIEs} }
                                                                                                                                          OPTIONAL,
DL-DPCH-LCR-InformationAddItem-RL-ReconfPrepTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    . . .
DL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD ::= SEOUENCE (SIZE (1..maxNrOfCCTrCHs)) OF DL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD
DL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD ::= SEQUENCE {
    cCTrCH-ID
                                                     CCTrCH-ID,
    t.FCS
                                                    TFCS
                                                                                                                              OPTIONAL,
    tFCI-Coding
                                                    TFCI-Coding
                                                                                                                              OPTIONAL,
    punctureLimit
                                                     PunctureLimit
                                                                                                                              OPTIONAL,
    cCTrCH-TPCList
                                                    CCTrCH-TPCModifyList-RL-ReconfPrepTDD
                                                                                                                              OPTIONAL,
    dl-DPCH-InformationAddList
                                                    DL-DPCH-InformationModify-AddList-RL-ReconfPrepTDD
                                                                                                                        OPTIONAL,
    dl-DPCH-InformationModifyList
                                                    DL-DPCH-InformationModify-ModifyList-RL-ReconfPrepTDD
                                                                                                                     OPTIONAL,
    dl-DPCH-InformationDeleteList
                                                    DL-DPCH-InformationModify-DeleteList-RL-ReconfPrepTDD
                                                                                                                     OPTIONAL,
                                                    ProtocolExtensionContainer { { DL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD-ExtIEs} }
    iE-Extensions
    OPTIONAL,
    . . .
DL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-DL-DPCH-LCR-InformationModify-AddList-RL-ReconfPrepTDD CRITICALITY reject
                                                                                             EXTENSION
                                                                                                                     DL-DPCH-LCR-InformationModify-
AddList-RL-ReconfPrepTDD
                                PRESENCE optional } | -- Applicable to 1.28Mcps TDD only
    { ID id-TDD-TPC-DownlinkStepSize-InformationModify-RL-ReconfPrepTDD CRITICALITY reject EXTENSION
                                                                                                                     TDD-TPC-DownlinkStepSize
    PRESENCE optional }.
CCTrCH-TPCModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF CCTrCH-TPCModifyItem-RL-ReconfPrepTDD
CCTrCH-TPCModifyItem-RL-ReconfPrepTDD
                                         ::= SEQUENCE {
    cCTrCH-ID
                                            CCTrCH-ID,
```

```
iE-Extensions
                                                                                                                     OPTIONAL,
CCTrCH-TPCModifyItem-RL-ReconfPrepTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
DL-DPCH-InformationModify-AddList-RL-ReconfPrepTDD ::= ProtocolIE-Single-Container {{ DL-DPCH-InformationModify-AddListIEs-RL-ReconfPrepTDD }}
-- Applicable to 3.84Mcps TDD only
DL-DPCH-InformationModify-AddListIEs-RL-ReconfPrepTDD NBAP-PROTOCOL-IES ::= {
   TYPE DL-DPCH-InformationModify-AddItem-RL-ReconfPrepTDD
       PRESENCE mandatory }
DL-DPCH-InformationModify-AddItem-RL-ReconfPrepTDD ::= SEQUENCE {
   repetitionPeriod
                                        RepetitionPeriod,
   repetitionLength
                                        RepetitionLength,
   tdd-DPCHOffset
                                        TDD-DPCHOffset,
   dL-Timeslot-Information
                                        DL-Timeslot-Information,
   iE-Extensions
                                        ProtocolExtensionContainer { { DL-DPCH-InformationModify-AddItem-RL-ReconfPrepTDD-ExtIEs} }
   OPTIONAL,
   . . .
DL-DPCH-InformationModify-AddItem-RL-ReconfPrepTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
DL-DPCH-LCR-InformationModify-AddList-RL-ReconfPrepTDD ::= SEQUENCE {
   repetitionPeriod
                                        RepetitionPeriod,
   repetitionLength
                                        RepetitionLength,
                                        TDD-DPCHOffset,
   tdd-DPCHOffset
   dL-Timeslot-InformationLCR
                                        DL-TimeslotLCR-Information,
   iE-Extensions
                                        ProtocolExtensionContainer {    DL-DPCH-LCR-InformationModify-AddItem-RL-ReconfPrepTDD-ExtIEs} }
   OPTIONAL,
DL-DPCH-LCR-InformationModify-AddItem-RL-ReconfPrepTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
DL-DPCH-InformationModifyList-RL-ReconfPrepTDD ::= ProtocolIE-Single-Container {{ DL-DPCH-InformationModifyListIEs-RL-ReconfPrepTDD
}}
DL-DPCH-InformationModify-ModifyListIEs-RL-ReconfPrepTDD NBAP-PROTOCOL-IES ::= {
   { ID id-DL-DPCH-InformationModify-ModifyListIE-RL-ReconfPrepTDD CRITICALITY reject
                                                                                        TYPE DL-DPCH-InformationModify-ModifyItem-RL-
ReconfPrepTDD
                  PRESENCE mandatory }
DL-DPCH-InformationModify-ModifyItem-RL-ReconfPrepTDD ::= SEQUENCE {
   repetitionPeriod
                                        RepetitionPeriod
                                                                  OPTIONAL,
```

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```
repetitionLength
                                            RepetitionLength
                                                                         OPTIONAL,
    tdd-DPCHOffset
                                            TDD-DPCHOffset
                                                                         OPTIONAL.
    dL-Timeslot-InformationAddModify-ModifyList-RL-ReconfPrepTDD
                                                                         DL-Timeslot-InformationModify-ModifyList-RL-ReconfPrepTDD
    iE-Extensions
                                                ProtocolExtensionContainer { { DL-DPCH-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs} }
    OPTIONAL.
    . . .
DL-DPCH-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-DL-Timeslot-LCR-InformationModify-ModifyList-RL-ReconfPrepTDD CRITICALITY reject
                                                                                                                        EXTENSION
                                                                                                                                        DL-Timeslot-
LCR-InformationModify-ModifyList-RL-ReconfPrepTDD
                                                        PRESENCE optional },
    . . .
DL-Timeslot-InformationModify-ModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfDLTSs)) OF DL-Timeslot-InformationModify-ModifyItem-RL-
ReconfPrepTDD
DL-Timeslot-InformationModify-ModifyItem-RL-ReconfPrepTDD
                                                             ::= SEOUENCE {
    timeSlot
                                            TimeSlot,
    midambleShiftAndBurstType
                                            MidambleShiftAndBurstType
                                                                                 OPTIONAL.
    tFCI-Presence
                                            TFCI-Presence
                                                                     OPTIONAL,
    dL-Code-InformationModify-ModifyList-RL-ReconfPrepTDD
                                                                         DL-Code-InformationModify-ModifyList-RL-ReconfPrepTDD
                                            ProtocolExtensionContainer { { DL-Timeslot-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs} }
    iE-Extensions
    OPTIONAL,
DL-Timeslot-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::=
DL-Code-InformationModify-ModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (0..maxNrOfDPCHs)) OF DL-Code-InformationModify-ModifyItem-RL-
ReconfPrepTDD
DL-Code-InformationModify-ModifyItem-RL-ReconfPrepTDD
                                                         ::= SEOUENCE {
    dPCH-ID
                                            DPCH-ID,
    tdd-ChannelisationCode
                                            TDD-ChannelisationCode
                                                                         OPTIONAL,
    iE-Extensions
                                            ProtocolExtensionContainer { { DL-Code-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs} }
    OPTIONAL,
DL-Code-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
DL-Timeslot-LCR-InformationModify-ModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfDLTSLCRs)) OF DL-Timeslot-LCR-InformationModify-
ModifyItem-RL-ReconfPrepTDD
DL-Timeslot-LCR-InformationModify-ModifyItem-RL-ReconfPrepTDD
                                                                  ::= SEOUENCE
    timeSlotLCR
                                            TimeSlotLCR,
    midambleShiftLCR
                                MidambleShiftLCR
                                                            OPTIONAL,
    tFCI-Presence
                                            TFCI-Presence
                                                                     OPTIONAL,
    dL-Code-LCR-InformationModify-ModifyList-RL-ReconfPrepTDD
                                                                             DL-Code-LCR-InformationModify-ModifyList-RL-ReconfPrepTDD
    OPTIONAL,
```

```
ProtocolExtensionContainer { { DL-Timeslot-LCR-InformationModifyItem-RL-ReconfPrepTDD-ExtIEs} }
   iE-Extensions
      OPTIONAL.
   . . .
DL-Timeslot-LCR-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
DL-Code-LCR-InformationModify-ModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfDPCHLCRs)) OF DL-Code-LCR-InformationModify-ModifyItem-RL-
ReconfPrepTDD
DL-Code-LCR-InformationModify-ModifyItem-RL-ReconfPrepTDD
                                                     ::= SEOUENCE {
   tdd-ChannelisationCodeLCR
                                      TDD-ChannelisationCodeLCR
                                                                  OPTIONAL.
   iE-Extensions
                                      ProtocolExtensionContainer { | DL-Code-LCR-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs} }
   OPTIONAL,
   . . .
DL-Code-LCR-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIES NBAP-PROTOCOL-EXTENSION ::= {
   { ID id-DL-DPCH-TimeSlotFormat-LCR-ModifyItem-RL-ReconfPrepTDD CRITICALITY
                                                                       reject EXTENSION TDD-DL-DPCH-TimeSlotFormat-LCR PRESENCE
optional},
   . . .
DL-DPCH-InformationModify-DeleteList-RL-ReconfPrepTDD ::= ProtocolIE-Single-Container {{ DL-DPCH-InformationModify-DeleteListIEs-RL-ReconfPrepTDD
}}
DL-DPCH-InformationModify-DeleteListIEs-RL-ReconfPrepTDD NBAP-PROTOCOL-IES ::= {
   TYPE DL-DPCH-InformationModify-DeleteListIE-RL-
ReconfPrepTDD
                 PRESENCE mandatory }
DL-DPCH-InformationModify-DeleteListIE-RL-ReconfPrepTDD ::= SEOUENCE (SIZE (1...maxNrOfDPCHs)) OF DL-DPCH-InformationModify-DeleteItem-RL-
ReconfPrepTDD
DL-DPCH-InformationModify-DeleteItem-RL-ReconfPrepTDD ::= SEQUENCE {
   dPCH-ID
   iE-Extensions
                                          OPTIONAL,
   . . .
DL-DPCH-InformationModify-DeleteItem-RL-ReconfPrepTDD-ExtIES NBAP-PROTOCOL-EXTENSION ::= {
DL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF DL-CCTrCH-InformationDeleteItem-RL-ReconfPrepTDD
DL-CCTrCH-InformationDeleteItem-RL-ReconfPrepTDD ::= SEQUENCE {
   cCTrCH-ID
                                             CCTrCH-ID,
   iE-Extensions
                                             OPTIONAL,
```

```
DL-CCTrCH-InformationDeleteItem-RL-ReconfPrepTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
DCH-DeleteList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-DeleteItem-RL-ReconfPrepTDD
DCH-DeleteItem-RL-ReconfPrepTDD ::= SEQUENCE {
   dCH-ID
                                           DCH-ID,
   iE-Extensions
                                           ProtocolExtensionContainer { { DCH-DeleteItem-RL-ReconfPrepTDD-ExtIEs} }
                                                                                                                OPTIONAL,
   . . .
DCH-DeleteItem-RL-ReconfPrepTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
DSCH-Information-ModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfDSCHs)) OF DSCH-Information-ModifyItem-RL-ReconfPrepTDD
DSCH-Information-ModifyItem-RL-ReconfPrepTDD ::= SEQUENCE {
   dsch-ID
                                           DSCH-ID,
   cCTrCH-ID
                                           CCTrCH-ID
                                                                 OPTIONAL,
   transportFormatSet
                                           TransportFormatSet
                                                                OPTIONAL,
   allocationRetentionPriority
                                           AllocationRetentionPriority OPTIONAL,
   frameHandlingPriority
                                           FrameHandlingPriority
                                                                OPTIONAL,
   toAWS
                                           ToAWS
                                                                 OPTIONAL,
   toAWE
                                           ToAWE
                                                                 OPTIONAL,
   transportBearerRequestIndicator
                                           TransportBearerRequestIndicator,
   iE-Extensions
                                           DSCH-Information-ModifyItem-RL-ReconfPrepTDD-ExtIES NBAP-PROTOCOL-EXTENSION ::= {
DSCH-Information-DeleteList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfDSCHs)) OF DSCH-Information-DeleteItem-RL-ReconfPrepTDD
DSCH-Information-DeleteItem-RL-ReconfPrepTDD ::= SEQUENCE {
   dSCH-ID
                                           DSCH-ID,
   iE-Extensions
                                           OPTIONAL,
DSCH-Information-DeleteItem-RL-ReconfPrepTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
USCH-Information-ModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfUSCHs)) OF USCH-Information-ModifyItem-RL-ReconfPrepTDD
USCH-Information-ModifyItem-RL-ReconfPrepTDD ::= SEQUENCE {
   uSCH-ID
                                           USCH-ID,
```

```
transportFormatSet
                                           TransportFormatSet
                                                                 OPTIONAL,
   allocationRetentionPriority
                                           AllocationRetentionPriority OPTIONAL,
   cCTrCH-ID
                                           CCTrCH-ID
                                                                 OPTIONAL.
   transportBearerRequestIndicator
                                           TransportBearerRequestIndicator,
   iE-Extensions
                                           ProtocolExtensionContainer { { USCH-Information-ModifyItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
USCH-Information-ModifyItem-RL-ReconfPrepTDD-ExtIES NBAP-PROTOCOL-EXTENSION ::= {
USCH-Information-DeleteList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfUSCHs)) OF USCH-Information-DeleteItem-RL-ReconfPrepTDD
USCH-Information-DeleteItem-RL-ReconfPrepTDD ::= SEQUENCE {
   uSCH-ID
   iE-Extensions
                                           ProtocolExtensionContainer { { USCH-Information-DeleteItem-RL-ReconfPrepTDD-ExtIEs} }
USCH-Information-DeleteItem-RL-ReconfPrepTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
RL-Information-RL-ReconfPrepTDD ::= SEQUENCE {
   rL-ID
                                           RL-ID,
   maxDL-Power
                                           DL-Power
                                                             OPTIONAL,
   minDL-Power
                                           DL-Power
                                                             OPTIONAL,
                                           iE-Extensions
                                                                                                                OPTIONAL,
   . . .
RL-Information-RL-ReconfPrepTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
     ID id-InitDL-Power
                            CRITICALITY ignore
                                                  EXTENSION DL-Power
                                                                        PRESENCE optional
   { ID id-UL-Synchronisation-Parameters-LCR
                                                  CRITICALITY ignore
                                                                        EXTENSION UL-Synchronisation-Parameters-LCR
                                                                                                                     PRESENCE
   optional
            }, -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD
  -- RADIO LINK RECONFIGURATION READY
  *****************
RadioLinkReconfigurationReady ::= SEOUENCE {
   protocolIEs
                        ProtocolIE-Container
                                             {{RadioLinkReconfigurationReady-IEs}},
                         ProtocolExtensionContainer {{RadioLinkReconfigurationReady-Extensions}}
   protocolExtensions
                                                                                                           OPTIONAL.
   . . .
RadioLinkReconfigurationReady-IEs NBAP-PROTOCOL-IES ::= {
```

```
id-CRNC-CommunicationContextID
                                                                                                        CRNC-CommunicationContextID
                                                         CRITICALITY
                                                                        ignore
                                                                                  TYPE
                  PRESENCE
                            mandatory } |
   { ID
          id-RL-InformationResponseList-RL-ReconfReady
                                                                        ignore
                                                                                                        RL-InformationResponseList-RL-
                                                         CRITICALITY
                                                                                  TYPE
ReconfReady
              PRESENCE
                        optional
          id-CriticalityDiagnostics
                                                         CRITICALITY
                                                                        ignore
                                                                                                        CriticalityDiagnostics
   { ID
                                                                                  TYPE
              PRESENCE
                         optional
RadioLinkReconfigurationReady-Extensions NBAP-PROTOCOL-EXTENSION ::= {
RL-InformationResponseList-RL-ReconfReady
                                        ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container {{ RL-InformationResponseItemIE-RL-
ReconfReady } }
RL-InformationResponseItemIE-RL-ReconfReady NBAP-PROTOCOL-IES ::= {
         id-RL-InformationResponseItem-RL-ReconfReady
                                                             CRITICALITY
                                                                           ignore
                                                                                                        TYPE RL-
InformationResponseItem-RL-ReconfReady
                                       PRESENCE
                                                  mandatory }
RL-InformationResponseItem-RL-ReconfReady ::= SEQUENCE {
                                              RL-ID,
   dCH-InformationResponseList-RL-ReconfReady
                                               DCH-InformationResponseList-RL-ReconfReady OPTIONAL.
   dSCH-InformationResponseList-RL-ReconfReady
                                              DSCH-InformationResponseList-RL-ReconfReady OPTIONAL,
   uSCH-InformationResponseList-RL-ReconfReady
                                              USCH-InformationResponseList-RL-ReconfReady OPTIONAL, -- TDD only
   tFCI2-BearerInformationResponse
                                              TFCI2-BearerInformationResponse
                                                                               OPTIONAL,
   -- FDD only. There shall be only one TFCI2 bearer per Node B Communication Context.
   iE-Extensions
                                              OPTIONAL,
   . . .
RL-InformationResponseItem-RL-ReconfReady-ExtIES NBAP-PROTOCOL-EXTENSION ::= {
DCH-InformationResponseList-RL-ReconfReady: = ProtocolIE-Single-Container {{ DCH-InformationResponseListIEs-RL-ReconfReady }}
DCH-InformationResponseListIEs-RL-ReconfReady NBAP-PROTOCOL-IES ::= {
   PRESENCE mandatory }
DSCH-InformationResponseList-RL-ReconfReady: = ProtocolIE-Single-Container {{ DSCH-InformationResponseListIEs-RL-ReconfReady }}
DSCH-InformationResponseListIEs-RL-ReconfReady NBAP-PROTOCOL-IES ::= {
    ID id-DSCH-InformationResponse CRITICALITY ignore TYPE DSCH-InformationResponse PRESENCE mandatory }
USCH-InformationResponseList-RL-ReconfReady: = ProtocolIE-Single-Container {{ USCH-InformationResponseListIEs-RL-ReconfReady }}
USCH-InformationResponseListIEs-RL-ReconfReady NBAP-PROTOCOL-IES ::= {
   PRESENCE mandatory }
```

```
-- RADIO LINK RECONFIGURATION FAILURE
__ **********************
RadioLinkReconfigurationFailure ::= SEOUENCE {
   protocolIEs
                         ProtocolIE-Container
                                                {{RadioLinkReconfigurationFailure-IEs}},
                         ProtocolExtensionContainer {{RadioLinkReconfigurationFailure-Extensions}}
   protocolExtensions
                                                                                                              OPTIONAL,
RadioLinkReconfigurationFailure-IEs NBAP-PROTOCOL-IES ::= {
          id-CRNC-CommunicationContextID
                                                                                                           CRNC-CommunicationContextID
                                                           CRITICALITY
                                                                          ignore
                                                                                     TYPE
                      PRESENCE
                                 mandatory
           id-CauseLevel-RL-ReconfFailure CRITICALITY
                                                                                                              PRESENCE mandatory
     ID
                                                                  TYPE
                                                                          CauseLevel-RL-ReconfFailure
     ID
          id-CriticalityDiagnostics
                                                                                                           CriticalityDiagnostics
                                                           CRITICALITY
                                                                          ignore
                                                                                     TYPE
                  PRESENCE
                             optional
   . . .
RadioLinkReconfigurationFailure-Extensions NBAP-PROTOCOL-EXTENSION ::= {
   . . .
CauseLevel-RL-ReconfFailure ::= CHOICE {
   generalCause
                      GeneralCauseList-RL-ReconfFailure,
   rLSpecificCause
                      RLSpecificCauseList-RL-ReconfFailure,
GeneralCauseList-RL-ReconfFailure ::= SEQUENCE
   iE-Extensions
                                            ProtocolExtensionContainer { { GeneralCauseItem-RL-ReconfFailure-ExtIEs} }
                                                                                                                         OPTIONAL.
GeneralCauseItem-RL-ReconfFailure-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
RLSpecificCauseList-RL-ReconfFailure ::= SEQUENCE {
   rL-ReconfigurationFailureList-RL-ReconfFailure
                                                    RL-ReconfigurationFailureList-RL-ReconfFailure
                                                                                                              OPTIONAL,
   iE-Extensions
                                                    OPTIONAL,
   . . .
RLSpecificCauseItem-RL-ReconfFailure-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
```

```
RL-ReconfigurationFailureList-RL-ReconfFailure ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container {{ RL-
ReconfigurationFailureItemIE-RL-ReconfFailure}}
RL-ReconfigurationFailureItemIE-RL-ReconfFailure NBAP-PROTOCOL-IES ::= {
         id-RL-ReconfigurationFailureItem-RL-ReconfFailure
                                                             CRITICALITY
                                                                           ignore
                                                                                                   TYPE RL-
ReconfigurationFailureItem-RL-ReconfFailure
                                            PRESENCE
                                                      mandatory}
RL-ReconfigurationFailureItem-RL-ReconfFailure ::= SEQUENCE {
   rL-ID
                                         RL-ID,
   cause
                                         Cause,
                                         iE-Extensions
   OPTIONAL,
RL-ReconfigurationFailureItem-RL-ReconfFailure-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ******************
-- RADIO LINK RECONFIGURATION COMMIT
  RadioLinkReconfigurationCommit ::= SEQUENCE
   protocolIEs
                       ProtocolIE-Container
                                            {{RadioLinkReconfigurationCommit-IEs}},
                       ProtocolExtensionContainer {{RadioLinkReconfigurationCommit-Extensions}}
   protocolExtensions
                                                                                                     OPTIONAL,
RadioLinkReconfigurationCommit-IEs NBAP-PROTOCOL-IES ::= {
         id-NodeB-CommunicationContextID
    ID
                                                                           NodeB-CommunicationContextID
                                                                                                        PRESENCE mandatory } |
                                            CRITICALITY
                                                          ignore
                                                                    TYPE
    ID
         id-CFN
                                            CRITICALITY
                                                          ignore
                                                                    TYPE
                                                                           CFN
                                                                                                                  PRESENCE
   mandatory } |
   { ID
          id-Active-Pattern-Sequence-Information CRITICALITY
                                                          ignore
                                                                    TYPE
                                                                           Active-Pattern-Sequence-Information PRESENCE optional },
   . . .
RadioLinkReconfigurationCommit-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    *****************
-- RADIO LINK RECONFIGURATION CANCEL
  *****************
RadioLinkReconfigurationCancel ::= SEQUENCE
   protocolIEs
                       ProtocolIE-Container
                                            {{RadioLinkReconfigurationCancel-IEs}},
                       ProtocolExtensionContainer {{RadioLinkReconfigurationCancel-Extensions}}
   protocolExtensions
                                                                                                     OPTIONAL,
   . . .
```

```
RadioLinkReconfigurationCancel-IES NBAP-PROTOCOL-IES ::= {
           id-NodeB-CommunicationContextID
                                                  CRITICALITY
                                                                 ignore
                                                                             TYPE
                                                                                    NodeB-CommunicationContextID
                                                                                                                       PRESENCE mandatory },
   . . .
RadioLinkReconfigurationCancel-Extensions NBAP-PROTOCOL-EXTENSION ::= {
  *****************
-- RADIO LINK RECONFIGURATION REQUEST FDD
      ******************
RadioLinkReconfigurationRequestFDD ::= SEQUENCE {
                                                  {{RadioLinkReconfigurationRequestFDD-IEs}},
   protocolIEs
                          ProtocolIE-Container
                          ProtocolExtensionContainer {{RadioLinkReconfigurationRequestFDD-Extensions}}
   protocolExtensions
                                                                                                                 OPTIONAL,
RadioLinkReconfigurationRequestFDD-IEs NBAP-PROTOCOL-IES ::= {
           id-NodeB-CommunicationContextID
                                                         CRITICALITY
                                                                         reject
                                                                                    TYPE
                                                                                            NodeB-CommunicationContextID
                                                                                                                                PRESENCE
   mandatory }
           id-UL-DPCH-Information-RL-ReconfRqstFDD
    { ID
                                                         CRITICALITY
                                                                         reject
                                                                                    TYPE
                                                                                            UL-DPCH-Information-RL-ReconfRgstFDD
                                                                                                                                      PRESENCE
    optional } |
    { ID
          id-DL-DPCH-Information-RL-ReconfRqstFDD
                                                         CRITICALITY
                                                                         reject
                                                                                    TYPE
                                                                                            DL-DPCH-Information-RL-ReconfRgstFDD
                                                                                                                                     PRESENCE
    optional } |
          id-FDD-DCHs-to-Modify
     ID
                                              CRITICALITY
                                                             reject
                                                                         TYPE
                                                                                 FDD-DCHs-to-Modify
                                                                                                                       PRESENCE optional } |
                                                                                                                          PRESENCE optional }
           id-DCHs-to-Add-FDD
                                              CRITICALITY
                                                                         TYPE
                                                                                DCH-FDD-Information
    { ID
                                                             reject
           id-DCH-DeleteList-RL-ReconfRqstFDD
                                                         CRITICALITY
                                                                                            DCH-DeleteList-RL-ReconfRqstFDD
                                                                                                                                   PRESENCE
    { ID
                                                                         reject
                                                                                    TYPE
    optional }
    { ID
          id-RL-InformationList-RL-ReconfRqstFDD
                                                         CRITICALITY
                                                                                    TYPE
                                                                                            RL-InformationList-RL-ReconfRqstFDD
                                                                                                                                     PRESENCE
                                                                         reject
    optional
                                                                                            Transmission-Gap-Pattern-Sequence-Information
    { ID id-Transmission-Gap-Pattern-Sequence-Information
                                                         CRITICALITY
                                                                         reject
                                                                                    TYPE
PRESENCE optional },
    . . .
RadioLinkReconfigurationRequestFDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
UL-DPCH-Information-RL-ReconfRqstFDD ::= SEQUENCE {
   ul-TFCS
                                                                 OPTIONAL,
                                                  ProtocolExtensionContainer { { UL-DPCH-Information-RL-ReconfRqstFDD-ExtIEs} } 
   iE-Extensions
                                                                                                                                OPTIONAL,
UL-DPCH-Information-RL-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
```

```
DL-DPCH-Information-RL-ReconfRgstFDD ::= SEQUENCE {
                                                                 OPTIONAL.
   tFCI-SignallingMode
                                                  TFCI-SignallingMode
                                                                                        OPTIONAL,
   limitedPowerIncrease
                                                 LimitedPowerIncrease
                                                                                        OPTIONAL,
   iE-Extensions
                                                  DL-DPCH-Information-RL-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
DCH-DeleteList-RL-ReconfRgstFDD ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-DeleteItem-RL-ReconfRgstFDD
DCH-DeleteItem-RL-ReconfRqstFDD ::= SEQUENCE {
   dCH-ID
                                                  DCH-ID,
   iE-Extensions
                                                  ProtocolExtensionContainer { { DCH-DeleteItem-RL-ReconfRgstFDD-ExtIEs} } }
                                                                                                                             OPTIONAL,
    . . .
DCH-DeleteItem-RL-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
RL-InformationList-RL-ReconfRgstFDD ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container {{ RL-InformationItemIE-RL-ReconfRgstFDD}}
RL-InformationItemIE-RL-ReconfRqstFDD NBAP-PROTOCOL-IES ::= {
   { ID id-RL-InformationItem-RL-ReconfRqstFDD
                                                             CRITICALITY
                                                                                                               RL-InformationItem-RL-
                                                                            reject
                                                                                            TYPE
ReconfRqstFDD
                       PRESENCE
                                  mandatory }
RL-InformationItem-RL-ReconfRqstFDD ::= SEQUENCE {
                                              RL-ID,
   maxDL-Power
                                              DL-Power
                                                             OPTIONAL,
   minDL-Power
                                                             OPTIONAL,
                                              DL-Power
   dl-CodeInformation
                                          FDD-DL-CodeInformation
-- The IE shall be present if the Transmission Gap Pattern Sequence Information IE is included and the indicated Downlink Compressed Mode method
for at least one of the included Transmission Gap Pattern Sequence is set to "SF/2".
   iE-Extensions
                                              ProtocolExtensionContainer { { RL-InformationItem-RL-ReconfRqstFDD-ExtIEs} }
                                                                                                                             OPTIONAL,
RL-InformationItem-RL-ReconfRgstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
-- RADIO LINK RECONFIGURATION REQUEST TDD
```

```
__ *********************
RadioLinkReconfigurationRequestTDD ::= SEQUENCE {
    protocolIEs
                           ProtocolIE-Container
                                                   {{RadioLinkReconfigurationRequestTDD-IEs}},
    protocolExtensions
                           ProtocolExtensionContainer {{RadioLinkReconfigurationRequestTDD-Extensions}}
                                                                                                                     OPTIONAL.
RadioLinkReconfigurationRequestTDD-IES NBAP-PROTOCOL-IES ::= {
           id-NodeB-CommunicationContextID
    { ID
                                                                   CRITICALITY
                                                                                   reject
                                                                                                                  TYPE NodeB-
CommunicationContextID
                                       PRESENCE
                                                   mandatory
           id-UL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD
                                                                       CRITICALITY
                                                                                       notify
                                                                                                                     TYPE UL-CCTrCH-
InformationModifyList-RL-ReconfRqstTDD
                                           PRESENCE
                                                       optional
           id-UL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD
                                                                       CRITICALITY
                                                                                       notify
                                                                                                                     TYPE UL-CCTrCH-
InformationDeleteList-RL-ReconfRqstTDD
                                           PRESENCE
                                                       optional
           id-DL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD
                                                                       CRITICALITY
                                                                                       notify
                                                                                                                     TYPE DL-CCTrCH-
InformationModifyList-RL-ReconfRqstTDD
                                                       optional
                                           PRESENCE
           id-DL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD
                                                                       CRITICALITY
                                                                                       notify
                                                                                                                     TYPE DL-CCTrCH-
InformationDeleteList-RL-ReconfRqstTDD
                                           PRESENCE
                                                       optional
           id-TDD-DCHs-to-Modify
                                                       CRITICALITY
                                                                                                                              PRESENCE optional }
    { ID
                                                                       reject
                                                                                       TYPE
                                                                                              TDD-DCHs-to-Modify
        { ID
               id-DCHs-to-Add-TDD
                                                           CRITICALITY
                                                                                           TYPE
                                                                                                                  DCH-TDD-Information
                                                                           reject
    PRESENCE
               optional
    { ID
          id-DCH-DeleteList-RL-ReconfRastTDD
                                                                   CRITICALITY
                                                                                   reject
                                                                                                                  TYPE DCH-DeleteList-RL-
ReconfRastTDD
                               PRESENCE
                                           optional
           id-RL-Information-RL-ReconfRqstTDD
                                                                               reject
                                                                                               TYPE
                                                                                                                  RL-Information-RL-ReconfRqstTDD
                                                               CRITICALITY
               PRESENCE
                         optional
RadioLinkReconfigurationRequestTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
UL-CCTrCH-InformationModifyList-RL-ReconfRostTDD ::= SEOUENCE (SIZE (1..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container {{ UL-CCTrCH-
InformationModifyItemIE-RL-ReconfRqstTDD}}
UL-CCTrCH-InformationModifyItemIE-RL-ReconfRqstTDD NBAP-PROTOCOL-IES ::=
           id-UL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD
                                                                       CRITICALITY
                                                                                       notify
                                                                                                                     TYPE UL-CCTrCH-
InformationModifyItem-RL-ReconfRqstTDD
                                                       mandatory }
UL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD ::= SEQUENCE {
    cCTrCH-ID
                                                   CCTrCH-ID,
    t FCS
                                                   TFCS
                                                                   OPTIONAL,
    punctureLimit
                                                   PunctureLimit
                                                                   OPTIONAL,
    iE-Extensions
                                                   ProtocolExtensionContainer { { UL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD-ExtIEs} }
    OPTIONAL,
    . . .
UL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::=
    { ID id-UL-SIRTarget
                               CRITICALITY reject
                                                       EXTENSION
                                                                                   PRESENCE
                                                                                              optional },
                                                                       UL-SIR
    -- Applicable to 1.28Mcps TDD only
```

```
UL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container {{ UL-CCTrCH-
InformationDeleteItemIE-RL-ReconfRgstTDD}}
UL-CCTrCH-InformationDeleteItemIE-RL-ReconfRqstTDD NBAP-PROTOCOL-IES ::= {
           id-UL-CCTrCH-InformationDeleteItem-RL-ReconfRgstTDD
                                                                        CRITICALITY
                                                                                        notify
                                                                                                                       TYPE UL-CCTrCH-
InformationDeleteItem-RL-ReconfRqstTDD
                                            PRESENCE
                                                       mandatory}
UL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD ::= SEQUENCE {
    cCTrCH-ID
    iE-Extensions
                                                    ProtocolExtensionContainer { { UL-CCTrCH-InformationDeleteItem-RL-ReconfRgstTDD-ExtIEs} }
   OPTIONAL,
UL-CCTrCH-InformationDeleteItem-RL-ReconfRgstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
DL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container {{ DL-CCTrCH-
InformationModifyItemIE-RL-ReconfRqstTDD}}
DL-CCTrCH-InformationModifyItemIE-RL-ReconfRqstTDD NBAP-PROTOCOL-IES ::= {
           id-DL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD
                                                                                        notify
                                                                        CRITICALITY
                                                                                                                       TYPE DL-CCTrCH-
InformationModifyItem-RL-ReconfRqstTDD
                                            PRESENCE
                                                        mandatory }
DL-CCTrCH-InformationModifyItem-RL-ReconfRgstTDD ::= SEQUENCE {
    cCTrCH-ID
                                                    CCTrCH-ID,
    t FCS
                                                    TFCS
                                                                    OPTIONAL,
    punctureLimit
                                                    PunctureLimit OPTIONAL,
                                                    ProtocolExtensionContainer { { DL-CCTrCH-InformationModifyItem-RL-ReconfRgstTDD-ExtIEs} }
   iE-Extensions
   OPTIONAL,
DL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD-ExtIES NBAP-PROTOCOL-EXTENSION ::= {
DL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container {{ DL-CCTrCH-
InformationDeleteItemIE-RL-ReconfRqstTDD}}
DL-CCTrCH-InformationDeleteItemIE-RL-ReconfRgstTDD NBAP-PROTOCOL-IES ::= {
           id-DL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD
                                                                        CRITICALITY
                                                                                        notify
                                                                                                                       TYPE DL-CCTrCH-
InformationDeleteItem-RL-ReconfRqstTDD
                                            PRESENCE
DL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD ::= SEQUENCE {
    cCTrCH-ID
                                                    CCTrCH-ID,
```

```
ProtocolExtensionContainer { { DL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD-ExtIEs} }
   iE-Extensions
   OPTIONAL,
DL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
DCH-DeleteList-RL-ReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-DeleteItem-RL-ReconfRqstTDD
DCH-DeleteItem-RL-ReconfRqstTDD ::= SEQUENCE {
   dCH-ID
   iE-Extensions
                                               OPTIONAL
DCH-DeleteItem-RL-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
RL-Information-RL-ReconfRqstTDD ::= SEQUENCE {
                                           RL-ID,
   maxDL-Power
                                           DL-Power
                                                         OPTIONAL,
   minDL-Power
                                           DL-Power
                                                         OPTIONAL,
                                           ProtocolExtensionContainer { { RL-InformationItem-RL-ReconfRqstTDD-ExtIEs} }
   iE-Extensions
                                                                                                                      OPTIONAL.
RL-InformationItem-RL-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
   { ID id-UL-Synchronisation-Parameters-LCR
                                                  CRITICALITY ignore
                                                                        EXTENSION UL-Synchronisation-Parameters-LCR
                                                                                                                      PRESENCE
              }, -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD
   optional
   . . .
  ******************
-- RADIO LINK RECONFIGURATION RESPONSE
  RadioLinkReconfigurationResponse ::= SEQUENCE {
                                               {{RadioLinkReconfigurationResponse-IEs}},
   protocolIEs
                         ProtocolIE-Container
                         ProtocolExtensionContainer {{RadioLinkReconfigurationResponse-Extensions}}
   protocolExtensions
                                                                                                           OPTIONAL,
   . . .
RadioLinkReconfigurationResponse-IEs NBAP-PROTOCOL-IES ::= {
          id-CRNC-CommunicationContextID
                                                      CRITICALITY ignore
                                                                            TYPE
                                                                                   CRNC-CommunicationContextID
                                                                                                                           PRESENCE
   mandatory }
   { ID
          id-RL-InformationResponseList-RL-ReconfRsp
                                                      CRITICALITY ignore
                                                                            TYPE
                                                                                   RL-InformationResponseList-RL-ReconfRsp
                                                                                                                              PRESENCE
   optional
   { ID
          id-CriticalityDiagnostics
                                                      CRITICALITY ignore
                                                                            TYPE
                                                                                   CriticalityDiagnostics
                                                                                                                        PRESENCE
   optional
```

```
RadioLinkReconfigurationResponse-Extensions NBAP-PROTOCOL-EXTENSION ::= {
RL-InformationResponseList-RL-ReconfRsp ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container {{RL-InformationResponseItemIE-RL-
ReconfRsp } }
RL-InformationResponseItemIE-RL-ReconfRsp NBAP-PROTOCOL-IES ::= {
          id-RL-InformationResponseItem-RL-ReconfRsp
                                                         CRITICALITY
                                                                        ignore
                                                                                      TYPE
                                                                                                        RL-InformationResponseItem-RL-
ReconfRsp
                 PRESENCE
                            mandatory}
RL-InformationResponseItem-RL-ReconfRsp ::= SEOUENCE {
   dCH-InformationResponseList-RL-ReconfRsp
                                               DCH-InformationResponseList-RL-ReconfRsp
   iE-Extensions
                                           OPTIONAL,
RL-InformationResponseItem-RL-ReconfRsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
DCH-InformationResponseList-RL-ReconfRsp::= ProtocolIE-Single-Container {{ DCH-InformationResponseListIEs-RL-ReconfRsp }}
DCH-InformationResponseListIEs-RL-ReconfRsp NBAP-PROTOCOL-IES ::= {
   TYPE DCH-InformationResponse
                                                                                   PRESENCE mandatory }
-- RADIO LINK DELETION REQUEST
__ *********************
RadioLinkDeletionRequest ::= SEQUENCE {
   protocolIEs
                        ProtocolIE-Container
                                             {{RadioLinkDeletionRequest-IEs}},
   protocolExtensions
                      ProtocolExtensionContainer {{RadioLinkDeletionRequest-Extensions}}
                                                                                                        OPTIONAL,
RadioLinkDeletionRequest-IEs NBAP-PROTOCOL-IES ::= {
          id-NodeB-CommunicationContextID
                                                      CRITICALITY
                                                                    reject
                                                                                   TYPE
                                                                                                        NodeB-CommunicationContextID
          PRESENCE
                    mandatory
          id-CRNC-CommunicationContextID
                                                      CRITICALITY
                                                                    reject
                                                                                      TYPE
                                                                                                        CRNC-CommunicationContextID
          PRESENCE
                     mandatory
                                                                                                        RL-informationList-RL-
          id-RL-informationList-RL-DeletionRgst
                                                      CRITICALITY
                                                                    notify
                                                                                   TYPE
DeletionRqst
                     PRESENCE
                                mandatory
   . . .
```

```
RadioLinkDeletionRequest-Extensions NBAP-PROTOCOL-EXTENSION ::= {
RL-informationList-RL-DeletionRqst ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container {{RL-informationItemIE-RL-DeletionRqst}}
RL-informationItemIE-RL-DeletionRqst NBAP-PROTOCOL-IES ::= {
                                                  CRITICALITY
                                                                                                  RL-informationItem-RL-
   { ID id-RL-informationItem-RL-DeletionRqst
                                                                notify
                                                                              TYPE
                       PRESENCE
DeletionRqst
                                 mandatory }
RL-informationItem-RL-DeletionRqst ::= SEQUENCE {
   iE-Extensions
                                        OPTIONAL,
RL-informationItem-RL-DeletionRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ******************
-- RADIO LINK DELETION RESPONSE
       *****************
RadioLinkDeletionResponse ::= SEQUENCE {
                       ProtocolIE-Container
   protocolIEs
                                            {{RadioLinkDeletionResponse-IEs}},
                       ProtocolExtensionContainer {{RadioLinkDeletionResponse-Extensions}}
   protocolExtensions
                                                                                                    OPTIONAL,
   . . .
RadioLinkDeletionResponse-IEs NBAP-PROTOCOL-IES ::= {
         id-CRNC-CommunicationContextID
                                           CRITICALITY
                                                         ignore
                                                                       TYPE
                                                                              CRNC-CommunicationContextID
                                                                                                              PRESENCE
   mandatory } |
         id-CriticalityDiagnostics
                                                                              CriticalityDiagnostics
                                                                                                            PRESENCE optional },
   { ID
                                            CRITICALITY
                                                         ignore
                                                                       TYPE
   . . .
RadioLinkDeletionResponse-Extensions NBAP-PROTOCOL-EXTENSION ::= {
  ******************
-- DL POWER CONTROL REQUEST FDD
__ ********************************
DL-PowerControlRequest ::= SEQUENCE {
```

```
ProtocolIE-Container
                                                {{DL-PowerControlRequest-IEs}},
   protocolIEs
   protocolExtensions
                          ProtocolExtensionContainer {{DL-PowerControlRequest-Extensions}}
                                                                                                           OPTIONAL.
DL-PowerControlRequest-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-NodeB-CommunicationContextID
                                            CRITICALITY ignore
                                                                      TYPE
                                                                             NodeB-CommunicationContextID
                                                                                                                   PRESENCE mandatory
     ID id-PowerAdjustmentType
                                            CRITICALITY ignore TYPE PowerAdjustmentType
                                                                                                                PRESENCE mandatory
     ID id-DLReferencePower
                                            CRITICALITY ignore TYPE DL-Power
                                                                                                                PRESENCE conditional }
   -- This IE shall be present if the Adjustment Type IE is set to 'Common'
   { ID id-InnerLoopDLPCStatus
                                            CRITICALITY ignore TYPE InnerLoopDLPCStatus
                                                                                                                PRESENCE optional }
   { ID id-DLReferencePowerList-DL-PC-Rgst
                                            CRITICALITY ignore TYPE DL-ReferencePowerInformationList-DL-PC-Rgst PRESENCE conditional }
   -- This IE shall be present if the Adjustment Type IE is set to 'Individual'
   { ID id-MaxAdjustmentStep
                                                                                                           PRESENCE conditional }
                                            CRITICALITY ignore TYPE MaxAdjustmentStep
   -- This IE shall be present if the Adjustment Type IE is set to 'Common' or 'Individual'
                                                                                                           PRESENCE conditional } |
   { ID id-AdjustmentPeriod
                                            CRITICALITY ignore TYPE AdjustmentPeriod
   -- This IE shall be present if the Adjustment Type IE is set to 'Common' or 'Individual'
   { ID id-AdjustmentRatio
                                 CRITICALITY ignore TYPE ScaledAdjustmentRatio
                                                                                     PRESENCE conditional
   -- This IE shall be present if the Adjustment Type IE is set to 'Common' or 'Individual'
DL-PowerControlRequest-Extensions NBAP-PROTOCOL-EXTENSION ::= {
DL-ReferencePowerInformationList-DL-PC-Rgst ::= SEOUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container {{DL-
ReferencePowerInformationItemIE-DL-PC-Rgst }}
DL-ReferencePowerInformationItemIE-DL-PC-Rgst NBAP-PROTOCOL-IES ::= {
    { ID id-DL-ReferencePowerInformationItem-DL-PC-Rqst
                                                       CRITICALITY
                                                                                 TYPE
                                                                                         DL-ReferencePowerInformationItem-DL-PC-Rqst
                                                                       ignore
   PRESENCE
              mandatory
DL-ReferencePowerInformationItem-DL-PC-Rqst ::= SEQUENCE {
   rL-ID
                                        RL-ID,
   dl-ReferencePower
                                        DL-Power,
   iE-Extensions
                                        OPTIONAL,
DL-ReferencePowerInformationItem-DL-PC-Rqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    *****************
-- DL POWER TIMESLOT CONTROL REQUEST TDD
     ***************
DL-PowerTimeslotControlRequest ::= SEOUENCE {
```

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```
{{DL-PowerTimeslotControlRequest-IEs}},
   protocolIEs
                          ProtocolIE-Container
   protocolExtensions
                          ProtocolExtensionContainer {{DL-PowerTimeslotControlRequest-Extensions}}
                                                                                                                 OPTIONAL,
DL-PowerTimeslotControlRequest-IEs NBAP-PROTOCOL-IES ::= {
     ID id-NodeB-CommunicationContextID
                                                                                    NodeB-CommunicationContextID
                                                  CRITICALITY ignore
                                                                            TYPE
                                                                                                                          PRESENCE mandatory
     ID id-TimeslotISCPInfo
                                  CRITICALITY ignore
                                                             TYPE
                                                                     DL-TimeslotISCPInfo
                                                                                            PRESENCE optional },
    -- Mandatory for 3.84Mcps TDD, Not Applicable to 1.28Mcps TDD
    . . .
DL-PowerTimeslotControlRequest-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    { ID id-TimeslotISCPInfoList-LCR-DL-PC-RgstTDD
                                                     CRITICALITY ignore
                                                                                EXTENSION
                                                                                           DL-TimeslotISCPInfoLCR
                                                                                                                    PRESENCE optional },
    -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD
   -- DEDICATED MEASUREMENT INITIATION REQUEST
  *******************
DedicatedMeasurementInitiationRequest ::= SEQUENCE {
   protocolIEs
                          ProtocolIE-Container
                                                  {{DedicatedMeasurementInitiationRequest-IEs}},
                          ProtocolExtensionContainer {{DedicatedMeasurementInitiationRequest-Extensions}}
   protocolExtensions
                                                                                                                 OPTIONAL,
DedicatedMeasurementInitiationRequest-IEs NBAP-PROTOCOL-IES ::= {
           id-NodeB-CommunicationContextID
                                                         CRITICALITY
                                                                                    TYPE
                                                                                            NodeB-CommunicationContextID
                                                                                                                                PRESENCE
                                                                         reject
   mandatory } |
           id-MeasurementID
   { ID
                                                         CRITICALITY
                                                                         reject
                                                                                    TYPE
                                                                                            MeasurementID
                                                                                                                                  PRESENCE
   mandatory } |
                                                                                            DedicatedMeasurementObjectType-DM-Rgst
    { ID
           id-DedicatedMeasurementObjectType-DM-Rgst
                                                         CRITICALITY
                                                                         reject
                                                                                    TYPE
                                                                                                                                     PRESENCE
   mandatory }
    { ID
           id-DedicatedMeasurementType
                                                         CRITICALITY
                                                                         reject
                                                                                    TYPE
                                                                                            DedicatedMeasurementType
                                                                                                                                PRESENCE
    mandatory } |
   { ID
           id-MeasurementFilterCoefficient
                                                         CRITICALITY
                                                                         reject
                                                                                    TYPE
                                                                                            MeasurementFilterCoefficient
                                                                                                                                  PRESENCE
    optional
           id-ReportCharacteristics
    { ID
                                                         CRITICALITY
                                                                                    TYPE
                                                                                            ReportCharacteristics
                                                                                                                               PRESENCE
                                                                         reject
   mandatory } |
    { ID
           id-CFNReportingIndicator
                                                         CRITICALITY
                                                                         reject
                                                                                    TYPE
                                                                                            FNReportingIndicator
                                                                                                                               PRESENCE
   mandatory }
    { ID
           id-CFN
                                                         CRITICALITY
                                                                         reject
                                                                                    TYPE
                                                                                            CFN
                                                                                                                               PRESENCE
optional
    . . .
DedicatedMeasurementInitiationRequest-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    . . .
```

```
DedicatedMeasurementObjectType-DM-Rqst ::= CHOICE {
                            RL-DM-Rast,
   rLS
                            RL-Set-DM-Rast,
                                              -- for FDD only
   all-RL
                            AllRL-DM-Rgst,
   all-RLS
                            AllRL-Set-DM-Rgst,
                                                  -- for FDD only
   . . .
RL-DM-Rqst ::= SEQUENCE {
                                   RL-InformationList-DM-Rqst,
   rL-InformationList
                                   ProtocolExtensionContainer { {    RLItem-DM-Rgst-ExtIEs } }
   iE-Extensions
                                                                                                          OPTIONAL,
RLItem-DM-Rgst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
RL-InformationList-DM-Rqst ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container {{ RL-InformationItemIE-DM-Rqst }}
RL-InformationItemIE-DM-Rqst NBAP-PROTOCOL-IES ::= {
   PRESENCE mandatory }
RL-InformationItem-DM-Rgst ::= SEOUENCE {
      rL-ID
                                    RL-ID,
      dPCH-ID
                                                     OPTIONAL, -- for TDD only
      iE-Extensions
                                   OPTIONAL,
RL-InformationItem-DM-Rqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
   { ID id-PUSCH-Info-DM-Rqst
                                CRITICALITY reject
                                                             EXTENSION PUSCH-Info-DM-Rast
                                                                                                          PRESENCE optional }.
   -- TDD only
PUSCH-Info-DM-Rqst ::= SEOUENCE (SIZE (1..maxNrOfPUSCHs)) OF PUSCH-ID
RL-Set-DM-Rqst ::= SEQUENCE {
   rL-Set-InformationList-DM-Rqst
                                       RL-Set-InformationList-DM-Rqst,
                                       ProtocolExtensionContainer { { RL-SetItem-DM-Rgst-ExtIEs } }
   iE-Extensions
                                                                                                          OPTIONAL,
   . . .
RL-SetItem-DM-Rqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
RL-Set-InformationList-DM-Rqst
                                        ::= SEOUENCE (SIZE(1..maxNrOfRLSets)) OF RL-Set-InformationItem-DM-Rgst
RL-Set-InformationItem-DM-Rqst ::= SEQUENCE {
```

```
rL-Set-ID
                                  RL-Set-ID,
   iE-Extensions
                                  ProtocolExtensionContainer { { RL-Set-InformationItem-DM-Rgst-ExtIEs} } OPTIONAL,
RL-Set-InformationItem-DM-Rqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
AllRL-DM-Rgst ::= NULL
AllRL-Set-DM-Rgst ::= NULL
__ *********************
-- DEDICATED MEASUREMENT INITIATION RESPONSE
  *****************
DedicatedMeasurementInitiationResponse ::= SEQUENCE {
                                                 {{DedicatedMeasurementInitiationResponse-IEs}},
   protocolIEs
                          ProtocolIE-Container
                          ProtocolExtensionContainer {{DedicatedMeasurementInitiationResponse-Extensions}}
   protocolExtensions
                                                                                                                OPTIONAL,
    . . .
DedicatedMeasurementInitiationResponse-IES NBAP-PROTOCOL-IES ::= {
          id-CRNC-CommunicationContextID
                                                        CRITICALITY
                                                                        ignore
                                                                                   TYPE
                                                                                           CRNC-CommunicationContextID
                                                                                                                                 PRESENCE
   mandatory } |
         id-MeasurementID
   { ID
                                                        CRITICALITY
                                                                        ignore
                                                                                   TYPE
                                                                                           MeasurementID
                                                                                                                                 PRESENCE
   mandatory } |
          id-DedicatedMeasurementObjectType-DM-Rsp
                                                                                           DedicatedMeasurementObjectType-DM-Rsp
                                                        CRITICALITY
                                                                        ignore
                                                                                   TYPE
                                                                                                                                PRESENCE
   optional } |
    { ID id-CriticalityDiagnostics
                                                                                           CriticalityDiagnostics
                                                                                                                              PRESENCE
                                                        CRITICALITY
                                                                        ignore
                                                                                   TYPE
   optional },
   . . .
DedicatedMeasurementInitiationResponse-Extensions NBAP-PROTOCOL-EXTENSION ::= {
DedicatedMeasurementObjectType-DM-Rsp ::= CHOICE {
   rL
                              RL-DM-Rsp,
   rLS
                              RL-Set-DM-Rsp.
                                                 -- for FDD only
   all-RL
                              RL-DM-Rsp,
   all-RLS
                              RL-Set-DM-Rsp,
                                                -- for FDD only
RL-DM-Rsp ::= SEQUENCE {
   rL-InformationList-DM-Rsp
                                     RL-InformationList-DM-Rsp,
   iE-Extensions
                                     ProtocolExtensionContainer { { RLItem-DM-Rsp-ExtIEs } }
                                                                                                             OPTIONAL,
    . . .
```

```
RLItem-DM-Rsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
RL-InformationList-DM-Rsp ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container {{ RL-InformationItemIE-DM-Rsp }}
RL-InformationItemIE-DM-Rsp NBAP-PROTOCOL-IES ::= {
   PRESENCE mandatory }
RL-InformationItem-DM-Rsp ::= SEQUENCE {
   rL-ID
                                   RL-ID,
   dPCH-ID
                                                           -- for TDD only
                                   DPCH-ID
                                                 OPTIONAL,
   dedicatedMeasurementValue
                                   DedicatedMeasurementValue,
                                                 OPTIONAL,
   iE-Extensions
                                   OPTIONAL,
{ID id-PUSCH-Info-DM-Rsp
                               CRITICALITY reject
                                                           EXTENSION
                                                                    PUSCH-Info-DM-Rsp
                                                                                                       PRESENCE optional },
   -- TDD only
PUSCH-Info-DM-Rsp ::= SEQUENCE (SIZE (1..maxNrOfPUSCHs)) OF PUSCH-ID
RL-Set-DM-Rsp ::= SEQUENCE {
   rL-Set-InformationList-DM-Rsp
                                   RL-Set-InformationList-DM-Rsp,
                                   ProtocolExtensionContainer { { RL-SetItem-DM-Rsp-ExtIEs } }
   iE-Extensions
                                                                                                       OPTIONAL,
   . . .
RL-SetItem-DM-Rsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
RL-Set-InformationList-DM-Rsp ::= SEQUENCE (SIZE (1..maxNrOfRLSets)) OF ProtocolIE-Single-Container {{ RL-Set-InformationItemIE-DM-Rsp }}
RL-Set-InformationItemIE-DM-Rsp NBAP-PROTOCOL-IES ::= {
   { ID id-RL-Set-InformationItem-DM-Rsp
                                      CRITICALITY ignore
                                                               TYPE
                                                                     RL-Set-InformationItem-DM-Rsp
                                                                                                     PRESENCE mandatory }
RL-Set-InformationItem-DM-Rsp ::= SEQUENCE {
   rL-Set-ID
                               RL-Set-ID,
   dedicatedMeasurementValue
                               DedicatedMeasurementValue,
   CFN
                               CFN
                                             OPTIONAL,
   iE-Extensions
                               ProtocolExtensionContainer { { RL-Set-InformationItem-DM-Rsp-ExtIEs} } OPTIONAL,
RL-Set-InformationItem-DM-Rsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
```

```
******************
-- DEDICATED MEASUREMENT INITIATION FAILURE
__ *********************
DedicatedMeasurementInitiationFailure ::= SEQUENCE {
                        ProtocolIE-Container
                                               {{DedicatedMeasurementInitiationFailure-IEs}},
   protocolIEs
                         ProtocolExtensionContainer {{DedicatedMeasurementInitiationFailure-Extensions}}
   protocolExtensions
                                                                                                           OPTIONAL,
DedicatedMeasurementInitiationFailure-IEs NBAP-PROTOCOL-IES ::= {
          id-CRNC-CommunicationContextID
    { ID
                                               CRITICALITY
                                                              ignore
                                                                            TYPE
                                                                                   CRNC-CommunicationContextID
                                                                                                                 PRESENCE mandatory }
          id-MeasurementID
                                               CRITICALITY
                                                              ignore
                                                                            TYPE
                                                                                   MeasurementID
                                                                                                                    PRESENCE mandatory
   { ID
          id-Cause
                                               CRITICALITY
                                                              ignore
                                                                            TYPE
                                                                                   Cause
                                                                                                                         PRESENCE
   mandatory } |
          id-CriticalityDiagnostics
                                                                                                              PRESENCE optional },
   { ID
                                               CRITICALITY
                                                              ignore
                                                                            TYPE
                                                                                   CriticalityDiagnostics
   . . .
DedicatedMeasurementInitiationFailure-Extensions NBAP-PROTOCOL-EXTENSION ::= {
-- DEDICATED MEASUREMENT REPORT
  DedicatedMeasurementReport ::= SEQUENCE {
                                               {{DedicatedMeasurementReport-IEs}},
   protocolIEs
                         ProtocolIE-Container
                         ProtocolExtensionContainer {{DedicatedMeasurementReport-Extensions}}
   protocolExtensions
                                                                                                           OPTIONAL,
   . . .
DedicatedMeasurementReport-IES NBAP-PROTOCOL-IES ::= {
          id-CRNC-CommunicationContextID
                                                          CRITICALITY
                                                                        ignore
                                                                                   TYPE
                                                                                                         CRNC-CommunicationContextID
              PRESENCE
                       mandatory } |
   { ID id-MeasurementID
                                                          CRITICALITY
                                                                        ignore
                                                                                   TYPE
                                                                                                         MeasurementID
      PRESENCE mandatory } |
          id-DedicatedMeasurementObjectType-DM-Rprt
                                                          CRITICALITY
                                                                        ignore
                                                                                   TYPE
                                                                                                         DedicatedMeasurementObjectType-
   { ID
DM-Rprt
          PRESENCE mandatory } ,
DedicatedMeasurementReport-Extensions NBAP-PROTOCOL-EXTENSION ::= {
```

```
DedicatedMeasurementObjectType-DM-Rprt ::= CHOICE {
                                    RL-DM-Rprt,
   rLS
                                                      -- for FDD only
                                    RL-Set-DM-Rprt,
   all-RL
                                    RL-DM-Rprt,
   all-RLS
                                    RL-Set-DM-Rprt,
                                                      -- for FDD only
   . . .
RL-DM-Rprt ::= SEQUENCE {
   rL-InformationList-DM-Rprt
                                    RL-InformationList-DM-Rprt,
                                    ProtocolExtensionContainer { { RLItem-DM-Rprt-ExtIEs } }
   iE-Extensions
                                                                                                            OPTIONAL,
RLItem-DM-Rprt-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
RL-InformationList-DM-Rprt ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container {{ RL-InformationItemIE-DM-Rprt }}
RL-InformationItemIE-DM-Rprt NBAP-PROTOCOL-IES ::= {
   PRESENCE mandatory }
RL-InformationItem-DM-Rprt ::= SEQUENCE {
   rL-ID
                                RL-ID,
   dPCH-ID
                                                          -- for TDD only
                                DPCH-ID
                                           OPTIONAL,
                                      DedicatedMeasurementValueInformation,
   dedicatedMeasurementValueInformation
                                ProtocolExtensionContainer { { RL-InformationItem-DM-Rprt-ExtIEs } }
   iE-Extensions
                                                                                                            OPTIONAL,
RL-InformationItem-DM-Rprt-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
   {ID id-PUSCH-Info-DM-Rprt
                                CRITICALITY reject
                                                              EXTENSION PUSCH-Info-DM-Rprt
                                                                                                            PRESENCE optional },
   -- TDD only
   . . .
PUSCH-Info-DM-Rprt ::= SEQUENCE (SIZE (0..maxNrOfPUSCHs)) OF PUSCH-ID
RL-Set-DM-Rprt ::= SEQUENCE {
                                    RL-Set-InformationList-DM-Rprt,
   rL-Set-InformationList-DM-Rprt
   iE-Extensions
                                    OPTIONAL,
RL-SetItem-DM-Rprt-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
   . . .
RL-Set-InformationList-DM-Rprt ::= SEQUENCE (SIZE (1..maxNrOfRLSets)) OF ProtocolIE-Single-Container {{ RL-Set-InformationItemIE-DM-Rprt }}
```

```
RL-Set-InformationItemIE-DM-Rprt NBAP-PROTOCOL-IES ::= {
   { ID id-RL-Set-InformationItem-DM-Rprt CRITICALITY ignore TYPE RL-Set-InformationItem-DM-Rprt
                                                                                                          PRESENCE mandatory
RL-Set-InformationItem-DM-Rprt ::= SEQUENCE
   dedicatedMeasurementValueInformation
                                      DedicatedMeasurementValueInformation,
   iE-Extensions
                                ProtocolExtensionContainer { { RL-Set-InformationItem-DM-Rprt-ExtIEs} } OPTIONAL,
RL-Set-InformationItem-DM-Rprt-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
      -- DEDICATED MEASUREMENT TERMINATION REQUEST
  ******************
DedicatedMeasurementTerminationRequest ::= SEQUENCE
                                              {{DedicatedMeasurementTerminationRequest-IEs}},
   protocolIEs
                        ProtocolIE-Container
                        ProtocolExtensionContainer {{DedicatedMeasurementTerminationRequest-Extensions}}
   protocolExtensions
                                                                                                          OPTIONAL,
DedicatedMeasurementTerminationRequest-IEs NBAP-PROTOCOL-IES ::= {
          id-NodeB-CommunicationContextID
                                              CRITICALITY
                                                             ignore
                                                                           TYPE
                                                                                  NodeB-CommunicationContextID
                                                                                                               PRESENCE mandatory
   { ID
          id-MeasurementID
                                              CRITICALITY
                                                             ignore
                                                                           TYPE
                                                                                  MeasurementID
                                                                                                                     PRESENCE
   mandatory },
   . . .
DedicatedMeasurementTerminationRequest-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    *****************
-- DEDICATED MEASUREMENT FAILURE INDICATION
   ******************
DedicatedMeasurementFailureIndication ::= SEQUENCE {
   protocolIEs
                        ProtocolIE-Container
                                              {{DedicatedMeasurementFailureIndication-IEs}},
   protocolExtensions
                        ProtocolExtensionContainer {{DedicatedMeasurementFailureIndication-Extensions}}
                                                                                                          OPTIONAL,
DedicatedMeasurementFailureIndication-IES NBAP-PROTOCOL-IES ::=
          id-CRNC-CommunicationContextID
                                          CRITICALITY
                                                                    TYPE
                                                                           CRNC-CommunicationContextID
                                                                                                          PRESENCE mandatory
                                                         ignore
```

```
ID
          id-MeasurementID
                                           CRITICALITY
                                                                    TYPE
                                                                                                                  PRESENCE mandatory
                                                         ignore
                                                                           MeasurementID
     ID
          id-Cause
                                           CRITICALITY
                                                         ignore
                                                                    TYPE
                                                                           Cause
                                                                                                                  PRESENCE mandatory
DedicatedMeasurementFailureIndication-Extensions NBAP-PROTOCOL-EXTENSION ::= {
__ ********************
-- RADIO LINK FAILURE INDICATION
  *****************
RadioLinkFailureIndication ::= SEOUENCE {
                                              {{RadioLinkFailureIndication-IEs}},
   protocolIEs
                        ProtocolIE-Container
                        ProtocolExtensionContainer {{RadioLinkFailureIndication-Extensions}}
   protocolExtensions
                                                                                                          OPTIONAL,
RadioLinkFailureIndication-IES NBAP-PROTOCOL-IES ::= {
          id-CRNC-CommunicationContextID
                                                  CRITICALITY
                                                                ignore
                                                                               TYPE
                                                                                      CRNC-CommunicationContextID
                                                                                                                       PRESENCE
   mandatory }
   { ID
         id-Reporting-Object-RL-FailureInd
                                                                ignore
                                                                               TYPE
                                                                                      Reporting-Object-RL-FailureInd
                                                  CRITICALITY
                                                                                                                     PRESENCE
   mandatory },
   . . .
RadioLinkFailureIndication-Extensions NBAP-PROTOCOL-EXTENSION ::= {
Reporting-Object-RL-FailureInd ::= CHOICE {
                        RL-RL-FailureInd,
   rL-Set
                        RL-Set-RL-FailureInd, --FDD only
   cCTrCH
                        CCTrCH-RL-FailureInd --TDD only
RL-RL-FailureInd ::= SEQUENCE {
   rL-InformationList-RL-FailureInd
                                       RL-InformationList-RL-FailureInd,
                                       iE-Extensions
                                                                                                          OPTIONAL,
RLItem-RL-FailureInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
RL-InformationList-RL-FailureInd ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container {{ RL-InformationItemIE-RL-FailureInd}}
```

```
RL-InformationItemIE-RL-FailureInd NBAP-PROTOCOL-IES ::= {
         id-RL-InformationItem-RL-FailureInd
                                                     CRITICALITY
                                                                    ignore
                                                                                   TYPE
                                                                                          RL-InformationItem-RL-FailureInd
                                                                                                                                 PRESENCE
   mandatory}
RL-InformationItem-RL-FailureInd ::= SEQUENCE {
   rL-ID
                                             RL-ID,
   cause
   iE-Extensions
                                             ProtocolExtensionContainer { { RL-InformationItem-RL-FailureInd-ExtIEs } }
                                                                                                                        OPTIONAL,
RL-InformationItem-RL-FailureInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
RL-Set-RL-FailureInd ::= SEQUENCE {
   rL-Set-InformationList-RL-FailureInd
                                             RL-Set-InformationList-RL-FailureInd,
                                         ProtocolExtensionContainer { { RL-SetItem-RL-FailureInd-ExtIEs } }
   iE-Extensions
                                                                                                                OPTIONAL,
RL-SetItem-RL-FailureInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
   . . .
RL-Set-InformationList-RL-FailureInd ::= SEOUENCE (SIZE (1..maxNrOfRLSets)) OF ProtocolIE-Single-Container {{ RL-Set-InformationItemIE-RL-
FailureInd }}
RL-Set-InformationItemIE-RL-FailureInd NBAP-PROTOCOL-IES ::= {
   { ID id-RL-Set-InformationItem-RL-FailureInd CRITICALITY ignore
                                                                       TYPE RL-Set-InformationItem-RL-FailureInd
                                                                                                                  PRESENCE mandatory }
RL-Set-InformationItem-RL-FailureInd ::= SEQUENCE {
   rL-Set-ID
                          RL-Set-ID,
   cause
   iE-Extensions
                          RL-Set-InformationItem-RL-FailureInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
CCTrCH-RL-FailureInd ::= SEOUENCE {
                                             RL-ID,
   cCTrCH-InformationList-RL-FailureInd
                                             CCTrCH-InformationList-RL-FailureInd,
   iE-Extensions
                                         ProtocolExtensionContainer { { CCTrCHItem-RL-FailureInd-ExtIEs } }
                                                                                                                OPTIONAL,
CCTrCHItem-RL-FailureInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
```

```
CCTrCH-InformationList-RL-FailureInd ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container {{ CCTrCH-InformationItemIE-RL-
FailureInd}}
CCTrCH-InformationItemIE-RL-FailureInd NBAP-PROTOCOL-IES ::= {
   { ID id-CCTrCH-InformationItem-RL-FailureInd
                                                 CRITICALITY
                                                                           TYPE
                                                                                               CCTrCH-InformationItem-RL-
                                                              ignore
FailureInd
                PRESENCE
                          mandatory}
CCTrCH-InformationItem-RL-FailureInd ::= SEOUENCE {
   cCTrCH-ID
                                       CCTrCH-ID,
   cause
                                       Cause,
   iE-Extensions
                                       OPTIONAL.
CCTrCH-InformationItem-RL-FailureInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  -- RADIO LINK PREEMPTION REQUIRED INDICATION
  ******************
RadioLinkPreemptionRequiredIndication ::= SEQUENCE {
   protocolIEs
                             ProtocolIE-Container
                                                    {{RadioLinkPreemptionRequiredIndication-IEs}},
                             ProtocolExtensionContainer {{RadioLinkPreemptionRequiredIndication-Extensions}}
   protocolExtensions
                                                                                                              OPTIONAL,
RadioLinkPreemptionRequiredIndication-IEs NBAP-PROTOCOL-IES ::= {
       id-CRNC-CommunicationContextID
                                                 CRITICALITY
                                                                           TYPE
                                                                                               CRNC-CommunicationContextID
                                                              ignore
         PRESENCE
                 mandatory
   RadioLinkPreemptionRequiredIndication-Extensions NBAP-PROTOCOL-EXTENSION ::= {
                                          ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-InformationItemIE-RL-
RL-InformationList-RL-PreemptRequiredInd
PreemptRequiredInd}}
RL-InformationItemIE-RL-PreemptRequiredInd NBAP-PROTOCOL-IES ::= {
   { ID id-RL-InformationItem-RL-PreemptRequiredInd
                                                 CRITICALITY ignore TYPE RL-InformationItem-RL-PreemptRequiredInd
                                                                                                           PRESENCE
mandatory },
RL-InformationItem-RL-PreemptRequiredInd::= SEQUENCE {
   rL-ID
                          RL-ID,
```

```
ProtocolExtensionContainer { {RL-InformationItem-RL-PreemptRequiredInd-ExtIEs} } OPTIONAL,
   iE-Extensions
RL-InformationItem-RL-PreemptRequiredInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
-- RADIO LINK RESTORE INDICATION
__ **********************
RadioLinkRestoreIndication ::= SEQUENCE {
   protocolIEs
                       ProtocolIE-Container
                                             {{RadioLinkRestoreIndication-IEs}},
                      ProtocolExtensionContainer {{RadioLinkRestoreIndication-Extensions}}
   protocolExtensions
                                                                                                              OPTIONAL,
RadioLinkRestoreIndication-IES NBAP-PROTOCOL-IES ::= {
          id-CRNC-CommunicationContextID
                                                    CRITICALITY
                                                                                 TYPE
                                                                                         CRNC-CommunicationContextID
                                                                                                                           PRESENCE
                                                                   ignore
   mandatory } |
   { ID id-Reporting-Object-RL-RestoreInd
                                                   CRITICALITY
                                                                   ignore
                                                                                 TYPE
                                                                                         Reporting-Object-RL-RestoreInd
                                                                                                                         PRESENCE
   mandatory },
   . . .
RadioLinkRestoreIndication-Extensions NBAP-PROTOCOL-EXTENSION ::= {
Reporting-Object-RL-RestoreInd ::= CHOICE {
                         RL-RL-RestoreInd, --TDD only
   rL
   rL-Set
                         RL-Set-RL-RestoreInd, --FDD only
   cCTrCH
                         CCTrCH-RL-RestoreInd --TDD only
RL-RL-RestoreInd ::= SEQUENCE {
   rL-InformationList-RL-RestoreInd
                                        RL-InformationList-RL-RestoreInd,
                                        iE-Extensions
                                                                                                              OPTIONAL,
RLItem-RL-RestoreInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
RL-InformationList-RL-RestoreInd ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container {{RL-InformationItemIE-RL-RestoreInd}}
RL-InformationItemIE-RL-RestoreInd NBAP-PROTOCOL-IES ::= {
   { ID id-RL-InformationItem-RL-RestoreInd
                                                   CRITICALITY
                                                                                 TYPE
                                                                                        RL-InformationItem-RL-RestoreInd
                                                                                                                              PRESENCE
                                                                   ignore
   mandatory}
```

```
RL-InformationItem-RL-RestoreInd ::= SEQUENCE {
   rL-ID
   iE-Extensions
                                   RL-InformationItem-RL-RestoreInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
RL-Set-RL-RestoreInd ::= SEQUENCE {
   rL-Set-InformationList-RL-RestoreInd RL-Set-InformationList-RL-RestoreInd,
   iE-Extensions
                                   OPTIONAL,
RL-SetItem-RL-RestoreInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
RL-Set-InformationList-RL-RestoreInd ::= SEQUENCE (SIZE (1..maxNrOfRLSets)) OF ProtocolIE-Single-Container {{ RL-Set-InformationItemIE-RL-
RestoreInd }}
RL-Set-InformationItemIE-RL-RestoreInd NBAP-PROTOCOL-IES ::= {
   TYPE RL-Set-InformationItem-RL-RestoreInd PRESENCE mandatory }
RL-Set-InformationItem-RL-RestoreInd ::= SEQUENCE {
   rL-Set-ID
                      RL-Set-ID,
                      iE-Extensions
   . . .
RL-Set-InformationItem-RL-RestoreInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
CCTrCH-RL-RestoreInd ::= SEQUENCE {
                                      RL-ID,
   cCTrCH-InformationList-RL-RestoreInd
                                      CCTrCH-InformationList-RL-RestoreInd,
                                   ProtocolExtensionContainer { { CCTrCHItem-RL-RestoreInd-ExtIEs } }
   iE-Extensions
                                                                                               OPTIONAL,
CCTrCHItem-RL-RestoreInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
CCTrCH-InformationList-RL-RestoreInd ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container {{ CCTrCH-InformationItemIE-RL-
RestoreInd}}
CCTrCH-InformationItemIE-RL-RestoreInd NBAP-PROTOCOL-IES ::= {
```

```
{ ID
         id-CCTrCH-InformationItem-RL-RestoreInd
                                               CRITICALITY
                                                            ignore
                                                                         TYPE
                                                                                            CCTrCH-InformationItem-RL-
RestoreInd
               PRESENCE
                         mandatory}
CCTrCH-InformationItem-RL-RestoreInd ::= SEQUENCE {
   cCTrCH-ID
                                         CCTrCH-ID,
                                      iE-Extensions
                                                                                                       OPTIONAL,
CCTrCH-InformationItem-RL-RestoreInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
   -- COMPRESSED MODE COMMAND FDD
  ****************
CompressedModeCommand ::= SEQUENCE {
   protocolIEs
                      ProtocolIE-Container
                                        {{CompressedModeCommand-IEs}},
   protocolExtensions
                      ProtocolExtensionContainer {{CompressedModeCommand-Extensions}}
                                                                                        OPTIONAL,
CompressedModeCommand-IEs NBAP-PROTOCOL-IES ::= {
   { ID
        id-NodeB-CommunicationContextID
                                                                         NodeB-CommunicationContextID
                                         CRITICALITY
                                                         ignore
                                                                   TYPE
                                                                                                       PRESENCE
   mandatory } |
   { ID id-Active-Pattern-Sequence-Information CRITICALITY
                                                                         Active-Pattern-Sequence-Information
                                                         ignore
                                                                   TYPE
                                                                                                       PRESENCE
   mandatory },
   . . .
CompressedModeCommand-Extensions NBAP-PROTOCOL-EXTENSION ::= {
   -- ERROR INDICATION
__ ***********************************
ErrorIndication ::= SEQUENCE {
   protocolIEs
                      ProtocolIE-Container
                                         {{ErrorIndication-IEs}},
```

```
ProtocolExtensionContainer {{ErrorIndication-Extensions}}
   protocolExtensions
                                                                                  OPTIONAL,
ErrorIndication-IEs NBAP-PROTOCOL-IES ::= {
          id-CRNC-CommunicationContextID
                                                                              CRNC-CommunicationContextID
                                                                                                            PRESENCE optional }
                                          CRITICALITY
                                                         ignore
                                                                       TYPE
                                                                                                            PRESENCE optional }
     TD
          id-NodeB-CommunicationContextID
                                          CRITICALITY
                                                         ignore
                                                                       TYPE
                                                                              NodeB-CommunicationContextID
    ID
          id-Cause
                                          CRITICALITY
                                                         ignore
                                                                       TYPE
                                                                                                                       PRESENCE
   optional } |
         id-CriticalityDiagnostics
                                                                              CriticalityDiagnostics
                                                                                                               PRESENCE optional },
   { ID
                                          CRITICALITY
                                                         ignore
                                                                       TYPE
ErrorIndication-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    *****************
-- PRIVATE MESSAGE
__ **********************
PrivateMessage ::= SEOUENCE {
   privateIEs
                 PrivateIE-Container {{PrivateMessage-IEs}},
   . . .
PrivateMessage-IEs NBAP-PRIVATE-IES ::= {
  ******************
-- PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST TDD
PhysicalSharedChannelReconfigurationRequestTDD ::= SEQUENCE {
   protocolIEs
                     ProtocolIE-Container {{PhysicalSharedChannelReconfigurationRequestTDD-IEs}},
   protocolExtensions ProtocolExtensionContainer {{PhysicalSharedChannelReconfigurationRequestTDD-Extensions}}
                                                                                                         OPTIONAL,
PhysicalSharedChannelReconfigurationRequestTDD-IEs NBAP-PROTOCOL-IES ::= {
   { ID
          id-C-ID
                                                  CRITICALITY
                                                                reject
                                                                              TYPE
                                                                                     C-ID
   PRESENCE
              mandatory } |
   { ID
          id-SFN
                                                  CRITICALITY
                                                                reject
                                                                              TYPE
                                                                                     SFN
      PRESENCE
                 optional} |
   { ID
          id-PDSCHSets-AddList-PSCH-ReconfRqst
                                                  CRITICALITY
                                                                reject
                                                                              TYPE
                                                                                     PDSCHSets-AddList-PSCH-ReconfRqst
                                                                                                                          PRESENCE
   optional
   { ID
         id-PDSCHSets-ModifyList-PSCH-ReconfRqst
                                                  CRITICALITY
                                                                reject
                                                                              TYPE
                                                                                     PDSCHSets-ModifyList-PSCH-ReconfRqst
                                                                                                                         PRESENCE
   optional
```

```
CRITICALITY
           id-PDSCHSets-DeleteList-PSCH-ReconfRqst
                                                                                        TYPE
                                                                                                PDSCHSets-DeleteList-PSCH-ReconfRqst
                                                                        reject
                                                                                                                                         PRESENCE
    optional
    { ID
           id-PUSCHSets-AddList-PSCH-ReconfRqst
                                                        CRITICALITY
                                                                        reject
                                                                                        TYPE
                                                                                                PUSCHSets-AddList-PSCH-ReconfRast
                                                                                                                                         PRESENCE
    optional
    { ID
           id-PUSCHSets-ModifyList-PSCH-ReconfRqst
                                                                        reject
                                                                                                PUSCHSets-ModifyList-PSCH-ReconfRqst
                                                                                                                                         PRESENCE
                                                        CRITICALITY
                                                                                        TYPE
    optional
    { ID
           id-PUSCHSets-DeleteList-PSCH-ReconfRqst
                                                        CRITICALITY
                                                                        reject
                                                                                        TYPE
                                                                                                PUSCHSets-DeleteList-PSCH-ReconfRqst
                                                                                                                                         PRESENCE
    optional
PhysicalSharedChannelReconfigurationRequestTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
PDSCHSets-AddList-PSCH-ReconfRgst ::= SEQUENCE (SIZE (1..maxNrOfPDSCHSets)) OF PDSCHSets-AddItem-PSCH-ReconfRgst
PDSCHSets-AddItem-PSCH-ReconfRqst
                                     ::= SEOUENCE {
    pDSCHSet-ID
                                                PDSCHSet-ID,
    pDSCH-InformationList
                                                PDSCH-Information-AddList-PSCH-ReconfRqst OPTIONAL,
    iE-Extensions
                                                ProtocolExtensionContainer { {PDSCHSets-AddItem-PSCH-ReconfRqst-ExtIEs} }
                                                                                                                             OPTIONAL,
PDSCHSets-Additem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    {ID id-PDSCH-AddInformation-LCR-PSCH-ReconfRgst
                                                        CRITICALITY reject
                                                                                          PDSCH-AddInformation-LCR-AddItem-PSCH-ReconfRqst
                                                                                EXTENSION
               optional }, -- Mandatory for 1.28Mcps TDD only
    PRESENCE
PDSCH-Information-AddList-PSCH-ReconfRqst ::= ProtocolIE-Single-Container {{ PDSCH-Information-AddListIEs-PSCH-ReconfRqst }}
-- Mandatory for 3.84Mcps TDD, Not Applicable to 1.28Mcps TDD
PDSCH-Information-AddListIEs-PSCH-ReconfRqst
                                               NBAP-PROTOCOL-IES ::= {
    {ID id-PDSCH-Information-AddListIE-PSCH-ReconfRgst CRITICALITY reject
                                                                                TYPE
                                                                                        PDSCH-Information-AddItem-PSCH-ReconfRgst
                                                                                                                                         PRESENCE
    mandatory}
PDSCH-Information-AddItem-PSCH-ReconfRqst ::= SEQUENCE {
    repetitionPeriod
                                            RepetitionPeriod,
    repetitionLength
                                            RepetitionLength,
    tdd-PhysicalChannelOffset
                                                TDD-PhysicalChannelOffset,
    dL-Timeslot-InformationAddList-PSCH-ReconfRqst
                                                                DL-Timeslot-InformationAddList-PSCH-ReconfRqst,
    iE-Extensions
                                                ProtocolExtensionContainer { {PDSCH-Information-AddItem-PSCH-ReconfRqst-ExtIEs} }
                                                                                                                                      OPTIONAL,
    . . .
PDSCH-Information-AddItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
DL-Timeslot-InformationAddList-PSCH-ReconfRqst ::= SEOUENCE (SIZE (1.. maxNrOfDLTSs)) OF DL-Timeslot-InformationAddItem-PSCH-ReconfRqst
DL-Timeslot-InformationAddItem-PSCH-ReconfRqst ::= SEQUENCE {
```

```
timeSlot
                                            TimeSlot,
    midambleShiftAndBurstType
                                            MidambleShiftAndBurstType,
    tFCI-Presence
                                            TFCI-Presence.
    dL-Code-InformationAddList-PSCH-ReconfRqst
                                                            DL-Code-InformationAddList-PSCH-ReconfRqst,
    iE-Extensions
                                            ProtocolExtensionContainer { { DL-Timeslot-InformationAddItem-PSCH-ReconfRqst-ExtIEs} }
                                                                                                                                          OPTIONAL.
DL-Timeslot-InformationAddItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
DL-Code-InformationAddList-PSCH-ReconfRqst ::= SEOUENCE (SIZE (1..maxNrOfPDSCHs)) OF DL-Code-InformationAddItem-PSCH-ReconfRqst
DL-Code-InformationAddItem-PSCH-ReconfRqst ::= SEQUENCE {
    pDSCH-ID
    tdd-ChannelisationCode
                                            TDD-ChannelisationCode
    iE-Extensions
                                            ProtocolExtensionContainer { { DL-Code-InformationAddItem-PSCH-ReconfRqst-ExtIEs} }
                                                                                                                                   OPTIONAL,
    . . .
DL-Code-InformationAddItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
PDSCH-AddInformation-LCR-AddItem-PSCH-ReconfRqst ::= SEQUENCE {
    repetitionPeriod
                                            RepetitionPeriod,
   repetitionLength
                                            RepetitionLength,
    tdd-PhysicalChannelOffset
                                            TDD-PhysicalChannelOffset,
    dL-Timeslot-InformationAddList-LCR-PSCH-ReconfRqst
                                                                     DL-Timeslot-InformationAddList-LCR-PSCH-ReconfRqst,
    iE-Extensions
                                                ProtocolExtensionContainer { {PDSCH-AddInformation-LCR-AddItem-PSCH-ReconfRqst-ExtIEs} }
   OPTIONAL,
    . . .
PDSCH-AddInformation-LCR-AddItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
DL-Timeslot-InformationAddList-LCR-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1.. maxNrOfDLTSLCRs)) OF DL-Timeslot-InformationAddItem-LCR-PSCH-ReconfRqst
DL-Timeslot-InformationAddItem-LCR-PSCH-ReconfRqst ::= SEQUENCE {
    timeSlotLCR
                                            TimeSlotLCR,
    midambleShiftLCR
                                            MidambleShiftLCR,
    tFCI-Presence
                                            TFCI-Presence,
    dL-Code-InformationAddList-LCR-PSCH-ReconfRqst
                                                                DL-Code-InformationAddList-LCR-PSCH-ReconfRqst,
   iE-Extensions
                                            ProtocolExtensionContainer { { DL-Timeslot-InformationAddItem-LCR-PSCH-ReconfRqst-ExtIEs} }
    OPTIONAL,
    . . .
DL-Timeslot-InformationAddItem-LCR-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
```

```
DL-Code-InformationAddList-LCR-PSCH-ReconfRgst ::= SEOUENCE (SIZE (1..maxNrOfPDSCHs)) OF DL-Code-InformationAddItem-LCR-PSCH-ReconfRgst
DL-Code-InformationAddItem-LCR-PSCH-ReconfRqst ::= SEQUENCE {
   pDSCH-ID
                                         PDSCH-ID.
   tdd-ChannelisationCodeLCR
                                         TDD-ChannelisationCodeLCR,
   iE-Extensions
                                         ProtocolExtensionContainer { { DL-Code-InformationAddItem-LCR-PSCH-ReconfRqst-ExtIEs} }
                                                                                                                               OPTIONAL,
DL-Code-InformationAddItem-LCR-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
PDSCHSets-ModifyList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfPDSCHSets)) OF PDSCHSets-ModifyItem-PSCH-ReconfRqst
PDSCHSets-ModifyItem-PSCH-ReconfRqst
                                      ::= SEOUENCE {
   pDSCHSet-ID
                                            PDSCHSet-ID,
   pDSCH-InformationList
                                             PDSCH-Information-ModifyList-PSCH-ReconfRqst,
                                             iE-Extensions
PDSCHSets-ModifyItem-PSCH-ReconfRgst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
PDSCH-Information-ModifyList-PSCH-ReconfRgst ::= ProtocolIE-Single-Container {{ PDSCH-Information-ModifyListIEs-PSCH-ReconfRgst }}
PDSCH-Information-ModifyListIEs-PSCH-ReconfRqst NBAP-PROTOCOL-IES ::= {
   TYPE
                                                                                      PDSCH-Information-ModifyItem-PSCH-ReconfRqst
   PRESENCE
              optional}|
   {ID id-PDSCH-ModifyInformation-LCR-PSCH-ReconfRqst CRITICALITY reject
                                                                          TYPE
                                                                                  PDSCH-ModifyInformation-LCR-ModifyItem-PSCH-ReconfRqst
       PRESENCE
                  optional }
PDSCH-Information-ModifyItem-PSCH-ReconfRqst ::= SEQUENCE {
   repetitionPeriod
                                         RepetitionPeriod
                                                                           OPTIONAL,
   repetitionLength
                                         RepetitionLength
                                                                           OPTIONAL,
   tdd-PhysicalChannelOffset
                                             TDD-PhysicalChannelOffset
                                                                           OPTIONAL,
   dL-Timeslot-InformationModifyList-PSCH-ReconfRqst
                                                               DL-Timeslot-InformationModifyList-PSCH-ReconfRqst
                                             ProtocolExtensionContainer { {PDSCH-Information-ModifyItem-PSCH-ReconfRqst-ExtIEs} }
   iE-Extensions
                                                                                                                               OPTIONAL.
PDSCH-Information-ModifyItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
DL-Timeslot-InformationModifyList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1.. maxNrOfDLTSs)) OF DL-Timeslot-InformationModifyItem-PSCH-ReconfRqst
DL-Timeslot-InformationModifyItem-PSCH-ReconfRqst ::= SEQUENCE {
   timeSlot
                                         TimeSlot,
   midambleShiftAndBurstType
                                         MidambleShiftAndBurstType
                                                                   OPTIONAL,
```

```
TFCI-Presence OPTIONAL,
    tFCI-Presence
    dL-Code-InformationModifyList-PSCH-ReconfRqst
                                                                DL-Code-InformationModifyList-PSCH-ReconfRqst
                                                                                                                       OPTIONAL.
    iE-Extensions
                                            ProtocolExtensionContainer { { DL-Timeslot-InformationModifyItem-PSCH-ReconfRqst-ExtIEs} }
    OPTIONAL,
    . . .
DL-Timeslot-InformationModifyItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
DL-Code-InformationModifyList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfPDSCHs)) OF DL-Code-InformationModifyItem-PSCH-ReconfRqst
DL-Code-InformationModifyItem-PSCH-ReconfRqst ::= SEQUENCE {
    pDSCH-ID
                                            PDSCH-ID.
    tdd-ChannelisationCode
                                            TDD-ChannelisationCode,
                                            ProtocolExtensionContainer { { DL-Code-InformationModifyItem-PSCH-ReconfRqst-ExtIEs} }
    iE-Extensions
DL-Code-InformationModifyItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
PDSCH-ModifyInformation-LCR-ModifyItem-PSCH-ReconfRqst ::= SEQUENCE {
    repetitionPeriod
                                            RepetitionPeriod
                                                                                 OPTIONAL,
    repetitionLength
                                            RepetitionLength
                                                                                 OPTIONAL,
    tdd-PhysicalChannelOffset
                                                TDD-PhysicalChannelOffset
                                                                                 OPTIONAL,
    dL-Timeslot-LCR-InformationModifyList-PSCH-ReconfRqst
                                                                         DL-Timeslot-LCR-InformationModifyList-PSCH-ReconfRqst
                                                ProtocolExtensionContainer { {PDSCH-ModifyInformation-LCR-ModifyListIE-PSCH-ReconfRqst-ExtIEs} }
    iE-Extensions
    OPTIONAL,
PDSCH-ModifyInformation-LCR-ModifyListIE-PSCH-ReconfRgst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
DL-Timeslot-LCR-InformationModifyList-PSCH-ReconfRgst ::= SEQUENCE (SIZE (1.. maxNrOfDLTSLCRs)) OF DL-Timeslot-LCR-InformationModifyItem-PSCH-
ReconfRast
DL-Timeslot-LCR-InformationModifyItem-PSCH-ReconfRqst ::= SEQUENCE {
    timeSlotLCR
                                            TimeSlotLCR,
    midambleShiftLCR
                                            MidambleShiftLCR
                                                                OPTIONAL,
    tFCI-Presence
                                            TFCI-Presence OPTIONAL,
    dL-Code-LCR-InformationModifyList-PSCH-ReconfRqst
                                                                    DL-Code-LCR-InformationModifyList-PSCH-ReconfRqst
    iE-Extensions
                                            ProtocolExtensionContainer { { DL-Timeslot-LCR-InformationModifyItem-PSCH-ReconfRqst-ExtIEs} }
    OPTIONAL,
    . . .
DL-Timeslot-LCR-InformationModifyItem-PSCH-ReconfRgst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
```

```
DL-Code-LCR-InformationModifyList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfPDSCHs)) OF DL-Code-LCR-InformationModifyItem-PSCH-ReconfRqst
DL-Code-LCR-InformationModifyItem-PSCH-ReconfRgst ::= SEQUENCE {
                                          PDSCH-ID.
   pDSCH-ID
   tdd-ChannelisationCodeLCR
                                              TDD-ChannelisationCodeLCR,
                                          ProtocolExtensionContainer { { DL-Code-LCR-InformationModifyItem-PSCH-ReconfRqst-ExtIEs} }
   iE-Extensions
   OPTIONAL,
DL-Code-LCR-InformationModifyItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
PDSCHSets-DeleteList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfPDSCHSets)) OF PDSCHSets-DeleteItem-PSCH-ReconfRqst
PDSCHSets-DeleteItem-PSCH-ReconfRqst
                                       ::= SEOUENCE {
   pDSCHSet-ID
                                              PDSCHSet-ID,
                                              ProtocolExtensionContainer { {PDSCHSets-DeleteItem-PSCH-ReconfRqst-ExtIEs} }
   iE-Extensions
PDSCHSets-DeleteItem-PSCH-ReconfRgst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
PUSCHSets-AddList-PSCH-ReconfRgst ::= SEQUENCE (SIZE (1..maxNrOfPUSCHSets)) OF PUSCHSets-AddItem-PSCH-ReconfRgst
PUSCHSets-AddItem-PSCH-ReconfRqst
                                  ::= SEOUENCE {
   pUSCHSet-ID
                                              PUSCHSet-ID,
   pUSCH-InformationList
                                              PUSCH-Information-AddList-PSCH-ReconfRqst OPTIONAL,
    -- Mandatory for 3.84Mcps TDD, Not Applicable to 1.28Mcps TDD
                                              iE-Extensions
    . . .
PUSCHSets-AddItem-PSCH-ReconfRgst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    {ID id-PUSCH-AddInformation-LCR-PSCH-ReconfRqst
                                                     CRITICALITY reject
                                                                             EXTENSION
                                                                                       PUSCH-AddInformation-LCR-AddItem-PSCH-ReconfRqst
   PRESENCE
               optional \, -- Mandatory for 1.28Mcps TDD, Not Applicable to 3.84Mcps TDD
    . . .
PUSCH-Information-AddList-PSCH-ReconfRqst ::= ProtocolIE-Single-Container {{ PUSCH-Information-AddListIEs-PSCH-ReconfRqst }}
PUSCH-Information-AddListIEs-PSCH-ReconfRqst NBAP-PROTOCOL-IES ::= {
    {ID id-PUSCH-Information-AddListIE-PSCH-ReconfRost CRITICALITY reject
                                                                             TYPE
                                                                                     PUSCH-Information-AddItem-PSCH-ReconfRgst
                                                                                                                                    PRESENCE
   mandatory }
PUSCH-Information-AddItem-PSCH-ReconfRqst ::= SEQUENCE {
   repetitionPeriod
                                          RepetitionPeriod,
   repetitionLength
                                          RepetitionLength,
    tdd-PhysicalChannelOffset
                                          TDD-PhysicalChannelOffset,
```

```
uL-Timeslot-InformationAddList-PSCH-ReconfRqst
                                                                UL-Timeslot-InformationAddList-PSCH-ReconfRqst,
    iE-Extensions
                                                ProtocolExtensionContainer { {PUSCH-Information-AddItem-PSCH-ReconfRgst-ExtIEs} }
                                                                                                                                      OPTIONAL.
PUSCH-Information-AddItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
UL-Timeslot-InformationAddList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfULTSs)) OF UL-Timeslot-InformationAddItem-PSCH-ReconfRqst
UL-Timeslot-InformationAddItem-PSCH-ReconfRqst ::= SEQUENCE {
    timeSlot
    midambleShiftAndBurstType
                                            MidambleShiftAndBurstType,
                                            TFCI-Presence,
    tFCI-Presence
    uL-Code-InformationAddList-PSCH-ReconfRqst
                                                            UL-Code-InformationAddList-PSCH-ReconfRqst,
                                            ProtocolExtensionContainer { { UL-Timeslot-InformationAddItem-PSCH-ReconfRqst-ExtIEs} }
    iE-Extensions
                                                                                                                                         OPTIONAL,
UL-Timeslot-InformationAddItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
UL-Code-InformationAddList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfPUSCHs)) OF UL-Code-InformationAddItem-PSCH-ReconfRqst
UL-Code-InformationAddItem-PSCH-ReconfRqst ::= SEQUENCE {
    pUSCH-ID
                                            PUSCH-ID,
    tdd-ChannelisationCode
                                            TDD-ChannelisationCode,
    iE-Extensions
                                            ProtocolExtensionContainer { { UL-Code-InformationAddItem-PSCH-ReconfRqst-ExtIEs} }
                                                                                                                                   OPTIONAL,
    . . .
UL-Code-InformationAddItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
PUSCH-AddInformation-LCR-AddItem-PSCH-Reconfrast ::= SEQUENCE {
    repetitionPeriod
                                            RepetitionPeriod,
    repetitionLength
                                            RepetitionLength,
    tdd-PhysicalChannelOffset
                                            TDD-PhysicalChannelOffset,
    uL-Timeslot-InformationAddList-LCR-PSCH-ReconfRqst
                                                                    UL-Timeslot-InformationAddList-LCR-PSCH-ReconfRqst,
                                                ProtocolExtensionContainer { {PUSCH-AddInformation-LCR-AddItem-PSCH-ReconfRqst-ExtIEs} }
    iE-Extensions
    OPTIONAL,
    . . .
PUSCH-AddInformation-LCR-AddItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
UL-Timeslot-InformationAddList-LCR-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1.. maxNrOfULTSLCRs)) OF UL-Timeslot-InformationAddItem-LCR-PSCH-ReconfRqst
UL-Timeslot-InformationAddItem-LCR-PSCH-ReconfRqst ::= SEQUENCE {
```

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```
timeSlotLCR
                                         TimeSlotLCR,
   midambleShiftLCR
                                         MidambleShiftLCR.
   t.FCI-Presence
                                         TFCI-Presence.
   uL-Code-InformationAddList-LCR-PSCH-ReconfRqst
                                                           UL-Code-InformationAddList-LCR-PSCH-ReconfRqst,
                                         ProtocolExtensionContainer { { UL-Timeslot-InformationAddItem-LCR-PSCH-ReconfRqst-ExtIEs} }
   iE-Extensions
   OPTIONAL,
UL-Timeslot-InformationAddItem-LCR-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
UL-Code-InformationAddList-LCR-PSCH-ReconfRgst ::= SEOUENCE (SIZE (1..maxNrOfPUSCHs)) OF UL-Code-InformationAddItem-LCR-PSCH-ReconfRgst
UL-Code-InformationAddItem-LCR-PSCH-ReconfRqst ::= SEQUENCE {
   pUSCH-ID
                                         PUSCH-ID,
   tdd-ChannelisationCodeLCR
                                         TDD-ChannelisationCodeLCR,
   iE-Extensions
                                         OPTIONAL,
UL-Code-InformationAddItem-LCR-PSCH-ReconfRqst-ExtIES NBAP-PROTOCOL-EXTENSION ::= {
   . . .
PUSCHSets-ModifyList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfPUSCHSets)) OF PUSCHSets-ModifyItem-PSCH-ReconfRqst
PUSCHSets-ModifyItem-PSCH-ReconfRqst
                                      ::= SEOUENCE {
   pUSCHSet-ID
                                             PUSCHSet-ID,
   pUSCH-InformationList
                                             PUSCH-Information-ModifyList-PSCH-ReconfRqst,
                                             iE-Extensions
                                                                                                                       OPTIONAL,
   . . .
PUSCHSets-ModifyItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
PUSCH-Information-ModifyList-PSCH-ReconfRqst ::= ProtocolIE-Single-Container {{ PUSCH-Information-ModifyListIEs-PSCH-ReconfRqst }}
PUSCH-Information-ModifyListIEs-PSCH-ReconfRqst NBAP-PROTOCOL-IES ::= {
   {ID id-PUSCH-Information-ModifyListIE-PSCH-ReconfRqst CRITICALITY reject
                                                                              TYPE
                                                                                      PUSCH-Information-ModifyItem-PSCH-ReconfRqst
   PRESENCE
              optional}|
   {ID id-PUSCH-ModifyInformation-LCR-PSCH-ReconfRqst CRITICALITY reject
                                                                          TYPE
                                                                                  PUSCH-ModifyInformation-LCR-ModifyItem-PSCH-ReconfRast
       PRESENCE
                  optional}
PUSCH-Information-ModifyItem-PSCH-ReconfRqst ::= SEQUENCE {
   repetitionPeriod
                                         RepetitionPeriod
                                                                           OPTIONAL,
   repetitionLength
                                         RepetitionLength
                                                                           OPTIONAL,
   tdd-PhysicalChannelOffset
                                         TDD-PhysicalChannelOffset
                                                                           OPTIONAL,
   uL-Timeslot-InformationModifyList-PSCH-ReconfRqst
                                                               UL-Timeslot-InformationModifyList-PSCH-ReconfRqst
   iE-Extensions
                                             ProtocolExtensionContainer { {PUSCH-Information-ModifyItem-PSCH-ReconfRqst-ExtIEs} }
                                                                                                                               OPTIONAL,
```

```
. . .
PUSCH-Information-ModifyItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
UL-Timeslot-InformationModifyList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfULTSs)) OF UL-Timeslot-InformationModifyItem-PSCH-ReconfRqst
UL-Timeslot-InformationModifyItem-PSCH-ReconfRqst ::= SEQUENCE {
    timeSlot
                                            TimeSlot,
   midambleShiftAndBurstType
                                            MidambleShiftAndBurstType
                                                                        OPTIONAL,
                                            TFCI-Presence OPTIONAL,
    tFCI-Presence
    uL-Code-InformationModifyList-PSCH-ReconfRqst
                                                                UL-Code-InformationModifyList-PSCH-ReconfRqst
                                                                                                                       OPTIONAL.
                                            ProtocolExtensionContainer { { UL-Timeslot-InformationModifyItem-PSCH-ReconfRqst-ExtIEs} }
    iE-Extensions
    OPTIONAL,
    . . .
UL-Timeslot-InformationModifyItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
UL-Code-InformationModifyList-PSCH-ReconfRgst ::= SEOUENCE (SIZE (1...maxNrOfPUSCHs)) OF UL-Code-InformationModifyItem-PSCH-ReconfRgst
UL-Code-InformationModifyItem-PSCH-ReconfRqst ::= SEQUENCE {
    pUSCH-ID
                                            PUSCH-ID,
    tdd-ChannelisationCode
                                            TDD-ChannelisationCode,
                                            ProtocolExtensionContainer { { UL-Code-InformationModifyItem-PSCH-ReconfRqst-ExtIEs} }
    iE-Extensions
UL-Code-InformationModifyItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
PUSCH-ModifyInformation-LCR-ModifyItem-PSCH-ReconfRqst ::= SEQUENCE {
    repetitionPeriod
                                            RepetitionPeriod
                                                                    OPTIONAL,
    repetitionLength
                                            RepetitionLength
                                                                    OPTIONAL,
    tdd-PhysicalChannelOffset
                                            TDD-PhysicalChannelOffset OPTIONAL,
    uL-Timeslot-InformationModifyList-LCR-PSCH-ReconfRqst
                                                                        UL-Timeslot-LCR-InformationModifyList-PSCH-ReconfRqst
    iE-Extensions
                                                ProtocolExtensionContainer { {PUSCH-ModifyInformation-LCR-ModifyItem-PSCH-ReconfRqst-ExtIEs} }
    OPTIONAL,
PUSCH-ModifyInformation-LCR-ModifyItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
UL-Timeslot-LCR-InformationModifyList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfULTSLCRs)) OF UL-Timeslot-LCR-InformationModifyItem-PSCH-
ReconfRast
UL-Timeslot-LCR-InformationModifyItem-PSCH-ReconfRqst ::= SEQUENCE {
```

. . .

```
timeSlotLCR
                                       TimeSlotLCR,
   midambleShiftLCR
                                       MidambleShiftLCR
                                                         OPTIONAL,
   tFCI-Presence
                                       TFCI-Presence
                                                         OPTIONAL.
   uL-Code-LCR-InformationModifyList-PSCH-ReconfRqst
                                                             UL-Code-LCR-InformationModifyList-PSCH-ReconfRqst
                                                                                                            OPTIONAL.
   iE-Extensions
                                       ProtocolExtensionContainer { { UL-Timeslot-LCR-InformationModifyItem-PSCH-ReconfRqst-ExtIEs} }
   OPTIONAL,
UL-Timeslot-LCR-InformationModifyItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
UL-Code-LCR-InformationModifyList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfPUSCHs)) OF UL-Code-LCR-InformationModifyList-PSCH-ReconfRqst
UL-Code-LCR-InformationModifyItem-PSCH-ReconfRgst ::= SEQUENCE {
   pUSCH-ID
                                       PUSCH-ID,
   tdd-ChannelisationCodeLCR
                                           TDD-ChannelisationCodeLCR,
                                       iE-Extensions
   OPTIONAL,
   . . .
UL-Code-LCR-InformationModifyItem-PSCH-ReconfRgst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
PUSCHSets-DeleteList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfPUSCHSets)) OF PUSCHSets-DeleteItem-PSCH-ReconfRqst
PUSCHSets-DeleteItem-PSCH-ReconfRqst
                                    ::= SEOUENCE {
   pUSCHSet-ID
                                           PUSCHSet-ID,
                                           ProtocolExtensionContainer { {PUSCHSets-DeleteItem-PSCH-ReconfRqst-ExtIEs} }
   iE-Extensions
                                                                                                                  OPTIONAL,
   . . .
PUSCHSets-DeleteItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    -- PHYSICAL SHARED CHANNEL RECONFIGURATION RESPONSE TDD
  PhysicalSharedChannelReconfigurationResponseTDD ::= SEQUENCE {
                     ProtocolIE-Container {{PhysicalSharedChannelReconfigurationResponseTDD-IEs}},
   protocolExtensions ProtocolExtensionContainer {{PhysicalSharedChannelReconfigurationResponseTDD-Extensions}}
                                                                                                                      OPTIONAL,
PhysicalSharedChannelReconfigurationResponseTDD-IEs NBAP-PROTOCOL-IES ::= {
   { ID
          id-CriticalityDiagnostics
                                                                           CriticalityDiagnostics
                                                                                                          PRESENCE optional },
                                       CRITICALITY
                                                     ignore
                                                                TYPE
```

```
PhysicalSharedChannelReconfigurationResponseTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
  ******************
-- PHYSICAL SHARED CHANNEL RECONFIGURATION FAILURE TDD
  *****************
PhysicalSharedChannelReconfigurationFailureTDD ::= SEQUENCE {
                      ProtocolIE-Container {{PhysicalSharedChannelReconfigurationFailureTDD-IEs}},
   protocolExtensions ProtocolExtensionContainer {{PhysicalSharedChannelReconfigurationFailureTDD-Extensions}}
                                                                                                                            OPTIONAL,
PhysicalSharedChannelReconfigurationFailureTDD-IES NBAP-PROTOCOL-IES ::= {
          id-CauseLevel-PSCH-ReconfFailureTDD
                                             CRITICALITY ignore TYPE CauseLevel-PSCH-ReconfFailureTDD
                                                                                                              PRESENCE mandatory } |
    { ID
          id-CriticalityDiagnostics
                                     CRITICALITY ignore
                                                                                                             PRESENCE optional },
                                                                TYPE CriticalityDiagnostics
PhysicalSharedChannelReconfigurationFailureTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
CauseLevel-PSCH-ReconfFailureTDD ::= CHOICE {
   generalCause
                     GeneralCauseList-PSCH-ReconfFailureTDD,
                          SetSpecificCauseList-PSCH-ReconfFailureTDD,
   setSpecificCause
    . . .
GeneralCauseList-PSCH-ReconfFailureTDD ::= SEQUENCE {
                              ProtocolExtensionContainer { { GeneralCauseItem-PSCH-ReconfFailureTDD-ExtIEs} }
   iE-Extensions
                                                                                                                OPTIONAL,
GeneralCauseItem-PSCH-ReconfFailureTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
SetSpecificCauseList-PSCH-ReconfFailureTDD ::= SEQUENCE {
    unsuccessful-PDSCHSetList-PSCH-ReconfFailureTDD Unsuccessful-PDSCHSetList-PSCH-ReconfFailureTDD
                                                                                                                OPTIONAL,
   unsuccessful-PUSCHSetList-PSCH-ReconfFailureTDD Unsuccessful-PUSCHSetList-PSCH-ReconfFailureTDD
   iE-Extensions
                                                 ProtocolExtensionContainer { { SetSpecificCauseItem-PSCH-ReconfFailureTDD-ExtIEs} }
   OPTIONAL,
SetSpecificCauseItem-PSCH-ReconfFailureTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
```

```
Unsuccessful-PDSCHSetList-PSCH-ReconfFailureTDD ::= SEQUENCE (SIZE (0.. maxNrOfPDSCHSets)) OF ProtocolIE-Single-Container {{ Unsuccessful-
PDSCHSetItemIE-PSCH-ReconfFailureTDD }}
Unsuccessful-PDSCHSetItemIE-PSCH-ReconfFailureTDD NBAP-PROTOCOL-IES ::= {
           id-Unsuccessful-PDSCHSetItem-PSCH-ReconfFailureTDD CRITICALITY ignore TYPE Unsuccessful-PDSCHSetItem-PSCH-ReconfFailureTDDPRESENCE
mandatory}
Unsuccessful-PDSCHSetItem-PSCH-ReconfFailureTDD ::= SEQUENCE {
                           PDSCHSet-ID,
    pDSCHSet-ID
    cause
                           Cause,
                           ProtocolExtensionContainer { {Unsuccessful-PDSCHSetItem-PSCH-ReconfFailureTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
Unsuccessful-PDSCHSetItem-PSCH-ReconfFailureTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
Unsuccessful-PUSCHSetList-PSCH-ReconfFailureTDD ::= SEQUENCE (SIZE (0.. maxNrOfPUSCHSets)) OF ProtocolIE-Single-Container {{ Unsuccessful-
PUSCHSetItemIE-PSCH-ReconfFailureTDD }}
Unsuccessful-PUSCHSetItemIE-PSCH-ReconfFailureTDD NBAP-PROTOCOL-IES ::= {
           id-Unsuccessful-PUSCHSetItem-PSCH-ReconfFailureTDD CRITICALITY ignore TYPE Unsuccessful-PUSCHSetItem-PSCH-ReconfFailureTDDPRESENCE
mandatory }
Unsuccessful-PUSCHSetItem-PSCH-ReconfFailureTDD ::= SEQUENCE {
   pUSCHSet-ID
                           PUSCHSet-ID,
    cause
                           Cause,
                           ProtocolExtensionContainer { {Unsuccessful-PUSCHSetItem-PSCH-ReconfFailureTDD-ExtIEs} }
   iE-Extensions
Unsuccessful-PUSCHSetItem-PSCH-ReconfFailureTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
-- RESET REQUEST
ResetRequest ::= SEQUENCE {
    protocolIEs
                           ProtocolIE-Container
                                                   {{ResetRequest-IEs}},
                           ProtocolExtensionContainer {{ResetRequest-Extensions}}
    protocolExtensions
                                                                                       OPTIONAL,
```

```
ResetRequest-IEs NBAP-PROTOCOL-IES ::= {
    {ID id-ResetIndicator
                              CRITICALITY ignore
                                                     TYPE
                                                            ResetIndicator
                                                                                PRESENCE
                                                                                           mandatory},
ResetRequest-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    . . .
ResetIndicator ::= CHOICE {
    communicationContext
                                  CommunicationContextList-Reset,
    communicationControlPort
                                  CommunicationControlPortList-Reset,
   nodeB
                                  NULL,
    . . .
CommunicationContextList-Reset ::= SEQUENCE {
   communicationContextInfoList-Reset
                                         CommunicationContextInfoList-Reset,
   iE-Extensions
                                         CommunicationContextItem-Reset-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
CommunicationContextInfoList-Reset ::= SEQUENCE (SIZE (1.. maxCommunicationContext))
                                                                                 OF ProtocolIE-Single-Container {{
CommunicationContextInfoItemIE-Reset }}
CommunicationContextInfoItemIE-Reset NBAP-PROTOCOL-IES ::= {
    {ID id-CommunicationContextInfoItem-Reset
                                                 CRITICALITY reject
                                                                        TYPE CommunicationContextInfoItem-Reset
                                                                                                                PRESENCE mandatory }
CommunicationContextInfoItem-Reset ::= SEQUENCE {
   communicationContextType-Reset
                                         CommunicationContextType-Reset,
                                         ProtocolExtensionContainer { { CommunicationContextInfoItem-Reset-ExtIEs} }
   iE-Extensions
                                                                                                                      OPTIONAL,
```

```
CommunicationContextInfoItem-Reset-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
CommunicationContextType-Reset ::= CHOICE {
    cRNC-CommunicationContextID
                                          CRNC-CommunicationContextID,
    nodeB-CommunicationContextID
                                          NodeB-CommunicationContextID,
CommunicationControlPortList-Reset ::= SEQUENCE {
    communicationControlPortInfoList-Reset
                                              CommunicationControlPortInfoList-Reset,
                                              ProtocolExtensionContainer { {CommunicationControlPortItem-Reset-ExtIEs} }
    iE-Extensions
                                                                                                                            OPTIONAL,
CommunicationControlPortItem-Reset-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
CommunicationControlPortInfoList-Reset ::= SEQUENCE (SIZE (1.. maxCCPinNodeB)) OF ProtocolIE-Single-Container
{{CommunicationControlPortInfoItemIE-Reset }}
CommunicationControlPortInfoItemIE-Reset NBAP-PROTOCOL-IES ::= {
    {ID id-CommunicationControlPortInfoItem-Reset
                                                      CRITICALITY reject
                                                                             TYPE CommunicationControlPortInfoItem-Reset
                                                                                                                            PRESENCE mandatory}
}
CommunicationControlPortInfoItem-Reset ::= SEQUENCE {
    communicationControlPortID
                                       CommunicationControlPortID,
                                       ProtocolExtensionContainer { {CommunicationControlPortInfoItem-Reset-ExtIEs} } OPTIONAL,
   iE-Extensions
    . . .
CommunicationControlPortInfoItem-Reset-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
   *****************
-- RESET RESPONSE
```

```
ResetResponse ::= SEQUENCE {
   protocolIEs
                                               {{ResetResponse-IEs}},
                        ProtocolIE-Container
                         ProtocolExtensionContainer {{ResetResponse-Extensions}}
   protocolExtensions
                                                                                          OPTIONAL,
ResetResponse-IEs NBAP-PROTOCOL-IES ::= {
   {ID id-CriticalityDiagnostics
                                     CRITICALITY
                                                    ignore
                                                                       CriticalityDiagnostics
                                                                                                               PRESENCE optional },
ResetResponse-Extensions NBAP-PROTOCOL-EXTENSION ::= {
-- INFORMATION EXCHANGE INITIATION REQUEST
InformationExchangeInitiationRequest ::= SEQUENCE {
                         ProtocolIE-Container {{InformationExchangeInitiationRequest-IEs}},
   protocolIEs
   protocolExtensions
                         ProtocolExtensionContainer {{InformationExchangeInitiationRequest-Extensions}}
                                                                                                               OPTIONAL,
InformationExchangeInitiationRequest-IES NBAP-PROTOCOL-IES ::= {
   { ID id-InformationExchangeID
                                                                                                             InformationExchangeID
                                                                CRITICALITY reject
                                                                                          TYPE
              PRESENCE
                        mandatory }|
   { ID id-InformationExchangeObjectType-InfEx-Rqst
                                                                                                             InformationExchangeObjectType-
                                                            CRITICALITY reject
                                                                                      TYPE
              PRESENCE
                         mandatory }|
InfEx-Rast
    { ID
          id-InformationType
                                                CRITICALITY reject
                                                                                  TYPE
                                                                                          InformationType
                                                                                                                        PRESENCE mandatory
    { ID
           id-InformationReportCharacteristics
                                                                CRITICALITY reject
                                                                                          TYPE
                                                                                                             InformationReportCharacteristics
                  PRESENCE mandatory },
InformationExchangeInitiationRequest-Extensions NBAP-PROTOCOL-EXTENSION ::= {
InformationExchangeObjectType-InfEx-Rqst ::= CHOICE {
   cell
                                 Cell-InfEx-Rqst,
   . . .
Cell-InfEx-Rqst ::= SEQUENCE {
   c-ID
                                 C-ID,
   iE-Extensions
                                 ProtocolExtensionContainer { { CellItem-InfEx-Rqst-ExtIEs} }
                                                                                                               OPTIONAL,
```

```
CellItem-InfEx-Rgst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
-- INFORMATION EXCHANGE INITIATION RESPONSE
  ****************
InformationExchangeInitiationResponse ::= SEQUENCE {
   protocolIEs
                         ProtocolIE-Container
                                               {{InformationExchangeInitiationResponse-IEs}},
   protocolExtensions
                         ProtocolExtensionContainer {{InformationExchangeInitiationResponse-Extensions}}
                                                                                                            OPTIONAL,
InformationExchangeInitiationResponse-IEs NBAP-PROTOCOL-IES ::=
          id-InformationExchangeID
                                                          CRITICALITY ignore
                                                                                    TYPE
                                                                                                         InformationExchangeID
              PRESENCE mandatory }
   { ID
          id-InformationExchangeObjectType-InfEx-Rsp
                                                      CRITICALITY ignore
                                                                                       InformationExchangeObjectType-InfEx-Rsp
                                                                                                                               PRESENCE
   optional
   { ID
         id-CriticalityDiagnostics
                                                   CRITICALITY ignore
                                                                            TYPE
                                                                                    CriticalityDiagnostics
                                                                                                                    PRESENCE optional },
InformationExchangeInitiationResponse-Extensions NBAP-PROTOCOL-EXTENSION ::= {
InformationExchangeObjectType-InfEx-Rsp ::= CHOICE {
   cell
                             Cell-InfEx-Rsp,
   . . .
Cell-InfEx-Rsp ::= SEQUENCE {
   requestedDataValue
                                RequestedDataValue,
   iE-Extensions
                                ProtocolExtensionContainer { { CellItem-InfEx-Rsp-ExtIEs} }
                                                                                                            OPTIONAL,
   . . .
Cellitem-InfEx-Rsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ****************
-- INFORMATION EXCHANGE INITIATION FAILURE
      ******************
InformationExchangeInitiationFailure ::= SEQUENCE {
                                               {{InformationExchangeInitiationFailure-IEs}},
   protocolIEs
                         ProtocolIE-Container
```

```
ProtocolExtensionContainer {{InformationExchangeInitiationFailure-Extensions}}
   protocolExtensions
                                                                                                                    OPTIONAL,
InformationExchangeInitiationFailure-IEs NBAP-PROTOCOL-IES ::= {
           id-InformationExchangeID
                                                                                          InformationExchangeID
                                                  CRITICALITY
                                                                  ignore
                                                                                  TYPE
                                                                                                                          PRESENCE mandatory
                                                                                                                          PRESENCE mandatory
     TD
           id-Cause
                                           CRITICALITY
                                                           ignore
                                                                          TYPE
                                                                                  Cause
     ID
           id-CriticalityDiagnostics
                                           CRITICALITY
                                                          ignore
                                                                          TYPE
                                                                                  CriticalityDiagnostics
                                                                                                                    PRESENCE optional },
InformationExchangeInitiationFailure-Extensions NBAP-PROTOCOL-EXTENSION ::= {
-- INFORMATION REPORT
__ **********************
InformationReport ::= SEQUENCE {
                                                  {{InformationReport-IEs}},
   protocolIEs
                           ProtocolIE-Container
   protocolExtensions
                           ProtocolExtensionContainer {{InformationReport-Extensions}}
                                                                                              OPTIONAL.
InformationReport-IES NBAP-PROTOCOL-IES ::= {
           id-InformationExchangeID
                                                              CRITICALITY ignore
                                                                                          TYPE
                                                                                                                 InformationExchangeID
               PRESENCE
                          mandatory }|
           id-InformationExchangeObjectType-InfEx-Rprt
                                                          CRITICALITY ignore
                                                                                              InformationExchangeObjectType-InfEx-Rprt
   mandatory },
    . . .
InformationReport-Extensions NBAP-PROTOCOL-EXTENSION ::= {
InformationExchangeObjectType-InfEx-Rprt ::= CHOICE {
   cell
                                   Cell-Inf-Rprt,
    . . .
Cell-Inf-Rprt ::= SEOUENCE {
   requestedDataValueInformation RequestedDataValueInformation,
   iE-Extensions
                                   ProtocolExtensionContainer {{ CellItem-Inf-Rprt-ExtIEs }}
                                                                                                                 OPTIONAL,
CellItem-Inf-Rprt-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
```

```
-- INFORMATION EXCHANGE TERMINATION REQUEST
__ **********************
InformationExchangeTerminationRequest ::= SEOUENCE {
   protocolIEs
                        ProtocolIE-Container
                                               {{InformationExchangeTerminationRequest-IEs}},
                        ProtocolExtensionContainer {{InformationExchangeTerminationRequest-Extensions}}
   protocolExtensions
                                                                                                           OPTIONAL,
InformationExchangeTerminationRequest-IES NBAP-PROTOCOL-IES ::= {
          id-InformationExchangeID
                                                                                   InformationExchangeID
                                                                                                             PRESENCE mandatory },
InformationExchangeTerminationRequest-Extensions NBAP-PROTOCOL-EXTENSION ::= {
     *****************
-- INFORMATION EXCHANGE FAILURE INDICATION
__ **********************
InformationExchangeFailureIndication ::= SEQUENCE {
                                              {{InformationExchangeFailureIndication-IEs}},
   protocolIEs
                        ProtocolIE-Container
                            ProtocolExtensionContainer {{InformationExchangeFailureIndication-Extensions}}
   protocolExtensions
                                                                                                                OPTIONAL,
InformationExchangeFailureIndication-IES NBAP-PROTOCOL-IES ::= {
          id-InformationExchangeID
                                          CRITICALITY ignore
                                                                    TYPE
                                                                            InformationExchangeID
                                                                                                             PRESENCE mandatory
    ID
          id-Cause
                                    CRITICALITY ignore
                                                             TYPE
                                                                    Cause
                                                                                                        PRESENCE mandatory },
   . . .
InformationExchangeFailureIndication-Extensions NBAP-PROTOCOL-EXTENSION ::= {
  CELL SYNCHRONISATION INITIATION REQUEST 3.84Mcps TDD
  *****************
CellSynchronisationInitiationRequestTDD ::= SEQUENCE
   protocolIEs
                        ProtocolIE-Container
                                              {{CellSynchronisationInitiationRequestTDD-IEs}},
                        ProtocolExtensionContainer {{CellSynchronisationInitiationRequestTDD-Extensions}}
   protocolExtensions
                                                                                                       OPTIONAL,
   . . .
```

```
CellSynchronisationInitiationRequestTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
CellSynchronisationInitiationRequestTDD-IES NBAP-PROTOCOL-IES ::= {
                                            CRITICALITY
                                                            reject
                                                                         TYPE
                                                                                 C-ID
                                                                                                                              PRESENCE mandatory
      TD
           id-cellSyncBurstRepetitionPeriod
                                                        CRITICALITY
                                                                         reject
                                                                                     TYPE
                                                                                             CellSyncBurstRepetitionPeriod PRESENCE mandatory
                                                                                             {\tt TimeslotInfo-CellSyncInitiationRqstTDD}
     ID
           id-timeslotInfo-CellSyncInitiationRqstTDD
                                                        CRITICALITY
                                                                         reject
                                                                                     TYPE
                                                                                                                                      PRESENCE
    mandatory } |
            id-CellSyncBurstTransInit-CellSyncInitiationRqstTDD
                                                                     CRITICALITY
                                                                                     reject
                                                                                                 TYPE
                                                                                                                     CellSyncBurstTransInit-
CellSyncInitiationRqstTDD
                                PRESENCE
                                            optional
           id-CellSyncBurstMeasureInit-CellSyncInitiationRgstTDD
                                                                         CRITICALITY
                                                                                         reject
                                                                                                                     TYPE CellSyncBurstMeasureInit-
CellSyncInitiationRqstTDD
                                PRESENCE
                                            optional
CellSyncBurstTransInit-CellSyncInitiationRgstTDD::= SEQUENCE {
    cSBTransmissionID
                                            CSBTransmissionID,
    sfn
                                            SFN.
    cellSyncBurstCode
                                            CellSyncBurstCode,
                                            CellSyncBurstCodeShift,
    cellSyncBurstCodeShift
    initialDLTransPower
                                            DL-Power,
                                            ProtocolExtensionContainer { { CellSyncBurstTransInit-CellSyncInitiationRqstTDD-ExtIEs} }
    iE-Extensions
                                                                                                                                         OPTIONAL,
CellSyncBurstTransInit-CellSyncInitiationRgstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
TimeslotInfo-CellSyncInitiationRqstTDD::= SEQUENCE (SIZE (1..15)) OF TimeSlot
CellSyncBurstMeasureInit-CellSyncInitiationRqstTDD::= SEQUENCE {
    cSBMeasurementID
                                            CSBMeasurementID,
    cellSyncBurstCode
                                            CellSyncBurstCode,
    cellSyncBurstCodeShift
                                            CellSyncBurstCodeShift,
                                            SynchronisationReportType,
    synchronisationReportType
                                                                         OPTIONAL,
    synchronisationReportCharacteristics
                                            SynchronisationReportCharacteristics,
                                            ProtocolExtensionContainer { { CellSyncBurstMeasureInit-CellSyncInitiationRqstTDD-ExtIEs} }
    iE-Extensions
    OPTIONAL,
CellSyncBurstMeasureInit-CellSyncInitiationRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
-- CELL SYNCHRONISATION INITIATION RESPONSE 3.84Mcps TDD
```

```
__ *********************
CellSynchronisationInitiationResponseTDD ::= SEQUENCE
   protocolIEs
                         ProtocolIE-Container
                                               {{CellSynchronisationInitiationResponseTDD-IEs}},
   protocolExtensions
                         ProtocolExtensionContainer {{CellSynchronisationInitiationResponseTDD-Extensions}}
                                                                                                          OPTIONAL.
CellSynchronisationInitiationResponseTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
CellSynchronisationInitiationResponseTDD-IES NBAP-PROTOCOL-IES ::= {
         id-CriticalityDiagnostics
                                                   CRITICALITY
                                                                            TYPE
                                                                                    CriticalityDiagnostics
                                                                                                                            PRESENCE
                                                                  ignore
   optional },
-- CELL SYNCHRONISATION INITIATION FAILURE 3.84Mcps TDD
  CellSynchronisationInitiationFailureTDD ::= SEQUENCE
   protocolIEs
                         ProtocolIE-Container
                                               {{CellSynchronisationInitiationFailureTDD-IEs}},
                         ProtocolExtensionContainer {{CellSynchronisationInitiationFailureTDD-Extensions}}
   protocolExtensions
                                                                                                         OPTIONAL,
CellSynchronisationInitiationFailureTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
CellSynchronisationInitiationFailureTDD-IES NBAP-PROTOCOL-IES ::= {
     ID
          id-Cause
                                           CRITICALITY
                                                                     TYPE
                                                                                                                    PRESENCE mandatory
                                                                             Cause
    { ID
          id-CriticalityDiagnostics
                                           CRITICALITY
                                                          ignore
                                                                     TYPE
                                                                             CriticalityDiagnostics
                                                                                                            PRESENCE optional },
-- CELL SYNCHRONISATION RECONFIGURATION REQUEST 3.84Mcps TDD
  ****************
CellSynchronisationReconfigurationRequestTDD ::= SEQUENCE {
   protocolIEs
                         ProtocolIE-Container
                                               {{CellSynchronisationReconfigurationRequestTDD-IEs}},
   protocolExtensions
                         ProtocolExtensionContainer {{CellSynchronisationReconfigurationRequestTDD-Extensions}}
                                                                                                             OPTIONAL,
CellSynchronisationReconfigurationRequestTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
```

```
. . .
CellSynchronisationReconfigurationRequestTDD-IEs NBAP-PROTOCOL-IES ::= {
     ID
           id-C-ID
                                          CRITICALITY
                                                          reject
                                                                                                                                    mandatory
                                                                      TYPE
                                                                             C-ID
                                                                                                                         PRESENCE
           id-TimeSlot
     ID
                                          CRITICALITY
                                                          reject
                                                                      TYPE
                                                                             TimeSlot
                                                                                                                      PRESENCE
                                                                                                                                 mandatory
     ID
           id-NCvclesPerSFNperiod
                                          CRITICALITY
                                                          reject
                                                                      TYPE
                                                                             NCvclesPerSFNperiod
                                                                                                                      PRESENCE
                                                                                                                                  mandatory
     TD
           id-NRepetitionsPerCyclePeriod CRITICALITY
                                                          reject
                                                                      TYPE
                                                                             NRepetitionsPerCyclePeriod PRESENCE
                                                                                                                   mandatory
           id-CellSyncBurstTransReconfInfo-CellSyncReconfRqstTDD
                                                                      CRITICALITY
                                                                                     reiect
    CellSyncBurstTransReconfInfo-CellSyncReconfRgstTDD
                                                          PRESENCE
                                                                      optional
           id-CellSyncBurstMeasReconfiguration-CellSyncReconfRqstTDD
                                                                          CRITICALITY
                                                                                         reject
                                                                                                                   TYPE CellSyncBurstMeasInfo-
CellSyncReconfRqstTDD
                           PRESENCE
                                      optional },
CellSyncBurstTransReconfInfo-CellSyncReconfRqstTDD ::= SEOUENCE (SIZE (1.. maxNrOfCellSyncBursts)) OF CellSyncBurstTransInfoItem-
CellSyncReconfRqstTDD
CellSyncBurstTransInfoItem-CellSyncReconfRqstTDD ::= SEQUENCE {
    cSBTransmissionID
                                              CSBTransmissionID,
    syncFrameNumberToTransmit
                                              SyncFrameNumber,
    cellSyncBurstCode
                                              CellSyncBurstCode
                                                                          OPTIONAL,
    cellSyncBurstCodeShift
                                              CellSyncBurstCodeShift
                                                                          OPTIONAL,
   dlTransPower
                                              DL-Power
                                                                          OPTIONAL,
    iE-Extensions
                                              ProtocolExtensionContainer { CellSyncBurstTransInfoItem-CellSyncReconfRgstTDD-ExtIEs} }
   OPTIONAL,
    . . .
CellSyncBurstTransInfoItem-CellSyncReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
CellSyncBurstMeasInfo-CellSyncReconfRqstTDD ::= SEQUENCE {
    cellSyncBurstMeasInfoList-CellSyncReconfRqstTDD
                                                      CellSyncBurstMeasInfoList-CellSyncReconfRqstTDD,
    synchronisationReportType
                                                      SynchronisationReportTypeIE
                                                                                             OPTIONAL,
    synchronisationReportCharacteristics
                                                      SynchronisationReportCharacteristicsIE OPTIONAL,
    iE-Extensions
                                                      ProtocolExtensionContainer { CellSyncBurstMeasInfo-CellSyncReconfRqstTDD-ExtIEs} }
   OPTIONAL,
    . . .
CellSyncBurstMeasInfo-CellSyncReconfRgstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
CellSyncBurstMeasInfoList-CellSyncReconfRqstTDD ::= ProtocolIE-Single-Container {{ CellSyncBurstMeasInfoListIEs-CellSyncReconfRqstTDD }}
CellSyncBurstMeasInfoListIEs-CellSyncReconfRqstTDD NBAP-PROTOCOL-IES ::= {
    TYPE CellSyncBurstMeasInfoListIE-CellSyncReconfRqstTDD
    PRESENCE mandatory }
```

```
SynchronisationReportTypeIE ::= ProtocolIE-Single-Container {{ SynchronisationReportTypeIEs }}
SynchronisationReportTypeIEs NBAP-PROTOCOL-IES ::= {
    { ID id-SynchronisationReportType
                                                       CRITICALITY reject TYPE SynchronisationReportType
                                                                                                                                   PRESENCE
    mandatory }
SynchronisationReportCharacteristicsIE ::= ProtocolIE-Single-Container {{ SynchronisationReportCharacteristicsIEs }}
SynchronisationReportCharacteristicsIEs NBAP-PROTOCOL-IES ::= {
    { ID id-SynchronisationReportCharacteristics
                                                       CRITICALITY reject TYPE SynchronisationReportCharacteristics
                                                                                                                           PRESENCE mandatory } }
CellSyncBurstMeasInfoListIE-CellSyncReconfRgstTDD ::= SEOUENCE (SIZE (1.. maxNrOfCellSyncBursts)) OF CellSyncBurstMeasInfoItem-
CellSyncReconfRqstTDD
CellSyncBurstMeasInfoItem-CellSyncReconfRgstTDD ::= SEQUENCE {
    syncFrameNrToReceive
                                           SyncFrameNumber,
                                           CellSyncBurstInfoList-CellSyncReconfRqstTDD,
    syncBurstInfo
    iE-Extensions
                                           ProtocolExtensionContainer { { CellSyncBurstMeasInfoItem-CellSyncReconfRqstTDD-ExtIEs} }
                                                                                                                                      OPTIONAL,
    . . .
CellSyncBurstMeasInfoItem-CellSyncReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
CellSyncBurstInfoList-CellSyncReconfRgstTDD ::= SEOUENCE (SIZE (1..maxNrOfReceptsPerSyncFrame)) OF CellSyncBurstInfoItem-CellSyncReconfRgstTDD
CellSyncBurstInfoItem-CellSyncReconfRqstTDD ::= SEQUENCE {
    cSBMeasurementID
                                               CSBMeasurementID,
    cellSyncBurstCode
                                               CellSyncBurstCode,
    cellSyncBurstCodeShift
                                               CellSyncBurstCodeShift,
    iE-Extensions
                                               ProtocolExtensionContainer { { CellSyncBurstInfoItem-CellSyncReconfRqstTDD-ExtIEs} }
                                                                                                                                      OPTIONAL,
CellSyncBurstInfoItem-CellSyncReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  CELL SYNCHRONISATION RECONFIGURATION RESPONSE 3.84Mcps TDD
  ******************
CellSynchronisationReconfigurationResponseTDD ::= SEQUENCE {
    protocolIEs
                           ProtocolIE-Container
                                                   {{CellSynchronisationReconfigurationResponseTDD-IEs}},
    protocolExtensions
                           ProtocolExtensionContainer {{CellSynchronisationReconfigurationResponseTDD-Extensions}}
                                                                                                                       OPTIONAL,
```

```
CellSynchronisationReconfigurationResponseTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
CellSynchronisationReconfigurationResponseTDD-IEs NBAP-PROTOCOL-IES ::=
          id-CriticalityDiagnostics
                                                                                 CriticalityDiagnostics
                                                                                                           PRESENCE optional },
                                                 CRITICALITY
                                                                ignore
                                                                          TYPE
  CELL SYNCHRONISATION RECONFIGURATION FAILURE 3.84Mcps TDD
  *************************
CellSynchronisationReconfigurationFailureTDD ::= SEQUENCE
                                                  {{CellSynchronisationReconfigurationFailureTDD-IEs}},
   protocolIEs
                        ProtocolIE-Container
                                                {{CellSynchronisationReconfigurationFailureTDD-Extensions}}
                        ProtocolExtensionContainer
   protocolExtensions
                                                                                                          OPTIONAL,
   . . .
CellSynchronisationReconfigurationFailureTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
CellSynchronisationReconfigurationFailureTDD-IES NBAP-PROTOCOL-IES ::= {
          id-Cause
                                          CRITICALITY
                                                                   TYPE
                                                                                                                 PRESENCE mandatory
                                                                          Cause
          id-CriticalityDiagnostics
    ID
                                          CRITICALITY
                                                        ignore
                                                                   TYPE
                                                                          CriticalityDiagnostics
                                                                                                         PRESENCE optional },
  -- CELL SYNCHRONISATION ADJUSTMENT REQUEST 3.84Mcps TDD
  *******************
CellSynchronisationAdjustmentRequestTDD ::= SEQUENCE {
   protocolIEs
                        ProtocolIE-Container
                                                  {{CellSynchronisationAdjustmentRequestTDD-IEs}},
                                                 {{CellSynchronisationAdjustmentRequestTDD-Extensions}}
   protocolExtensions
                        ProtocolExtensionContainer
                                                                                                      OPTIONAL,
CellSynchronisationAdjustmentRequestTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
CellSynchronisationAdjustmentRequestTDD-IEs NBAP-PROTOCOL-IES ::= {
          id-CellAdjustmentInfo-SyncAdjustmntRqstTDD CRITICALITY ignore TYPE CellAdjustmentInfo-SyncAdjustmentRqstTDD PRESENCE mandatory },
```

```
CellAdjustmentInfo-SyncAdjustmentRqstTDD::= SEQUENCE (SIZE (1..maxCellinNodeB)) OF ProtocolIE-Single-Container {{ CellAdjustmentInfoItemIE-
SyncAdjustmntRgstTDD }}
CellAdjustmentInfoItemIE-SyncAdjustmntRgstTDD NBAP-PROTOCOL-IES ::= {
   { ID id-CellAdjustmentInfoItem-SyncAdjustmentRgstTDD
                                                                       ignore
                                                                                                         CellAdjustmentInfoItem-
                                                         CRITICALITY
                                                                                     TYPE
SyncAdjustmentRqstTDD
                        PRESENCE
                                   mandatory }
CellAdjustmentInfoItem-SyncAdjustmentRqstTDD ::= SEQUENCE {
                                       C-ID,
   frameAdjustmentValue
                                       FrameAdjustmentValue
                                                                OPTIONAL,
   timingAdjustmentValue
                                       TimingAdjustmentValue
                                                                OPTIONAL,
   dLTransPower
                                       DL-Power
                                                                OPTIONAL,
   sfn
                                       SFN
                                                                OPTIONAL,
                                       ProtocolExtensionContainer { { CellAdjustmentInfoItem-SyncAdjustmntRgstTDD-ExtIEs} }
   iE-Extensions
                                                                                                                       OPTIONAL,
CellAdjustmentInfoItem-SyncAdjustmntRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
      -- CELL SYNCHRONISATION ADJUSTMENT RESPONSE 3.84Mcps TDD
  CellSynchronisationAdjustmentResponseTDD ::= SEQUENCE {
                                              {{CellSynchronisationAdjustmentResponseTDD-IEs}},
   protocolIEs
                        ProtocolIE-Container
                         ProtocolExtensionContainer {{CellSynchronisationAdjustmentResponseTDD-Extensions}}
   protocolExtensions
                                                                                                       OPTIONAL,
CellSynchronisationAdjustmentResponseTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
CellSynchronisationAdjustmentResponseTDD-IEs NBAP-PROTOCOL-IES ::= {
   { ID
          id-CriticalityDiagnostics
                                          CRITICALITY
                                                         ignore
                                                                   TYPE
                                                                           CriticalityDiagnostics
                                                                                                                 PRESENCE optional },
   . . .
    -- CELL SYNCHRONISATION ADJUSTMENT FAILURE 3.84Mcps TDD
    *****************
CellSynchronisationAdjustmentFailureTDD ::= SEQUENCE
                                              {{CellSynchronisationAdjustmentFailureTDD-IEs}},
   protocolIEs
                        ProtocolIE-Container
   protocolExtensions
                        ProtocolExtensionContainer {{CellSynchronisationAdjustmentFailureTDD-Extensions}}
                                                                                                      OPTIONAL,
```

```
CellSynchronisationAdjustmentFailureTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
CellSynchronisationAdjustmentFailureTDD-IES NBAP-PROTOCOL-IES ::= {
                                                                                                                           PRESENCE mandatory } |
            id-CauseLevel-SyncAdjustmntFailureTDD CRITICALITY ignore
                                                                             TYPE
                                                                                     CauseLevel-SyncAdjustmntFailureTDD
      ID
            id-CriticalityDiagnostics
                                                    CRITICALITY ignore
                                                                             TYPE
                                                                                     CriticalityDiagnostics
                                                                                                                                    PRESENCE optional
    . . .
CauseLevel-SyncAdjustmntFailureTDD ::= CHOICE {
    generalCause
                            GeneralCauseList-SyncAdjustmntFailureTDD,
                            CellSpecificCauseList-SyncAdjustmntFailureTDD,
    cellSpecificCause
GeneralCauseList-SyncAdjustmntFailureTDD::= SEQUENCE {
    iE-Extensions
                                                ProtocolExtensionContainer { GeneralCauseList-SyncAdjustmntFailureTDD-ExtIEs} }
                                                                                                                                       OPTIONAL,
    . . .
GeneralCauseList-SyncAdjustmntFailureTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
CellSpecificCauseList-SyncAdjustmntFailureTDD ::= SEQUENCE {
                                                                         Unsuccessful-cell-InformationRespList-SyncAdjustmntFailureTDD,
    unsuccessful-cell-InformationRespList-SyncAdjustmntFailureTDD
    iE-Extensions
                                                ProtocolExtensionContainer { { CellSpecificCauseList-SyncAdjustmntFailureTDD-ExtIEs} }
    OPTIONAL,
    . . .
CellSpecificCauseList-SyncAdjustmntFailureTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
Unsuccessful-cell-InformationRespList-SyncAdjustmntFailureTDD ::= SEQUENCE (SIZE (1..maxCellinNodeB))
                                                                                                                     OF ProtocolIE-Single-Container
{{ Unsuccessful-cell-InformationRespItemIE-SyncAdjustmntFailureTDD }}
Unsuccessful-cell-InformationRespItemIE-SyncAdjustmntFailureTDD NBAP-PROTOCOL-IES ::= {
                                                                                     CRITICALITY
           id-Unsuccessful-cell-InformationRespItem-SyncAdjustmntFailureTDD
                                                                                                                                 TYPE Unsuccessful-
                                                                                                                     ignore
cell-InformationRespItem-SyncAdjustmntFailureTDD
                                                                     mandatory \}.
Unsuccessful-cell-InformationRespItem-SyncAdjustmntFailureTDD::= SEQUENCE {
    c-ID
                                                C-ID,
    cause
                                                Cause,
    iE-Extensions
                                                ProtocolExtensionContainer { { Unsuccessful-cell-InformationRespItem-SyncAdjustmntFailureTDD-
                OPTIONAL,
ExtIEs } }
    . . .
```

```
Unsuccessful-cell-InformationRespItem-SyncAdjustmntFailureTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  CELL SYNCHRONISATION TERMINATION REQUEST 3.84Mcps TDD
  *****************
CellSynchronisationTerminationRequestTDD ::= SEOUENCE {
   protocolIEs
                          ProtocolIE-Container
                                                {{CellSynchronisationTerminationRequestTDD-IEs}},
   protocolExtensions
                          ProtocolExtensionContainer {{CellSynchronisationTerminationRequestTDD-Extensions}}
                                                                                                            OPTIONAL,
CellSynchronisationTerminationRequestTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
CellSynchronisationTerminationRequestTDD-IEs NBAP-PROTOCOL-IES ::= {
     ID
          id-C-ID
                                        CRITICALITY
                                                        ignore
                                                                   TYPE
                                                                          C-ID
                                                                                                                    PRESENCE mandatory
     TD
          id-CSBTransmissionID
                                         CRITICALITY
                                                        ignore
                                                                   TYPE
                                                                          CSBTransmissionID
                                                                                                                    PRESENCE optional
    ID
          id-CSBMeasurementID
                                                        ignore
                                                                   TYPE
                                                                          CSBMeasurement.ID
                                                                                                                    PRESENCE optional
                                        CRITICALITY
-- CELL SYNCHRONISATION FAILURE INDICATION 3.84Mcps TDD
  *****************
CellSynchronisationFailureIndicationTDD ::= SEQUENCE {
   protocolIEs
                         ProtocolIE-Container
                                                {{CellSynchronisationFailureIndicationTDD-IEs}},
                         ProtocolExtensionContainer {{CellSynchronisationFailureIndicationTDD-Extensions}}
   protocolExtensions
                                                                                                           OPTIONAL,
CellSynchronisationFailureIndicationTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
CellSynchronisationFailureIndicationTDD-IES NBAP-PROTOCOL-IES ::= {
     ID
          id-C-ID
                                         CRITICALITY
                                                        ignore
                                                                   TYPE
                                                                          C-ID
                                                                                                                    PRESENCE mandatory
     ID
          id-CSBTransmissionID
                                         CRITICALITY
                                                        ignore
                                                                   TYPE
                                                                          CSBTransmissionID
                                                                                                                    PRESENCE optional
     ID
          id-CSBMeasurementID
                                        CRITICALITY
                                                        ignore
                                                                   TYPE
                                                                          CSBMeasurement ID
                                                                                                                    PRESENCE optional
     ID
          id-Cause
                                         CRITICALITY
                                                        ignore
                                                                   TYPE
                                                                          Cause
                                                                                                                    PRESENCE mandatory
__ ************************
```

```
-- CELL SYNCHRONISATION REPORT 3.84Mcps TDD
  *****************
CellSynchronisationReportTDD ::= SEQUENCE {
   protocolIEs
                           ProtocolIE-Container
                                                  {{CellSynchronisationReportTDD-IEs}},
   protocolExtensions
                           ProtocolExtensionContainer {{CellSynchronisationReportTDD-Extensions}}
                                                                                                     OPTIONAL,
CellSynchronisationReportTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
CellSynchronisationReportTDD-IES NBAP-PROTOCOL-IES ::= {
           id-CellSyncInfo-CellSyncReprtTDD
    { ID
                                                  CRITICALITY ignore
                                                                          TYPE
                                                                                  CellSyncInfo-CellSyncReprtTDD
                                                                                                                      PRESENCE mandatory
CellSyncInfo-CellSyncReprtTDD ::= SEQUENCE (SIZE (1..maxCellinNodeB)) OF CellSyncInfoItemIE-CellSyncReprtTDD
CellSyncInfoItemIE-CellSyncReprtTDD ::= SEQUENCE {
   c-ID-CellSyncReprtTDD
                                      C-ID-IE-CellSyncReprtTDD,
    syncReportType-CellSyncReprtTDD
                                       SyncReportTypeIE-CellSyncReprtTDD
                                                                              OPTIONAL,
                                      ProtocolExtensionContainer { CellSyncInfoItemIE-CellSyncReprtTDD-ExtIEs} }
   iE-Extensions
                                                                                                                      OPTIONAL,
CellSyncInfoItemIE-CellSyncReprtTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
C-ID-IE-CellSyncReprtTDD ::= ProtocolIE-Single-Container {{ C-ID-IEs-CellSyncReprtTDD }}
C-ID-IEs-CellSyncReprtTDD NBAP-PROTOCOL-IES ::= {
    { ID
           id-C-ID
                                                          CRITICALITY ignore TYPE C-ID
    PRESENCE
               mandatory}
SyncReportTypeIE-CellSyncReprtTDD::= ProtocolIE-Single-Container {{ SyncReportTypeIEs-CellSyncReprtTDD }}
SyncReportTypeIEs-CellSyncReprtTDD NBAP-PROTOCOL-IES ::= {
                                                  CRITICALITY ignore
     ID
           id-SyncReportType-CellSyncReprtTDD
                                                                          TYPE SyncReportType-CellSyncReprtTDD
                                                                                                                   PRESENCE mandatory
SyncReportType-CellSyncReprtTDD ::= CHOICE {
   intStdPhSyncInfo-CellSyncReprtTDD
                                          IntStdPhCellSyncInfo-CellSyncReprtTDD,
   lateEntrantCell
                               NULL,
    frequencyAcquisition
                               NULL,
    . . .
```

```
IntStdPhCellSyncInfo-CellSyncReprtTDD ::= SEQUENCE
    cellSyncBurstMeasuredInfo
                                                CellSyncBurstMeasInfoList-CellSyncReprtTDD,
    iE-Extensions
                                                ProtocolExtensionContainer { { IntStdPhCellSyncInfoList-CellSyncReprtTDD-ExtIEs} }
IntStdPhCellSyncInfoList-CellSyncReprtTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
CellSyncBurstMeasInfoList-CellSyncReprtTDD ::= SEQUENCE (SIZE (1.. maxNrOfCellSyncBursts)) OF CellSyncBurstMeasInfoItem-CellSyncReprtTDD
CellSyncBurstMeasInfoItem-CellSyncReprtTDD ::= SEQUENCE {
    sFN
                                            SFN,
    cellSyncBurstInfo-CellSyncReprtTDD
                                            SEQUENCE (SIZE (1..maxNrOfReceptsPerSyncFrame)) OF CellSyncBurstInfo-CellSyncReprtTDD,
    iE-Extensions
                                            ProtocolExtensionContainer { { CellSyncBurstMeasInfoItem-CellSyncReprtTDD-ExtIEs} }
    . . .
CellSyncBurstMeasInfoItem-CellSyncReprtTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
CellSyncBurstInfo-CellSyncReprtTDD ::= CHOICE {
    cellSyncBurstAvailable
                                CellSyncBurstAvailable-CellSyncReprtTDD,
    cellSyncBurstNotAvailable NULL,
    . . .
CellSyncBurstAvailable-CellSyncReprtTDD ::= SEQUENCE {
    cellSyncBurstTiming
                                CellSyncBurstTiming,
    cellSyncBurstSIR
                                CellSyncBurstSIR,
    iE-Extensions
                                ProtocolExtensionContainer { { CellSyncBurstAvailable-CellSyncReprtTDD-ExtIEs} }
                                                                                                                       OPTIONAL,
CellSyncBurstAvailable-CellSyncReprtTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
END
```

9.3.4 Information Elements Definitions

```
DEFINITIONS AUTOMATIC TAGS ::=
BEGIN
IMPORTS
    maxNrOfTFCs,
    maxNrOfErrors,
    maxCTFC,
    maxNrOfTFs,
    maxTTI-count,
    maxRateMatching,
    maxCodeNrComp-1,
    maxNrOfCellSyncBursts,
    maxNrOfCodeGroups,
    maxNrOfMeasNCell,
    maxNrOfMeasNCell-1,
    maxNrOfReceptsPerSyncFrame,
    maxNrOfTFCIGroups,
    maxNrOfTFCI1Combs,
    maxNrOfTFCI2Combs,
    maxNrOfTFCI2Combs-1,
    maxNrOfSF,
    maxTGPS,
    maxNrOfUSCHs,
    maxNrOfULTSs.
    maxNrOfULTSLCRs,
    maxNrOfDPCHs,
    maxNrOfDPCHLCRs,
    maxNrOfCodes,
    maxNrOfDSCHs,
    maxNrOfDLTSs,
    maxNrOfDLTSLCRs,
    maxNrOfDCHs,
    maxNrOfLevels,
    maxNoGPSItems,
    maxNoSat,
    id-MessageStructure,
    id-ReportCharacteristicsType-OnModification,
    id-Rx-Timing-Deviation-Value-LCR,
    id-SFNSFNMeasurementValueInformation,
    id-SFNSFNMeasurementThresholdInformation,
    id-TUTRANGPSMeasurementValueInformation,
    id-TUTRANGPSMeasurementThresholdInformation,
    id-TypeOfError
FROM NBAP-Constants
    Criticality,
    ProcedureID,
    ProtocolIE-ID,
    TransactionID,
    TriggeringMessage
FROM NBAP-CommonDataTypes
```

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```
NBAP-PROTOCOL-IES,
    ProtocolExtensionContainer{},
    ProtocolIE-Single-Container{},
    NBAP-PROTOCOL-EXTENSION
FROM NBAP-Containers;
-- -----
__ ______
Acknowledged-PCPCH-access-preambles ::= INTEGER (0..15,...)
-- According to mapping in [22].
Acknowledged-PRACH-preambles-Value ::= INTEGER(0..240,...)
-- According to mapping in [22].
AddorDeleteIndicator ::= ENUMERATED {
    add,
    delete
Active-Pattern-Sequence-Information ::= SEQUENCE {
    cMConfigurationChangeCFN
                                                        CFN.
    transmission-Gap-Pattern-Sequence-Status
                                             Transmission-Gap-Pattern-Sequence-Status-List OPTIONAL,
                                             ProtocolExtensionContainer { {Active-Pattern-Sequence-Information-ExtIEs} } OPTIONAL,
    iE-Extensions
Active-Pattern-Sequence-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
Transmission-Gap-Pattern-Sequence-Status-List ::= SEQUENCE (SIZE (0..maxTGPS)) OF
    SEQUENCE {
       tGPSID
                      TGPSID,
       tGPRC
                      TGPRC,
       tGCFN
                       CFN,
       iE-Extensions
                          ProtocolExtensionContainer { { Transmission-Gap-Pattern-Sequence-Status-List-ExtIEs } } OPTIONAL,
Transmission-Gap-Pattern-Sequence-Status-List-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
AICH-Power ::= INTEGER (-22..5)
-- Offset in dB.
```

```
AICH-TransmissionTiming ::= ENUMERATED {
   ν0,
   v1
AllocationRetentionPriority ::= SEQUENCE {
   priorityLevel
                              PriorityLevel,
   pre-emptionCapability
                              Pre-emptionCapability,
   pre-emptionVulnerability
                             Pre-emptionVulnerability,
   iE-Extensions
                              ProtocolExtensionContainer { {AllocationRetentionPriority-ExtIEs} } OPTIONAL,
AllocationRetentionPriority-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
APPreambleSignature ::= INTEGER (0..15)
APSubChannelNumber ::= INTEGER (0..11)
AvailabilityStatus ::= ENUMERATED {
   empty,
   in-test,
   failed,
   power-off,
   off-line,
   off-duty,
   dependency,
   degraded,
   not-installed,
   log-full,
    . . .
__ ______
-- -----
BCCH-ModificationTime ::= INTEGER (0..511)
-- Time = BCCH-ModificationTime * 8
-- Range 0 to 4088, step 8
-- All SFN values in which MIB may be mapped are allowed
BindingID ::= OCTET STRING (SIZE (1..4, ...))
BetaCD ::= INTEGER (0..15)
BlockingPriorityIndicator ::= ENUMERATED {
   high,
   normal,
   low,
```

```
-- High priority: Block resource immediately.
-- Normal priority: Block resource when idle or upon timer expiry.
-- Low priority: Block resource when idle.
SCTD-Indicator ::= ENUMERATED {
    active,
    inactive
-- -----
-- -----
Cause ::= CHOICE {
   radioNetwork
                           CauseRadioNetwork,
    transport
                       CauseTransport,
                           CauseProtocol,
   protocol
                           CauseMisc,
   misc
    . . .
CauseMisc ::= ENUMERATED {
    control-processing-overload,
   hardware-failure,
    oam-intervention,
    not-enough-user-plane-processing-resources,
    unspecified,
    . . .
CauseProtocol ::= ENUMERATED {
    transfer-syntax-error,
    abstract-syntax-error-reject,
    abstract-syntax-error-ignore-and-notify,
   message-not-compatible-with-receiver-state,
    semantic-error,
    unspecified,
    abstract-syntax-error-falsely-constructed-message,
CauseRadioNetwork ::= ENUMERATED {
    unknown-C-ID,
    cell-not-available.
    power-level-not-supported,
    dl-radio-resources-not-available,
    ul-radio-resources-not-available.
    rl-already-ActivatedOrAllocated,
    nodeB-Resources-unavailable,
    measurement-not-supported-for-the-object,
    combining-resources-not-available,
    requested-configuration-not-supported,
    synchronisation-failure,
    priority-transport-channel-established,
```

```
sIB-Origination-in-Node-B-not-Supported,
    requested-tx-diversity-mode-not-supported,
    unspecified.
    bCCH-scheduling-error,
    measurement-temporarily-not-available,
    invalid-CM-settings,
    reconfiguration-CFN-not-elapsed,
    number-of-DL-codes-not-supported,
    s-cipch-not-supported,
    combining-not-supported,
    ul-sf-not-supported,
    dl-SF-not-supported,
    common-transport-channel-type-not-supported,
    dedicated-transport-channel-type-not-supported,
    downlink-shared-channel-type-not-supported,
    uplink-shared-channel-type-not-supported,
    cm-not-supported,
    tx-diversity-no-longer-supported,
    unknown-Local-Cell-ID,
    number-of-UL-codes-not-supported,
    information-temporarily-not-available,
    information-provision-not-supported-for-the-object,
    cell-synchronisation-not-supported,
    cell-synchronisation-adjustment-not-supported,
    dpc-mode-change-not-supported,
    iPDL-already-activated,
    iPDL-not-supported,
    iPDL-parameters-not-available,
    frequency-acquisition-not-supported
CauseTransport ::= ENUMERATED {
    transport-resource-unavailable,
    unspecified,
    . . .
CCTrCH-ID ::= INTEGER (0..15)
CDSubChannelNumbers ::= BIT STRING {
                                        subCh11(0),
                                        subCh10(1),
                                        subCh9(2),
                                        subCh8(3),
                                        subCh7(4),
                                        subCh6(5),
                                        subCh5(6),
                                        subCh4(7),
                                        subCh3(8),
                                        subCh2(9),
                                        subCh1(10),
                                        subCh0(11)
                                        } (SIZE (12))
```

```
CellParameterID ::= INTEGER (0..127,...)
CellSyncBurstCode ::= INTEGER(0..7, ...)
CellSyncBurstCodeShift ::= INTEGER(0..7)
CellSyncBurstRepetitionPeriod ::= INTEGER (0..4095)
CellSyncBurstSIR ::= INTEGER (0..31)
CellSyncBurstTiming ::= CHOICE {
    initialPhase
                        INTEGER (0..1048575,...),
    steadyStatePhase
                            INTEGER (0..255,...)
CellSyncBurstTimingThreshold ::= INTEGER(0..254)
CFN ::= INTEGER (0..255)
Channel-Assignment-Indication ::= ENUMERATED {
    cA-Active,
    cA-Inactive
ChipOffset ::= INTEGER (0..38399)
-- Unit Chip
C-ID ::= INTEGER (0..65535)
Closedlooptimingadjustmentmode ::= ENUMERATED {
    adj-1-slot,
    adj-2-slot,
    . . .
CommonChannelsCapacityConsumptionLaw ::= SEQUENCE (SIZE(1..maxNrOfSF)) OF
    SEQUENCE {
        dl-Cost
                    INTEGER (0..65535),
        ul-Cost
                    INTEGER (0..65535),
                            ProtocolExtensionContainer { { CommonChannelsCapacityConsumptionLaw-ExtIEs } }
        iE-Extensions
                                                                                                                        OPTIONAL,
CommonChannelsCapacityConsumptionLaw-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
CommonMeasurementAccuracy ::= CHOICE {
    tUTRANGPSMeasurementAccuracyClass
                                            TUTRANGPSAccuracyClass,
CommonMeasurementType ::= ENUMERATED
```

```
received-total-wide-band-power,
    transmitted-carrier-power,
    acknowledged-prach-preambles,
    ul-timeslot-iscp,
    acknowledged-PCPCH-access-preambles,
    detected-PCPCH-access-preambles,
    uTRAN-GPS-Timing-of-Cell-Frames-for-UE-Positioning,
    sFN-SFN-Observed-Time-Difference
CommonMeasurementValue ::= CHOICE {
    transmitted-carrier-power
                                          Transmitted-Carrier-Power-Value,
   received-total-wide-band-power
                                          Received-total-wide-band-power-Value,
    acknowledged-prach-preambles
                                          Acknowledged-PRACH-preambles-Value,
   uL-TimeslotISCP
                                          UL-TimeslotISCP-Value,
                                          Acknowledged-PCPCH-access-preambles,
    acknowledged-PCPCH-access-preambles
   detected-PCPCH-access-preambles
                                          Detected-PCPCH-access-preambles,
    extension-CommonMeasurementValue
                                          Extension-CommonMeasurementValue
                                  ::= ProtocolIE-Single-Container {{ Extension-CommonMeasurementValueIE }}
Extension-CommonMeasurementValue
Extension-CommonMeasurementValueIE NBAP-PROTOCOL-IES ::= {
     ID id-TUTRANGPSMeasurementValueInformation
                                                 CRITICALITY ignore TYPE TUTRANGPSMeasurementValueInformation PRESENCE mandatory } |
     PRESENCE mandatory }
CommonMeasurementValueInformation ::= CHOICE {
    measurementAvailable
                              CommonMeasurementAvailable,
    measurementnotAvailable
                              CommonMeasurementnotAvailable
CommonMeasurementAvailable::= SEQUENCE {
    commonmeasurement Value
                              CommonMeasurementValue,
   ie-Extensions
                                  ProtocolExtensionContainer { { CommonMeasurementAvailableItem-ExtIEs} }
                                                                                                                 OPTIONAL,
CommonMeasurementAvailableItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
CommonMeasurementnotAvailable ::= NULL
CommonPhysicalChannelID ::= INTEGER (0..255)
Common-PhysicalChannel-Status-Information ::= SEQUENCE {
    commonPhysicalChannelID
                                  CommonPhysicalChannelID,
    resourceOperationalState
                                      ResourceOperationalState,
```

```
availabilityStatus
                                     AvailabilityStatus,
   iE-Extensions
                                     ProtocolExtensionContainer { { Common-PhysicalChannel-Status-Information-ExtIEs} }
                                                                                                                         OPTIONAL,
    . . .
Common-PhysicalChannel-Status-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
CommonTransportChannelID ::= INTEGER (0..255)
CommonTransportChannel-InformationResponse ::= SEQUENCE
    commonTransportChannelID
                                     CommonTransportChannelID,
   bindingID
                                     BindingID
                                                            OPTIONAL,
   transportLayerAddress
                                     TransportLayerAddress
                                                            OPTIONAL,
   iE-Extensions
                                      OPTIONAL,
    . . .
CommonTransportChannel-InformationResponse-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
Common-TransportChannel-Status-Information ::= SEQUENCE {
   commonTransportChannelID
                                     CommonTransportChannelID,
   resourceOperationalState
                                     ResourceOperationalState,
   availabilityStatus
                                     AvailabilityStatus,
                                     ProtocolExtensionContainer { { Common-TransportChannel-Status-Information-ExtIEs} }
   iE-Extensions
                                                                                                                         OPTIONAL,
Common-TransportChannel-Status-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
CommunicationControlPortID ::= INTEGER (0..65535)
Compressed-Mode-Deactivation-Flag::= ENUMERATED {
   deactivate,
   maintain-Active
ConfigurationGenerationID ::= INTEGER (0..255)
-- Value '0' means "No configuration"
ConstantValue ::= INTEGER (-10..10,...)
-- -10 dB - +10 dB
-- unit dB
-- step 1 dB
CPCH-Allowed-Total-Rate ::= ENUMERATED {
   v15,
   v30,
```

```
v60,
   v120.
   v240.
   v480,
   v960.
   v1920,
   v2880,
   v3840,
   v4800,
   v5760,
CPCHScramblingCodeNumber ::= INTEGER (0..79)
CPCH-UL-DPCCH-SlotFormat ::= INTEGER (0..2,...)
CriticalityDiagnostics ::= SEQUENCE {
                              ProcedureID
   procedureID
                                                      OPTIONAL,
                              TriggeringMessage
   triggeringMessage
                                                          OPTIONAL,
   procedureCriticality
                              Criticality
                                                      OPTIONAL,
                              TransactionID
   transactionID
                                                         OPTIONAL,
   iEsCriticalityDiagnostics CriticalityDiagnostics-IE-List OPTIONAL,
                              ProtocolExtensionContainer { {CriticalityDiagnostics-ExtIEs} }
   iE-Extensions
                                                                                                                OPTIONAL,
CriticalityDiagnostics-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
CriticalityDiagnostics-IE-List ::= SEQUENCE (SIZE (1..maxNrOfErrors)) OF
   SEQUENCE {
       iECriticality
                          Criticality,
                          ProtocolIE-ID,
       iE-ID
       repetitionNumber
                          RepetitionNumber0
                                                  OPTIONAL,
                          ProtocolExtensionContainer { (CriticalityDiagnostics-IE-List-ExtIEs) }
       iE-Extensions
                                                                                                                  OPTIONAL,
CriticalityDiagnostics-IE-List-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
       ID id-MessageStructure
                                  CRITICALITY ignore
                                                         EXTENSION MessageStructure
                                                                                         PRESENCE optional
       ID id-TypeOfError
                                  CRITICALITY ignore
                                                         EXTENSION TypeOfError
                                                                                         PRESENCE mandatory
CRNC-CommunicationContextID ::= INTEGER (0..1048575)
CSBMeasurementID ::= INTEGER (0..65535)
CSBTransmissionID ::= INTEGER (0..65535)
```

__ ______

```
DATA-ID ::= INTEGER (0...3)
DCH-ID ::= INTEGER (0...255)
DCH-FDD-Information ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-FDD-InformationItem
DCH-FDD-InformationItem ::= SEQUENCE {
                                     PayloadCRC-PresenceIndicator,
   payloadCRC-PresenceIndicator
   ul-FP-Mode
                                     UL-FP-Mode,
   toAWS
                                     ToAWS,
                                     TOAWE,
   t.oAWE
   dCH-SpecificInformationList
                                     DCH-Specific-FDD-InformationList,
   iE-Extensions
                                     ProtocolExtensionContainer { { DCH-FDD-InformationItem-ExtIEs} } 
                                                                                                           OPTIONAL,
DCH-FDD-InformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
DCH-Specific-FDD-InformationList ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-Specific-FDD-Item
DCH-Specific-FDD-Item ::=
                         SEQUENCE {
   dCH-ID
                                     DCH-ID,
   ul-TransportFormatSet
                                     TransportFormatSet,
   dl-TransportFormatSet
                                     TransportFormatSet,
   allocationRetentionPriority
                                     AllocationRetentionPriority,
   frameHandlingPriority
                                     FrameHandlingPriority,
   qE-Selector
                                     OE-Selector,
   iE-Extensions
                                     OPTIONAL,
   . . .
DCH-Specific-FDD-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
DCH-InformationResponse ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-InformationResponseItem
DCH-InformationResponseItem ::= SEQUENCE {
   dCH-ID
                                                DCH-ID,
   bindingID
                                                BindingID
                                                                      OPTIONAL,
   transportLayerAddress
                                                TransportLaverAddress OPTIONAL,
                                                iE-Extensions
                                                                                                                   OPTIONAL,
   . . .
DCH-InformationResponseItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
DCH-TDD-Information ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-TDD-InformationItem
```

```
DCH-TDD-InformationItem ::= SEQUENCE {
    payloadCRC-PresenceIndicator
                                        PayloadCRC-PresenceIndicator,
                                        UL-FP-Mode,
    ul-FP-Mode
    toAWS
                                        TOAWS.
                                        TOAWE,
    toAWE
    dCH-SpecificInformationList
                                        DCH-Specific-TDD-InformationList,
    iE-Extensions
                                            ProtocolExtensionContainer { { DCH-TDD-InformationItem-ExtIEs} } 
                                                                                                                        OPTIONAL,
DCH-TDD-InformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
DCH-Specific-TDD-InformationList ::= SEOUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-Specific-TDD-Item
DCH-Specific-TDD-Item ::=
                           SEQUENCE {
    dCH-ID
                                            DCH-ID,
    ul-CCTrCH-ID
                                            CCTrCH-ID,
    dl-CCTrCH-ID
                                            CCTrCH-ID,
    ul-TransportFormatSet
                                            TransportFormatSet,
    dl-TransportFormatSet
                                            TransportFormatSet,
    allocationRetentionPriority
                                            AllocationRetentionPriority,
    frameHandlingPriority
                                            FrameHandlingPriority,
    qE-Selector
                                            OE-Selector
                                                                             OPTIONAL,
    -- This IE shall be present if DCH is part of set of Coordinated DCHs
    iE-Extensions
                                            ProtocolExtensionContainer { { DCH-Specific-TDD-Item-ExtIEs} }
                                                                                                                        OPTIONAL,
DCH-Specific-TDD-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
FDD-DCHs-to-Modify ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF FDD-DCHs-to-ModifyItem
FDD-DCHs-to-ModifyItem
                        ::= SEOUENCE
    ul-FP-Mode
                                        UL-FP-Mode
                                                         OPTIONAL,
    toAWS
                                        ToAWS
                                                         OPTIONAL,
    toAWE
                                        ToAWE
                                                        OPTIONAL,
    transportBearerRequestIndicator
                                        TransportBearerRequestIndicator,
    dCH-SpecificInformationList
                                        DCH-ModifySpecificInformation-FDD,
                                        ProtocolExtensionContainer { { FDD-DCHs-to-ModifyItem-ExtIEs} } 
    iE-Extensions
                                                                                                                        OPTIONAL,
    . . .
FDD-DCHs-to-ModifyItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
DCH-ModifySpecificInformation-FDD::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-ModifySpecificItem-FDD
DCH-ModifySpecificItem-FDD::= SEQUENCE {
```

```
dCH-ID
                                                 DCH-ID,
   ul-TransportFormatSet
                                                 TransportFormatSet
                                                                           OPTIONAL.
   dl-TransportFormatSet
                                                 Transport.Format.Set.
                                                                           OPTIONAL.
   allocationRetentionPriority
                                                 AllocationRetentionPriority OPTIONAL,
   frameHandlingPriority
                                                 FrameHandlingPriority
                                                                           OPTIONAL.
   iE-Extensions
                                                 OPTIONAL,
DCH-ModifySpecificItem-FDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
TDD-DCHs-to-Modify ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-ModifyItem-TDD
DCH-ModifyItem-TDD ::= SEQUENCE {
   ul-FP-Mode
                                     UL-FP-Mode
                                                    OPTIONAL,
   toAWS
                                     ToAWS
                                                    OPTIONAL,
                                                    OPTIONAL,
   t.oAWE
                                     ToAWE
   transportBearerRequestIndicator
                                     TransportBearerRequestIndicator,
   dCH-SpecificInformationList
                                     DCH-ModifySpecificInformation-TDD,
   iE-Extensions
                                     ProtocolExtensionContainer { { TDD-DCHs-to-ModifyItem-ExtIEs} }
                                                                                                                  OPTIONAL,
   . . .
TDD-DCHs-to-ModifyItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
DCH-ModifySpecificInformation-TDD ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-ModifySpecificItem-TDD
DCH-ModifySpecificItem-TDD ::= SEQUENCE {
   dCH-TD
                                                 DCH-ID,
   ul-CCTrCH-ID
                                                 CCTrCH-ID
                                                                           OPTIONAL,
   dl-CCTrCH-ID
                                                 CCTrCH-ID
                                                                           OPTIONAL,
   ul-TransportFormatSet
                                                 TransportFormatSet
                                                                           OPTIONAL,
   dl-TransportFormatSet
                                                 TransportFormatSet
                                                                           OPTIONAL,
   allocationRetentionPriority
                                                 AllocationRetentionPriority OPTIONAL,
   frameHandlingPriority
                                                 FrameHandlingPriority
                                                                           OPTIONAL,
                                                 iE-Extensions
                                                                                                                       OPTIONAL,
   . . .
DCH-ModifySpecificItem-TDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
DedicatedChannelsCapacityConsumptionLaw ::= SEQUENCE ( SIZE(1..maxNrOfSF) ) OF
   SEQUENCE {
       dl-Cost-1
                      INTEGER (0..65535),
       dl-Cost-2
                      INTEGER (0..65535),
       ul-Cost-1
                      INTEGER (0..65535),
       ul-Cost-2
                      INTEGER (0..65535),
```

```
ProtocolExtensionContainer { { DedicatedChannelsCapacityConsumptionLaw-ExtIEs } }
       iE-Extensions
                                                                                                       OPTIONAL,
DedicatedChannelsCapacityConsumptionLaw-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
DedicatedMeasurementType ::= ENUMERATED {
   sir,
   sir-error,
   transmitted-code-power,
   rx-timing-deviation,
   round-trip-time,
   rx-timing-deviation-LCR
DedicatedMeasurementValue ::= CHOICE {
   sTR-Value
                               SIR-Value,
   sIR-ErrorValue
                               SIR-Error-Value,
   transmittedCodePowerValue
                                  Transmitted-Code-Power-Value,
                                  RSCP-Value,
   rxTimingDeviationValue
                                  Rx-Timing-Deviation-Value,
   roundTripTime
                                  Round-Trip-Time-Value,
   extension-DedicatedMeasurementValue
                                      Extension-DedicatedMeasurementValue
Extension-DedicatedMeasurementValue ::= ProtocolIE-Single-Container {{ Extension-DedicatedMeasurementValueIE }}
Extension-DedicatedMeasurementValueIE NBAP-PROTOCOL-IES ::= {
   DedicatedMeasurementValueInformation ::= CHOICE {
   measurementAvailable
                            DedicatedMeasurementAvailable,
                            DedicatedMeasurementnotAvailable
   measurementnotAvailable
DedicatedMeasurementAvailable::= SEOUENCE {
   dedicatedmeasurementValue
                               DedicatedMeasurementValue,
   cFN
                                                       OPTIONAL,
   ie-Extensions
                               OPTIONAL,
DedicatedMeasurementAvailableItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
```

```
DedicatedMeasurementnotAvailable ::= NULL
Detected-PCPCH-access-preambles ::= INTEGER (0..240,...)
-- According to mapping in [22].
DeltaSIR
                    ::= INTEGER (0..30)
-- Unit dB, Step 0.1 dB, Range 0..3 dB.
DGPSCorrections ::= SEQUENCE {
                     GPSTOW,
  gpstow
  status-health
                     GPS-Status-Health,
  satelliteinfo
                     SAT-Info-DGPSCorrections,
  ie-Extensions
                      OPTIONAL,
DGPSCorrections-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
   . . .
DGPSThresholds ::= SEOUENCE {
  prcdeviation
                    PRCDeviation,
  ie-Extensions
                     OPTIONAL,
DGPSThresholds-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
DiversityControlField ::= ENUMERATED {
   may,
   must,
   must-not,
   . . .
DiversityMode ::= ENUMERATED {
   none,
   sTTD,
   closed-loop-model,
   closed-loop-mode2,
DL-DPCH-SlotFormat ::= INTEGER (0..16,...)
```

```
DL-Timeslot-Information ::= SEQUENCE (SIZE (1.. maxNrOfDLTSs)) OF DL-Timeslot-InformationItem
DL-Timeslot-InformationItem ::= SEQUENCE {
    timeSlot
                                            TimeSlot,
    midambleShiftAndBurstType
                                            MidambleShiftAndBurstType,
    tFCI-Presence
                                            TFCI-Presence,
    dL-Code-Information
                                            TDD-DL-Code-Information,
    iE-Extensions
                                            ProtocolExtensionContainer { { DL-Timeslot-InformationItem-ExtIEs} }
                                                                                                                        OPTIONAL,
DL-Timeslot-InformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
DL-TimeslotLCR-Information ::= SEQUENCE (SIZE (1.. maxNrOfDLTSLCRs)) OF DL-TimeslotLCR-InformationItem
DL-TimeslotLCR-InformationItem ::= SEQUENCE {
    timeSlotLCR
                                            TimeSlotLCR,
    midambleShiftLCR
                                            MidambleShiftLCR,
    tFCI-Presence
                                            TFCI-Presence,
    dL-Code-LCR-Information
                                            TDD-DL-Code-LCR-Information,
                                            ProtocolExtensionContainer { { DL-TimeslotLCR-InformationItem-ExtIEs} }
    iE-Extensions
                                                                                                                        OPTIONAL,
    . . .
DL-TimeslotLCR-InformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
DL-FrameType ::= ENUMERATED {
    typeA,
    typeB,
    . . .
DL-or-Global-CapacityCredit ::= INTEGER (0..65535)
DL-Power ::= INTEGER (-350..150)
-- Value = DL-Power/10
-- Unit dB, Range -35dB .. +15dB, Step +0.1dB
DLPowerAveragingWindowSize ::= INTEGER (1..60)
DL-ScramblingCode ::= INTEGER (0..15)
-- 0= Primary scrambling code of the cell, 1..15= Secondary scrambling code --
DL-TimeslotISCP ::= INTEGER (0..91)
DL-TimeslotISCPInfo ::= SEOUENCE (SIZE (1..maxNrOfDLTSs)) OF DL-TimeslotISCPInfoItem
DL-TimeslotISCPInfoItem ::= SEQUENCE ·
    timeSlot
                                TimeSlot,
    dL-TimeslotISCP
                                DL-TimeslotISCP,
```

```
ProtocolExtensionContainer { {DL-TimeslotISCPInfoItem-ExtIEs} }
    iE-Extensions
                                                                                                                OPTIONAL,
DL-TimeslotISCPInfoItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
DL-TimeslotISCPInfoLCR ::= SEQUENCE (SIZE (1..maxNrOfDLTSLCRs)) OF DL-TimeslotISCPInfoItemLCR
DL-TimeslotISCPInfoItemLCR ::= SEQUENCE {
    timeSlotLCR
                              TimeSlotLCR,
    dL-TimeslotISCP
                              DL-TimeslotISCP,
   iE-Extensions
                              ProtocolExtensionContainer { {DL-TimeslotISCPInfoItemLCR-ExtIEs} }
                                                                                                                   OPTIONAL,
DL-TimeslotISCPInfoItemLCR-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
DL-TPC-Pattern01Count ::= INTEGER (0..30,...)
Downlink-Compressed-Mode-Method
                                 ::= ENUMERATED
    puncturing,
    sFdiv2,
   higher-layer-scheduling,
    . . .
DPC-Mode ::= ENUMERATED {
   mode0,
   mode1,
DPCH-ID ::= INTEGER (0..239)
DSCH-ID ::= INTEGER (0..255)
DSCH-InformationResponse ::= SEQUENCE (SIZE (1..maxNrOfDSCHs)) OF DSCH-InformationResponseItem
DSCH-InformationResponseItem ::= SEQUENCE {
    dsch-ID
                                                 DSCH-ID,
    bindingID
                                                 BindingID
                                                                            OPTIONAL,
    transportLayerAddress
                                                 TransportLayerAddress
                                                                            OPTIONAL,
    iE-Extensions
                                                 OPTIONAL,
DSCH-InformationResponseItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
```

```
DSCH-FDD-Common-Information ::= SEQUENCE {
   enhancedDSCHPCIndicator
                                 EnhancedDSCHPCIndicator
                                                           OPTIONAL.
   enhancedDSCHPC
                                 EnhancedDSCHPC
                                                           OPTIONAL,
   -- The IE shall be present if the Enhanced DSCH PC Indicator IE is set to "Enhanced DSCH PC Active in the UE".
                                     iE-Extensions
                                                                                                              OPTIONAL,
   . . .
DSCH-FDD-Common-Information-ExtlEs NBAP-PROTOCOL-EXTENSION ::= {
DSCH-FDD-Information ::= SEQUENCE (SIZE (1..maxNrOfDSCHs)) OF DSCH-FDD-InformationItem
DSCH-FDD-InformationItem ::= SEQUENCE {
   dSCH-ID
                                     DSCH-ID,
   transportFormatSet
                                     TransportFormatSet,
   allocationRetentionPriority
                                     AllocationRetentionPriority,
   frameHandlingPriority
                                     FrameHandlingPriority,
   toAWS
                                     ToAWS,
   toAWE
                                     TOAWE,
                                     ProtocolExtensionContainer { { DSCH-FDD-InformationItem-ExtIEs} }
   iE-Extensions
                                                                                                              OPTIONAL,
   . . .
DSCH-FDD-InformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
DSCH-TDD-Information ::= SEQUENCE (SIZE (1..maxNrOfDSCHs)) OF DSCH-TDD-InformationItem
DSCH-TDD-InformationItem ::= SEQUENCE {
   dsch-ID
                                        DSCH-ID,
   cCTrCH-ID
                                        CCTrCH-ID,
   transportFormatSet
                                        TransportFormatSet,
   allocationRetentionPriority
                                        AllocationRetentionPriority,
                                        FrameHandlingPriority,
   frameHandlingPriority
   toAWS
                                        ToAWS,
   toAWE
                                        TOAWE,
                                        iE-Extensions
                                                                                                              OPTIONAL,
DSCH-TDD-InformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
DwPCH-Power ::= INTEGER (-150..400,...)
-- DwPCH-power = power * 10
-- If power <= -15 DwPCH shall be set to -150
-- If power >= 40 DwPCH shall be set to 400
-- Unit dBm, Range -15dBm .. +40 dBm, Step +0.1dB
```

```
__ ______
  End-Of-Audit-Sequence-Indicator ::= ENUMERATED {
   end-of-audit-sequence,
   not-end-of-audit-sequence
EnhancedDSCHPC ::= SEQUENCE {
   enhancedDSCHPCWnd EnhancedDSCHPCWnd,
   enhancedDSCHPCCounter EnhancedDSCHPCCounter,
   enhancedDSCHPowerOffset EnhancedDSCHPowerOffset,
EnhancedDSCHPCCounter ::= INTEGER (1..50)
EnhancedDSCHPCIndicator ::= ENUMERATED {
   enhancedDSCHPCActiveInTheUE,
   enhancedDSCHPCNotActiveInTheUE
EnhancedDSCHPCWnd ::= INTEGER (1..10)
EnhancedDSCHPowerOffset ::= INTEGER (-15..0)
-- -----
-- -----
FDD-DL-ChannelisationCodeNumber ::= INTEGER(0.. 511)
-- According to the mapping in [9]. The maximum value is equal to the DL spreading factor -1--
FDD-DL-CodeInformation ::= SEQUENCE (SIZE (1..maxNrOfCodes)) OF FDD-DL-CodeInformationItem
FDD-DL-CodeInformationItem ::= SEQUENCE {
   dl-ScramblingCode
                                      DL-ScramblingCode,
   fdd-DL-ChannelisationCodeNumber
                                      FDD-DL-ChannelisationCodeNumber,
                                                {\tt TransmissionGapPatternSequenceCodeInformation}
   transmissionGapPatternSequenceCodeInformation
                                                                                                      OPTIONAL,
                                      iE-Extensions
                                                                                                   OPTIONAL,
FDD-DL-CodeInformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
FDD-S-CCPCH-Offset ::= INTEGER (0..149)
-- 0: 0 chip, 1: 256 chip, 2: 512 chip, .. ,149: 38144 chip [7] --
FDD-TPC-DownlinkStepSize ::= ENUMERATED {
   step-size0-5,
```

```
step-sizel,
   step-size1-5,
   step-size2,
FirstRLS-Indicator ::= ENUMERATED {
   first-RLS.
   not-first-RLS,
FNReportingIndicator ::= ENUMERATED {
 fN-reporting-required,
fN-reporting-not-required
FrameHandlingPriority ::= INTEGER (0..15)
-- 0=lower priority, 15=higher priority --
FrameAdjustmentValue ::= INTEGER(0..4095)
FrameOffset ::= INTEGER (0..255)
FPACH-Power ::= INTEGER (-150..400,...) -- FPACH-power = power * 10
-- If power <= -15 FPACH shall be set to -150
-- If power >= 40 FPACH shall be set to 400
-- Unit dBm, Range -15dBm .. +40 dBm, Step +0.1dB
-- -----
-- ------
GapLength
                      ::= INTEGER (1..14)
-- Unit slot
GapDuration
                      ::= INTEGER (1..144,...)
-- Unit frame
GPS-Almanac ::= SEQUENCE {
   wna-alm
                       BIT STRING (SIZE (8)),
   sat-info-almanac
                      SAT-Info-Almanac,
   sVGlobalHealth-alm BIT STRING (SIZE (364)) OPTIONAL,
   ie-Extensions
                       ProtocolExtensionContainer { GPS-Almanac-ExtIEs} }
                                                                               OPTIONAL,
GPS-Almanac-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
```

```
GPS-Ionospheric-Model ::= SEQUENCE {
  alpha-zero-ionos BIT STRING (SIZE (8)),
  alpha-one-ionos
                   BIT STRING (SIZE (8)),
  alpha-two-ionos BIT STRING (SIZE (8)),
  alpha-three-ionos
                        BIT STRING (SIZE (8)),
  beta-zero-ionos
                        BIT STRING (SIZE (8)),
  beta-one-ionos
                        BIT STRING (SIZE (8)),
  beta-two-ionos
                        BIT STRING (SIZE (8)),
  beta-three-ionos
                        BIT STRING (SIZE (8)),
  ie-Extensions
                        ProtocolExtensionContainer { GPS-Ionospheric-Model-ExtIEs} }
                                                                                           OPTIONAL,
  . . .
GPS-Ionospheric-Model-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
GPS-Information ::= SEQUENCE (SIZE (0..maxNoGPSItems)) OF GPS-Information-Item
GPS-Information-Item ::= ENUMERATED {
  gps-navigation-model-and-time-recovery,
  qps-ionospheric-model,
  gps-utc-model,
  gps-almanac,
  gps-rt-integrity,
GPS-RealTime-Integrity ::= CHOICE {
    bad-satellites
                               GPSBadSat-Info-RealTime-Integrity,
    no-bad-satellites
                               NULL
GPSBadSat-Info-RealTime-Integrity ::= SEQUENCE {
    sat-info
                                    SATInfo-RealTime-Integrity,
    ie-Extensions
                                    ProtocolExtensionContainer { GPSBadSat-Info-RealTime-Integrity-ExtIEs} }
                                                                                                                     OPTIONAL,
    . . .
GPSBadSat-Info-RealTime-Integrity-ExtlEs NBAP-PROTOCOL-EXTENSION ::= {
GPS-NavigationModel-and-TimeRecovery ::= SEQUENCE (SIZE (1..maxNoSat)) OF GPS-NavandRecovery-Item
GPS-NavandRecovery-Item ::= SEQUENCE {
  tx-tow-nav
                                  INTEGER (0..1048575),
```

OPTIONAL,

```
sat-id-nav
                                   SAT-ID,
  tlm-message-nav
                                   BIT STRING (SIZE (14)),
  t.lm-revd-c-nav
                                   BIT STRING (SIZE (2)),
 ho-word-nav
                                   BIT STRING (SIZE (22)),
 w-n-nav
                                   BIT STRING (SIZE (10)),
  ca-or-p-on-12-nav
                                   BIT STRING (SIZE (2)),
  user-range-accuracy-index-nav
                                   BIT STRING (SIZE (4)),
  sv-health-nav
                                   BIT STRING (SIZE (6)),
 iodc-nav
                                   BIT STRING (SIZE (10)),
 12-p-dataflag-nav
                                   BIT STRING (SIZE (1)),
  sfl-reserved-nav
                                   BIT STRING (SIZE (87)),
  t-gd-nav
                                   BIT STRING (SIZE (8)),
  t-oc-nav
                                   BIT STRING (SIZE (16)),
  a-f-2-nav
                                   BIT STRING (SIZE (8)),
  a-f-1-nav
                                   BIT STRING (SIZE (16)),
  a-f-zero-nav
                                   BIT STRING (SIZE (22)),
  c-rs-nav
                                   BIT STRING (SIZE (16)),
 delta-n-nav
                                   BIT STRING (SIZE (16)),
 m-zero-nav
                                   BIT STRING (SIZE (32)),
  c-uc-nav
                                   BIT STRING (SIZE (16)),
  gps-e-nav
                                   BIT STRING (SIZE (32)),
                                   BIT STRING (SIZE (16)),
  c-us-nav
  a-sqrt-nav
                                   BIT STRING (SIZE (32)),
  t-oe-nav
                                   BIT STRING (SIZE (16)),
  fit-interval-flag-nav
                                   BIT STRING (SIZE (1)),
  aodo-nav
                                   BIT STRING (SIZE (5)),
  c-ic-nav
                                   BIT STRING (SIZE (16)),
  omega-zero-nav
                                   BIT STRING (SIZE (32)),
  c-is-nav
                                   BIT STRING (SIZE (16)),
 i-zero-nav
                                   BIT STRING (SIZE (32)),
                                   BIT STRING (SIZE (16)),
  c-rc-nav
  gps-omega-nav
                                   BIT STRING (SIZE (32)),
  omegadot-nav
                                   BIT STRING (SIZE (24)),
 idot-nav
                                   BIT STRING (SIZE (14)),
  spare-zero-fill
                                   BIT STRING (SIZE (20)),
 ie-Extensions
                                   ProtocolExtensionContainer { { GPS-NavandRecovery-Item-ExtIEs} }
GPS-NavandRecovery-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
GPS-RX-POS ::= SEQUENCE {
    latitudeSign
                            ENUMERATED {north, south},
   latitude
                            INTEGER (0..8388607),
    longitude
                            INTEGER (-8388608..8388607),
    directionOfAltitude
                            ENUMERATED {height, depth},
    altitude
                            INTEGER (0..32767),
    iE-Extensions
                            ProtocolExtensionContainer { GPS-RX-POS-ExtIEs} } OPTIONAL,
```

```
GPS-RX-POS-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
GPS-Status-Health ::= ENUMERATED {
  udre-scale-1dot0,
  udre-scale-0dot75,
  udre-scale-0dot5,
  udre-scale-0dot3,
  udre-scale-0dot1,
  no-data,
  invalid-data
GPSTOW ::= INTEGER (0..604799)
GPS-UTC-Model ::= SEQUENCE {
                BIT STRING (SIZE (24)),
  a-one-utc
  a-zero-utc BIT STRING (SIZE (32)),
t-ot-utc BIT STRING (SIZE (8)),
  delta-t-ls-utc BIT STRING (SIZE (8)),
w-n-t-utc BIT STRING (SIZE (8)),
w-n-lsf-utc BIT STRING (SIZE (8)),
dn-utc BIT STRING (SIZE (8)),
  delta-t-lsf-utc BIT STRING (SIZE (8)),
  ie-Extensions
                 ProtocolExtensionContainer { { GPS-UTC-Model-ExtIEs} }
                                                                              OPTIONAL,
GPS-UTC-Model-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
-- -----
__ ______
IB-OC-ID ::= INTEGER (1..16)
IB-SG-DATA ::= BIT STRING
-- Contains SIB data fixed" or "SIB data variable" in segment as encoded in ref.[18].
IB-SG-POS ::= INTEGER (0..4094)
-- Only even positions allowed
```

```
IB-SG-REP ::= ENUMERATED {rep4, rep8, rep16, rep32, rep64, rep128, rep256, rep512, rep1024, rep2048, rep4096}
IB-Type ::= ENUMERATED {
    mIB,
    sB1.
    sB2,
    sIB1,
    sIB2,
    sIB3,
    sIB4,
    sIB5,
    sIB6,
    sIB7,
    sIB8,
    sIB9,
    sIB10,
    sIB11,
    sIB12,
    sIB13,
    sIB13dot1,
    sIB13dot2,
    sIB13dot3,
    sIB13dot4,
    sIB14.
    sIB15,
    sIB15dot1,
    sIB15dot2,
    sIB15dot3,
    sIB16,
    . . . ,
    sIB17,
    sIB15dot4,
    sIB18,
    sIB15dot5
InformationReportCharacteristics ::= CHOICE {
    onDemand
    periodic
                             InformationReportCharacteristicsType-ReportPeriodicity,
    onModification
                             InformationReportCharacteristicsType-OnModification,
InformationReportCharacteristicsType-ReportPeriodicity ::= CHOICE {
    min
                        ReportPeriodicity-Scaledmin,
                        ReportPeriodicity-Scaledhour,
    hours
InformationReportCharacteristicsType-OnModification ::= SEQUENCE {
    information-thresholds
                                   InformationThresholds
                                                             OPTIONAL,
    ie-Extensions
                                   ProtocolExtensionContainer { { InformationReportCharacteristicsType-OnModification-ExtIEs} } OPTIONAL,
```

```
InformationReportCharacteristicsType-OnModification-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
InformationThresholds ::= CHOICE {
                       DGPSThresholds,
    . . .
InformationExchangeID ::= INTEGER (0..1048575)
InformationType ::= SEQUENCE {
    information-Type-Item
                                Information-Type-Item,
    gPSInformation
                                GPS-Information OPTIONAL,
    -- The IE shall be present if the Information Type Item IE indicates "GPS Information".
                                ProtocolExtensionContainer { { Information-Type-ExtIEs} }
    iE-Extensions
                                                                                                  OPTIONAL,
. . .
Information-Type-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
Information-Type-Item ::= ENUMERATED {
    gpsinformation,
    dgpscorrections,
    gpsrxpos,
InnerLoopDLPCStatus ::= ENUMERATED {
    active,
    inactive
IPDL-Indicator ::= ENUMERATED {
    active,
    inactive
IPDL-FDD-Parameters ::= SEQUENCE {
    iP-SpacingFDD
                                     ENUMERATED{sp5,sp7,sp10,sp15,sp20,sp30,sp40,sp50,...},
                                     ENUMERATED{len5, len10},
    iP-Length
    seed
                                    INTEGER(0..63),
    burstModeParams
                                     BurstModeParams
                                                         OPTIONAL,
```

```
iP-Offset
                          INTEGER(0..9),
                    ProtocolExtensionContainer { { IPDLFDDParameter-ExtIEs} } OPTIONAL,
  iE-Extensions
IPDLFDDParameter-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
IPDL-TDD-Parameters ::= SEQUENCE {
   iP-SpacingTDD
                          ENUMERATED{sp30,sp40,sp50,sp70,sp100,...},
  iP-Start
                          INTEGER (0..4095),
  iP-Slot
                          INTEGER(0..14),
   iP-PCCPCH
                          ENUMERATED{switchOff-1-Frame,switchOff-2-Frames},
                          BurstModeParams
                                         OPTIONAL,
   burstModeParams
   iE-Extensions
                    ProtocolExtensionContainer { { IPDLTDDParameter-ExtIEs} }
                                                                 OPTIONAL,
BurstModeParams ::= SEQUENCE {
  burstStart
                             INTEGER(0..15),
  burstLenth
                             INTEGER(10..25),
                             INTEGER(1..16),
  burstFreq
   . . .
IPDLTDDParameter-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
-- -----
_____
-- ------
-- ------
-- ------
LimitedPowerIncrease ::= ENUMERATED {
   used,
   not-used
Local-Cell-ID ::= INTEGER (0..268435455)
-- ------
-- -----
MaximumDL-PowerCapability ::= INTEGER(0..500)
```

```
-- Unit dBm, Range OdBm .. 50dBm, Step +0.1dB
MaximumTransmissionPower ::= INTEGER(0..500)
-- Unit dBm, Range OdBm .. 50dBm, Step +0.1dB
MaxNrOfUL-DPDCHs ::= INTEGER (1..6)
Max-Number-of-PCPCHes ::= INTEGER (1..64,...)
MaxPRACH-MidambleShifts ::= ENUMERATED {
    shift4,
    shift8,
    . . .
MeasurementFilterCoefficient ::= ENUMERATED {k0, k1, k2, k3, k4, k5, k6, k7, k8, k9, k11, k13, k15, k17, k19,...}
-- Measurement Filter Coefficient to be used for measurement
MeasurementID ::= INTEGER (0..1048575)
MessageStructure ::= SEQUENCE (SIZE (1..maxNrOfLevels)) OF
    SEQUENCE {
       iE-ID
                                ProtocolIE-ID,
       repetitionNumber
                                RepetitionNumber1
                                                         OPTIONAL,
                                ProtocolExtensionContainer { {MessageStructure-ExtIEs} } OPTIONAL,
       iE-Extensions
MessageStructure-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
MidambleConfigurationLCR ::=
                               ENUMERATED {v2, v4, v6, v8, v10, v12, v14, v16, ...}
MidambleConfigurationBurstType1And3 ::=
                                            ENUMERATED {v4, v8, v16}
MidambleConfigurationBurstType2 ::=
                                        ENUMERATED {v3, v6}
MidambleShiftAndBurstType ::=
                                    CHOICE {
    type1
                                        SEQUENCE -
        midambleConfigurationBurstType1And3 MidambleConfigurationBurstType1And3,
        midambleAllocationMode
                                            CHOICE {
            defaultMidamble
                                                NULL,
            commonMidamble
                                                NULL,
           ueSpecificMidamble
                                                MidambleShiftLong,
       },
    },
                                        SEQUENCE {
        midambleConfigurationBurstType2
                                            MidambleConfigurationBurstType2,
       midambleAllocationMode
                                            CHOICE {
            defaultMidamble
                                                NULL,
            commonMidamble
                                                NULL,
```

```
ueSpecificMidamble
                                                MidambleShiftShort,
                                        SEOUENCE {
    type3
        midambleConfigurationBurstType1And3 MidambleConfigurationBurstType1And3,
        midambleAllocationMode
                                            CHOICE {
            defaultMidamble
                                                NULL,
            ueSpecificMidamble
                                                MidambleShiftLong,
MidambleShiftLong ::=
                                    INTEGER (0..15)
MidambleShiftShort ::=
                                    INTEGER (0..5)
MidambleShiftLCR ::= SEQUENCE {
    midambleAllocationMode
                                MidambleAllocationMode,
   midambleShift
                                MidambleShiftLong
                                                        OPTIONAL,
    -- The IE shall be present if the Midamble Allocation Mode IE is set to "UE specific midamble".
    midambleConfigurationLCR
                                MidambleConfigurationLCR,
                                ProtocolExtensionContainer { {MidambleShiftLCR-ExtIEs} }
    iE-Extensions
                                                                                                OPTIONAL,
MidambleAllocationMode ::= ENUMERATED {
    defaultMidamble,
    commonMidamble,
    uESpecificMidamble,
MidambleShiftLCR-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
MinimumDL-PowerCapability ::= INTEGER(0..800)
-- Unit dBm, Range -30dBm .. 50dBm, Step +0.1dB
MinSpreadingFactor ::= ENUMERATED {
       v4,
        v8,
        v16,
        v32,
        v64,
       v128,
        v256,
        v512
```

```
-- TDD Mapping scheme for the minimum spreading factor 1 and 2: "256" means 1, "512" means 2
Modulation ::= ENUMERATED {
    qPSK,
    eightPSK,
    . . .
MinUL-ChannelisationCodeLength ::= ENUMERATED {
    v4,
    v8,
    v16,
    v32,
    v64,
    v128,
    v256,
    . . .
MultiplexingPosition ::= ENUMERATED {
    fixed,
    flexible
__ ______
-- ------
NCyclesPerSFNperiod ::= ENUMERATED {
    v1,
    v2,
    v4,
    v8,
    . . .
NEOT ::= INTEGER (0..8)
NFmax ::= INTEGER (1..64,...)
NRepetitionsPerCyclePeriod ::= INTEGER (2..10)
N-INSYNC-IND ::= INTEGER (1..256)
N-OUTSYNC-IND ::= INTEGER (1..256)
{\tt NeighbouringCellMeasurementInformation} ::= {\tt SEQUENCE} \ ({\tt SIZE} \ (1...{\tt maxNrOfMeasNCell})) \ {\tt OF}
        CHOICE {
               neighbouringFDDCellMeasurementInformation
                                                               NeighbouringFDDCellMeasurementInformation, -- FDD only
               {\tt neighbouringTDDCellMeasurementInformation}
                                                               NeighbouringTDDCellMeasurementInformation,
               -- Applicable to 3.84Mcps TDD only
               . . .
```

```
NeighbouringFDDCellMeasurementInformation ::= SEQUENCE {
   uC-Id
   uARFCN
                                   UARFCN.
   primaryScramblingCode
                                   PrimaryScramblingCode,
   iE-Extensions
                                   ProtocolExtensionContainer { { NeighbouringFDDCellMeasurementInformationItem-ExtIEs} } OPTIONAL,
NeighbouringFDDCellMeasurementInformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
NeighbouringTDDCellMeasurementInformation ::= SEQUENCE {
   uC-Id
                                   UC-Id,
   11ARFCN
                                   UARFCN,
   cellParameterID
                                   CellParameterID,
   timeSlot
                                   TimeSlot
                                                               OPTIONAL,
   midambleShiftAndBurstType
                                   MidambleShiftAndBurstType
                                                               OPTIONAL,
                                   ProtocolExtensionContainer { { NeighbouringTDDCellMeasurementInformationItem-ExtIEs} } OPTIONAL,
   iE-Extensions
   . . .
NeighbouringTDDCellMeasurementInformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
NodeB-CommunicationContextID ::= INTEGER (0..1048575)
NStartMessage ::= INTEGER (1..8)
-- ------
-- ------
-- -----
PagingIndicatorLength ::= ENUMERATED {
   v2,
   v4,
   v8,
PayloadCRC-PresenceIndicator ::= ENUMERATED {
   cRC-Included,
   cRC-NotIncluded,
PCCPCH-Power ::= INTEGER (-150..400,...)
-- PCCPCH-power = power * 10
```

```
-- If power <= -15 PCCPCH shall be set to -150
-- If power >= 40 PCCPCH shall be set to 400
-- Unit dBm, Range -15dBm .. +40 dBm, Step +0.1dB
PCP-Length ::= ENUMERATED{
   ν0,
   v8
PDSCH-CodeMapping ::= SEQUENCE {
   dl-ScramblingCode
                                DL-ScramblingCode,
   signallingMethod
                                    CHOICE {
       code-Range
                                    PDSCH-CodeMapping-PDSCH-CodeMappingInformationList,
       tFCI-Range
                                    PDSCH-CodeMapping-DSCH-MappingInformationList,
                                       PDSCH-CodeMapping-PDSCH-CodeInformationList,
       explicit
                                    PDSCH-CodeMapping-ReplacedPDSCH-CodeInformationList
       replace
   iE-Extensions
                                       OPTIONAL,
PDSCH-CodeMapping-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
   . . .
PDSCH-CodeMapping-CodeNumberComp ::= INTEGER (0..maxCodeNrComp-1)
PDSCH-CodeMapping-SpreadingFactor ::= ENUMERATED {
   v4,
   v8,
   v16,
   v32,
   v64,
   v128,
   v256,
PDSCH-CodeMapping-PDSCH-CodeMappingInformationList ::= SEQUENCE (SIZE (1..maxNrOfCodeGroups)) OF
   SEQUENCE ·
       spreadingFactor
                                PDSCH-CodeMapping-SpreadingFactor,
       multi-CodeInfo
                                PDSCH-Multi-CodeInfo,
       start-CodeNumber
                                    PDSCH-CodeMapping-CodeNumberComp,
                                PDSCH-CodeMapping-CodeNumberComp,
       stop-CodeNumber
       iE-Extensions
                                    OPTIONAL,
       . . .
PDSCH-CodeMapping-PDSCH-CodeMappingInformationList-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
PDSCH-CodeMapping-DSCH-MappingInformationList ::= SEQUENCE (SIZE (1..maxNrOfTFCIGroups)) OF
```

```
SEQUENCE {
       maxTFCI-field2-Value
                                        PDSCH-CodeMapping-MaxTFCI-Field2-Value,
        spreadingFactor
                                    PDSCH-CodeMapping-SpreadingFactor,
       multi-CodeInfo
                                    PDSCH-Multi-CodeInfo,
        codeNumber
                                    PDSCH-CodeMapping-CodeNumberComp,
                                        ProtocolExtensionContainer { { PDSCH-CodeMapping-DSCH-MappingInformationList-ExtIEs} }
       iE-Extensions
PDSCH-CodeMapping-DSCH-MappingInformationList-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
PDSCH-CodeMapping-MaxTFCI-Field2-Value ::= INTEGER (1..1023)
PDSCH-CodeMapping-PDSCH-CodeInformationList ::= SEOUENCE (SIZE (1..maxNrOfTFCI2Combs)) OF
    SEQUENCE ·
       spreadingFactor
                                    PDSCH-CodeMapping-SpreadingFactor,
        multi-CodeInfo
                                    PDSCH-Multi-CodeInfo,
       codeNumber
                                    PDSCH-CodeMapping-CodeNumberComp,
       iE-Extensions
                                        ProtocolExtensionContainer { { PDSCH-CodeMapping-PDSCH-CodeInformationList-ExtIEs} }
                                                                                                                                   OPTIONAL
        . . .
PDSCH-CodeMapping-PDSCH-CodeInformationList-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
PDSCH-CodeMapping-ReplacedPDSCH-CodeInformationList ::= SEOUENCE (SIZE (1..maxNrOfTFCI2Combs)) OF
    SEQUENCE ·
       tfci-Field2
                                    TFCS-MaxTFCI-field2-Value,
       spreadingFactor
                                    PDSCH-CodeMapping-SpreadingFactor,
       multi-CodeInfo
                                    PDSCH-Multi-CodeInfo,
       codeNumber
                                    PDSCH-CodeMapping-CodeNumberComp,
       iE-Extensions
                                    ProtocolExtensionContainer { { PDSCH-CodeMapping-ReplacedPDSCH-CodeInformationList-ExtIEs} }
                                                                                                                                       OPTIONAL,
    . . .
PDSCH-CodeMapping-ReplacedPDSCH-CodeInformationList-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
PDSCH-Multi-CodeInfo ::= INTEGER (1..16)
PDSCH-ID ::= INTEGER (0..255)
PDSCHSet-ID ::= INTEGER (0..255)
PICH-Mode ::= ENUMERATED {
   v18,
    v36,
    v72,
    v144,
    . . .
```

```
PICH-Power ::= INTEGER (-10..5)
-- Unit dB, Range -10dB .. +5dB, Step +1dB
PowerAdjustmentType ::= ENUMERATED {
    none,
    common,
    individual
PowerOffset ::= INTEGER (0..24)
-- PowerOffset = offset * 0.25
-- Unit dB, Range 0dB .. +6dB, Step +0.25dB
PowerRaiseLimit ::= INTEGER (0..10)
PRACH-Midamble ::= ENUMERATED {
    inverted,
    direct,
PRC ::= INTEGER (-2047..2047)
--pseudo range correction; scaling factor 0.32 meters
PRCDeviation ::= ENUMERATED {
   one,
   two,
   five,
   ten,
PreambleSignatures ::= BIT STRING {
                                     signature15(0),
                                    signature14(1),
                                     signature13(2),
                                     signature12(3),
                                     signature11(4),
                                     signature10(5),
                                     signature9(6),
                                     signature8(7),
                                     signature7(8),
                                     signature6(9),
                                     signature5(10),
                                     signature4(11),
                                     signature3(12),
                                     signature2(13),
                                     signature1(14),
                                     signature0(15)
                                     } (SIZE (16))
PreambleThreshold ::= INTEGER (0..72)
```

```
-- 0= -36.0dB, 1= -35.5dB, ..., 72= 0.0dB
PredictedSFNSFNDeviationLimit ::=INTEGER (1..256)
-- Unit chip, Step 1/16 chip, Range 1/16..16 chip
PredictedTUTRANGPSDeviationLimit ::= INTEGER (1..256)
-- Unit chip, Step 1/16 chip, Range 1/16..16 chip
Pre-emptionCapability ::= ENUMERATED {
   shall-not-trigger-pre-emption,
   may-trigger-pre-emption
Pre-emptionVulnerability ::= ENUMERATED {
   not-pre-emptable,
   pre-emptable
PrimaryCPICH-Power ::= INTEGER(-100..500)
-- step 0.1 (Range -10.0..50.0) Unit is dBm
PrimaryScramblingCode ::= INTEGER (0..511)
PriorityLevel
                        ::= INTEGER (0..15)
-- 0 = spare, 1 = highest priority, ...14 = lowest priority and 15 = no priority
PropagationDelay ::= INTEGER (0..255)
-- Unit: chips, step size 3 chips
-- example: 0 = 0chip, 1 = 3chips
SCH-TimeSlot ::= INTEGER (0..6)
PunctureLimit ::= INTEGER (0..15)
-- 0: 40%; 1: 44%; ... 14: 96%; 15: 100%
PUSCH-ID ::= INTEGER (0..255)
PUSCHSet-ID ::= INTEGER (0..255)
-- -----
-- -----
QE-Selector ::= ENUMERATED {
   selected,
   non-selected
-- -----
-- -----
RACH-SlotFormat ::= ENUMERATED {
   v0,
```

```
v1,
    v2,
    v3,
RACH-SubChannelNumbers ::= BIT STRING {
                                        subCh11(0),
                                        subCh10(1),
                                        subCh9(2),
                                        subCh8(3),
                                        subCh7(4),
                                        subCh6(5),
                                        subCh5(6),
                                        subCh4(7),
                                        subCh3(8),
                                        subCh2(9),
                                        subCh1(10),
                                         subCh0(11)
                                        } (SIZE (12))
Range-Correction-Rate ::= INTEGER (-127..127)
-- scaling factor 0.032 m/s
ReferenceClockAvailability ::= ENUMERATED {
    available,
    notAvailable
ReferenceSFNoffset ::= INTEGER (0..255)
RepetitionLength ::= INTEGER (1..63)
RepetitionPeriod ::= ENUMERATED {
    v1,
    v2,
    v4,
    v8,
    v16,
    v32,
    v64,
    . . .
RepetitionNumber0 ::= INTEGER (0..255)
RepetitionNumber1 ::= INTEGER (1..256)
RefTFCNumber ::= INTEGER (0..3)
ReportCharacteristics ::= CHOICE {
    onDemand
    periodic
                            ReportCharacteristicsType-ReportPeriodicity,
    event-a
                        ReportCharacteristicsType-EventA,
```

```
ReportCharacteristicsType-EventB,
    event-b
                        ReportCharacteristicsType-EventC,
    event.-c
                        ReportCharacteristicsType-EventD,
    event.-d
    event-e
                        ReportCharacteristicsType-EventE,
                        ReportCharacteristicsType-EventF,
    event.-f
    extension-ReportCharacteristics
                                        Extension-ReportCharacteristics
Extension-ReportCharacteristics ::= ProtocolIE-Single-Container {{ Extension-ReportCharacteristicsIE }}
Extension-ReportCharacteristicsIE NBAP-PROTOCOL-IES ::= {
    { ID id-ReportCharacteristicsType-OnModification
                                                      CRITICALITY reject TYPE ReportCharacteristicsType-OnModification PRESENCE mandatory }
ReportCharacteristicsType-EventA ::= SEQUENCE {
    measurementThreshold
                                    ReportCharacteristicsType-MeasurementThreshold,
    measurementHysteresisTime
                                    ReportCharacteristicsType-ScaledMeasurementHysteresisTime
                                                                                                                        OPTIONAL,
   iE-Extensions
                                    ProtocolExtensionContainer { { ReportCharacteristicsType-EventA-ExtIEs} }
                                                                                                                        OPTIONAL,
    . . .
ReportCharacteristicsType-EventA-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    . . .
ReportCharacteristicsType-EventB ::= SEQUENCE {
    measurementThreshold
                                    ReportCharacteristicsType-MeasurementThreshold,
    measurementHysteresisTime
                                    ReportCharacteristicsType-ScaledMeasurementHysteresisTime
                                                                                                                        OPTIONAL,
                                    ProtocolExtensionContainer { { ReportCharacteristicsType-EventB-ExtIEs} }
    iE-Extensions
                                                                                                                        OPTIONAL,
    . . .
ReportCharacteristicsType-EventB-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
ReportCharacteristicsType-EventC ::= SEQUENCE {
    measurementIncreaseThreshold
                                    ReportCharacteristicsType-MeasurementIncreaseDecreaseThreshold,
    measurementChangeTime
                                    ReportCharacteristicsType-ScaledMeasurementChangeTime,
                                    ProtocolExtensionContainer { { ReportCharacteristicsType-EventC-ExtIEs} }
    iE-Extensions
                                                                                                                        OPTIONAL,
ReportCharacteristicsType-EventC-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
ReportCharacteristicsType-EventD ::= SEQUENCE {
    measurementDecreaseThreshold
                                    ReportCharacteristicsType-MeasurementIncreaseDecreaseThreshold,
    measurementChangeTime
                                    ReportCharacteristicsType-ScaledMeasurementChangeTime,
   iE-Extensions
                                    ProtocolExtensionContainer { { ReportCharacteristicsType-EventD-ExtIEs} } 
                                                                                                                        OPTIONAL,
```

```
ReportCharacteristicsType-EventD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
ReportCharacteristicsType-EventE ::= SEQUENCE {
    measurementThreshold1
                                     ReportCharacteristicsType-MeasurementThreshold,
    measurementThreshold2
                                     ReportCharacteristicsType-MeasurementThreshold
                                                                                                  OPTIONAL.
    measurementHysteresisTime
                                     ReportCharacteristicsType-ScaledMeasurementHysteresisTime
                                                                                                 OPTIONAL,
                                     ReportCharacteristicsType-ReportPeriodicity
    reportPeriodicity
                                                                                                  OPTIONAL.
    iE-Extensions
                                     ProtocolExtensionContainer { { ReportCharacteristicsType-EventE-ExtIEs} }
                                                                                                                        OPTIONAL,
    . . .
ReportCharacteristicsType-EventE-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
ReportCharacteristicsType-EventF ::= SEQUENCE {
    measurement.Threshold1
                                     ReportCharacteristicsType-MeasurementThreshold,
    measurementThreshold2
                                    ReportCharacteristicsType-MeasurementThreshold
                                                                                                  OPTIONAL,
                                    ReportCharacteristicsType-ScaledMeasurementHysteresisTime
    measurementHysteresisTime
                                                                                                 OPTIONAL,
    reportPeriodicity
                                    ReportCharacteristicsType-ReportPeriodicity
                                                                                                  OPTIONAL,
                                     ProtocolExtensionContainer { { ReportCharacteristicsType-EventF-ExtIEs}
    iE-Extensions
                                                                                                                        OPTIONAL.
ReportCharacteristicsType-EventF-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
ReportCharacteristicsType-OnModification ::= SEQUENCE
    measurementThreshold
                                    ReportCharacteristicsType-MeasurementThreshold,
                                    ProtocolExtensionContainer { { ReportCharacteristicsType-OnModification-ExtIEs} }
    iE-Extensions
                                                                                                                           OPTIONAL,
        . . .
ReportCharacteristicsType-OnModification-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
ReportCharacteristicsType-MeasurementIncreaseDecreaseThreshold ::= CHOICE {
    received-total-wide-band-power
                                                             Received-total-wide-band-power-Value-IncrDecrThres,
    transmitted-carrier-power
                                    Transmitted-Carrier-Power-Value,
    acknowledged-prach-preambles
                                            Acknowledged-PRACH-preambles-Value,
    uL-TimeslotISCP
                                     UL-TimeslotISCP-Value-IncrDecrThres,
                                SIR-Value-IncrDecrThres,
    sir
    sir-error
                                SIR-Error-Value-IncrDecrThres,
    transmitted-code-power
                                     Transmitted-Code-Power-Value-IncrDecrThres,
    rscp
                                    RSCP-Value-IncrDecrThres,
    round-trip-time
                                    Round-Trip-Time-IncrDecrThres,
    acknowledged-PCPCH-access-preambles
                                            Acknowledged-PCPCH-access-preambles,
    detected-PCPCH-access-preambles
                                            Detected-PCPCH-access-preambles,
    . . .
```

```
ReportCharacteristicsType-MeasurementThreshold ::= CHOICE
    received-total-wide-band-power
                                                         Received-total-wide-band-power-Value,
    transmitted-carrier-power
                                  Transmitted-Carrier-Power-Value.
    acknowledged-prach-preambles
                                          Acknowledged-PRACH-preambles-Value,
    uL-TimeslotISCP
                                  UL-TimeslotISCP-Value,
    sir
                              SIR-Value,
    sir-error
                              STR-Error-Value.
                                  Transmitted-Code-Power-Value,
    transmitted-code-power
                                  RSCP-Value,
    rx-timing-deviation
                                  Rx-Timing-Deviation-Value,
    round-trip-time
                                  Round-Trip-Time-Value,
    acknowledged-PCPCH-access-preambles
                                          Acknowledged-PCPCH-access-preambles,
    detected-PCPCH-access-preambles
                                          Detected-PCPCH-access-preambles,
    extension-ReportCharacteristicsType-MeasurementThreshold
                                                                 Extension-ReportCharacteristicsType-MeasurementThreshold
Extension-ReportCharacteristicsType-MeasurementThreshold
                                                         ::= ProtocolIE-Single-Container {{ Extension-ReportCharacteristicsType-
MeasurementThresholdIE }}
Extension-ReportCharacteristicsType-MeasurementThresholdIE NBAP-PROTOCOL-IES ::= {
     ID id-TUTRANGPSMeasurementThresholdInformation
                                                   CRITICALITY reject TYPE TUTRANGPSMeasurementThresholdInformation
                                                                                                                       PRESENCE mandatory } |
                                                                                                                 PRESENCE mandatory } |
     ID id-Rx-Timing-Deviation-Value-LCR CRITICALITY reject TYPE Rx-Timing-Deviation-Value-LCR
                                                                                                               PRESENCE mandatory }
ReportCharacteristicsType-ScaledMeasurementChangeTime ::= CHOICE
                      MeasurementChangeTime-Scaledmsec,
   msec
    . . .
MeasurementChangeTime-Scaledmsec ::= INTEGER (1..6000,...)
-- MeasurementChangeTime-Scaledmsec = Time * 10
-- Unit ms, Range 10ms .. 60000ms(1min), Step 10ms
ReportCharacteristicsType-ScaledMeasurementHysteresisTime ::= CHOICE {
                      MeasurementHysteresisTime-Scaledmsec,
   msec
    . . .
MeasurementHysteresisTime-Scaledmsec ::= INTEGER (1..6000,...)
-- MeasurementHysteresisTime-Scaledmsec = Time * 10
-- Unit ms, Range 10ms .. 60000ms(1min), Step 10ms
ReportCharacteristicsType-ReportPeriodicity ::= CHOICE {
   msec
                      ReportPeriodicity-Scaledmsec,
   min
                      ReportPeriodicity-Scaledmin,
    . . .
ReportPeriodicity-Scaledmsec ::= INTEGER (1..6000,...)
-- ReportPeriodicity-msec = ReportPeriodicity * 10
```

```
-- Unit ms, Range 10ms .. 60000ms(1min), Step 10ms
ReportPeriodicity-Scaledmin ::= INTEGER (1..60,...)
-- Unit min, Range 1min .. 60min(hour), Step 1min
ReportPeriodicity-Scaledhour ::= INTEGER (1..24,...)
-- Unit hour, Range 1hour .. 24hours(day), Step 1hour
ResourceOperationalState ::= ENUMERATED {
    enabled,
    disabled
RL-ID ::= INTEGER (0..31)
RL-Set-ID
                        ::= INTEGER (0..31)
Round-Trip-Time-IncrDecrThres ::= INTEGER(0..32766)
RNC-ID
                        ::= INTEGER (0..4095)
Round-Trip-Time-Value ::= INTEGER(0..32767)
-- According to mapping in [22]
RSCP-Value ::= INTEGER (0..127)
-- According to mapping in [23]
RSCP-Value-IncrDecrThres ::= INTEGER (0..126)
Received-total-wide-band-power-Value ::= INTEGER(0..621)
-- According to mapping in [22]/[23]
Received-total-wide-band-power-Value-IncrDecrThres ::= INTEGER (0..620)
RequestedDataValueInformation ::= CHOICE {
                                InformationAvailable,
    informationAvailable
    informationnotAvailable
                                InformationnotAvailable
InformationAvailable::= SEQUENCE {
    requesteddataValue
                            RequestedDataValue,
    ie-Extensions
                            ProtocolExtensionContainer { { InformationAvailableItem-ExtIEs} }
                                                                                                                     OPTIONAL,
    . . .
InformationAvailableItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
InformationnotAvailable ::= NULL
```

. . .

```
RequestedDataValue ::= SEQUENCE {
    dqps-corrections
                           DGPSCorrections
                                                                     OPTIONAL,
    gps-navandrecovery
                           GPS-NavigationModel-and-TimeRecovery
                                                                     OPTIONAL,
    qps-ionos-model
                           GPS-Ionospheric-Model
                                                                     OPTIONAL,
                           GPS-UTC-Model
    qps-utc-model
                                                                     OPTIONAL,
                           GPS-Almanac
    gps-almanac
                                                                     OPTIONAL,
    gps-rt-integrity
                          GPS-RealTime-Integrity
                                                                     OPTIONAL,
    gpsrxpos
                          GPS-RX-POS
                                                                     OPTIONAL,
                           ProtocolExtensionContainer { { RequestedDataValue-ExtIEs} }
    iE-Extensions
                                                                                        OPTIONAL,
RequestedDataValue-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
Rx-Timing-Deviation-Value ::= INTEGER (0..8191)
-- According to mapping in [23]
Rx-Timing-Deviation-Value-LCR ::= INTEGER (0..511)
-- According to mapping in [23]
-- ------
-- -----
AdjustmentPeriod
                          ::= INTEGER(1..256)
-- Unit Frame
SAT-ID ::= INTEGER (0..63)
SAT-Info-Almanac ::= SEQUENCE (SIZE (1..maxNoSat)) OF SAT-Info-Almanac-Item
SAT-Info-Almanac-Item ::= SEOUENCE {
    data-id
                     DATA-ID,
    sat-id
                      SAT-ID,
    qps-e-alm
                      BIT STRING (SIZE (16)),
                     BIT STRING (SIZE (8)),
    qps-toa-alm
    gps-delta-I-alm
                     BIT STRING (SIZE (16)),
    omegadot-alm
                     BIT STRING (SIZE (16)),
    svhealth-alm
                     BIT STRING (SIZE (8)),
    gps-a-sqrt-alm
                      BIT STRING (SIZE (24)),
    omegazero-alm
                      BIT STRING (SIZE (24)),
    m-zero-alm
                     BIT STRING (SIZE (24)),
    gps-omega-alm
                     BIT STRING (SIZE (24)),
    gps-af-zero-alm BIT STRING (SIZE (11)),
   gps-af-one-alm
                     BIT STRING (SIZE (11)),
   ie-Extensions
                      ProtocolExtensionContainer { { SAT-Info-Almanac-Item-ExtIEs} } 
                                                                                        OPTIONAL,
SAT-Info-Almanac-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
```

```
SAT-Info-DGPSCorrections ::= SEQUENCE (SIZE (1..maxNoSat)) OF SAT-Info-DGPSCorrections-Item
SAT-Info-DGPSCorrections-Item ::= SEQUENCE {
   sat-id
                                         SAT-ID,
   iode-daps
                                         BIT STRING (SIZE (8)),
   udre
                                         UDRE,
   prc
                                         PRC,
                                         Range-Correction-Rate,
   range-correction-rate
                                         ie-Extensions
SAT-Info-DGPSCorrections-Item-ExtlEs NBAP-PROTOCOL-EXTENSION ::= {
   . . .
SATInfo-RealTime-Integrity ::= SEQUENCE (SIZE (1..maxNoSat)) OF SAT-Info-RealTime-Integrity-Item
SAT-Info-RealTime-Integrity-Item ::= SEQUENCE {
 bad-sat-id
                 SAT-ID,
 ie-Extensions ProtocolExtensionContainer { { SAT-Info-RealTime-Integrity-Item-ExtIEs} }
                                                                                                            OPTIONAL,
SAT-Info-RealTime-Integrity-Item-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
ScaledAdjustmentRatio
                             ::= INTEGER(0..100)
-- AdjustmentRatio = ScaledAdjustmentRatio / 100
MaxAdjustmentStep
                         ::= INTEGER(1..10)
-- Unit Slot
ScramblingCodeNumber ::= INTEGER (0..15)
SecondaryCCPCH-SlotFormat ::= INTEGER(0..17,...)
Segment-Type ::= ENUMERATED {
       first-segment,
       first-segment-short,
       subsequent-segment,
       last-segment,
       last-segment-short,
       complete-SIB,
       complete-SIB-short,
S-FieldLength ::= ENUMERATED {
```

```
v1,
       v2,
        . . .
SFN ::= INTEGER (0..4095)
SFNSFN-FDD ::= INTEGER (0..614399)
SFNSFN-TDD ::= INTEGER (0..40961)
SFNSFNChangeLimit ::= INTEGER (1..256)
-- Unit chip, Step 1/16 chip, Range 1/16..16 chip
SFNSFNDriftRate ::= INTEGER (-100..100)
-- Unit chip/s, Step 1/256 chip/s, Range -100/256..+100/256 chip/s
SFNSFNDriftRateOuality ::= INTEGER (0..100)
-- Unit chip/s, Step 1/256 chip/s, Range 0..100/256 chip/s
SFNSFNMeasurementThresholdInformation::= SEQUENCE {
    sFNSFNChangeLimit
                                      SFNSFNChangeLimit
                                                                         OPTIONAL,
                                      PredictedSFNSFNDeviationLimit
   predictedSFNSFNDeviationLimit
                                                                         OPTIONAL,
                                  ProtocolExtensionContainer { { SFNSFNMeasurementThresholdInformation-ExtIEs} } 
   iE-Extensions
                                                                                                                  OPTIONAL,
SFNSFNMeasurementThresholdInformation-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
SFNSFNMeasurementValueInformation ::= SEQUENCE {
    successfullNeighbouringCellSFNSFNObservedTimeDifferenceMeasurementInformation
                                                                                     SEQUENCE (SIZE(1..maxNrOfMeasNCell)) OF
       SEQUENCE {
           uC-Id
                                      UC-Id,
           sFNSFNValue
                          SFNSFNValue,
           sFNSFNQuality
                              SFNSFNQuality
                                                                 OPTIONAL,
                              SFNSFNDriftRate,
           sFNSFNDriftRate
                                      SFNSFNDriftRateQuality
           sFNSFNDriftRateQuality
                                                                 OPTIONAL,
                                                  SFNSFNTimeStampInformation,
           sFNSFNTimeStampInformation
           iE-Extensions
                              ProtocolExtensionContainer { { SuccessfullNeighbouringCellSFNSFNObservedTimeDifferenceMeasurementInformationItem-
ExtIEs } }
               OPTIONAL,
    unsuccessfullNeighbouringCellSFNSFNObservedTimeDifferenceMeasurementInformation
                                                                                     SEQUENCE (SIZE(0..maxNrOfMeasNCell-1)) OF
       SEQUENCE {
           uC-Id
           iE-Extensions
                              ProtocolExtensionContainer { { UnsuccessfullNeighbouringCellSFNSFNObservedTimeDifferenceMeasurementInformationItem-
ExtIEs} }
               OPTIONAL,
   iE-Extensions
                       OPTIONAL,
```

```
SFNSFNMeasurementValueInformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
SuccessfullNeighbouringCellSFNSFNObservedTimeDifferenceMeasurementInformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
UnsuccessfullNeighbouringCellSFNSFNObservedTimeDifferenceMeasurementInformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
SFNSFNQuality ::= INTEGER (0..255)
-- Unit chip, Step 1/16 chip, Range 0.. 255/16 chip
ShutdownTimer ::= INTEGER (1..3600)
-- Unit sec
SIB-Originator ::= ENUMERATED {
    nodeB,
    cRNC,
    . . .
SIR-Error-Value ::= INTEGER (0..125)
-- According to mapping in [22]
SFNSFNTimeStampInformation ::= CHOICE {
    sFNSFNTimeStamp-FDD
                            SFN,
    sFNSFNTimeStamp-TDD
                            SFNSFNTimeStamp-TDD,
    . . . }
SFNSFNTimeStamp-TDD::= SEQUENCE {
    timeSlot
                        TimeSlot,
    iE-Extensions
                                    ProtocolExtensionContainer { { SFNSFNTimeStamp-ExtIEs} }
                                                                                                                      OPTIONAL,
SFNSFNTimeStamp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
SFNSFNValue ::= CHOICE {
    sFNSFN-FDD
                    SFNSFN-FDD,
    sFNSFN-TDD
                    SFNSFN-TDD,
```

```
. . .
SIR-Error-Value-IncrDecrThres ::= INTEGER (0..124)
SIR-Value ::= INTEGER (0..63)
-- According to mapping in [22]/[23]
SIR-Value-IncrDecrThres ::= INTEGER (0..62)
SpecialBurstScheduling ::= INTEGER (1..256)
SSDT-Cell-Identity ::= ENUMERATED {a, b, c, d, e, f, g, h}
SSDT-CellID-Length ::= ENUMERATED {
    short,
    medium,
    long
SSDT-Indication ::= ENUMERATED {
    ssdt-active-in-the-UE,
    ssdt-not-active-in-the-UE
Start-Of-Audit-Sequence-Indicator ::= ENUMERATED {
    start-of-audit-sequence,
    not-start-of-audit-sequence
STTD-Indicator ::= ENUMERATED {
    active,
    inactive,
    . . .
SSDT-SupportIndicator ::= ENUMERATED {
    sSDT-Supported,
    sSDT-not-supported
SyncCase ::= INTEGER (1..2,...)
SyncFrameNumber ::= INTEGER (1..10)
SynchronisationReportCharacteristics ::= SEQUENCE {
    synchronisationReportCharacteristicsType
                                                 SynchronisationReportCharacteristicsType,
    synchronisationReportCharactThreExc
                                                 SynchronisationReportCharactThreExc
                                                                                         OPTIONAL,
        -- Thie IE shall be included if the synchronisationReportCharacteristicsType IE is set to 'thresholdExceeding'.
                                                 ProtocolExtensionContainer { { SynchronisationReportCharacteristics-ExtIEs } } OPTIONAL,
    iE-Extensions
```

```
SynchronisationReportCharacteristics-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
SynchronisationReportCharactThreExc::= SEOUENCE (SIZE (1..maxNrOfCellSyncBursts)) OF SynchronisationReportCharactThreInfoItem
SynchronisationReportCharactThreInfoItem ::= SEQUENCE {
    svncFrameNumber
                              SyncFrameNumber,
   cellSyncBurstInformation
                              SEQUENCE (SIZE (1.. maxNrOfReceptsPerSyncFrame)) OF SynchronisationReportCharactCellSyncBurstInfoItem,
                              ProtocolExtensionContainer { { SynchronisationReportCharactThreInfoItem-ExtIEs } }
   iE-Extensions
SynchronisationReportCharactThreInfoItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
SynchronisationReportCharactCellSyncBurstInfoItem ::= SEOUENCE {
    cellSyncBurstCode
                                  CellSyncBurstCode,
   cellSyncBurstCodeShift
                                  CellSyncBurstCodeShift,
   cellSyncBurstTiming
                                  CellSyncBurstTiming
                                                                 OPTIONAL,
    cellSyncBurstTimingThreshold
                                  CellSyncBurstTimingThreshold
                                                                 OPTIONAL,
                                  ProtocolExtensionContainer { { SynchronisationReportCharactCellSyncBurstInfoItem-ExtIEs } }
   iE-Extensions
                                                                                                                            OPTIONAL,
    . . .
SynchronisationReportCharactCellSyncBurstInfoItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
SynchronisationReportCharacteristicsType ::= ENUMERATED {
    frameRelated,
    sFNperiodRelated,
   cycleLengthRelated,
    thresholdExceeding,
    frequencyAcquisitionCompleted,
SynchronisationReportType ::= ENUMERATED {
   initialPhase,
   steadyStatePhase,
   lateEntrantCell,
    frequencyAcquisition,
    . . .
-- ------
T-Cell ::= ENUMERATED {
   ν0,
   v1,
```

```
v2,
    v3,
    v4,
    ν5,
    v6,
    v7,
    v8,
    v9
T-RLFAILURE ::= INTEGER (0..255)
-- Unit seconds, Range Os .. 25.5s, Step 0.1s
TDD-ChannelisationCode ::= ENUMERATED {
    chCodeldiv1,
    chCode2div1,
    chCode2div2,
    chCode4div1,
    chCode4div2,
    chCode4div3,
    chCode4div4,
    chCode8div1,
    chCode8div2,
    chCode8div3,
    chCode8div4,
    chCode8div5,
    chCode8div6,
    chCode8div7,
    chCode8div8,
    chCode16div1,
    chCode16div2,
    chCode16div3,
    chCode16div4,
    chCode16div5,
    chCode16div6.
    chCode16div7,
    chCode16div8,
    chCode16div9,
    chCode16div10,
    chCode16div11,
    chCode16div12,
    chCode16div13,
    chCode16div14,
    chCode16div15,
    chCode16div16,
TDD-ChannelisationCodeLCR ::= SEQUENCE {
    tDD-ChannelisationCode
                                     TDD-ChannelisationCode,
    modulation
                                     Modulation, -- Modulation options for 1.28Mcps TDD in contrast to 3.84Mcps TDD
                                             ProtocolExtensionContainer { { TDD-ChannelisationCodeLCR-ExtIEs} }
    iE-Extensions
                                                                                                                           OPTIONAL,
```

```
TDD-ChannelisationCodeLCR-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
TDD-DL-Code-Information ::= SEOUENCE (SIZE (1..maxNrOfDPCHs)) OF TDD-DL-Code-InformationItem
TDD-DL-Code-InformationItem ::= SEOUENCE {
    dPCH-ID
                                            DPCH-ID,
    tdd-ChannelisationCode
                                            TDD-ChannelisationCode,
    iE-Extensions
                                            ProtocolExtensionContainer { { TDD-DL-Code-InformationItem-ExtIEs} }
                                                                                                                        OPTIONAL,
TDD-DL-Code-InformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
TDD-DL-Code-LCR-Information ::= SEQUENCE (SIZE (1..maxNrOfDPCHLCRs)) OF TDD-DL-Code-LCR-InformationItem
TDD-DL-Code-LCR-InformationItem ::= SEQUENCE {
    dPCH-ID
                                            DPCH-ID,
    tdd-ChannelisationCodeLCR
                                            TDD-ChannelisationCodeLCR,
    tdd-DL-DPCH-TimeSlotFormat-LCR
                                            TDD-DL-DPCH-TimeSlotFormat-LCR,
                                            ProtocolExtensionContainer { { TDD-DL-Code-LCR-InformationItem-ExtIEs} }
    iE-Extensions
                                                                                                                          OPTIONAL,
TDD-DL-Code-LCR-InformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
TDD-DL-DPCH-TimeSlotFormat-LCR ::= CHOICE {
                                QPSK-DL-DPCH-TimeSlotFormatTDD-LCR,
    eightPSK
                                EightPSK-DL-DPCH-TimeSlotFormatTDD-LCR,
OPSK-DL-DPCH-TimeSlotFormatTDD-LCR ::= INTEGER(0..24,...)
EightPSK-DL-DPCH-TimeSlotFormatTDD-LCR ::= INTEGER(0..24,...)
TDD-DPCHOffset ::= CHOICE {
    initialOffset
                        INTEGER (0..255),
    noinitialOffset
                        INTEGER (0..63)
TDD-PhysicalChannelOffset ::= INTEGER (0..63)
TDD-TPC-DownlinkStepSize ::= ENUMERATED {
    step-sizel,
    step-size2,
    step-size3,
    . . .
```

```
TDD-TPC-UplinkStepSize-LCR ::= ENUMERATED {
    step-sizel,
    step-size2,
    step-size3,
TransportFormatCombination-Beta ::= CHOICE {
    signalledGainFactors
                                SEQUENCE {
        gainFactor
                                    CHOICE {
            fdd
                                        SEOUENCE
                betaC
                                            BetaCD,
                betaD
                                            BetaCD,
                iE-Extensions
                                    ProtocolExtensionContainer { { GainFactorFDD-ExtIEs } }
                                                                                                 OPTIONAL,
            tdd
                                        BetaCD,
        refTFCNumber
                                    RefTFCNumber
                                                    OPTIONAL,
                                ProtocolExtensionContainer { { SignalledGainFactors-ExtIEs } }
        iE-Extensions
                                                                                                                     OPTIONAL,
    computedGainFactors
                                    RefTFCNumber,
GainFactorFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
SignalledGainFactors-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
TDD-UL-Code-Information ::= SEQUENCE (SIZE (1..maxNrOfDPCHs)) OF TDD-UL-Code-InformationItem
TDD-UL-Code-InformationItem ::= SEQUENCE {
    dPCH-ID
                                            DPCH-ID,
    tdd-ChannelisationCode
                                            TDD-ChannelisationCode,
    iE-Extensions
                                            ProtocolExtensionContainer { { TDD-UL-Code-InformationItem-ExtIEs} }
                                                                                                                        OPTIONAL,
TDD-UL-Code-InformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
TDD-UL-Code-LCR-Information ::= SEQUENCE (SIZE (1..maxNrOfDPCHLCRs)) OF TDD-UL-Code-LCR-InformationItem
TDD-UL-Code-LCR-InformationItem ::= SEQUENCE {
    dPCH-ID
                                            DPCH-ID,
```

```
tdd-ChannelisationCodeLCR
                                            TDD-ChannelisationCodeLCR,
    tdd-UL-DPCH-TimeSlotFormat-LCR
                                            TDD-UL-DPCH-TimeSlotFormat-LCR.
    iE-Extensions
                                            ProtocolExtensionContainer { { TDD-UL-Code-LCR-InformationItem-ExtIEs} }
                                                                                                                           OPTIONAL.
TDD-UL-Code-LCR-InformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
TDD-UL-DPCH-TimeSlotFormat-LCR ::= CHOICE {
                                QPSK-UL-DPCH-TimeSlotFormatTDD-LCR,
    eightPSK
                                EightPSK-UL-DPCH-TimeSlotFormatTDD-LCR,
OPSK-UL-DPCH-TimeSlotFormatTDD-LCR ::= INTEGER(0..69,...)
EightPSK-UL-DPCH-TimeSlotFormatTDD-LCR ::= INTEGER(0...24,...)
TFCI-Coding ::= ENUMERATED {
   v4,
    v8,
    v16,
    v32,
    . . .
TFCI-Presence ::= ENUMERATED {
   present,
    not-present
TFCI-SignallingMode ::= SEQUENCE {
    tFCI-SignallingOption
                                TFCI-SignallingMode-TFCI-SignallingOption,
    splitType
                           TFCI-SignallingMode-SplitType
                                                                         OPTIONAL,
    -- This IE shall be present if the TFCI signalling option is split --
    lengthOfTFCI2
                                TFCI-SignallingMode-LengthOfTFCI2
                                                                             OPTIONAL,
    -- This IE shall be present if the split type is logical --
    iE-Extensions
                                ProtocolExtensionContainer { { TFCI-SignallingMode-ExtIEs} }
                                                                                                                     OPTIONAL,
TFCI-SignallingMode-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    . . .
TFCI-SignallingMode-LengthOfTFCI2 ::= INTEGER (1..10)
TFCI-SignallingMode-SplitType ::= ENUMERATED {
    hard,
    logical
```

```
TFCI-SignallingMode-TFCI-SignallingOption ::= ENUMERATED {
    normal,
    split
TFCI2-BearerInformationResponse ::= SEQUENCE {
    bindingID
                                                     BindingID,
    transportLayerAddress
                                                     TransportLayerAddress,
    iE-Extensions
                                                     ProtocolExtensionContainer { { TFCI2-BearerInformationResponse-ExtIEs} }
                                                                                                                                 OPTIONAL,
    . . .
TFCI2-BearerInformationResponse-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
                    ::= INTEGER (0|15..269)
TGD
-- 0 = Undefined, only one transmission gap in the transmission gap pattern sequence
TGPRC
                    ::= INTEGER (0..511)
-- 0 = infinity
TGPSID
                    ::= INTEGER (1.. maxTGPS)
TGSN
                    ::= INTEGER (0..14)
TimeSlot ::= INTEGER (0..14)
TimeSlotDirection ::= ENUMERATED {
    ul,
    dl,
    . . .
TimeSlotLCR ::= INTEGER (0..6)
TimeSlotStatus ::= ENUMERATED {
    active,
    not-active,
    . . .
TimingAdjustmentValue ::= CHOICE {
    initialPhase
                        INTEGER (0..1048575,...),
    steadyStatePhase
                       INTEGER (0..255,...)
TimingAdvanceApplied ::= ENUMERATED {
   yes,
    no
```

```
ToAWE ::= INTEGER (0..2559)
-- Unit ms
ToAWS ::= INTEGER (0..1279)
-- Unit ms
Transmission-Gap-Pattern-Sequence-Information ::= SEQUENCE (SIZE (1..maxTGPS)) OF
    SEQUENCE {
        tGPSID
                        TGPSID,
        tGSN
                        TGSN,
        tGL1
                        GapLength,
        tGL2
                        GapLength
                                    OPTIONAL,
        tGD
                        TGD,
        tGPL1
                        GapDuration,
        tGPL2
                        GapDuration OPTIONAL,
        uL-DL-mode
                        UL-DL-mode,
        downlink-Compressed-Mode-Method
                                            Downlink-Compressed-Mode-Method
            -- This IE shall be present if the UL/DL mode IE is set to "DL only" or "UL/DL"
        uplink-Compressed-Mode-Method
                                            Uplink-Compressed-Mode-Method
                                                                                 OPTIONAL,
            -- This IE shall be present if the UL/DL mode IE is set to "UL only" or "UL/DL"
        dL-FrameType
                            DL-FrameType,
        delta-SIR1
                            DeltaSIR,
        delta-SIR-after1
                            DeltaSIR,
        delta-STR2
                            DeltaSIR
                                        OPTIONAL,
        delta-SIR-after2
                            DeltaSIR
                                        OPTIONAL,
        iE-Extensions
                                ProtocolExtensionContainer { {Transmission-Gap-Pattern-Sequence-Information-ExtIEs} } OPTIONAL,
Transmission-Gap-Pattern-Sequence-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
TransmissionGapPatternSequenceCodeInformation ::= ENUMERATED{
   code-change,
   nocode-change
Transmitted-Carrier-Power-Value ::= INTEGER(0..100)
-- According to mapping in [22]/[23]
Transmitted-Code-Power-Value ::= INTEGER (0..127)
-- According to mapping in [22]/[23]
```

```
Transmitted-Code-Power-Value-IncrDecrThres ::= INTEGER (0..112,...)
TransmissionDiversityApplied ::= BOOLEAN
-- true: applied, false: not applied
TransmitDiversityIndicator ::= ENUMERATED {
    active,
    inactive
TFCS ::= SEQUENCE {
    tFCSvalues
                                CHOICE {
        no-Split-in-TFCI
                                    TFCS-TFCSList,
        split-in-TFCI
                                    SEQUENCE {
            transportFormatCombination-DCH
                                                TFCS-DCHList,
            signallingMethod
                                                CHOICE {
                                                TFCS-MapingOnDSCHList,
                tFCI-Range
                explicit
                                                    TFCS-DSCHList,
                . . .
            iE-Extensions
                                                ProtocolExtensionContainer { { Split-in-TFCI-ExtIEs } }
                                                                                                                        OPTIONAL,
    . . .
    iE-Extensions
                        ProtocolExtensionContainer { { TFCS-ExtIEs} }
                                                                             OPTIONAL,
Split-in-TFCI-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
TFCS-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
TFCS-TFCSList ::= SEQUENCE (SIZE (1..maxNrOfTFCs)) OF
    SEQUENCE {
        cTFC
                            TFCS-CTFC,
        tFC-Beta
                        TransportFormatCombination-Beta
                                                            OPTIONAL,
        -- The IE shall be present if the TFCS concerns a UL DPCH or PRACH channel [FDD - or PCPCH channel].
        iE-Extensions
                            ProtocolExtensionContainer { { TFCS-TFCSList-ExtIEs} }
TFCS-TFCSList-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
TFCS-CTFC ::= CHOICE {
    ctfc2bit
                                        INTEGER (0..3),
    ctfc4bit
                                        INTEGER (0..15),
    ctfc6bit
                                        INTEGER (0..63),
```

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OPTIONAL,

```
ctfc8bit
                                        INTEGER (0..255),
    ctfc12bit
                                        INTEGER (0..4095),
    ctfc16bit
                                        INTEGER (0..65535),
    ctfcmaxbit
                                        INTEGER (0..maxCTFC)
TFCS-DCHList ::= SEQUENCE (SIZE (1..maxNrOfTFCI1Combs)) OF
    SEOUENCE {
       cTFC
                            TFCS-CTFC,
        iE-Extensions
                            ProtocolExtensionContainer { { TFCS-DCHList-ExtIEs} }
                                                                                        OPTIONAL,
TFCS-DCHList-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
TFCS-MapingOnDSCHList ::= SEOUENCE (SIZE (1..maxNrOfTFCIGroups)) OF
    SEQUENCE {
       maxTFCI-field2-Value
                                    TFCS-MaxTFCI-field2-Value,
       cTFC-DSCH
                                TFCS-CTFC,
                                    ProtocolExtensionContainer { { TFCS-MapingOnDSCHList-ExtIEs} }
       iE-Extensions
TFCS-MapingOnDSCHList-ExtlEs NBAP-PROTOCOL-EXTENSION ::= {
TFCS-MaxTFCI-field2-Value ::= INTEGER (1..maxNrOfTFCI2Combs-1)
TFCS-DSCHList ::= SEQUENCE (SIZE (1..maxNrOfTFCI2Combs)) OF
    SEQUENCE {
       cTFC-DSCH
                                TFCS-CTFC,
                                    ProtocolExtensionContainer { { TFCS-DSCHList-ExtIEs} }
       iE-Extensions
                                                                                                OPTIONAL,
TFCS-DSCHList-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
TransportBearerRequestIndicator ::= ENUMERATED {
    bearerRequested,
    bearerNotRequested,
TransportFormatSet ::= SEQUENCE {
    dynamicParts
                            TransportFormatSet-DynamicPartList,
    semi-staticPart
                            TransportFormatSet-Semi-staticPart,
                            ProtocolExtensionContainer { { TransportFormatSet-ExtIEs} }
    iE-Extensions
                                                                                                OPTIONAL,
```

```
TransportFormatSet-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
TransportFormatSet-DynamicPartList ::= SEQUENCE (SIZE (1..maxNrOfTFs)) OF
   SEOUENCE {
       nrOfTransportBlocks
                                 TransportFormatSet-NrOfTransportBlocks,
       transportBlockSize
                                 TransportFormatSet-TransportBlockSize
                                                                          OPTIONAL,
       -- This IE shall be present if the Number of Transport Blocks IE is set to a value greater than 0
                                 TransportFormatSet-ModeDP,
       iE-Extensions
                                 OPTIONAL,
TransportFormatSet-DynamicPartList-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
TDD-TransportFormatSet-ModeDP ::= SEQUENCE {
   transmissionTimeIntervalInformation
                                         TransmissionTimeIntervalInformation
                                                                              OPTIONAL,
   -- This IE shall be present if the Transmission Time Interval IE in the Semi-static Transport Format Information IE is set to 'dynamic'
                                         ProtocolExtensionContainer { {TDD-TransportFormatSet-ModeDP-ExtIEs} } OPTIONAL,
   iE-Extensions
   . . .
TDD-TransportFormatSet-ModeDP-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
TransmissionTimeIntervalInformation ::= SEQUENCE (SIZE (1..maxTTI-count)) OF
   SEOUENCE {
       transmissionTimeInterval
                                     TransportFormatSet-TransmissionTimeIntervalDynamic,
                                     ProtocolExtensionContainer { { TransmissionTimeIntervalInformation-ExtIEs} }
   iE-Extensions
                                                                                                                 OPTIONAL,
TransmissionTimeIntervalInformation-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
TransportFormatSet-Semi-staticPart ::= SEQUENCE {
   transmissionTimeInterval
                                     TransportFormatSet-TransmissionTimeIntervalSemiStatic,
   channelCoding
                                 TransportFormatSet-ChannelCodingType,
   codingRate
                                 TransportFormatSet-CodingRate
                                                                          OPTIONAL,
   -- This IE shall be present if the Type of channel coding IE is set to 'convolutional' or 'turbo'
   rateMatchingAttribute
                                 TransportFormatSet-RateMatchingAttribute,
   cRC-Size
                                 TransportFormatSet-CRC-Size,
   mode
                                 TransportFormatSet-ModeSSP
                                 iE-Extensions
                                                                                                              OPTIONAL,
TransportFormatSet-Semi-staticPart-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
```

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```
TransportFormatSet-ChannelCodingType ::= ENUMERATED {
    no-codingTDD,
    convolutional-coding,
    turbo-coding,
TransportFormatSet-CodingRate ::= ENUMERATED {
   half,
    third,
TransportFormatSet-CRC-Size ::= ENUMERATED {
    v0,
    v8,
    v12,
    v16,
    v24,
TransportFormatSet-ModeDP ::= CHOICE {
                        TDD-TransportFormatSet-ModeDP,
    notApplicable
                                NULL,
TransportFormatSet-ModeSSP ::= CHOICE {
                    TransportFormatSet-SecondInterleavingMode,
    notApplicable
                                NULL,
    . . .
TransportFormatSet-NrOfTransportBlocks ::= INTEGER (0..512)
TransportFormatSet-RateMatchingAttribute ::= INTEGER (1..maxRateMatching)
TransportFormatSet-SecondInterleavingMode ::= ENUMERATED {
    frame-rlated,
    timeSlot-related,
    . . .
TransportFormatSet-TransmissionTimeIntervalDynamic ::= ENUMERATED {
   msec-10,
    msec-20,
   msec-40,
    msec-80,
```

```
TransportFormatSet-TransmissionTimeIntervalSemiStatic ::= ENUMERATED {
    msec-10.
   msec-20.
    msec-40.
    msec-80,
    dynamic,
    . . . ,
    msec-5
TransportFormatSet-TransportBlockSize ::= INTEGER (0..5000)
TransportLayerAddress ::= BIT STRING (SIZE (1..160, ...))
TSTD-Indicator ::= ENUMERATED {
    active,
    inactive
TUTRANGPS ::= SEQUENCE {
                INTEGER (0..16383),
    ms-part
    ls-part
                INTEGER (0..4294967295)
TUTRANGPSChangeLimit ::= INTEGER (1..256)
-- Unit chip, Step 1/16 chip, Range 1/16..16 chip
TUTRANGPSDriftRate ::= INTEGER (-50..50)
-- Unit chip/s, Step 1/256 chip/s, Range -50/256..+50/256 chip/s
TUTRANGPSDriftRateQuality ::= INTEGER (0..50)
-- Unit chip/s, Step 1/256 chip/s, Range 0..50/256 chip/s
TUTRANGPSAccuracyClass ::= ENUMERATED {
    accuracy-class-A,
    accuracy-class-B,
    accuracy-class-C,
TUTRANGPSMeasurementThresholdInformation ::= SEQUENCE {
    tUTRANGPSChangeLimit
                                            TUTRANGPSChangeLimit
                                                                                     OPTIONAL,
    predictedTUTRANGPSDeviationLimit
                                            PredictedTUTRANGPSDeviationLimit
                                                                                     OPTIONAL,
    iE-Extensions
                                    ProtocolExtensionContainer { { TUTRANGPSMeasurementThresholdInformation-ExtIEs} }
                                                                                                                           OPTIONAL,
TUTRANGPSMeasurementThresholdInformation-ExtlEs NBAP-PROTOCOL-EXTENSION ::= {
TUTRANGPSMeasurementValueInformation ::= SEQUENCE {
```

OPTIONAL,

```
tUTRANGPS
                                     TUTRANGPS,
       tUTRANGPSQuality
                                     TUTRANGPSOuality
                                                                   OPTIONAL,
       tUTRANGPSDriftRate
                                     TUTRANGPSDriftRate,
       tUTRANGPSDriftRateQuality
                                     TUTRANGPSDriftRateOuality
                                                                   OPTIONAL,
       iE-Extensions
                                     ProtocolExtensionContainer { {TUTRANGPSMeasurementValueInformationItem-ExtIEs} }
TUTRANGPSMeasurementValueInformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
TUTRANGPSQuality ::= INTEGER (0..255)
-- Unit chip, Step 1/16 chip, Range 0.. 255/16 chip
TypeOfError ::= ENUMERATED {
   not-understood,
   missing,
-- -----
-- -----
UARFCN ::= INTEGER (0..16383, ...)
-- corresponds to OMHz .. 3276.6MHz
UC-Id ::= SEQUENCE {
   rNC-ID
                      RNC-ID,
   c-ID
                      C-ID,
                          ProtocolExtensionContainer { {UC-Id-ExtIEs} } OPTIONAL,
   iE-Extensions
UC-Id-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
UDRE ::= ENUMERATED {
   udre-minusequal-one-m,
   udre-betweenoneandfour-m,
   udre-betweenfourandeight-m,
   udre-greaterequaleight-m
UL-CapacityCredit ::= INTEGER (0..65535)
UL-DL-mode ::= ENUMERATED {
   ul-only,
   dl-only,
   both-ul-and-dl
```

```
Uplink-Compressed-Mode-Method ::= ENUMERATED {
    sFdiv2,
    higher-layer-scheduling,
UL-Timeslot-Information ::= SEQUENCE (SIZE (1..maxNrOfULTSs)) OF UL-Timeslot-InformationItem
UL-Timeslot-InformationItem ::= SEQUENCE {
    timeSlot
                                            TimeSlot,
    midambleShiftAndBurstType
                                            MidambleShiftAndBurstType,
    tFCI-Presence
                                            TFCI-Presence,
    uL-Code-InformationList
                                            TDD-UL-Code-Information,
    iE-Extensions
                                            ProtocolExtensionContainer { { UL-Timeslot-InformationItem-ExtIEs} }
                                                                                                                       OPTIONAL,
    . . .
UL-Timeslot-InformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
UL-TimeslotLCR-Information ::= SEQUENCE (SIZE (1..maxNrOfULTSLCRs)) OF UL-TimeslotLCR-InformationItem
UL-TimeslotLCR-InformationItem ::= SEQUENCE {
    timeSlotLCR
                                            TimeSlotLCR,
    midambleShiftLCR
                                            MidambleShiftLCR,
    tFCI-Presence
                                            TFCI-Presence,
    uL-Code-InformationList
                                            TDD-UL-Code-LCR-Information,
    iE-Extensions
                                            ProtocolExtensionContainer { { UL-TimeslotLCR-InformationItem-ExtIEs} }
UL-TimeslotLCR-InformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
UL-DPCCH-SlotFormat ::= INTEGER (0..5,...)
UL-SIR ::= INTEGER (-82..173)
-- According to mapping in [16]
UL-FP-Mode ::= ENUMERATED {
    normal,
    silent,
UL-PhysCH-SF-Variation ::= ENUMERATED {
    sf-variation-supported,
    sf-variation-not-supported
```

```
UL-ScramblingCode ::= SEQUENCE {
    uL-ScramblingCodeNumber
                                    UL-ScramblingCodeNumber,
    uL-ScramblingCodeLength
                                    UL-ScramblingCodeLength,
    iE-Extensions
                                    ProtocolExtensionContainer { { UL-ScramblingCode-ExtIEs } }
                                                                                                                     OPTIONAL,
UL-ScramblingCode-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
UL-ScramblingCodeNumber ::= INTEGER (0..16777215)
UL-ScramblingCodeLength ::= ENUMERATED {
    short,
    long
UL-TimeSlot-ISCP-Info ::= SEOUENCE (SIZE (1...maxNrOfULTSs)) OF UL-TimeSlot-ISCP-InfoItem
UL-TimeSlot-ISCP-InfoItem ::= SEQUENCE {
    timeSlot
                                    TimeSlot,
    iSCP
                                    UL-TimeslotISCP-Value,
                                    ProtocolExtensionContainer { { UL-TimeSlot-ISCP-InfoItem-ExtIEs} }
    iE-Extensions
                                                                                                                        OPTIONAL,
UL-TimeSlot-ISCP-InfoItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
UL-TimeSlot-ISCP-LCR-Info ::= SEQUENCE (SIZE (1..maxNrOfULTSLCRs)) OF UL-TimeSlot-ISCP-LCR-InfoItem
UL-TimeSlot-ISCP-LCR-InfoItem ::= SEQUENCE {
    timeSlotLCR
                                    TimeSlotLCR,
    iSCP
                                    UL-TimeslotISCP-Value,
    iE-Extensions
                                    ProtocolExtensionContainer { { UL-TimeSlot-ISCP-LCR-InfoItem-ExtIEs} } }
                                                                                                                        OPTIONAL,
UL-TimeSlot-ISCP-LCR-InfoItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
USCH-Information ::= SEQUENCE (SIZE (1..maxNrOfUSCHs)) OF USCH-InformationItem
USCH-InformationItem ::= SEQUENCE {
    uSCH-ID
                                            USCH-ID,
    cCTrCH-ID
                                            CCTrCH-ID,
    transportFormatSet
                                            TransportFormatSet,
                                            AllocationRetentionPriority,
    allocationRetentionPriority
    iE-Extensions
                                            ProtocolExtensionContainer { { USCH-InformationItem-ExtIEs} }
                                                                                                                        OPTIONAL,
```

```
USCH-InformationItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
USCH-InformationResponse ::= SEQUENCE (SIZE (1..maxNrOfUSCHs)) OF USCH-InformationResponseItem
USCH-InformationResponseItem ::= SEQUENCE {
   uSCH-ID
                                      USCH-ID,
   bindingID
                                      BindingID
                                                          OPTIONAL,
                                      TransportLayerAddress OPTIONAL,
   transportLayerAddress
                                      ProtocolExtensionContainer { { USCH-InformationResponseItem-ExtIEs} } 
   iE-Extensions
                                                                                                  OPTIONAL,
USCH-InformationResponseItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
UL-TimeslotISCP-Value ::= INTEGER (0..127)
-- According to mapping in [23]
UL-TimeslotISCP-Value-IncrDecrThres ::= INTEGER (0..126)
USCH-ID ::= INTEGER (0..255)
UL-Synchronisation-Parameters-LCR ::= SEQUENCE {
   uL-Synchronisation-StepSize
                                UL-Synchronisation-StepSize,
   uL-Synchronisation-Frequency
                                UL-Synchronisation-Frequency,
   iE-Extensions
                                ProtocolExtensionContainer { { UL-Synchronisation-Parameters-LCR-ExtIEs } }
   . . .
UL-Synchronisation-Parameters-LCR-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
UL-Synchronisation-StepSize ::= INTEGER (1..8)
UL-Synchronisation-Frequency ::= INTEGER (1..8)
-- -----
__ ______
-- ------
-- -----
-- -----
```

9.3.5 Common Definitions

```
__ *********************
-- Common definitions
__ **********************
NBAP-CommonDataTypes {
itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)
umts-Access (20) modules (3) nbap (2) version1 (1) nbap-CommonDataTypes (3) }
DEFINITIONS AUTOMATIC TAGS ::=
BEGIN
   -- Extension constants
__ *********************
maxPrivateIEs
                     INTEGER ::= 65535
maxProtocolExtensions
                     INTEGER ::= 65535
maxProtocolIEs
                       INTEGER ::= 65535
__ *********************
-- Common Data Types
__ *******************
Criticality ::= ENUMERATED { reject, ignore, notify }
MessageDiscriminator ::= ENUMERATED { common, dedicated }
Presence
           ::= ENUMERATED { optional, conditional, mandatory }
PrivateIE-ID ::= CHOICE {
  local
            INTEGER (0..maxPrivateIEs),
  global
               OBJECT IDENTIFIER
ProcedureCode ::= INTEGER (0..255)
```

```
ProcedureID
             ::= SEQUENCE {
    procedureCode
                           ProcedureCode.
    ddMode
                           ENUMERATED { tdd, fdd, common, ... }
ProtocolIE-ID
                   ::= INTEGER (0..maxProtocolIEs)
TransactionID
                  ::= CHOICE {
    shortTransActionId
                          INTEGER (0..127),
   longTransActionId
                           INTEGER (0..32767)
TriggeringMessage ::= ENUMERATED { initiating-message, successful-outcome, unsuccessfull-outcome, outcome }
END
```

9.3.6 Constant Definitions

```
-- Constant definitions
  ****************
NBAP-Constants {
itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)
umts-Access (20) modules (3) nbap (2) version1 (1) nbap-Constants (4)}
DEFINITIONS AUTOMATIC TAGS ::=
BEGIN
IMPORTS
   ProcedureCode,
   ProtocolIE-ID
FROM NBAP-CommonDataTypes;
   -- Elementary Procedures
__ *********************************
id-audit
                                            ProcedureCode ::= 0
id-auditRequired
                                            ProcedureCode ::= 1
id-blockResource
                                            ProcedureCode ::= 2
id-cellDeletion
                                            ProcedureCode ::= 3
id-cellReconfiguration
                                            ProcedureCode ::= 4
id-cellSetup
                                            ProcedureCode ::= 5
id-cellSynchronisationInitiation
                                            ProcedureCode ::= 45
id-cellSynchronisationReconfiguration
                                            ProcedureCode ::= 46
id-cellSynchronisationReporting
                                            ProcedureCode ::= 47
```

```
ProcedureCode ::= 48
id-cellSynchronisationTermination
id-cellSynchronisationFailure
                                                       ProcedureCode ::= 49
                                                       ProcedureCode ::= 6
id-commonMeasurementFailure
id-commonMeasurementInitiation
                                                       ProcedureCode ::= 7
id-commonMeasurementReport
                                                       ProcedureCode ::= 8
id-commonMeasurementTermination
                                                       ProcedureCode ::= 9
id-commonTransportChannelDelete
                                                       ProcedureCode ::= 10
                                                       ProcedureCode ::= 11
id-commonTransportChannelReconfigure
id-commonTransportChannelSetup
                                                       ProcedureCode ::= 12
id-compressedModeCommand
                                                       ProcedureCode ::= 14
id-dedicatedMeasurementFailure
                                                       ProcedureCode ::= 16
id-dedicatedMeasurementInitiation
                                                       ProcedureCode ::= 17
id-dedicatedMeasurementReport
                                                       ProcedureCode ::= 18
id-dedicatedMeasurementTermination
                                                       ProcedureCode ::= 19
id-downlinkPowerControl
                                                       ProcedureCode ::= 20
id-downlinkPowerTimeslotControl
                                                       ProcedureCode ::= 38
                                                       ProcedureCode ::= 35
id-errorIndicationForCommon
                                                       ProcedureCode ::= 21
id-errorIndicationForDedicated
id-informationExchangeFailure
                                                       ProcedureCode ::= 40
id-informationExchangeInitiation
                                                       ProcedureCode ::= 41
id-informationExchangeTermination
                                                       ProcedureCode ::= 42
                                                       ProcedureCode ::= 43
id-informationReporting
id-physicalSharedChannelReconfiguration
                                                       ProcedureCode ::= 37
                                                       ProcedureCode ::= 36
id-privateMessageForCommon
id-privateMessageForDedicated
                                                       ProcedureCode ::= 22
id-radioLinkAddition
                                                       ProcedureCode ::= 23
id-radioLinkDeletion
                                                       ProcedureCode ::= 24
id-radioLinkFailure
                                                       ProcedureCode ::= 25
                                                       ProcedureCode ::= 39
id-radioLinkPreemption
id-radioLinkRestoration
                                                       ProcedureCode ::= 26
                                                       ProcedureCode ::= 27
id-radioLinkSetup
id-reset
                                                       ProcedureCode ::= 13
id-resourceStatusIndication
                                                       ProcedureCode ::= 28
id-cellSynchronisationAdjustment
                                                       ProcedureCode ::= 44
id-synchronisedRadioLinkReconfigurationCancellation
                                                       ProcedureCode ::= 29
                                                       ProcedureCode ::= 30
id-synchronisedRadioLinkReconfigurationCommit
id-synchronisedRadioLinkReconfigurationPreparation
                                                       ProcedureCode ::= 31
id-systemInformationUpdate
                                                       ProcedureCode ::= 32
id-unblockResource
                                                       ProcedureCode ::= 33
id-unSynchronisedRadioLinkReconfiguration
                                                       ProcedureCode ::= 34
-- Lists
maxNrOfCodes
                           INTEGER ::= 10
maxNrOfDLTSs
                           INTEGER ::= 15
maxNrOfDLTSLCRs
                           INTEGER ::= 6
maxNrOfErrors
                           INTEGER ::= 256
maxNrOfTFs
                           INTEGER ::= 32
maxNrOfTFCs
                           INTEGER ::= 1024
                           INTEGER ::= 16
maxNrOfRLs
```

```
INTEGER ::= 15 -- maxNrOfRLs - 1
maxNrOfRLs-1
maxNrOfRLs-2
                            INTEGER ::= 14 -- maxNrOfRLs - 2
maxNrOfRLSets
                            INTEGER ::= maxNrOfRLs
maxNrOfDPCHs
                            INTEGER ::= 240
maxNrOfDPCHLCRs
                            INTEGER ::= 240
maxNrOfSCCPCHs
                            INTEGER ::= 8
maxNrOfCPCHs
                            INTEGER ::= 16
maxNrOfPCPCHs
                            INTEGER ::= 64
maxNrOfDCHs
                            INTEGER ::= 128
                            INTEGER ::= 32
maxNrOfDSCHs
maxNrOfFACHs
                            INTEGER ::= 8
maxNrOfCCTrCHs
                            INTEGER ::= 16
maxNrOfPDSCHs
                            INTEGER ::= 256
maxNrOfPUSCHs
                            INTEGER ::= 256
                            INTEGER ::= 256
maxNrOfPDSCHSets
maxNrOfPRACHLCRs
                            INTEGER ::= 8
                            INTEGER ::= 256
maxNrOfPUSCHSets
maxNrOfSCCPCHLCRs
                            INTEGER ::= 8
maxNrOfULTSs
                            INTEGER ::= 15
maxNrOfULTSLCRs
                            INTEGER ::= 6
maxNrOfUSCHs
                            INTEGER ::= 32
maxAPSigNum
                            INTEGER ::= 16
maxNrOfSlotFormatsPRACH
                            INTEGER ::= 8
maxCellinNodeB
                            INTEGER ::= 256
maxCCPinNodeB
                            INTEGER ::= 256
maxCPCHCell
                            INTEGER ::= maxNrOfCPCHs
maxCTFC
                            INTEGER ::= 16777215
maxLocalCellinNodeB
                            INTEGER ::= maxCellinNodeB
maxNoofLen
                            INTEGER ::= 7
maxFPACHCell
                            INTEGER ::= 8
maxRACHCell
                            INTEGER ::= maxPRACHCell
maxPRACHCell
                            INTEGER ::= 16
maxPCPCHCell
                            INTEGER ::= 64
                            INTEGER ::= 32
maxSCCPCHCell
maxSCPICHCell
                            INTEGER ::= 32
maxTTI-count
                            INTEGER ::= 4
maxIBSEG
                            INTEGER ::= 16
                            INTEGER ::= 64
maxIB
maxFACHCell
                            INTEGER ::= 256 -- maxNrOfFACHs * maxSCCPCHCell
maxRateMatching
                            INTEGER ::= 256
maxCodeNrComp-1
                            INTEGER ::= 256
maxNrOfCellSyncBursts
                            INTEGER ::= 10
maxNrOfCodeGroups
                            INTEGER ::= 256
maxNrOfReceptsPerSyncFrame
                            INTEGER ::= 16
maxNrOfMeasNCell
                            INTEGER ::= 96
maxNrOfMeasNCell-1
                            INTEGER ::= 95
                                            -- maxNrOfMeasNCell - 1
maxNrOfTFCIGroups
                            INTEGER ::= 256
maxNrOfTFCI1Combs
                            INTEGER ::= 512
maxNrOfTFCI2Combs
                            INTEGER ::= 1024
maxNrOfTFCI2Combs-1
                            INTEGER ::= 1023
maxNrOfSF
                            INTEGER ::= 8
maxTGPS
                            INTEGER ::= 6
maxCommunicationContext
                            INTEGER ::= 1048575
maxNrOfLevels
                            INTEGER ::= 256
```

N. C. h	THEOREM 16	
maxNoSat	INTEGER ::= 16	
maxNoGPSItems	INTEGER ::= 8	
**************	**********	
IEs		
*************	**********	
id-AICH-Information		ProtocolIE-ID ::= 0
id-AICH-InformationItem-Re	sourceStatusInd	ProtocolIE-ID ::= 1
id-BCH-Information		ProtocolIE-ID ::= 7
id-BCH-InformationItem-Res	ourceStatusInd	ProtocolIE-ID ::= 8
id-BCCH-ModificationTime		ProtocolIE-ID ::= 9
id-BlockingPriorityIndicat	or	ProtocolIE-ID ::= 10
id-Cause		ProtocolIE-ID ::= 13
id-CCP-InformationItem-Aud	-	ProtocolIE-ID ::= 14
id-CCP-InformationList-Aud	-	ProtocolIE-ID ::= 15
id-CCP-InformationItem-Res		ProtocolIE-ID ::= 16
id-Cell-InformationItem-Au	-	ProtocolIE-ID ::= 17
id-Cell-InformationItem-Re		ProtocolIE-ID ::= 18
id-Cell-InformationList-Au	aitksp	ProtocolIE-ID ::= 19
id-CellParameterID id-CFN		ProtocolIE-ID ::= 23 ProtocolIE-ID ::= 24
id-C-ID		ProtocoliE-ID ::= 25
id-CommonMeasurementAccura	O.V.	ProtocoliE-ID ::= 39
id-CommonMeasurementObject		ProtocolIE-ID ::= 31
id-CommonMeasurementObject		ProtocolIE-ID ::= 32
id-CommonMeasurementObject		ProtocolIE-ID ::= 33
id-CommonMeasurementType	1750 01. 105	ProtocolIE-ID ::= 34
id-CommonPhysicalChannelID		ProtocolIE-ID ::= 35
id-CommonPhysicalChannelTy		ProtocolIE-ID ::= 36
id-CommonPhysicalChannelTy		ProtocolIE-ID ::= 37
id-CommunicationControlPor	tID	ProtocolIE-ID ::= 40
id-ConfigurationGeneration	ID	ProtocolIE-ID ::= 43
id-CRNC-CommunicationConte	xtID	ProtocolIE-ID ::= 44
id-CriticalityDiagnostics		ProtocolIE-ID ::= 45
id-DCHs-to-Add-FDD		ProtocolIE-ID ::= 48
id-DCH-AddList-RL-ReconfPr	epTDD	ProtocolIE-ID ::= 49
id-DCHs-to-Add-TDD		ProtocolIE-ID ::= 50
id-DCH-DeleteList-RL-Recon	-	ProtocolIE-ID ::= 52
id-DCH-DeleteList-RL-Recon	-	ProtocolIE-ID ::= 53
id-DCH-DeleteList-RL-Recon	=	ProtocolIE-ID ::= 54
id-DCH-DeleteList-RL-Recon	iRqstTDD	ProtocolIE-ID ::= 55
id-DCH-FDD-Information		ProtocolIE-ID ::= 56
id-DCH-TDD-Information		ProtocolIE-ID ::= 57
<pre>id-DCH-InformationResponse id-FDD-DCHs-to-Modify</pre>		ProtocolIE-ID ::= 59 ProtocolIE-ID ::= 62
id-TDD-DCHs-to-Modify		ProtocoliE-ID ::= 62 ProtocolIE-ID ::= 63
id-DCH-ModifyList-RL-Recon	fPastTDD	ProtocoliE-ID ::= 65
id-DedicatedMeasurementObj	-	ProtocoliE-ID ::= 65 ProtocoliE-ID ::= 67
id-DedicatedMeasurementObj		ProtocoliE-ID ::= 67 ProtocolIE-ID ::= 68
id-DedicatedMeasurementObj		ProtocolIE-ID ::= 69
id-DedicatedMeasurementTyp		ProtocoliE-ID ::= 70
ia zearcaccancabarementryp	<u> </u>	1100000111 12 1- 70

id-DL-CCTrCH-InformationItem-RL-SetupRqstTDD	ProtocolIE-ID ::= 72
id-DL-CCTrCH-InformationList-RL-AdditionRqstTDD	ProtocolIE-ID ::= 73
id-DL-CCTrCH-InformationList-RL-SetupRqstTDD	ProtocolIE-ID ::= 76
id-DL-DPCH-InformationItem-RL-AdditionRqstTDD	ProtocolIE-ID ::= 77
id-DL-DPCH-InformationList-RL-SetupRqstTDD	ProtocolIE-ID ::= 79
id-DL-DPCH-Information-RL-ReconfPrepFDD	ProtocolIE-ID ::= 81
id-DL-DPCH-Information-RL-ReconfRqstFDD	ProtocolIE-ID ::= 82
id-DL-DPCH-Information-RL-SetupRqstFDD	ProtocolIE-ID ::= 83
id-DL-ReferencePowerInformationItem-DL-PC-Rqst	ProtocolIE-ID ::= 84
id-DLReferencePower	ProtocolIE-ID ::= 85
id-DLReferencePowerList-DL-PC-Rqst	ProtocolIE-ID ::= 86
id-DSCH-AddItem-RL-ReconfPrepFDD	ProtocolIE-ID ::= 87
id-DSCHs-to-Add-FDD	ProtocolIE-ID ::= 89
id-DSCH-DeleteItem-RL-ReconfPrepFDD	ProtocolIE-ID ::= 91
id-DSCH-DeleteList-RL-ReconfPrepFDD	ProtocolIE-ID ::= 93
id-DSCHs-to-Add-TDD	ProtocolIE-ID ::= 96
id-DSCH-Information-DeleteList-RL-ReconfPrepTDD	ProtocolIE-ID ::= 98
id-DSCH-Information-ModifyList-RL-ReconfPrepTDD	ProtocolIE-ID ::= 100
id-DSCH-InformationResponse	ProtocolIE-ID ::= 105
id-DSCH-FDD-Information	ProtocolIE-ID ::= 106
id-DSCH-TDD-Information	ProtocolIE-ID ::= 107
id-DSCH-ModifyItem-RL-ReconfPrepFDD	ProtocolIE-ID ::= 108
id-DSCH-ModifyList-RL-ReconfPrepFDD	ProtocolIE-ID ::= 112
id-End-Of-Audit-Sequence-Indicator	ProtocolIE-ID ::= 113
id-FACH-Information	ProtocolIE-ID ::= 116
id-FACH-InformationItem-ResourceStatusInd	ProtocolIE-ID ::= 117
id-FACH-ParametersList-CTCH-ReconfRqstTDD	ProtocolIE-ID ::= 120
id-FACH-ParametersListIE-CTCH-SetupRqstFDD	ProtocolIE-ID ::= 121
id-FACH-ParametersListIE-CTCH-SetupRqstTDD	ProtocolIE-ID ::= 122
id-IndicationType-ResourceStatusInd	ProtocolIE-ID ::= 123
id-Local-Cell-ID	ProtocolIE-ID ::= 124
id-Local-Cell-Group-InformationItem-AuditRsp	ProtocolIE-ID ::= 2
id-Local-Cell-Group-InformationItem-ResourceStatusInd	ProtocolIE-ID ::= 3
id-Local-Cell-Group-InformationItem2-ResourceStatusInd	ProtocolIE-ID ::= 4
id-Local-Cell-Group-InformationList-AuditRsp	ProtocolIE-ID ::= 5
id-Local-Cell-InformationItem-AuditRsp	ProtocolIE-ID ::= 125
id-Local-Cell-InformationItem-ResourceStatusInd	ProtocolIE-ID ::= 126
<pre>id-Local-Cell-InformationItem2-ResourceStatusInd</pre>	ProtocolIE-ID ::= 127
id-Local-Cell-InformationList-AuditRsp	ProtocolIE-ID ::= 128
id-AdjustmentPeriod	ProtocolIE-ID ::= 129
id-MaxAdjustmentStep	ProtocolIE-ID ::= 130
id-MaximumTransmissionPower	ProtocolIE-ID ::= 131
id-MeasurementFilterCoefficient	ProtocolIE-ID ::= 132
id-MeasurementID	ProtocolIE-ID ::= 133
id-MessageStructure	ProtocolIE-ID ::= 115
id-MIB-SB-SIB-InformationList-SystemInfoUpdateRqst	ProtocolIE-ID ::= 134
id-NodeB-CommunicationContextID	ProtocolIE-ID ::= 143
id-NeighbouringCellMeasurementInformation	ProtocolIE-ID ::= 455
id-P-CCPCH-Information	ProtocolIE-ID ::= 144
id-P-CCPCH-InformationItem-ResourceStatusInd	ProtocolIE-ID ::= 145
id-P-CPICH-Information	ProtocolIE-ID ::= 146
id-P-CPICH-InformationItem-ResourceStatusInd	ProtocolIE-ID ::= 147
id-P-SCH-Information	ProtocolIE-ID ::= 148
id-PCCPCH-Information-Cell-ReconfRqstTDD	ProtocolIE-ID ::= 150

id-PCCPCH-Information-Cell-SetupRqstTDD	ProtocolIE-ID ::= 151
id-PCH-Parameters-CTCH-ReconfRqstTDD	ProtocolIE-ID ::= 155
id-PCH-ParametersItem-CTCH-SetupRqstFDD	ProtocolIE-ID ::= 156
id-PCH-ParametersItem-CTCH-SetupRqstTDD	ProtocolIE-ID ::= 157
id-PCH-Information	ProtocolIE-ID ::= 158
id-PDSCH-Information-AddListIE-PSCH-ReconfRqst	ProtocolIE-ID ::= 161
id-PDSCH-Information-ModifyListIE-PSCH-ReconfRqst	ProtocolIE-ID ::= 162
id-PDSCHSets-AddList-PSCH-ReconfRqst	ProtocolIE-ID ::= 163
id-PDSCHSets-DeleteList-PSCH-ReconfRqst	ProtocolIE-ID ::= 164
id-PDSCHSets-ModifyList-PSCH-ReconfRqst	ProtocolIE-ID ::= 165
id-PICH-Information	ProtocolIE-ID ::= 166
id-PICH-Parameters-CTCH-ReconfRqstTDD	ProtocolIE-ID ::= 168
id-PowerAdjustmentType	ProtocolIE-ID ::= 169
id-PRACH-Information	ProtocolIE-ID ::= 170
id-PrimaryCCPCH-Information-Cell-ReconfRqstFDD	ProtocolIE-ID ::= 175
id-PrimaryCCPCH-Information-Cell-SetupRqstFDD	ProtocolIE-ID ::= 176
id-PrimaryCPICH-Information-Cell-ReconfRqstFDD	ProtocolIE-ID ::= 177
id-PrimaryCPICH-Information-Cell-SetupRqstFDD	ProtocolIE-ID ::= 178
id-PrimarySCH-Information-Cell-ReconfRqstFDD	ProtocolIE-ID ::= 179
id-PrimarySCH-Information-Cell-SetupRqstFDD	ProtocolIE-ID ::= 180
id-PrimaryScramblingCode	ProtocolIE-ID ::= 181
id-SCH-Information-Cell-ReconfRqstTDD	ProtocolIE-ID ::= 183
id-SCH-Information-Cell-SetupRqstTDD	ProtocolIE-ID ::= 184
id-PUSCH-Information-AddListIE-PSCH-ReconfRqst	ProtocolIE-ID ::= 185
id-PUSCH-Information-ModifyListIE-PSCH-ReconfRqst	ProtocolIE-ID ::= 186
id-PUSCHSets-AddList-PSCH-ReconfRqst	ProtocolIE-ID ::= 187
id-PUSCHSets-DeleteList-PSCH-ReconfRqst	ProtocolIE-ID ::= 188
id-PUSCHSets-ModifyList-PSCH-ReconfRqst	ProtocolIE-ID ::= 189
id-RACH-Information	ProtocolIE-ID ::= 190
id-RACH-ParametersItem-CTCH-SetupRqstFDD	ProtocolIE-ID ::= 196
id-RACH-ParameterItem-CTCH-SetupRqstTDD	ProtocolIE-ID ::= 197
id-ReportCharacteristics	ProtocolIE-ID ::= 198
id-Reporting-Object-RL-FailureInd	ProtocolIE-ID ::= 199
id-Reporting-Object-RL-RestoreInd	ProtocolIE-ID ::= 200
id-RL-InformationItem-DM-Rprt	ProtocolIE-ID ::= 202
id-RL-InformationItem-DM-Rqst	ProtocolIE-ID ::= 203
id-RL-InformationItem-DM-Rsp	ProtocolIE-ID ::= 204
id-RL-InformationItem-RL-AdditionRqstFDD	ProtocolIE-ID ::= 205
id-RL-informationItem-RL-DeletionRqst	ProtocolIE-ID ::= 206
id-RL-InformationItem-RL-FailureInd	ProtocolIE-ID ::= 207
id-RL-InformationItem-RL-PreemptRequiredInd	ProtocolIE-ID ::= 286
id-RL-InformationItem-RL-ReconfPrepFDD	ProtocolIE-ID ::= 208
id-RL-InformationItem-RL-ReconfRqstFDD	ProtocolIE-ID ::= 209
id-RL-InformationItem-RL-RestoreInd	ProtocolIE-ID ::= 210
id-RL-InformationItem-RL-SetupRqstFDD	ProtocolIE-ID ::= 211
id-RL-InformationList-RL-AdditionRqstFDD	ProtocolIE-ID ::= 212
id-RL-informationList-RL-DeletionRqst	ProtocolIE-ID ::= 213
id-RL-InformationList-RL-PreemptRequiredInd	ProtocolIE-ID ::= 237
id-RL-InformationList-RL-ReconfPrepFDD	ProtocolIE-ID ::= 214
id-RL-InformationList-RL-ReconfRqstFDD	ProtocolIE-ID ::= 215
id-RL-InformationList-RL-SetupRqstFDD	ProtocolIE-ID ::= 216
id-RL-InformationResponseItem-RL-AdditionRspFDD	ProtocolIE-ID ::= 217
id-RL-InformationResponseItem-RL-ReconfReady	ProtocolIE-ID ::= 218
id-RL-InformationResponseItem-RL-ReconfRsp	ProtocolIE-ID ::= 219

id-RL-InformationResponseItem-RL-SetupRspFDD	ProtocolIE-ID ::= 220
id-RL-InformationResponseList-RL-AdditionRspFDD	ProtocolIE-ID ::= 221
id-RL-InformationResponseList-RL-ReconfReady	ProtocolIE-ID ::= 222
id-RL-InformationResponseList-RL-ReconfRsp	ProtocolIE-ID ::= 223
id-RL-InformationResponseList-RL-SetupRspFDD	ProtocolIE-ID ::= 224
id-RL-InformationResponse-RL-AdditionRspTDD	ProtocolIE-ID ::= 225
id-RL-InformationResponse-RL-SetupRspTDD	ProtocolIE-ID ::= 226
id-RL-Information-RL-AdditionRqstTDD	ProtocolIE-ID ::= 227
id-RL-Information-RL-ReconfRqstTDD	ProtocolIE-ID ::= 228
id-RL-Information-RL-ReconfPrepTDD	ProtocolIE-ID ::= 229
id-RL-Information-RL-SetupRqstTDD	ProtocolIE-ID ::= 230
id-RL-ReconfigurationFailureItem-RL-ReconfFailure	ProtocolIE-ID ::= 236
id-RL-Set-InformationItem-DM-Rprt	ProtocolIE-ID ::= 238
id-RL-Set-InformationItem-DM-Rsp	ProtocolIE-ID ::= 240
id-RL-Set-InformationItem-RL-FailureInd	ProtocolIE-ID ::= 241
id-RL-Set-InformationItem-RL-RestoreInd	ProtocolIE-ID ::= 242
id-S-CCPCH-Information	ProtocolIE-ID ::= 247
id-S-CPICH-Information	ProtocolIE-ID ::= 249
id-SCH-Information	ProtocolIE-ID ::= 251
id-S-SCH-Information	ProtocolIE-ID ::= 253
id-Secondary-CCPCHListIE-CTCH-ReconfRqstTDD	ProtocolIE-ID ::= 257
id-Secondary-CCPCH-parameterListIE-CTCH-SetupRqstTDD	ProtocolIE-ID ::= 258
id-Secondary-CCPCH-Parameters-CTCH-ReconfRqstTDD	ProtocolIE-ID ::= 259
id-SecondaryCPICH-InformationItem-Cell-ReconfRqstFDD	ProtocolIE-ID ::= 260
id-SecondaryCPICH-InformationItem-Cell-SetupRqstFDD	ProtocolIE-ID ::= 261
id-SecondaryCPICH-InformationList-Cell-ReconfRqstFDD	ProtocolIE-ID ::= 262
id-SecondaryCPICH-InformationList-Cell-SetupRqstFDD	ProtocolIE-ID ::= 263
id-SecondarySCH-Information-Cell-ReconfRqstFDD	ProtocolIE-ID ::= 264
id-SecondarySCH-Information-Cell-SetupRqstFDD	ProtocolIE-ID ::= 265
id-SegmentInformationListIE-SystemInfoUpdate	ProtocolIE-ID ::= 266
id-SFN	ProtocolIE-ID ::= 268
id-ShutdownTimer	ProtocolIE-ID ::= 269
id-Start-Of-Audit-Sequence-Indicator	ProtocolIE-ID ::= 114
id-Successful-RL-InformationRespItem-RL-AdditionFailureFDD	ProtocolIE-ID ::= 270
id-Successful-RL-InformationRespItem-RL-SetupFailureFDD	ProtocolIE-ID ::= 271
id-SyncCase	ProtocolIE-ID ::= 274
id-SyncCaseIndicatorItem-Cell-SetupRqstTDD-PSCH	ProtocolIE-ID ::= 275
id-T-Cell	ProtocolIE-ID ::= 276
id-TimeSlotConfigurationList-Cell-ReconfRqstTDD	ProtocolIE-ID ::= 277
id-TimeSlotConfigurationList-Cell-SetupRqstTDD	ProtocolIE-ID ::= 278
id-TransmissionDiversityApplied	ProtocolIE-ID ::= 279
id-TypeOfError	ProtocolIE-ID ::= 508
id-UARFCNforNt	ProtocolIE-ID ::= 280
id-UARFCNforNd	ProtocolIE-ID ::= 281
id-UARFCNforNu	ProtocolIE-ID ::= 282
id-UL-CCTrCH-InformationItem-RL-SetupRqstTDD	ProtocolIE-ID ::= 284
id-UL-CCTrCH-InformationList-RL-AdditionRqstTDD	ProtocolIE-ID ::= 285
id-UL-CCTrCH-InformationList-RL-SetupRqstTDD	ProtocolIE-ID ::= 288
id-UL-DPCH-InformationItem-RL-AdditionRqstTDD	ProtocolIE-ID ::= 289
id-UL-DPCH-InformationList-RL-SetupRqstTDD	ProtocolIE-ID ::= 291
id-UL-DPCH-Information-RL-ReconfPrepFDD	ProtocolIE-ID ::= 293
id-UL-DPCH-Information-RL-ReconfRqstFDD	ProtocolIE-ID ::= 294
id-UL-DPCH-Information-RL-SetupRqstFDD	ProtocolIE-ID ::= 295
id-Unsuccessful-RL-InformationRespItem-RL-AdditionFailureFDD	ProtocolIE-ID ::= 296
	1130000111 12 - 230

id-Unsuccessful-RL-InformationRespItem-RL-SetupFailureFDD	ProtocolIE-ID ::= 297
id-Unsuccessful-RL-InformationResp-RL-AdditionFailureTDD	ProtocolIE-ID ::= 300
id-Unsuccessful-RL-InformationResp-RL-SetupFailureTDD	ProtocolIE-ID ::= 301
id-USCH-Information-Add	ProtocolIE-ID ::= 302
id-USCH-Information-DeleteList-RL-ReconfPrepTDD	ProtocolIE-ID ::= 304
id-USCH-Information-ModifyList-RL-ReconfPrepTDD	ProtocolIE-ID ::= 306
id-USCH-InformationResponse	ProtocolIE-ID ::= 309
id-USCH-Information	ProtocolIE-ID ::= 310
id-Active-Pattern-Sequence-Information	ProtocolIE-ID ::= 315
id-AICH-ParametersListIE-CTCH-ReconfRqstFDD	ProtocolIE-ID ::= 316
id-AdjustmentRatio	ProtocolIE-ID ::= 317
id-AP-AICH-Information	ProtocolIE-ID ::= 320
id-AP-AICH-ParametersListIE-CTCH-ReconfRqstFDD	ProtocolIE-ID ::= 322
id-FACH-ParametersListIE-CTCH-ReconfRqstFDD	ProtocolIE-ID ::= 323
id-CauseLevel-PSCH-ReconfFailureTDD	ProtocolIE-ID ::= 324
id-CauseLevel-RL-AdditionFailureFDD	ProtocolIE-ID ::= 325
id-CauseLevel-RL-AdditionFailureTDD	ProtocolIE-ID ::= 326
id-CauseLevel-RL-ReconfFailure	ProtocolIE-ID ::= 327
id-CauseLevel-RL-SetupFailureFDD	ProtocolIE-ID ::= 328
id-CauseLevel-RL-SetupFailureTDD	ProtocolIE-ID ::= 329
id-CDCA-ICH-Information	ProtocolIE-ID ::= 330
id-CDCA-ICH-ParametersListIE-CTCH-ReconfRqstFDD	ProtocolIE-ID ::= 332
id-Closed-Loop-Timing-Adjustment-Mode	ProtocolIE-ID ::= 333
id-CommonPhysicalChannelType-CTCH-ReconfRqstFDD	ProtocolIE-ID ::= 334
id-Compressed-Mode-Deactivation-Flag	ProtocolIE-ID ::= 335
id-CPCH-Information	ProtocolIE-ID ::= 336
id-CPCH-Parameters-CTCH-SetupRsp	ProtocolIE-ID ::= 342
id-CPCH-ParametersListIE-CTCH-ReconfRqstFDD	ProtocolIE-ID ::= 343
id-DL-CCTrCH-InformationAddList-RL-ReconfPrepTDD	ProtocolIE-ID ::= 346
id-DL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD	ProtocolIE-ID ::= 347
id-DL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD	ProtocolIE-ID ::= 348
id-DL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD	ProtocolIE-ID ::= 349
id-DL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD	ProtocolIE-ID ::= 350
id-DL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD	ProtocolIE-ID ::= 351
id-DL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD	ProtocolIE-ID ::= 352
id-DL-DPCH-InformationAddListIE-RL-ReconfPrepTDD	ProtocolIE-ID ::= 353
id-DL-DPCH-InformationModify-AddListIE-RL-ReconfPrepTDD	ProtocolIE-ID ::= 355
id-DL-DPCH-InformationModify-DeleteListIE-RL-ReconfPrepTDD	ProtocolIE-ID ::= 356
id-DL-DPCH-InformationModify-ModifyListIE-RL-ReconfPrepTDD	ProtocolIE-ID ::= 357
id-DL-TPC-Pattern01Count	ProtocolIE-ID ::= 358
id-DPC-Mode	ProtocolIE-ID ::= 450
id-DPCHConstant	ProtocolIE-ID ::= 359
id-DSCH-FDD-Common-Information	ProtocolIE-ID ::= 94
id-EnhancedDSCHPC	ProtocolIE-ID ::= 110
id-EnhancedDSCHPCIndicator	ProtocolIE-ID ::= 111
id-FACH-ParametersList-CTCH-SetupRsp	ProtocolIE-ID ::= 362
id-Limited-power-increase-information-Cell-SetupRqstFDD	ProtocolIE-ID ::= 369
id-PCH-Parameters-CTCH-SetupRsp	ProtocolIE-ID ::= 374
id-PCH-ParametersItem-CTCH-ReconfRqstFDD	ProtocolIE-ID ::= 375
id-PCPCH-Information	ProtocolIE-ID ::= 376
id-PICH-ParametersItem-CTCH-ReconfRqstFDD	ProtocolIE-ID ::= 380
id-PRACHConstant	ProtocolIE-ID ::= 381
id-PRACH-ParametersListIE-CTCH-ReconfRqstFDD	ProtocolIE-ID ::= 383
id-PUSCHConstant	ProtocolIE-ID ::= 384

id-RACH-Parameters-CTCH-SetupRsp	ProtocolIE-ID ::= 385
id-SSDT-CellIDforEDSCHPC	ProtocolIE-ID ::= 443
id-Synchronisation-Configuration-Cell-ReconfRqst	ProtocolIE-ID ::= 393
id-Synchronisation-Configuration-Cell-SetupRqst	ProtocolIE-ID ::= 394
id-Transmission-Gap-Pattern-Sequence-Information	ProtocolIE-ID ::= 395
id-UL-CCTrCH-InformationAddList-RL-ReconfPrepTDD	ProtocolIE-ID ::= 396
id-UL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD	ProtocolIE-ID ::= 397
id-UL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD	ProtocolIE-ID ::= 398
id-UL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD	ProtocolIE-ID ::= 399
id-UL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD	ProtocolIE-ID ::= 400
id-UL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD	ProtocolIE-ID ::= 401
id-UL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD	ProtocolIE-ID ::= 402
id-UL-DPCH-InformationAddListIE-RL-ReconfPrepTDD	ProtocolIE-ID ::= 403
id-UL-DPCH-InformationModify-AddListIE-RL-ReconfPrepTDD	ProtocolIE-ID ::= 405
id-UL-DPCH-InformationModify-DeleteListIE-RL-ReconfPrepTDD	ProtocolIE-ID ::= 406
id-UL-DPCH-InformationModify-ModifyListIE-RL-ReconfPrepTDD	ProtocolIE-ID ::= 407
id-Unsuccessful-PDSCHSetItem-PSCH-ReconfFailureTDD	ProtocolIE-ID ::= 408
id-Unsuccessful-PUSCHSetItem-PSCH-ReconfFailureTDD	ProtocolIE-ID ::= 409
id-CommunicationContextInfoItem-Reset	ProtocolIE-ID ::= 412
id-CommunicationControlPortInfoItem-Reset	ProtocolIE-ID ::= 414
id-ResetIndicator	ProtocolIE-ID ::= 416
id-TFCI2-Bearer-Information-RL-SetupRqstFDD	ProtocolIE-ID ::= 417
id-TFCI2-BearerSpecificInformation-RL-ReconfPrepFDD	ProtocolIE-ID ::= 418
id-TFCI2-BearerInformationResponse	ProtocolIE-ID ::= 419
id-TimingAdvanceApplied	ProtocolIE-ID ::= 287
id-CFNReportingIndicator	ProtocolIE-ID ::= 6
id-SFNReportingIndicator	ProtocolIE-ID ::= 11
id-InnerLoopDLPCStatus	ProtocolIE-ID ::= 12
id-TimeslotISCPInfo	ProtocolIE-ID ::= 283
id-PICH-ParametersItem-CTCH-SetupRqstTDD	ProtocolIE-ID ::= 167
id-PRACH-ParametersItem-CTCH-SetupRqstTDD	ProtocolIE-ID ::= 20
id-CCTrCH-InformationItem-RL-FailureInd	ProtocolIE-ID ::= 46
id-CCTrCH-InformationItem-RL-RestoreInd	ProtocolIE-ID ::= 47
id-CauseLevel-SyncAdjustmntFailureTDD	ProtocolIE-ID ::= 420
id-CellAdjustmentInfo-SyncAdjustmntRqstTDD	ProtocolIE-ID ::= 421
id-CellAdjustmentInfoItem-SyncAdjustmentRqstTDD	ProtocolIE-ID ::= 494
id-CellSyncBurstInfoList-CellSyncReconfRqstTDD	ProtocolIE-ID ::= 482
id-CellSyncBurstTransInit-CellSyncInitiationRgstTDD	ProtocolIE-ID ::= 422
id-CellSyncBurstMeasureInit-CellSyncInitiationRgstTDD	ProtocolIE-ID ::= 423
id-CellSyncBurstTransReconfiguration-CellSyncReconfRgstTDD	ProtocolIE-ID ::= 424
id-CellSyncBurstMeasReconfiguration-CellSyncReconfRqstTDD	ProtocolIE-ID ::= 425
id-CellSyncBurstTransInfoList-CellSyncReconfRgstTDD	ProtocolIE-ID ::= 426
id-CellSyncBurstMeasInfoList-CellSyncReconfRqstTDD	ProtocolIE-ID ::= 427
id-CellSyncBurstTransReconfInfo-CellSyncReconfRqstTDD	ProtocolIE-ID ::= 428
id-CellSyncInfo-CellSyncReprtTDD	ProtocolIE-ID ::= 429
id-CSBTransmissionID	ProtocolIE-ID ::= 430
id-CSBMeasurementID	ProtocolIE-ID ::= 431
id-IntStdPhCellSyncInfoItem-CellSyncReprtTDD	ProtocolIE-ID ::= 432
id-NCyclesPerSFNperiod	ProtocolIE-ID ::= 433
id-NRepetitionsPerCyclePeriod	ProtocoliE-ID ::= 434
id-SyncFrameNumber	ProtocoliE-ID ::= 434 ProtocoliE-ID ::= 437
id-SynchronisationReportType	ProtocoliE-ID ::= 437
id-SynchronisationReportCharacteristics	ProtocoliE-ID ::= 438
id-Unsuccessful-cell-InformationRespItem-SyncAdjustmntFailureTDD	ProtocoliE-ID ::= 439
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id-LateEntranceCellSyncInfoItem-CellSyncReprtTDD	ProtocolIE-ID ::= 119
id-ReferenceClockAvailability	ProtocolIE-ID ::= 435
id-ReferenceSFNoffset	ProtocolIE-ID ::= 436
id-InformationExchangeID	ProtocolIE-ID ::= 444
id-InformationExchangeObjectType-InfEx-Rqst	ProtocolIE-ID ::= 445
id-InformationType	ProtocolIE-ID ::= 446
id-InformationReportCharacteristics	ProtocolIE-ID ::= 447
id-InformationExchangeObjectType-InfEx-Rsp	ProtocolIE-ID ::= 448
id-InformationExchangeObjectType-InfEx-Rprt	ProtocolIE-ID ::= 449
id-IPDLParameter-Information-Cell-ReconfRqstFDD	ProtocolIE-ID ::= 451
id-IPDLParameter-Information-Cell-SetupRqstFDD	ProtocolIE-ID ::= 452
id-IPDLParameter-Information-Cell-ReconfRqstTDD	ProtocolIE-ID ::= 453
id-IPDLParameter-Information-Cell-SetupRqstTDD	ProtocolIE-ID ::= 454
id-DL-DPCH-LCR-Information-RL-SetupRqstTDD	ProtocolIE-ID ::= 74
id-DwPCH-LCR-Information	ProtocolIE-ID ::= 78
id-DwPCH-LCR-InformationList-AuditRsp	ProtocolIE-ID ::= 90
id-DwPCH-LCR-Information-Cell-SetupRqstTDD	ProtocolIE-ID ::= 97
id-DwPCH-LCR-Information-Cell-ReconfRqstTDD	ProtocolIE-ID ::= 99
id-DwPCH-LCR-Information-ResourceStatusInd	ProtocolIE-ID ::= 101
id-maxFACH-Power-LCR-CTCH-SetupRqstTDD	ProtocolIE-ID ::= 154
id-maxFACH-Power-LCR-CTCH-ReconfRqstTDD	ProtocolIE-ID ::= 174
id-FPACH-LCR-Information	ProtocolIE-ID ::= 290
id-FPACH-LCR-Information-AuditRsp	ProtocolIE-ID ::= 292
id-FPACH-LCR-InformationList-AuditRsp	ProtocolIE-ID ::= 22
id-FPACH-LCR-InformationList-ResourceStatusInd	ProtocolIE-ID ::= 311
id-FPACH-LCR-Parameters-CTCH-SetupRqstTDD	ProtocolIE-ID ::= 312
id-FPACH-LCR-Parameters-CTCH-ReconfRqstTDD	ProtocolIE-ID ::= 314
id-PCCPCH-LCR-Information-Cell-SetupRqstTDD	ProtocolIE-ID ::= 456
id-PCH-Power-LCR-CTCH-SetupRqstTDD	ProtocolIE-ID ::= 457
id-PCH-Power-LCR-CTCH-ReconfRqstTDD	ProtocolIE-ID ::= 458
id-PICH-LCR-Parameters-CTCH-SetupRqstTDD	ProtocolIE-ID ::= 459
id-PRACH-LCR-ParametersList-CTCH-SetupRqstTDD	ProtocolIE-ID ::= 461
id-RL-InformationResponse-LCR-RL-SetupRspTDD	ProtocolIE-ID ::= 463
id-Secondary-CCPCH-LCR-parameterList-CTCH-SetupRqstTDD	ProtocolIE-ID ::= 465
id-TimeSlot	ProtocolIE-ID ::= 495
id-TimeSlotConfigurationList-LCR-Cell-ReconfRqstTDD	ProtocolIE-ID ::= 466
id-TimeSlotConfigurationList-LCR-Cell-SetupRqstTDD	ProtocolIE-ID ::= 467
id-TimeslotISCP-LCR-InfoList-RL-SetupRqstTDD	ProtocolIE-ID ::= 468
id-TimeSlotLCR-CM-Rqst	ProtocolIE-ID ::= 469
id-UL-DPCH-LCR-Information-RL-SetupRqstTDD	ProtocolIE-ID ::= 470
id-DL-DPCH-InformationItem-LCR-RL-AdditionRqstTDD	ProtocolIE-ID ::= 472
id-UL-DPCH-InformationItem-LCR-RL-AdditionRqstTDD	ProtocolIE-ID ::= 473
id-TimeslotISCP-InformationList-LCR-RL-AdditionRqstTDD	ProtocolIE-ID ::= 474
id-DL-DPCH-LCR-InformationAddList-RL-ReconfPrepTDD	ProtocolIE-ID ::= 475
id-DL-DPCH-LCR-InformationModify-AddList-RL-ReconfPrepTDD	ProtocolIE-ID ::= 477
id-DL-Timeslot-LCR-InformationModify-ModifyList-RL-ReconfPrepTDD	ProtocolIE-ID ::= 479
id-TimeslotISCPInfoList-LCR-DL-PC-RqstTDD	ProtocolIE-ID ::= 480
id-UL-DPCH-LCR-InformationAddListIE-RL-ReconfPrepTDD	ProtocolIE-ID ::= 481 ProtocolIE-ID ::= 483
id-UL-DPCH-LCR-InformationModify-AddList	
id_UL_TimeslotLCR-Information-RL-ReconfPrepTDD	ProtocolIE-ID ::= 485
id-UL-SIRTarget	ProtocolIE-ID ::= 510
id-PDSCH-AddInformation-LCR-PSCH-ReconfRqst	ProtocolIE-ID ::= 486
id-PDSCH-AddInformation-LCR-AddListIE-PSCH-ReconfRqst id-PDSCH-ModifyInformation-LCR-PSCH-ReconfRqst	ProtocolIE-ID ::= 487 ProtocolIE-ID ::= 488
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id-PDSCH-ModifyInformation-LCR-ModifyListIE-PSCH-ReconfRqst
                                                                    ProtocolIE-ID ::= 489
id-PUSCH-AddInformation-LCR-PSCH-ReconfRqst
                                                                    ProtocolIE-ID ::= 490
id-PUSCH-AddInformation-LCR-AddListIE-PSCH-ReconfRast
                                                                    ProtocolIE-ID ::= 491
id-PUSCH-ModifyInformation-LCR-PSCH-ReconfRqst
                                                                    ProtocolIE-ID ::= 492
id-PUSCH-ModifyInformation-LCR-ModifyListIE-PSCH-ReconfRqst
                                                                    ProtocolIE-ID ::= 493
id-timeslotInfo-CellSyncInitiationRgstTDD
                                                                    ProtocolIE-ID ::= 496
id-SyncReportType-CellSyncReprtTDD
                                                                    ProtocolIE-ID ::= 497
id-PUSCH-Info-DM-Rast
                                                                    ProtocolIE-ID ::= 505
id-PUSCH-Info-DM-Rsp
                                                                    ProtocolIE-ID ::= 506
id-PUSCH-Info-DM-Rprt
                                                                    ProtocolIE-ID ::= 507
id-InitDL-Power
                                                                    ProtocolIE-ID ::= 509
id-cellSyncBurstRepetitionPeriod
                                                                    ProtocolIE-ID ::= 511
id-ReportCharacteristicsType-OnModification
                                                                    ProtocolIE-ID ::= 512
id-SFNSFNMeasurementValueInformation
                                                                    ProtocolIE-ID ::= 513
id-SFNSFNMeasurement.ThresholdInformation
                                                                    ProtocolIE-ID ::= 514
id-TUTRANGPSMeasurementValueInformation
                                                                    ProtocolIE-ID ::= 515
                                                                    ProtocolIE-ID ::= 516
id-TUTRANGPSMeasurementThresholdInformation
id-Rx-Timing-Deviation-Value-LCR
                                                                    ProtocolIE-ID ::= 520
id-RL-InformationResponse-LCR-RL-AdditionRspTDD
                                                                    ProtocolIE-ID ::= 51
id-PDSCH-RL-ID
                                                                    ProtocolIE-ID ::= 66
id-UL-Synchronisation-Parameters-LCR
                                                                    ProtocolIE-ID ::= 554
id-DL-DPCH-TimeSlotFormat-LCR-ModifyItem-RL-ReconfPrepTDD
                                                                    ProtocolIE-ID ::= 558
id-UL-DPCH-TimeSlotFormat-LCR-ModifyItem-RL-ReconfPrepTDD
                                                                    ProtocolIE-ID ::= 559
id-TDD-TPC-UplinkStepSize-LCR-RL-SetupRqstTDD
                                                                    ProtocolIE-ID ::= 560
id-TDD-TPC-UplinkStepSize-LCR-RL-AdditionRqstTDD
                                                                    ProtocolIE-ID ::= 561
id-TDD-TPC-DownlinkStepSize-RL-AdditionRgstTDD
                                                                    ProtocolIE-ID ::= 562
id-TDD-TPC-UplinkStepSize-InformationAdd-LCR-RL-ReconfPrepTDD
                                                                    ProtocolIE-ID ::= 563
id-TDD-TPC-UplinkStepSize-InformationModify-LCR-RL-ReconfPrepTDD
                                                                    ProtocolIE-ID ::= 564
id-TDD-TPC-DownlinkStepSize-InformationModify-RL-ReconfPrepTDD
                                                                    ProtocolIE-ID ::= 565
id-TDD-TPC-DownlinkStepSize-InformationAdd-RL-ReconfPrepTDD
                                                                     ProtocolIE-ID ::= 566
```

END

9.3.7 Container Definitions

```
__ ********************
IMPORTS
   maxProtocolExtensions,
   maxPrivateIEs.
   maxProtocolIEs,
   Criticality,
   Presence,
   PrivateIE-ID,
   ProtocolIE-ID
FROM NBAP-CommonDataTypes;
__ *********************
-- Class Definition for Protocol IEs
NBAP-PROTOCOL-IES ::= CLASS {
         ProtocolIE-ID
   &id
                             UNIQUE,
   &criticality Criticality,
   &Value,
   &presence Presence
WITH SYNTAX {
         &id
   CRITICALITY &criticality
   TYPE
             &Value
   PRESENCE
             &presence
  ******************
-- Class Definition for Protocol IEs
__ ********************
NBAP-PROTOCOL-IES-PAIR ::= CLASS {
   &id
             ProtocolIE-ID
                                 UNIQUE,
   &firstCriticality Criticality,
   &FirstValue,
   &secondCriticality Criticality,
   &SecondValue,
   &presence
                Presence
WITH SYNTAX {
             &id
   FIRST CRITICALITY &firstCriticality
   FIRST TYPE
                &FirstValue
   SECOND CRITICALITY &secondCriticality
                &SecondValue
   SECOND TYPE
   PRESENCE
                &presence
```

```
__ ********************
-- Class Definition for Protocol Extensions
NBAP-PROTOCOL-EXTENSION ::= CLASS {
        ProtocolIE-ID
   &criticality Criticality,
   &Extension,
   &presence
              Presence
WITH SYNTAX {
  ID
        &id
  CRITICALITY &criticality
   EXTENSION &Extension
   PRESENCE &presence
  -- Class Definition for Private IEs
__ *********************
NBAP-PRIVATE-IES ::= CLASS {
        PrivateIE-ID,
  &criticality Criticality,
  &Value,
  &presence
              Presence
WITH SYNTAX {
        &id
  CRITICALITY &criticality
  TYPE &Value
   PRESENCE &presence
  -- Container for Protocol IEs
__ **********************
ProtocolIE-Container {NBAP-PROTOCOL-IES : IEsSetParam} ::=
   SEQUENCE (SIZE (0..maxProtocolIEs)) OF
  ProtocolIE-Field {{IEsSetParam}}
ProtocolIE-Single-Container {NBAP-PROTOCOL-IES : IEsSetParam} ::=
   ProtocolIE-Field {{IEsSetParam}}
ProtocolIE-Field {NBAP-PROTOCOL-IES : IESSetParam} ::= SEQUENCE {
   id NBAP-PROTOCOL-IES.&id
                            ({IEsSetParam}),
   criticality NBAP-PROTOCOL-IES.&criticality ({IEsSetParam}{@id}),
```

```
({IEsSetParam}{@id})
             NBAP-PROTOCOL-IES.&Value
   value
     ******************
-- Container for Protocol IE Pairs
__ **********************
ProtocolIE-ContainerPair {NBAP-PROTOCOL-IES-PAIR : IEsSetParam} ::=
   SEQUENCE (SIZE (0..maxProtocolIEs)) OF
   ProtocolIE-FieldPair {{IEsSetParam}}
ProtocolIE-FieldPair {NBAP-PROTOCOL-IES-PAIR : IESSetParam} ::= SEQUENCE {
          NBAP-PROTOCOL-IES-PAIR.&id
                                              ({IEsSetParam}),
   firstCriticality
                      NBAP-PROTOCOL-IES-PAIR.&firstCriticality
                                                           ({IEsSetParam}{@id}),
   firstValue NBAP-PROTOCOL-IES-PAIR.&FirstValue ({IEsSetParam}{@id}),
   secondCriticality NBAP-PROTOCOL-IES-PAIR.&secondCriticality ({IEsSetParam}{@id}),
   secondValue NBAP-PROTOCOL-IES-PAIR.&SecondValue ({IEsSetParam}{@id})
  *****************
  Container Lists for Protocol IE Containers
  ****************
ProtocolIE-ContainerList {INTEGER : lowerBound, INTEGER : upperBound, NBAP-PROTOCOL-IES : IEsSetParam} ::=
   SEQUENCE (SIZE (lowerBound..upperBound)) OF
   ProtocolIE-Container {{IEsSetParam}}
ProtocolIE-ContainerPairList {INTEGER : lowerBound, INTEGER : upperBound, NBAP-PROTOCOL-IES-PAIR : IESSetParam} ::=
   SEQUENCE (SIZE (lowerBound..upperBound)) OF
   ProtocolIE-ContainerPair {{IEsSetParam}}
__ **********************
-- Container for Protocol Extensions
  ProtocolExtensionContainer {NBAP-PROTOCOL-EXTENSION : ExtensionSetParam} ::=
   SEQUENCE (SIZE (1..maxProtocolExtensions)) OF
   ProtocolExtensionField {{ExtensionSetParam}}
ProtocolExtensionField {NBAP-PROTOCOL-EXTENSION : ExtensionSetParam} ::= SEQUENCE {
         NBAP-PROTOCOL-EXTENSION.&id ({ExtensionSetParam}),
   criticality NBAP-PROTOCOL-EXTENSION.&criticality ({ExtensionSetParam}{@id}),
   extensionValue NBAP-PROTOCOL-EXTENSION.&Extension ({ExtensionSetParam}{@id})
   ***************
-- Container for Private IEs
```

9.4 Message Transfer Syntax

NBAP shall use the ASN.1 Basic Packed Encoding Rules (BASIC-PER) Aligned Variant as transfer syntax as specified in ref. [11].

The following encoding rules apply in addition to what has been specified in X.691 [11]:

When a bitstring value is placed in a bit-field as specified in 15.6 to 15.11 in [11], the leading bit of the bitstring value shall be placed in the leading bit of the bit-field, and the trailing bit of the bitstring value shall be placed in the trailing bit of the bit-field.

NOTE - When using the "bstring" notation, the leading bit of the bitstring value is on the left, and the trailing bit of the bitstring value is on the right. The term "leading bit" is to be interpreted as equal to the term "first bit" defined in [12].

9.5 Timers

 T_{Preempt}

- Specifies the maximum time that a Node B may wait for pre-emption of resources for establishment or reconfiguration of Radio Links.

Handling of Unknown, Unforeseen and Erroneous Protocol Data

10.1 General

Protocol Error cases can be divided into three classes:

- Transfer Syntax Error
- Abstract Syntax Error
- Logical Error

Protocol errors can occur in the following functions within a receiving node:

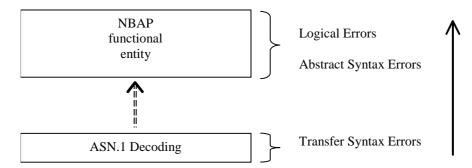


Figure 38: Protocol Errors in NBAP.

The information stated in subclauses 10.2, 10.3 and 10.4, to be included in the message used when reporting an error, is what at minimum shall be included. Other optional information elements within the message may also be included, if available. This is also valid for the case when the reporting is done with a response message. The latter is an exception to what is stated in subclause 4.1.

10.2 Transfer Syntax Error

A Transfer Syntax Error occurs when the receiver is not able to decode the received physical message. Transfer syntax errors are always detected in the process of ASN.1 decoding. If a Transfer Syntax Error occurs, the receiver should initiate Error Indication procedure with appropriate cause value for the Transfer Syntax protocol error.

Examples for Transfer Syntax Errors are:

- Violation of value ranges in ASN.1 definition of messages. e.g.: If an IE has a defined value range of 0 to 10 (ASN.1: INTEGER (0..10)), and 12 will be received, then this will be treated as a transfer syntax error.
- Violation in list element constraints. e.g.: If a list is defined as containing 1 to 10 elements, and 12 elements will be received, than this case will be handled as a transfer syntax error.
- Missing mandatory elements in ASN.1 SEQUENCE definitions (as sent by the originator of the message).
- Wrong order of elements in ASN.1 SEQUENCE definitions (as sent by the originator of the message).

10.3 Abstract Syntax Error

10.3.1 General

An Abstract Syntax Error occurs when the receiving functional NBAP entity:

- 1. receives IEs or IE groups that cannot be understood (unknown id);
- 2. receives IEs for which the logical range is violated (e.g.: ASN.1 definition: 0 to 15, the logical range is 0 to 10 (values 11 to 15 are undefined), and 12 will be received; this case will be handled as an abstract syntax error using criticality information sent by the originator of the message);
- 3. does not receive IEs or IE groups but according to the specified presence of the concerned object, the IEs or IE groups should have been present in the received message;
- 4. receives IEs or IE groups that are defined to be part of that message in wrong order or with too many occurrences of the same IE or IE group;
- 5. receives IEs or IE groups but according to the conditional presence of the concerned object and the specified condition, the IEs or IE groups should not have been present in the received message.

Cases 1 and 2 (not comprehended IE/IE group) are handled based on received Criticality information. Case 3 (missing IE/IE group) is handled based on Criticality information and Presence information for the missing IE/IE group specified in the version of the specification used by the receiver. Case 4 (IEs or IE groups in wrong order or with too many occurrences) and Case 5 (erroneously present conditional IEs or IE groups) result in rejecting the procedure.

If an Abstract Syntax Error occurs, the receiver shall read the remaining message and shall then for each detected Abstract Syntax Error that belong to cases 1-3 act according to the Criticality Information and Presence Information for the IE/IE group due to which Abstract Syntax Error occurred in accordance with subclauses 10.3.4 and 10.3.5. The handling of cases 4 and 5 is specified in subclause 10.3.6.

10.3.2 Criticality Information

In the NBAP messages there is criticality information set for individual IEs and/or IE groups. This criticality information instructs the receiver how to act when receiving an IE or an IE group that is not comprehended, i.e. the entire item (IE or IE group) which is not (fully or partially) comprehended shall be treated in accordance with its own criticality information as specified in subclause 10.3.4.

In addition, the criticality information is used in case of the missing IE/IE group abstract syntax error (see subclause 10.3.5).

The receiving node shall take different actions depending on the value of the Criticality Information. The three possible values of the Criticality Information for an IE/IE group are:

- Reject IE
- Ignore IE and Notify Sender
- Ignore IE

The following rules restrict when a receiving entity may consider an IE, an IE group or an EP not comprehended (not implemented), and when action based on criticality information is applicable:

1. IE or IE group: When one new or modified IE or IE group is implemented for one EP from a standard version, then other new or modified IEs or IE groups specified for that EP in that standard version shall be considered comprehended by the receiving entity (some may still remain unsupported).

Note that this restriction is applicable to a sending entity for constructing messages.

2. EP: The comprehension of different EPs within a standard version or between different standard versions is not mandated. Any EP that is not supported may be considered not comprehended, even if another EP from that standard version is comprehended, and action based on criticality shall be applied.

10.3.3 Presence Information

For many IEs/IE groups which are optional according to the ASN.1 transfer syntax, NBAP specifies separately if the presence of these IEs/IE groups is optional or mandatory with respect to RNS application by means of the presence field of the concerned object of class NBAP-PROTOCOL-IES, NBAP-PROTOCOL-IES-PAIR, NBAP-PROTOCOL-EXTENSION or NBAP-PRIVATE-IES.

The presence field of the indicated classes supports three values:

- 1. Optional;
- 2. Conditional:
- 3. Mandatory.

If an IE/IE group is not included in a received message and the presence of the IE/IE group is mandatory or the presence is conditional and the condition is true according to the version of the specification used by the receiver, an abstract syntax error occurs due to a missing IE/IE group.

If an IE/IE group is included in a received message and the presence of the IE/IE group is conditional and the condition is false according to the version of the specification used by the receiver, an abstract syntax error occurs due to this erroneously present conditional IE/IE group.

10.3.4 Not comprehended IE/IE group

10.3.4.1 Procedure ID

The receiving node shall treat the different types of received criticality information of the *Procedure ID* according to the following:

Reject IE:

- If a message is received with a *Procedure ID* marked with "*Reject IE*" which the receiving node does not comprehend, the receiving node shall reject the procedure using the Error Indication procedure.

Ignore IE and Notify Sender:

- If a message is received with a *Procedure ID* marked with "*Ignore IE and Notify Sender*" which the receiving node does not comprehend, the receiving node shall ignore the procedure and initiate the Error Indication procedure.

Ignore IE:

- If a message is received with a *Procedure ID* marked with "*Ignore IE*" which the receiving node does not comprehend, the receiving node shall ignore the procedure.

When using the Error Indication procedure to reject a procedure or to report an ignored procedure it shall include the *Procedure ID* IE, the *Triggering Message* IE, and the *Procedure Criticality* IE in the *Criticality Diagnostics* IE.

10.3.4.1A Type of Message

When the receiving node cannot decode the *Type of Message* IE, the Error Indication procedure shall be initiated with an appropriate cause value.

10.3.4.2 IEs Other Than the Procedure ID and Type of Message

The receiving node shall treat the different types of received criticality information of an IE/IE group other than the *Procedure ID* according to the following:

Reject IE:

- If a message *initiating* a procedure is received containing one or more IEs/IE groups marked with "*Reject IE*" which the receiving node does not comprehend; none of the functional requests of the message shall be executed. The receiving node shall reject the procedure and report the rejection of one or more IEs/IE groups using the message normally used to report unsuccessful outcome of the procedure. In case the information received in the initiating message was insufficient to determine a value for all IEs that are required to be present in the message used to report the unsuccessful outcome of the procedure, the receiving node shall instead terminate the procedure and initiate the Error Indication procedure.
- If a message *initiating* a procedure that does not have a message to report unsuccessful outcome is received containing one or more IEs/IE groups marked with "*Reject IE*" which the receiving node does not comprehend, the receiving node shall terminate the procedure and initiate the Error Indication procedure.
- If a *response* message is received containing one or more IEs/IE groups marked with "*Reject IE*" that the receiving node does not comprehend, the receiving node shall consider the procedure as unsuccessfully terminated and initiate local error handling.

Ignore IE and Notify Sender:

- If a message *initiating* a procedure is received containing one or more IEs/IE groups marked with "*Ignore IE and Notify Sender*" which the receiving node does not comprehend, the receiving node shall ignore the content of the not comprehended IEs/IE groups, continue with the procedure as if the not comprehended IEs/IE groups were not received (except for the reporting) using the understood IEs/IE groups and report in the response message of the procedure that one or more IEs/IE groups have been ignored. In case the information received in the initiating message was insufficient to determine a value for all IEs that are required to be present in the response message, the receiving node shall instead terminate the procedure and initiate the Error Indication procedure.
- If a message *initiating* a procedure that does not have a message to report the outcome of the procedure is received containing one or more IEs/IE groups marked with "*Ignore IE and Notify Sender*" which the receiving node does not comprehend, the receiving node shall ignore the content of the not comprehended IEs/IE groups, continue with the procedure as if the not comprehended IEs/IE groups were not received (except for the reporting) using the understood IEs/IE groups, and initiate the Error Indication procedure to report that one or more IEs/IE groups have been ignored.
- If a *response* message is received containing one or more IEs/IE groups marked with "*Ignore IE and Notify Sender*" which the receiving node does not comprehend, the receiving node shall ignore the content of the not comprehended IEs/IE groups, continue with the procedure as if the not comprehended IEs/IE groups were not received (except for the reporting) using the understood IEs/IE groups and initiate the Error Indication procedure.

Ignore IE:

- If a message *initiating* a procedure is received containing one or more IEs/IE groups marked with "*Ignore IE*" which the receiving node does not comprehend, the receiving node shall ignore the content of the not comprehended IEs/IE groups and continue with the procedure as if the not comprehended IEs/IE groups were not received using the understood IEs/IE groups.
- If a *response* message is received containing one or more IEs/IE groups marked with "*Ignore IE*" which the receiving node does not comprehend, the receiving node shall ignore the content of the not comprehended

IEs/IE groups and continue with the procedure as if the not comprehended IEs/IE groups were not received using the understood IEs/IE groups.

When reporting not comprehended IEs/IE groups marked with "Reject IE" or "Ignore IE and Notify Sender" using a response message defined for the procedure, the Information Element Criticality Diagnostics IE shall be included in the Criticality Diagnostics IE for each reported IE/IE group. In the Information Element Criticality Diagnostics IE the Repetition Number IE shall be included and in addition, if the not comprehended IE/IE group is not at message hierarchy level 1 (top level; see annex C) also the Message Structure IE shall be included.

When reporting not comprehended IEs/IE groups marked with "Reject IE" or "Ignore IE and Notify Sender" using the Error Indication procedure, the Procedure ID IE, the Triggering Message IE, Procedure Criticality IE, the Transaction ID IE, and the Information Element Criticality Diagnostics IE shall be included in the Criticality Diagnostics IE for each reported IE/IE group. In the Information Element Criticality Diagnostics IE the Repetition Number IE shall be included and in addition, if the not comprehended IE/IE group is not at message hierarchy level 1 (top level; see annex C) also the Message Structure IE shall be included.

10.3.5 Missing IE or IE Group

The receiving node shall treat the missing IE/IE group according to the criticality information for the missing IE/IE group in the received message specified in the version of this specification used by the receiver:

Reject IE:

- If a received message *initiating* a procedure is missing one or more IEs/IE groups with specified criticality "*Reject IE*"; none of the functional requests of the message shall be executed. The receiving node shall reject the procedure and report the missing IEs/IE groups using the message normally used to report unsuccessful outcome of the procedure. In case the information received in the initiating message was insufficient to determine a value for all IEs that are required to be present in the message used to report the unsuccessful outcome of the procedure, the receiving node shall instead terminate the procedure and initiate the Error Indication procedure.
- If a received message *initiating* a procedure that does not have a message to report unsuccessful outcome is missing one or more IEs/IE groups with specified criticality "*Reject IE*", the receiving node shall terminate the procedure and initiate the Error Indication procedure.
- If a received *response* message is missing one or more IEs/IE groups with specified criticality "*Reject IE*", the receiving node shall consider the procedure as unsuccessfully terminated and initiate local error handling.

Ignore IE and Notify Sender:

- If a received message *initiating* a procedure is missing one or more IEs/IE groups with specified criticality "*Ignore IE and Notify Sender*", the receiving node shall ignore that those IEs are missing and continue with the procedure based on the other IEs/IE groups present in the message and report in the response message of the procedure that one or more IEs/IE groups were missing. In case the information received in the initiating message was insufficient to determine a value for all IEs that are required to be present in the response message, the receiving node shall instead terminate the procedure and initiate the Error Indication procedure.
- If a received message *initiating* a procedure that does not have a message to report the outcome of the procedure is missing one or more IEs/IE groups with specified criticality "*Ignore IE and Notify Sender*", the receiving node shall ignore that those IEs are missing and continue with the procedure based on the other IEs/IE groups present in the message and initiate the Error Indication procedure to report that one or more IEs/IE groups were missing.
- If a received *response* message is missing one or more IEs/IE groups with specified criticality "*Ignore IE and Notify Sender*", the receiving node shall ignore that those IEs are missing and continue with the procedure based on the other IEs/IE groups present in the message and initiate the Error Indication procedure to report that one or more IEs/IE groups were missing.

Ignore IE:

If a received message *initiating* a procedure is missing one or more IEs/IE groups with specified criticality "*Ignore IE*", the receiving node shall ignore that those IEs are missing and continue with the procedure based on the other IEs/IE groups present in the message.

- If a received *response* message is missing one or more IEs/IE groups with specified criticality "*Ignore IE*", the receiving node shall ignore that those IEs/IE groups are missing and continue with the procedure based on the other IEs/IE groups present in the message.

When reporting missing IEs/IE groups with specified criticality "Reject IE" or "Ignore IE and Notify Sender" using a response message defined for the procedure, the Information Element Criticality Diagnostics IE shall be included in the Criticality Diagnostics IE for each reported IE/IE group. In the Information Element Criticality Diagnostics IE the Repetition Number IE shall be included and in addition, if the missing IE/IE group is not at message hierarchy level 1 (top level; see annex C) also the Message Structure IE shall be included.

When reporting missing IEs/IE groups with specified criticality "Reject IE" or "Ignore IE and Notify Sender" using the Error Indication procedure, the Procedure ID IE, the Triggering Message IE, Procedure Criticality IE, the Transaction ID IE, and the Information Element Criticality Diagnostics IE shall be included in the Criticality Diagnostics IE for each reported IE/IE group. In the Information Element Criticality Diagnostics IE, the Repetition Number IE shall be included and in addition, if the missing IE/IE group is not at message hierarchy level 1 (top level; see annex C) also the Message Structure IE shall be included.

10.3.6 IEs or IE Groups Received in Wrong Order or With Too Many Occurrences or Erroneously Present

If a message with IEs or IE groups in wrong order or with too many occurrences is received or if IEs or IE groups with a conditional presence are present when the condition is not met (i.e. erroneously present), the receiving node shall behave according to the following:

- If a message *initiating* a procedure is received containing IEs or IE groups in wrong order or with too many occurrences or erroneously present, none of the functional requests of the message shall be executed. The receiving node shall reject the procedure and report the cause value "Abstract Syntax Error (Falsely Constructed Message)" using the message normally used to report unsuccessful outcome of the procedure. In case the information received in the initiating message was insufficient to determine a value for all IEs that are required to be present in the message used to report the unsuccessful outcome of the procedure, the receiving node shall instead terminate the procedure and initiate the Error Indication procedure.
- If a message *initiating* a procedure that does not have a message to report unsuccessful outcome is received containing IEs or IE groups in wrong order or with too many occurrences or erroneously present, the receiving node shall terminate the procedure and initiate the Error Indication procedure, and use cause value "Abstract Syntax Error (Falsely Constructed Message)".
- If a *response* message is received containing IEs or IE groups in wrong order or with too many occurrences or erroneously present, the receiving node shall consider the procedure as unsuccessfully terminated and initiate local error handling.

When determining the correct order only the IEs specified in the specification version used by the receiver shall be considered.

10.4 Logical Error

Logical error situations occur when a message is comprehended correctly, but the information contained within the message is not valid (i.e. semantic error), or describes a procedure which is not compatible with the state of the receiver. In these conditions, the following behaviour shall be performed (unless otherwise specified) as defined by the class of the elementary procedure, irrespective of the criticality of the IEs/IE groups containing the erroneous values.

Class 1:

Where the logical error occurs in a request message of a class 1 procedure, and the procedure has a message to report this unsuccessful outcome, this message shall be sent with an appropriate cause value.

Typical cause values are:

- Protocol Causes:
 - 1. Semantic Error

2. Message not compatible with receiver state

Where the logical error is contained in a request message of a class 1 procedure, and the procedure does not have a message to report this unsuccessful outcome, the procedure shall be terminated and the ERROR INDICATION procedure shall be initiated with an appropriate cause value. The *Procedure ID* IE, the *Triggering Message* IE and the *Transaction ID* IE within the *Criticality Diagnostics* IE shall then be included in order to identify the message containing the logical error.

Where the logical error exists in a response message of a class 1 procedure, the procedure shall be considered as unsuccessfully terminated and local error handling shall be initiated.

Class 2:

Where the logical error occurs in a message of a class 2 procedure, the procedure shall be terminated and the ERROR INDICATION procedure shall be initiated with an appropriate cause value. The *Procedure ID* IE, the *Triggering Message* IE and the *Transaction ID* IE within the *Criticality Diagnostics* IE shall then be included in order to identify the message containing the logical error.

10.5 Exceptions

The error handling for all the cases described hereafter shall take precedence over any other error handling described in the other subclause of clause 10.

- If any type of error (Transfer Syntax Error, Abstract Syntax Error or Logical Error) is detected in the ERROR INDICATION message, it shall not trigger the Error Indication procedure in the receiving Node but local error handling.
- In case a response message or ERROR INDICATION message needs to be returned, but the information
 necessary to determine the receiver of that message is missing, the procedure shall be considered as
 unsuccessfully terminated and local error handling shall be initiated.
- If an error that terminates a procedure occurs, the returned cause value shall reflect the error that caused the termination of the procedure even if one or more abstract syntax errors with criticality 'ignore and notify' have earlier occurred within the same procedure.

Annex A (normative):

Allocation and Pre-emption of Radio Links in the Node B

A.1 Deriving Allocation Information for a Radio Link

A.1.1 Establishment of a New Radio Link

The Allocation Information for a Radio Link in the case of establishment of a new Radio Link shall be derived as follows:

- The latest received Allocation/Retention Priority IE for each transport channel shall be used.

Note: The *Allocation/Retention Priority* IE for a transport channel may have been received in a) the procedure that establishes the first Radio Link for the Node B Communication Context in the Node

B or

b) a procedure adding or modifying the transport channel.

- If the *Priority Level* IE in the *Allocation/Retention Priority* IE for all transport channels that are intended to use the Radio Link is set to "no priority", the pre-emption capability of the Radio Link shall be set to "shall not trigger pre-emption".
- If the *Priority Level* IE in the *Allocation/Retention Priority* IE for one or more of the transport channels that are intended to use the Radio Link is not set to "no priority", the allocation priority and the pre-emption capability of the Radio Link shall be set according to the following:
 - The transport channels that have the *Priority Level* IE in the *Allocation/Retention Priority* IE set to "no priority" shall be excluded when setting the allocation priority and pre-emption capability of a Radio Link.
 - The allocation priority for a Radio Link shall be set to highest priority level, given by the *Priority Level* IE in the *Allocation/Retention Priority* IE, for all non excluded transport channels that are intended to use the Radio Link.
 - If all non-excluded transport channels that are intended to use a Radio Link to be established have the preemption capability, given by the *Pre-emption Capability* IE in the *Allocation/Retention Priority* IE, set to "shall not trigger pre-emption", the pre-emption capability of the Radio Link shall be set to "shall not trigger pre-emption".

If one or more non-excluded transport channels that are intended to use the Radio Link to be established have the value of the *Pre-emption Capability* IE in the *Allocation/Retention Priority* IE set to "may trigger pre-emption", the pre-emption capability of the Radio Link shall be set to "may trigger pre-emption".

The derived allocation priority and pre-emption capability are only valid during this allocation/retention process.

A.1.2 Modification of an Existing Radio Link

The Allocation Information for a Radio Link in the case of modification of a Radio Link (addition or modification of transport channels using the Radio Link) shall be derived as follows:

- The latest received Allocation/Retention Priority IE for each transport channel shall be used.

Note: The Allocation/Retention Priority IE for a transport channel may have been received in

a) the procedure that establishes the first Radio Link for the Node B Communication Context in the Node B

b) a previous procedure adding or modifying the transport channel, or

c) the current procedure adding or modifying the transport channel.

- If the *Priority Level* IE in the *Allocation/Retention Priority* IE for all transport channels to be added or modified in the Radio Link is set to "no priority", the pre-emption capability of the Radio Link to be modified shall be set to "shall not trigger pre-emption".
- If the *Priority Level* IE in the *Allocation/Retention Priority* IE for one or more of the transport channels to be added or modified in the Radio Link is not set to "no priority", the allocation priority of and the pre-emption capability of the Radio Link to be modified shall be set according to the following:
 - The transport channels to be added or modified that have the *Priority Level* IE in the *Allocation/Retention Priority* IE set to "no priority" shall be excluded when setting the allocation priority and pre-emption capability of a Radio Link to be modified.
 - The allocation priority for a Radio Link to be modified shall be set to highest priority level, given by the *Priority Level* IE in the *Allocation/Retention Priority* IE, for all the non-excluded transport channels that are to be added or modified.
 - If all non-excluded transport channels that are to be added or modified in the Radio Link have the preemption capability, given by the *Pre-emption Capability* IE in the *Allocation/Retention Priority* IE, set to "shall not trigger pre-emption", the pre-emption capability of the Radio Link to be modified shall be set to "shall not trigger pre-emption".
 - If one or more of the non-excluded transport channels to be added or modified in the Radio Link have the value of the *Pre-emption Capability* IE in the *Allocation/Retention Priority* IE set to "may trigger pre-emption", the pre-emption capability of the Radio Link to be modified shall be set to "may trigger pre-emption".

The derived allocation priority and pre-emption capability are only valid during this allocation/retention process.

A.2 Deriving Retention Information for a Radio Link

The Retention Information for an existing Radio Link shall be derived as follows:

- The latest received Allocation/Retention Priority IE for each transport channel shall be used.

Note: The *Allocation/Retention Priority* IE for a transport channel may have been received in a) the procedure that establishes the first Radio Link for the Node B Communication Context in the Node B or

- b) a procedure adding or modifying the transport channel.
- If the *Priority Level* IE in the *Allocation/Retention Priority* IE for one or more transport channels using the Radio Link is set to "no priority", the pre-emption vulnerability of the Radio Link shall be set to "not pre-emptable".
- If the *Priority Level* IE in the *Allocation/Retention Priority* IE for all the transport channels using the Radio Link is not set to "no priority", the retention priority of the Radio Link and the pre-emption vulnerability of the Radio Link shall be set according to the following:
 - The retention priority for a Radio Link shall be set to highest priority level, given by the *Priority Level* IE in the *Allocation/Retention Priority* IE, for all transport channels that uses the Radio Link.
 - If all transport channels that uses the Radio Link have the pre-emption vulnerability, given by the *Pre-emption Vulnerability* IE in the *Allocation/Retention Priority* IE, set to "pre-emptable", the pre-emption vulnerability of the Radio Link shall be set to "pre-emptable". If one or more transport channels that uses the Radio Link have the value of the *Pre-emption Vulnerability* IE in the *Allocation/Retention Priority* IE set to "not pre-emptable", the pre-emption vulnerability of the Radio Link shall be set to "not pre-emptable".

The derived retention priority and pre-emption vulnerability are valid until they are changed, or until the Radio Link is deleted. When new transport channels are added to or deleted from the Radio Link or when existing transport channels are modified with regards to the *Allocation/Retention Priority* IE, the retention information shall be derived again according to above.

A.3 The Allocation/Retention Process

The Node B shall establish or modify the resources for a Radio Link according to:

- The value of the Allocation Information (allocation priority and pre-emption capability) of the Radio Link to be established or modified. The Allocation Information is derived according to clause A.1.
- The value of the Retention Information (retention priority and pre-emption vulnerability) of existing Radio Links. The Retention Information derived according to clause A.2.
- The resource situation in the cell.

Whilst the process and the extent of the pre-emption functionality is operator dependent, the pre-emption indicators (pre-emption capability and pre-emption vulnerability) shall be treated as follows:

- -. If the pre-emption capability for a Radio Link to be established or modified is set to "may trigger preemption" and the resource situation so requires, the Node B may trigger the pre-emption process in clause A.4 to free resources for this allocation request.
- -. If the pre-emption capability for a Radio Link to be established or modified is set to "shall not trigger pre-emption", then this allocation request shall not trigger the pre-emption process in clause A.4.
- -. If the pre-emption vulnerability for an existing Radio Link is set to "pre-emptable", then this Radio Link shall be included in the pre-emption process in clause A.4.
- -. If the pre-emption vulnerability for an existing Radio Link is set to "not pre-emptable", then this Radio Link shall not be included in the pre-emption process in clause A.4.

A.4 The Pre-emption Process

The pre-emption process shall only pre-empt Radio Links with lower retention priority than the allocation priority of the Radio Link to be established or modified. The Radio Links to be pre-empted shall be selected in ascending order of the retention priority.

When the pre-emption process detects that one or more Radio Links have to be pre-empted to free resources for a Radio Link(s) to be established or modified, the Node B shall initiate the Radio Link Pre-emption procedure for all the Node B Communication Contexts having Radio Links selected for pre-emption and start the $T_{Preempt}$ timer.

When enough resources are freed to establish or modify the Radio Link(s) according to the request, the Node B shall stop the T_{Preempt} timer and complete the procedure that triggered the pre-emption process in accordance with the "Successful Operation" subclause of the procedure.

If the T_{Preempt} timer expires, the Node B shall regard the procedure that triggered the pre-emption process as failed and complete the procedure in accordance with the "Unsuccessful Operation" subclause of the procedure.

Annex B (informative): Measurement Reporting

When the *Report Characteristics* IE is set to "Event A" (figure B.1), the Measurement Reporting procedure is initiated when the measured entity rises above the requested threshold and stays there for the requested hysteresis time. If no hysteresis time is given, the value zero shall be used for the hysteresis time.

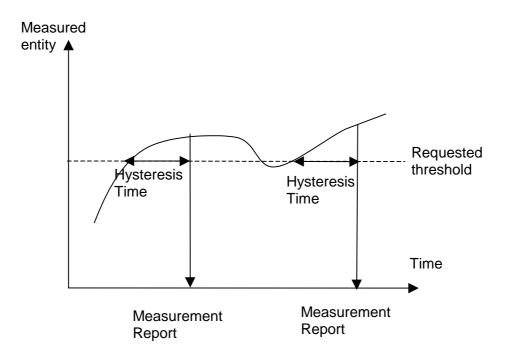


Figure B.1: Event A reporting with Hysteresis Time specified

When the *Report Characteristics* IE is set to "Event B" (figure B.2), the Measurement Reporting procedure is initiated when the measured entity falls below the requested threshold and stays there for the requested hysteresis time. If no hysteresis time is given, the value zero shall be used for the hysteresis time.

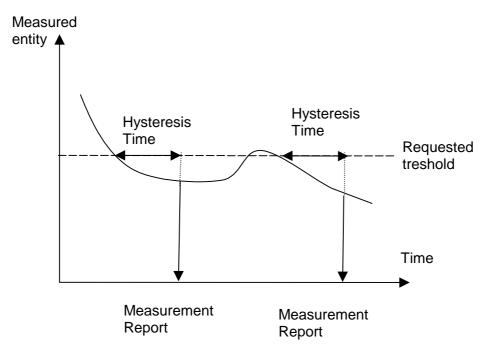


Figure B.2: Event B reporting with Hysteresis Time specified

When the *Report Characteristics* IE is set to "Event C" (figure B.3), the Measurement Reporting procedure is initiated always when the measured entity rises by an amount greater than the requested threshold within the requested time. The reporting in figure B.3 is initiated if the Rising Time T1 is less than the requested time.

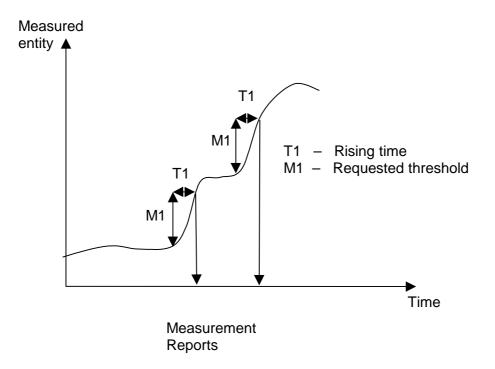


Figure B.3: Event C reporting

When the *Report Characteristics* IE is set to "Event D" (figure B.4), the Measurement Reporting procedure is initiated always when the measured entity falls by an amount greater than the requested threshold within the requested time. The reporting in figure B.4 is initiated if the Falling Time T1 is less than the requested time.

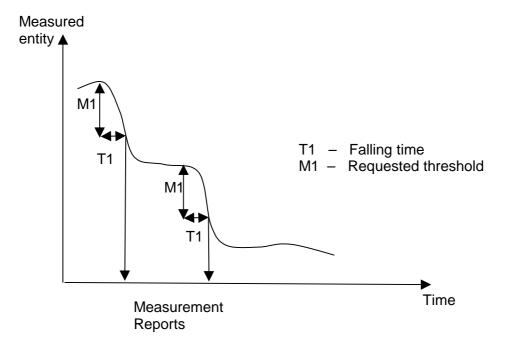


Figure B.4: Event D reporting

When the *Report Characteristics* IE is set to "Event E" (figure B.5), the Measurement Reporting procedure (Report A) is initiated always when the measured entity rises above the "Measurement Threshold 1" and stays there for the "Measurement Hysteresis Time" (T1 in figure B.5). If *Report Periodicity* IE is provided Node B shall also initiate Measurement Reporting procedure periodically. The periodic reporting continues although the measured entity falls below the "Measurement Threshold 1" and is terminated by the Report B.

When the Report A conditions have been met and the measured entity falls below the "Measurement Threshold 2" and stays there for the "Measurement Hysteresis Time" (T1) Measurement Reporting procedure (Report B) is initiated and the periodic reporting is terminated.

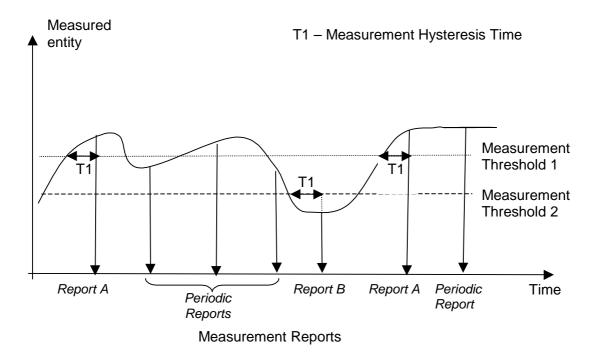
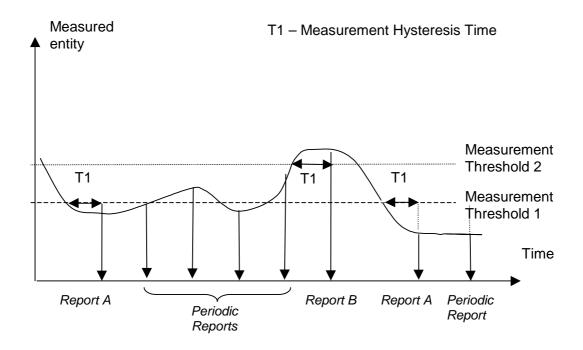


Figure B.5: Event E reporting with Hysteresis Time specified and Periodic Reporting requested

When the *Report Characteristics* IE is set to "Event F" (figure B.6), the Measurement Reporting procedure (Report A) is initiated always when the measured entity falls below the "Measurement Threshold 1" and stays there for the "Measurement Hysteresis Time" (T1 in figure B.6). If *Report Periodicity* IE is provided Node B shall also initiate Measurement Reporting procedure periodically. The periodic reporting continues although the measured entity rises above the "Measurement Threshold 1" and is terminated by the Report B.

When the Report A conditions have been met and the measured entity rises above the "Measurement Threshold 2" and stays there for the "Measurement Hysteresis Time" (T1) Measurement Reporting procedure (Report B) is initiated and the periodic reporting is terminated.



Measurement Reports

Figure B.6: Event F reporting with Hysteresis Time specified and Periodic Reporting requested

Annex C (informative): Guidelines for Usage of the Criticality Diagnostics IE

C.1 EXAMPLE MESSAGE Layout

Assume the following message format:

IE/Group Name	Presence	Range	IE Type	Semantics	Criticality	Assigned
			and	Description		Criticality
			Referenc			
			е			
Message Type	M				YES	reject
Transaction ID	M				_	
Α	M				YES	reject
В	M				YES	reject
>E		1 <maxe></maxe>			EACH	ignore
>>F		1 <maxf></maxf>			_	
>>>G		03,			EACH	ignore
>>H		1 <maxh></maxh>			EACH	ignore
>>>G		03,			EACH	ignore and
						notify
>>G	M				YES	reject
>>J		1 <maxj></maxj>			_	
>>>G		03,			EACH	reject
С	M				YES	reject
>K		1 <maxk></maxk>			EACH	ignore and
						notify
>>L		1 <maxl></maxl>			_	
>>>M	0				_	
D	M				YES	reject

Note 1. The IEs F, J, and L do not have assigned criticality. The IEs F, J, and L are consequently realised as the ASN.1 type SEQUENCE OF of "ordinary" ASN.1 type, e.g. INTEGER. On the other hand, the repeatable IEs with assigned criticality are realised as the ASN.1 type SEQUENCE OF of an IE object, e.g. ProtocolIE-Single-Container.

For the corresponding ASN.1 layout, see subclause C.4.

C.2 Example on a Received EXAMPLE MESSAGE

Assume further more that a received message based on the above tabular format is according to the figure below.

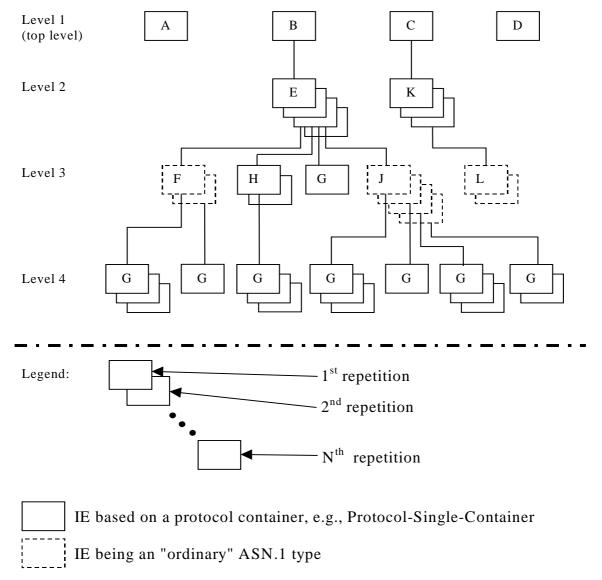
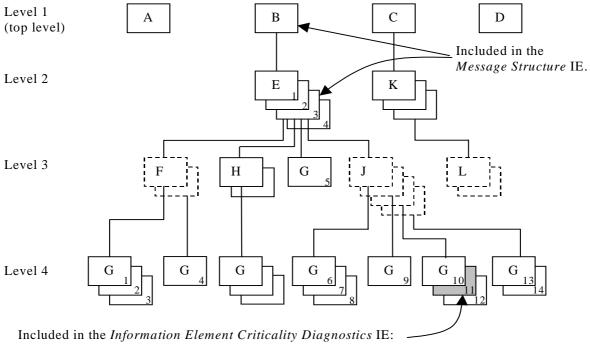


Figure C.1: Example of content of a received NBAP message based on the EXAMPLE MESSAGE

C.3 Content of Criticality Diagnostics

C.3.1 Example 1



- a) IE ID IE
- b) Repetition Number IE

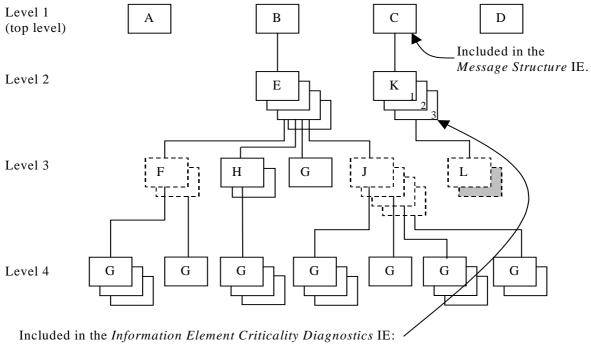
Figure C.2: Example of a received NBAP message containing a not comprehended IE

If there is an error within the instance marked as grey in the IE G in the IE J shown in the figure C.2 above, this will be reported within the *Information Element Criticality Diagnostics* IE within the *Criticality Diagnostics* IE as follows:

IE name	Value	Comment				
IE Criticality	reject	Criticality for IE on the reported level, i.e. level 4.				
IE ID	id-G	IE ID from the reported level, i.e. level 4.				
Repetition	11	Repetition number on the reported level, i.e. level 4.				
Number		(Since the IE E (level 2) is the lowest level included in the Message Structure IE this is				
		the eleventh occurrence of IE G within the IE E (level 2).				
Type of Error	not					
	underst					
	ood					
Message Structur	e, first repe	etition				
>IE ID	id-B	IE ID from level 1.				
Message Structur	e, second	repetition				
>IE ID	id-E	IE ID from the lowest level above the reported level, i.e. level 2.				
>Repetition	3	Repetition number from the lowest level above the reported level, i.e. level 2.				
Number						

- Note 2. The IE J on level 3 cannot be included in the *Message Structure* IE since they have no criticality of their own.
- Note 3. The repetition number of the reported IE indicates the number of repetitions of IE G received up to the detected erroneous repetition, counting all occurrences of the IE G below the same instance of the previous level with assigned criticality (instance 3 of IE E on level 2).

C.3.2 Example 2



- a) IE ID IE
- b) Repetition Number IE

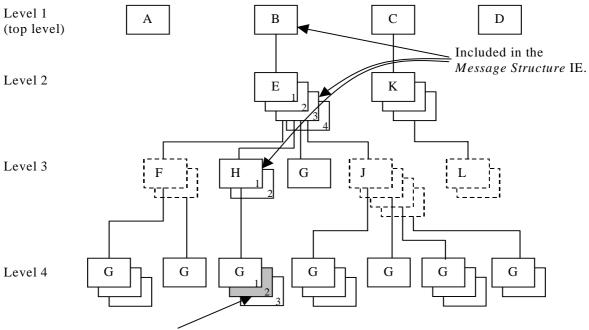
Figure C.3: Example of a received NBAP message containing a not comprehended IE

If there is an error within the second instance (marked as grey) in the sequence (IE L in the tabular format) on level 3 below IE K in the structure shown in the figure C.3 above, this will be reported within the *Information Element Criticality Diagnostics* IE within the *Criticality Diagnostics* IE as follows:

IE name	Value	Comment		
IE Criticality	ignore	Criticality for IE on the reported level, i.e. level 2.		
	and			
	notify			
IE ID	id-K	IE ID from the reported level, i.e. level 2.		
Repetition	3	Repetition number on the reported level, i.e. level 2.		
Number				
Type of Error	not			
	underst			
	ood			
Message Structure, first repetition				
>IE ID	id-C	IE ID from the lowest level above the reported level, i.e. level 1.		

Note 4. The IE L on level 3 cannot be reported individually included in the *Message Structure* IE since it has no criticality of its own.

C.3.3 Example 3



Included in the Information Element Criticality Diagnostics IE:

- a) IE ID IE
- b) Repetition Number IE

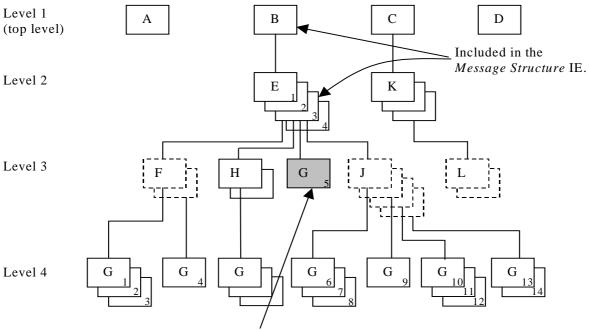
Figure C.4: Example of a received NBAP message containing a not comprehended IE

If there is an error within the instance marked as grey in the IE G in the IE H shown in the figure C.4 above, this will be reported within the *Information Element Criticality Diagnostics* IE within the *Criticality Diagnostics* IE as follows:

IE name	Value	Comment
IE Criticality	ignore	Criticality for IE on the reported level, i.e. level 4.
	and	
	notify	
IE ID	id-G	IE ID from the reported level, i.e. level 4.
Repetition	2	Repetition number on the reported level, i.e. level 4.
Number		
Type of Error	not	
	underst	
	ood	
Message Structur	e, first repe	etition
>IE ID	id-B	IE ID from level 1.
Message Structur	e, second	repetition
>IE ID	id-E	IE ID from level 2.
>Repetition	3	Repetition number from level 2.
Number		
Message Structur	e, third rep	etition
>IE ID	id-H	IE ID from the lowest level above the reported level, i.e. level 3.
>Repetition	1	Repetition number from the lowest level above the reported level, i.e. level 3.
Number		

Note 5. The repetition number of level 4 indicates the number of repetitions of IE G received up to the detected erroneous repetition, counted below the same instance of the previous level with assigned criticality (instance 1 of IE H on level 3).

C.3.4 Example 4



Included in the Information Element Criticality Diagnostics IE:

- a) IE ID IE
- b) Repetition Number IE

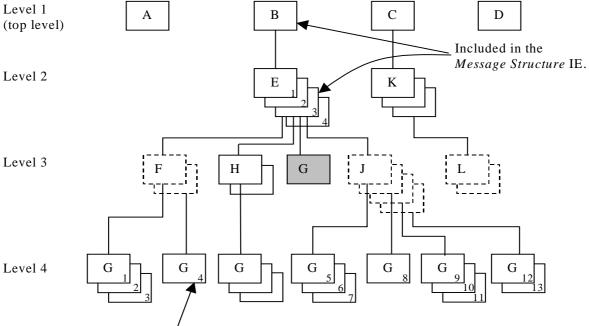
Figure C.5: Example of a received NBAP message containing a not comprehended IE

If there is an error within the instance marked as grey in the IE G in the IE E shown in the figure C.5 above, this will be reported within the *Information Element Criticality Diagnostics* IE within the *Criticality Diagnostics* IE as follows:

IE name	Value	Comment
IE Criticality	reject	Criticality for IE on the reported level, i.e. level 3.
IE ID	id-G	IE ID from the reported level, i.e. level 3.
Repetition	5	Repetition number on the reported level, i.e. level 3.
Number		(Since the IE E (level 2) is the lowest level included in the Message Structure IE this is
		the fifth occurrence of IE G within the IE E (level 2).
Type of Error	not	
	underst	
	ood	
Message Structur	e, first rep	etition
>IE ID	id-B	IE ID from level 1.
Message Structur	e, second	repetition
>IE ID	id-E	IE ID from the lowest level above the reported level, i.e. level 2.
>Repetition	3	Repetition number from the lowest level above the reported level, i.e. level 2.
Number		

Note 6. The repetition number of the reported IE indicates the number of repetitions of IE G received up to the detected erroneous repetition, counting all occurrences of the IE G below the same instance of the previous level with assigned criticality (instance 3 of IE E on level 2).

C.3.5 Example 5



Included in the Information Element Criticality Diagnostics IE:

- a) IE ID IE
- b) Repetition Number IE

Figure C.6: Example of a received NBAP message with a missing IE

If the instance marked as grey in the IE G in the IE E shown in the figure C.6 above, is missing this will be reported within the *Information Element Criticality Diagnostics* IE within the *Criticality Diagnostics* IE as follows:

IE name	Value	Comment					
IE Criticality	reject	Criticality for IE on the reported level, i.e. level 3.					
IE ID	id-G	IE ID from the reported level, i.e. level 3.					
Repetition Number	4	Repetition number up to the missing IE on the reported level, i.e. level 3. (Since the IE E (level 2) is the lowest level included in the <i>Message Structure</i> IE there have been four occurrences of IE G within the IE E (level 2) up to the missing occurrence.					
Type of Error	missing						
Message Structur	e, first repe	etition					
>IE ID	id-B	IE ID from level 1.					
Message Structur	e, second	repetition					
>IE ID	id-E	IE ID from the lowest level above the reported level, i.e. level 2.					
>Repetition Number	3	Repetition number from the lowest level above the reported level, i.e. level 2.					

Note 7. The repetition number of the reported IE indicates the number of repetitions of IE G received up to but not including the missing occurrence, counting all occurrences of the IE G below the same instance of the previous level with assigned criticality (instance 3 of IE E on level 2).

C.4 ASN.1 of EXAMPLE MESSAGE

```
ExampleMessage ::= SEQUENCE {
   ProtocolIEs
                       ProtocolIE-Container
                                                       {{ExampleMessage-IEs}},
    ProtocolExtensions ProtocolExtensionContainer {{ExampleMessage-Extensions}}
                                                                                        OPTIONAL.
}
ExampleMessage-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-A CRITICALITY reject TYPE A PRESENCE mandatory} | { ID id-B CRITICALITY reject TYPE B PRESENCE mandatory} | { ID id-C CRITICALITY reject TYPE C PRESENCE mandatory} | { ID id-D CRITICALITY reject TYPE D PRESENCE mandatory} ,
}
B ::= SEQUENCE {
                     E-List,
    iE-Extensions ProtocolExtensionContainer { {B-ExtIEs} } OPTIONAL,
B-ExtIES NBAP-PROTOCOL-EXTENSION ::= {
E-List ::= SEQUENCE (SIZE (1..maxE)) OF ProtocolIE-Single-Container { {E-IEs} }
E-IES NBAP-PROTOCOL-IES ::= {
   { ID id-E CRITICALITY ignore TYPE E PRESENCE mandatory }
E ::= SEQUENCE {
                     F-List,
   h
                    H-List,
    g
                    G-List1,
                    J-List,
    iE-Extensions ProtocolExtensionContainer { {E-ExtIEs} } OPTIONAL,
}
E-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
}
F-List ::= SEQUENCE (SIZE (1..maxF)) OF F
F ::= SEQUENCE {
                     G-List2 OPTIONAL.
    iE-Extensions ProtocolExtensionContainer { {F-ExtIEs} } OPTIONAL,
F-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
G-List2 ::= SEQUENCE (SIZE (1..3, ...)) OF ProtocolIE-Single-Container { G2-IEs} }
G2-IES NBAP-PROTOCOL-IES ::= {
   { ID id-G CRITICALITY ignore TYPE G PRESENCE mandatory }
H-List ::= SEQUENCE (SIZE (1..maxH)) OF ProtocolIE-Single-Container { {H-IEs} }
H-IES NBAP-PROTOCOL-IES ::= {
    H ::= SEQUENCE {
                    G-List3 OPTIONAL,
                                     ProtocolExtensionContainer { {H-ExtIEs} } OPTIONAL,
    iE-Extensions
H-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
```

```
G-List3 ::= SEQUENCE (SIZE (1..3, ...)) OF ProtocolIE-Single-Container \{ \{G3\text{-}IEs\} \}
G3-IES NBAP-PROTOCOL-IES ::= {
   { ID id-G CRITICALITY notify TYPE G PRESENCE mandatory }
G-List1 ::= ProtocolIE-Single-Container { G1-IEs} }
G1-IEs NBAP-PROTOCOL-IES ::= {
    J-List ::= SEQUENCE (SIZE (1..maxJ)) OF J
J ::= SEQUENCE {
                   G-List4 OPTIONAL,
   iE-Extensions ProtocolExtensionContainer { {J-ExtIEs} } OPTIONAL,
J-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
G-List4 ::= SEQUENCE (SIZE (1..3, ...)) OF ProtocolIE-Single-Container { G4-IEs} }
G4-IES NBAP-PROTOCOL-IES ::= {
   { ID id-G CRITICALITY reject TYPE G PRESENCE mandatory }
C ::= SEQUENCE {
   k
                   K-List,
    iE-Extensions ProtocolExtensionContainer { {C-ExtIEs} } OPTIONAL,
C-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
K-List ::= SEQUENCE (SIZE (1..maxK)) OF ProtocolIE-Single-Container { {K-IEs} }
K-IES NBAP-PROTOCOL-IES ::= {
   { ID id-K CRITICALITY notify TYPE K PRESENCE mandatory }
K ::= SEQUENCE {
                   L-List,
    \begin{tabular}{ll} \hline iE-ExtensionS & ProtocolExtensionContainer $\{ \ \{K-ExtIEs\} \ \}$ & OPTIONAL, \\ \hline \end{tabular}
K-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
L-List ::= SEQUENCE (SIZE (1..maxL)) OF L
L ::= SEQUENCE {
                   M OPTIONAL,
   iE-Extensions ProtocolExtensionContainer { {L-ExtIEs} } OPTIONAL,
L-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
ExampleMessage-Extensions NBAP-PROTOCOL-EXTENSION ::= {
```

Annex D (informative): Change history

				Chang	e history
TSG RAN#	Version	CR	Tdoc RAN	New Version	Subject/Comment
RAN_06	-	-	RP-99764	3.0.0	Approved at TSG RAN #6 and placed under Change Control
RAN_07	3.0.0	-	-	3.1.0	Approved at TSG RAN #7
RAN_08	3.1.0	-	RP-000250	3.2.0	Approved at TSG RAN #8
RAN_08	3.1.0	-	RP-000251	3.2.0	Approved at TSG RAN #8
RAN_08	3.1.0	-	RP-000252	3.2.0	Approved at TSG RAN #8
RAN_08	3.1.0	-	RP-000253	3.2.0	Approved at TSG RAN #8
RAN_09	3.2.0	165 168- 170, 173- 178, 180- 189	RP-000386	3.3.0	Approved at TSG RAN #9
RAN_09	3.2.0	190- 200, 203 205 207 208 211 214 218- 219	RP-000387	3.3.0	Approved at TSG RAN #9
RAN_09	3.2.0	221 222 224- 228 233 244, 246	RP-000388	3.3.0	Approved at TSG RAN #9
RAN_09	3.2.0	247- 248	RP-000389	3.3.0	Approved at TSG RAN #9
RAN_10	3.3.0	250- 324	RP-000627 RP-000628 RP-000630 RP-000697	3.4.0	Approved at TSG RAN #10
RAN_10	3.4.0			3.4.1	Correct of headers
RAN_11	3.4.1	325- 330, 333- 336, 339- 342, 344, 346, 350- 356, 365, 367- 371, 377- 379, 383, 385- 386, 388	RP-010125 RP-010126	3.5.0	Approved at TSG RAN #11

Dete	T00 "	TOOP	05	D -	Change history		N
Date Name 04	TSG #	TSG Doc.	CR	Rev	Subject/Comment	Old	New
March 01	11	RP-010160	373, 387		Approved at TSG RAN #11 and placed under Change Control	-	4.0.0
March 01	11	RP-010166			Approved at TSG RAN #11 and placed under Change Control	-	4.0.0
March 01	11	RP-010159	372,		Approved at TSG RAN #11 and placed under Change Control	-	4.0.0
			374,				
			381				
March 01	11	RP-010164	,		Approved at TSG RAN #11 and placed under Change Control	-	4.0.0
March 01	11	DD 010167	359		Approved at TCC DAN #11 and placed under Change Central		400
March 01 06/2001	11	RP-010167 RP-010383			Approved at TSG RAN #11 and placed under Change Control Approved at TSG RAN #12	4.0.0	4.0.0
00/2001	12	100000	392,			4.0.0	4.1.0
			394,				
			396,				
			398,				
			400,				
			402, 404,				
			406				
06/2001	12	RP-010384	412,		Approved at TSG RAN #12	4.0.0	4.1.0
			416,				
			421,				
			423,				
			427, 431,				
			431,				
			437,				
			439,				
			441				
06/2001	12	RP-010385	449,		Approved at TSG RAN #12	4.0.0	4.1.0
			456,				
			462, 464,				
			467				
06/2001	12	RP-010396	413,		Approved at TSG RAN #12	4.0.0	4.1.0
			414,				
			415,				
			416,				
			417, 418,				
			419,				
			450,				
			451,				
			452,				
			453, 454,				
			454, 465				
09/2001	13	RP-010587		2	Ambiguity in CM handling	4.1.0	4.2.0
09/2001	13	RP-010587			Correction to Information Block Deletion	4.1.0	4.2.0
09/2001	13	RP-010587	476		Clarification of the AICH power	4.1.0	4.2.0
09/2001	13	RP-010587		1	Transport bearer replacement clarification	4.1.0	4.2.0
09/2001	13	RP-010587	481	1	Corrections to the PDSCH Code Mapping IE	4.1.0	4.2.0
09/2001	13	DD 040555	46.4		Correction to the handling of DL Code Information in RL	4.1.0	4.2.0
09/2001	13	RP-010587	484	1	Reconfiguration procedures Correction to the Error handling of the ERROR INDICATION	4.1.0	4.2.0
09/2001	13	RP-010587	485	1	message	4.1.0	4.2.0
09/2001	13	RP-010587		<u> </u>	Correct max Codes discrepancy between tabular and ASN.1	4.1.0	4.2.0
09/2001	13	RP-010587			S-CCPCH Corrections for TDD	4.1.0	4.2.0
09/2001	13	RP-010587		1	Nbap criticality	4.1.0	4.2.0
09/2001	13	RP-010588	500	1	Clarification of Abnormal Conditions/Unsuccessful Operation	4.1.0	4.2.0
09/2001	13	RP-010588			Error handling of erroneously present conditional IEs	4.1.0	4.2.0
09/2001	13	RP-010588		1	Correction for maxNrOfCPCHs	4.1.0	4.2.0
09/2001	13	RP-010588		1	Correction for N_EOT	4.1.0	4.2.0
09/2001	13	RP-010588			Bitstrings ordering	4.1.0	4.2.0
09/2001	13 13	RP-010588			Mapping of TFCS to TFCI Correction of implementation of RAN#12 CRs	4.1.0	4.2.0
09/2001 09/2001	13	RP-010588 RP-010588			TDD Channelisation code range definition	4.1.0	4.2.0
09/2001	13	RP-010588		1	Clarification of chapter 10	4.1.0	4.2.0
09/2001	13	RP-010588		<u> </u>	Clarification of use of Diversity Control Indicator	4.1.0	4.2.0
	13	RP-010588		3	Clarification of coordinated DCHs	4.1.0	4.2.0
109/2001		0.0000					
09/2001 09/2001	13				Allowed Combinations of Dedicated Measurement Type and the	4.1.0	4.2.0
09/2001	13	RP-010599	468	2	Allowed Combinations of Dedicated Measurement Type and the Reporting Characteristics Type	4.1.0	4.2.0

09/2001	13	RP-010599	473	1	DPC Mode in Radio Link Addition procedure	4.1.0	4.2.0
09/2001	13	RP-010599			Correction on NBAP function	4.1.0	4.2.0
09/2001	13	RP-010599		1	Adding protocol container in CHOICE type IE	4.1.0	4.2.0
09/2001	13	RP-010599		1	Clarification of Abnormal Conditions/Unsuccessful Operation	4.1.0	4.2.0
09/2001	13	RP-010599		1	Corrections to position reporting	4.1.0	4.2.0
09/2001	13			-	CR to 25.433 v4.1.0: RX timing deviation as dedicated	4.1.0	4.2.0
		RP-010599	518	2	measurement for 1.28Mcps TDD		
09/2001	13	RP-010599	522	1	Clarification on the Time Slot LCR	4.1.0	4.2.0
10/2001	-	-	-	-	Editorial correction to correct the header	4.2.0	4.2.1
12/2001	14	RP-010897	530	2	CR on Priority range	4.2.1	4.3.0
12/2001	14	RP-010862	534		Bitstrings ordering	4.2.1	4.3.0
12/2001	14				Added UTRAN modes in the IE Type and Reference and	4.2.1	4.3.0
		RP-010862	536		Semantics Description in IEs in NBAP messages		
12/2001	14				Alignment to RAN4 spec for Transmitted Code Power	4.2.1	4.3.0
		RP-010862	538		Measurement		
12/2001	14	RP-010862	540		Correction the Clause 10 Error Handling	4.2.1	4.3.0
12/2001	14	RP-010862	542		Clarification of TrCh Ordering in TFCS	4.2.1	4.3.0
12/2001	14	RP-010862	544		Addition of SIB15.4 and SIB18 to tabular	4.2.1	4.3.0
12/2001	14	RP-010862	550		Transmit Diversity for TDD	4.2.1	4.3.0
12/2001	14	RP-010862	552		Clarification for the definition of the ASN.1 constants	4.2.1	4.3.0
12/2001	14	RP-010862	559	1	Terminology Corrections	4.2.1	4.3.0
12/2001	14	RP-010863	560	1	Rel-4 specific terminology corrections	4.2.1	4.3.0
12/2001	14	RP-010863	562		Procedure Code Criticality in Error Indication	4.2.1	4.3.0
12/2001	14				Clarification for the Power Adjustment Type IE in the DL POWER	4.2.1	4.3.0
		RP-010863	565		CONTROL REQUEST message		
12/2001	14	RP-010863		1	Forward Compatibility for DL Power Balancing	4.2.1	4.3.0
12/2001	14	RP-010863	569		Reconfiguration clarification	4.2.1	4.3.0
12/2001	14	RP-010863		2	Addition of amendment to clarify the PER encoding of bitstrings	4.2.1	4.3.0
12/2001	14	RP-010863		2	Transport Bearer replacement clarification for the DSCH case	4.2.1	4.3.0
12/2001	14	RP-010863	577		Clarification of the Transaction ID	4.2.1	4.3.0
12/2001	14	RP-010863		1	CPCH-related corrections	4.2.1	4.3.0
12/2001	14	RP-010863			Correction of S field length	4.2.1	4.3.0
12/2001	14	RP-010874		1	Correction of drift rate resolution	4.2.1	4.3.0
12/2001	14	RP-010874	547		Cell Parameter ID IE definition for 1.28Mcps TDD	4.2.1	4.3.0
12/2001	14				Amendment of the RADIO LINK ADDITION RESPONSE TDD	4.2.1	4.3.0
		RP-010874			message for LCR TDD		
12/2001	14	RP-010874	580	2	SFN-SFN quality indication	4.2.1	4.3.0
12/2001	14				Correction to SFN-SFN Observed Time Difference Measurement	4.2.1	4.3.0
00/0000		RP-010912	545	1	report mapping		
03/2002	15	DD 000474	504		Incorrect Physical Shared Channel TDD Procedure definition in	4.3.0	4.4.0
00/0000	4.5	RP-020174	591	1	ASN.1	400	4.4.0
03/2002	15	RP-020174	E02		Removal of criticality information for Transaction ID in the ERROR INDICATION message	4.3.0	4.4.0
03/2002	15	RP-020174			Clarification to measurement unit at Higher Layer Filtering.	4.3.0	4.4.0
	15	KP-020174	000		Correction of the Limited Power Increase in Synchronised Radio	4.3.0	4.4.0
03/2002	15	RP-020174	605		Link Reconfiguration Preparation	4.3.0	4.4.0
03/2002	15	RP-020174		1	Correction to physical channels which SCTD can be applied (lub)	4.3.0	4.4.0
03/2002	15	RP-020182		1	Corrections to the Information Exchange Initiation procedure	4.3.0	4.4.0
03/2002	13	KF-020102	303		Corrections to the information Exchange initiation procedure	4.3.0	4.4.0
03/2002	15	RP-020182	586	1	Correction to UE position measurements quality and threshold	4.3.0	4.4.0
03/2002	13	141 020102	300	'	information	4.5.0	7.7.0
03/2002	15	RP-020182	587	1	Correction to UE position measurements change and deviation limit	4.3.0	4.4.0
					formulas		
03/2002	15	RP-020182	601	1	Modification of the T_utran-gps length	4.3.0	4.4.0
					_ 3, 3		
03/2002	15	RP-020182	606		Amendment of the COMMON MEASUREMENT INITIATION	4.3.0	4.4.0
					REQUEST message		
03/2002	15	RP-020182	609	1	ASN.1 and tabular amendments for LCR TDD	4.3.0	4.4.0
03/2002	15	RP-020182	610		Midamble shift LCR in the PHYSICAL SAHRED SCHANNEL	4.3.0	4.4.0
					RECONFIGURATION REQUEST [TDD] message		
00/0000	4.5	DD 000400	047		NIDAD Descriptions	400	4.4.0
03/2002	15	RP-020182	617		NBAP Rapporteur corrections	4.3.0	4.4.0
02/2002	15	DD 000001	600	2	Domoving of channel goding entire "no coding to TDD	420	1 1 2
03/2002	15	RP-020231		2	Removing of channel coding option "no coding" for FDD	4.3.0	4.4.0
06/2002	16	RP-020412		2	Criticality Information Decoding Failure Handling	4.4.0	4.5.0
06/2002 06/2002	16	RP-020412		1	Alignment of tabular and ASN.1 coding for DL power	4.4.0	4.5.0
106/2002	16	RP-020412		1	Correction to RL Restore Indication	4.4.0	4.5.0
	4.0	DD 000440	C 47				
06/2002 06/2002	16 16	RP-020412 RP-020420			Use of PDSCH RL ID for TDD DSCH/USCH Clarification on the Neighboring TDD Cell Measurement information	4.4.0	4.5.0 4.5.0

06/2002	16	RP-020420	653		Introduction of SIB	4.4.0	4.5.0
06/2002	16				Correction to the use of the CFN IE / SFN IE in the Measurement	4.4.0	4.5.0
		RP-020412	661		Initiation procedures		
06/2002	16	RP-020412	664		TFCI 0 definition for TDD	4.4.0	4.5.0
06/2002	16	RP-020412	669	2	NBAP Review Alignment on the ASN.1	4.4.0	4.5.0
06/2002	16	RP-020412	671	1	NBAP Review Alignment of the ASN.1	4.4.0	4.5.0
06/2002	16				Definition of quality figures for SFN-SFN and Tutran-gps	4.4.0	4.5.0
		RP-020420	674	1	measurement value information		
06/2002	16	RP-020412	685	1	Clarification for the usage of the cause value	4.4.0	4.5.0
06/2002	16	RP-020412	697	1	TFCI2 bearer clarification	4.4.0	4.5.0
09/2002	17	RP-020612	705		WG4 Reference Corrections	4.5.0	4.6.0
09/2002	17	RP-020620	687		DSCH Initial Credits	4.5.0	4.6.0
09/2002	17	RP-020614	707		Rx Timing Deviation (TDD) corrections	4.5.0	4.6.0
09/2002	17	RP-020621	717		HS-SCCH Power offset	4.5.0	4.6.0
09/2002	17	RP-020621	742		HS-SCCH Power offset	4.5.0	4.6.0
09/2002	17	RP-020616	709		Clarification on the Common Measurement Reporting procedure	4.5.0	4.6.0
09/2002	17	RP-020589	720	1	Replacing all occurences of P _{SIR} (k) by δP _{curr} in 25.423	4.5.0	4.6.0
09/2002	17	RP-020623	713	2	CQI and ACK/NACK Repetition Factor and Power Offset and k-value	4.5.0	4.6.0
09/2002	17	RP-020623		2	CQI and ACK/NACK Repetition factor and Power Offset and k-value	4.5.0	4.6.0
09/2002	17	RP-020630		2	IP_offset correction	4.5.0	4.6.0
12/2002	18	RP-020754			Alignment of Error Indication procedure text to the latest RNSAP	4.6.0	4.7.0
12/2002	18	RP-020758			Add UL SIR_target for Unsynchronized RL Reconfiguration in	4.6.0	4.7.0
			_		1.28Mcps TDD		
12/2002	18	RP-020757	750		Correction to RX Timing Deviation LCR value range	4.6.0	4.7.0
12/2002	18	RP-020759	752	2	Slot Format for 1.28Mcps TDD	4.6.0	4.7.0
12/2002	18	RP-020754	754		SYNC_DL_Code ID for 1.28Mcps TDD	4.6.0	4.7.0
12/2002	18	RP-020754		1	Clarification on the Minimum Spreading Factor for TDD	4.6.0	4.7.0
12/2002	18	RP-020756		1	Node B Synchronisation for 3.84Mcps TDD	4.6.0	4.7.0
12/2002	18	RP-020754			Clarification to RACH for 1.28Mcps TDD	4.6.0	4.7.0
12/2002	18	RP-020744			Correction for the DL DPDCH transmission	4.6.0	4.7.0
03/2003	19	RP-030068			Clarification to DL Power definition for TDD	4.7.0	4.8.0
03/2003	19	RP-030072			TPC Step Size for TDD	4.7.0	4.8.0
03/2003	19	RP-030069			Clarification to 2nd Interleaving Mode for TDD	4.7.0	4.8.0
03/2003	19	RP-030082	805	1	Corrections to Channelisation Code TFCI Mapping for TDD	4.7.0	4.8.0
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03/2003	19	RP-030066			Corrections to DCH Combining in RL SETUP and RL ADDITION	4.7.0	4.8.0
03/2003	19	RP-030059			Correction of PRACH Midamble for 1.28Mcps TDD	4.7.0	4.8.0
06/2003	20	RP-030325			GPS trigger condition	4.8.0	4.9.0
06/2003	20	RP-030324			Alignment of the Requested Data Value Information IE description	4.8.0	4.9.0
06/2003	20	RP-030326			Correction of Failure message used for logical errors	4.8.0	4.9.0
09/2003	21	RP-030443			Corrections to Tx Diversity	4.9.0	4.10.0
09/2003	21	RP-030444			'On Modification' and 'Periodic' reporting alignment for Information	4.9.0	4.10.0
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12/2003	22	RP-030674	899	1	Correction of wrong number in GPS Timing calculation	4.10.0	4.11.0
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12/2003	22	RP-030674	914	1	Correction of Node B synchronisation procedures	4.10.0	4.11.0
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12/2003	22	RP-030674			ASN.1 corrections for 1.28Mcps TDD	4.10.0	
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12/2003	22	RP-030683			Extension of Requested Data Value IE	4.10.0	
03/2004	23	RP-040058			NBAP ASN.1 Corrections for the CELL SYNCHRONISATION	4.11.0	
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03/2004	23	RP-040059	976		Correction to the threshold of Rx Timing Deviation LCR in tabular	4.11.0	4.12.0
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History

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