

3G TR 25.990 V3.0.0 (1999-10)

Technical Report

3rd Generation Partnership Project; Technical Specification Group Radio Access Network (RAN); Vocabulary (3G TR 25.990 version 3.0.0)



The present document has been developed within the 3rd Generation Partnership Project (3GPP™) and may be further elaborated for the purposes of 3GPP.

The present document has not been subject to any approval process by the 3GPP Organisational Partners and shall not be implemented.

This Specification is provided for future development work within 3GPP only. The Organisational Partners accept no liability for any use of this Specification.

Specifications and reports for implementation of the 3GPP™ system should be obtained via the 3GPP Organisational Partners' Publications Offices.

Vocabulary

Reference

3TS/TSGR-0025990U

Keywords**3GPP**

Postal address

3GPP support office address

650 Route des Lucioles - Sophia Antipolis
Valbonne - FRANCE
Tel.: +33 4 92 94 42 00 Fax: +33 4 93 65 47 16

Internet

<http://www.3gpp.org>

Copyright Notification

No part may be reproduced except as authorized by written permission.
The copyright and the foregoing restriction extend to reproduction in all media.

© 1999, 3GPP Organizational Partners (ARIB, CWTS, ETSI, T1, TTA, TTC).
All rights reserved.

Contents

| | |
|---|-----------|
| Foreword | 4 |
| 1 Scope | 5 |
| 2 References | 5 |
| 3 Terms and definitions related to UTRA Radio aspects | 5 |
| 4 Abbreviations | 11 |
| 4.1 A | 11 |
| 4.2 B | 12 |
| 4.3 C | 12 |
| 4.4 D | 13 |
| 4.5 E | 13 |
| 4.6 F | 13 |
| 4.7 G | 13 |
| 4.8 H | 14 |
| 4.9 I | 14 |
| 4.10 J | 14 |
| 4.11 K | 14 |
| 4.12 L | 14 |
| 4.14 N | 15 |
| 4.15 O | 15 |
| 4.16 P | 15 |
| 4.17 Q | 16 |
| 4.18 R | 16 |
| 4.19 S | 16 |
| 4.20 T | 17 |
| 4.21 U | 17 |
| 4.22 V | 18 |
| 4.23 W | 18 |
| 5 Equations | 19 |
| Annex B (informative): Change Request History | 20 |
| History | 21 |

Foreword

This Technical Report 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 TR, it will be re-released by the TSG with an identifying change of release date and an increase in version number as follows:

Version x.y.z

where:

- x the first digit:
 - 1 presented to TSG for information;
 - 2 presented to TSG for approval;
 - 3 Indicates TSG approved document under change control.
- 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 specification.

1 Scope

This document is a collection of terms, definitions and abbreviations related to the baseline documents defining 3GPP objectives and systems framework. This document provides a tool for further work on 3GPP technical documentation and facilitates their understanding.

The terms, definitions and abbreviations as given in this document are either imported from existing documentation (ETSI, ITU or elsewhere) or newly created by 3GPP experts whenever the need for precise vocabulary was identified.

2 References

References may be made to:

- a) specific versions of publications (identified by date of publication, edition number, version number, etc.), in which case, subsequent revisions to the referenced document do not apply; or
- b) all versions up to and including the identified version (identified by "up to and including" before the version identity); or
- c) all versions subsequent to and including the identified version (identified by "onwards" following the version identity); or
- d) publications without mention of a specific version, in which case the latest version applies.

A non-specific reference to an ETS shall also be taken to refer to later versions published as an EN with the same number.

The present document contains no references.

3 Terms and definitions related to UTRA Radio aspects

A;

Acceptable Cell; This is a cell that the UE may camp on to make emergency calls. It must satisfy certain conditions.

Access Stratum;

Access Stratum SDU (Service Data Unit); Unit of data transferred over the access stratum SAP (Service Access Point) in the Core Network or in the User Equipment.

Active mode; "Active mode" is the state of a User Equipment when processing a call

Active Set; Set of radio links simultaneously involved in a specific communication service between an User Equipment and a UTRAN access point

ALCAP; Generic name for the transport signaling protocols used to set-up and tear-down transport bearers.

Allowable PLMN; This is a PLMN which is not in the list of forbidden PLMNs in the UE

Available PLMN; This is a PLMN where the UE has found a cell that satisfies certain conditions

Average transmit power; The average transmitter output power obtained over any specified time interval, including periods with no transmission

Average Transmitter Power Per Traffic Channel (dBm) ; The mean of the total transmitted power over an entire transmission period

C;

Cable, Connector, and Combiner Losses (Transmitter) (dB); The combined losses of all transmission system components between the transmitter output and the antenna input (all losses in positive dB values).

Cable, Connector, and Splitter Losses (Receiver) (dB); These are the combined losses of all transmission system components between the receiving antenna output and the receiver input

Call Control;

Camped on a cell; The UE is in idle mode and has completed the cell selection/reselection process and has chosen a cell. The UE monitors system information and (in most cases) paging information. Note that the services may be limited, and that the PLMN may not be aware of the existence of the UE within the chosen cell.

Cell; A cell is a geographical area that can be identified by a User Equipment from a (cell) identification that is broadcast from one UTRAN Access Point

Coded Composite Transport Channel (CCTrCH); A data stream resulting from encoding and multiplexing of one or several transport channels

Common Channel; A Channel not dedicated to a specific UE

Control channel; A "control channel" is a logical channel that carries system control information.

Controlling RNC; A role an RNC can take with respect to a specific set of UTRAN access points. There is only one Controlling RNC for any UTRAN access point. The Controlling RNC has the overall control of the logical resources of its UTRAN access point's

Coverage area; The "coverage area" is the area over which a UMTS service is provided with the service probability above a certain threshold.

D;

Dedicated Channel; A channel dedicated to a specific UE

Downlink; A "downlink" is a unidirectional radio link for the transmission of signals from a UTRAN access point to a UE. Also in general the direction from Network to UE.

Drift RNS; The role an RNS can take with respect to a specific connection between a User Equipment and UTRAN. An RNS that supports the Serving RNS with radio resources when the connection between the UTRAN and the User Equipment need to use cell(s) controlled by this RNS is referred to as Drift RNS.

DRX cycle; The individual time interval between reading initial paging information for specific UE

E;

Explicit Diversity Gain (dB); This is the effective gain achieved using diversity techniques.

H;

Hand-off Gain/Loss (dB); This is the gain/loss factor (+ or -) brought by hand-off to maintain specified reliability at the cell boundary.

Handover; The transfer of a user's connection from one radio channel to another (can be the same or different cell).

Hard Handover; Hard handover is a category of handover procedures where all the old radio links in the UE are abandoned before the new radio links are established

Home PLMN; This is a PLMN where the Mobile Country Code (MCC) and Mobile Network Code (MNC) of the PLMN identity are the same as the MCC and MNC of the IMSI

I;

Idle mode; Idle mode is the state of User Equipment switched on but which does not have any established RRC connection.

Information Data

Rate; Rate of the user information, which must be transmitted over the Air Interface. For example, output rate of the voice codec.

Initial paging information; This information indicates if the UE needs to continue to read more paging information and eventually receive a page message.

Initial paging occasion; The paging occasion the UE uses as starting point for its DRX cycle.

Inter-cell handover; An "inter-cell handover" is a handover between different cells. An inter-cell handover requires network connections to be altered

Interference Signal Code Power (ISCP); Given only interference power is received, the average power of the received signal after despreading to the code and combining

Intra-cell handover; An "intra-cell handover" is a handover within one sector or between different sectors of the same cell. An intra-cell handover does not require network connections to be altered

Iu; Interconnection point between an RNC and a Core Network. It is also considered as a reference point.

Iub; Interface between an RNC and a Node B

Iur; A logical interface between two RNC. Whilst logically representing a point to point link between RNCs, the physical realisation may not be a point to point link

L;

Location Registration (LR); The UE registers its presence in a registration area, for instance regularly or when entering a new registration area.

Logical Channel; A logical channel is an information stream dedicated to the transfer of a specific type of information over the radio interface. Logical Channels are provided on top of the MAC layer

Logical Model; A Logical Model defines an abstract view of a network or network element by means of information objects representing network element, aggregations of network elements, the topological relationship between the elements, endpoints of connections (termination points), and transport entities (such as connections) that transport information between two or more termination points.

The information objects defined in the Logical Model are used, among others, by connection management functions. In this way a physical implementation independent management is achieved.

Logical O&M; Logical O&M is the signaling associated with the control of logical resources (channels, cells,) owned by the RNC but physically implemented in the Node B. The RNC controls these logical resources. A number of O&M procedures physically implemented in Node B impact on the logical resources and therefore require an information exchange between RNC and Node B. All messages needed to support this information exchange are classified as Logical O&M forming an integral part of NBAP.

LSA; Localised Service Area. A LSA is an operator-defined area, for which specific access conditions apply. This may correspond to an area in which the Core Network offers specific services. A LSA may be defined within a PLMN or globally. Therefore, a LSA may offer a non-contiguous radio coverage

M;

Macro cells; "Macro cells" are outdoor cells with a large cell radius

Macro diversity handover.; "Macro diversity" is a operation state in which a User Equipment simultaneously has radio links with two or more UTRAN access points for the sole aim of improving quality of the radio connection or providing seamless

Maximum output Power; This refers to the measure of average power at the maximum power setting

Maximum peak power; The peak power observed when operating at a given maximum output power

Maximum Power Setting; The highest value of the Power control setting which can be used.

Maximum Total Transmitter Power (dBm); The aggregate maximum transmit power of all channels.

Maximum Transmitter Power Per Traffic Channel (dBm); The maximum power at the transmitter output for a single traffic channel.

Medium Access Control;

Micro cells; "Micro cells" are small cells

Mobile evaluated handover; Mobile evaluated handover (MEHO) is a type of handover triggered by an evaluation made in the mobile. The mobile evaluates the necessity of handover based on the measured radio environment and based on criteria defined by the network. When the evaluation meets the hand-off criteria the necessary information is sent from the mobile to the network. The network then decides on the necessity of the handover based on the reported evaluation result and other conditions, e.g. uplink radio environment and/or availability of network resources, the network may then execute the handover.

Mobile Station; A "Mobile Station" (MS) is an entity capable of accessing a set of UMTS services via one or more radio interfaces. This entity may be stationary or in motion within the UMTS service area while accessing the UMTS services, and may simultaneously serve one or more users.

Mobility Management; A relation between the mobile station and the UTRAN that is used to set-up, maintain and release the various physical channels

N;

Node B; A logical node responsible for radio transmission / reception in one or more cells to/from the User Equipment. Terminates the Iub interface towards the RNC

Non-Access Stratum; Protocols between UE and the core network that are not terminated in the UTRAN

P;

Paging; Paging is the act of seeking a User Equipment

Paging occasions; The time instances where it is possible to receive initial paging information

Peak Power; The instantaneous power of the RF envelope which is not expected to be exceeded for [99.9%] of the time

Physical channel data stream; In the uplink, a data stream that is transmitted on one physical channel. In the downlink, a data stream that is transmitted on one physical channel in each cell of the active set.

Physical Channel; In FDD mode, a physical channel is defined by code, frequency and, in the uplink, relative phase (I/Q). In TDD mode, a physical channel is defined by code, frequency, and time-slot.

Pico cells; "Pico cells" are cells, mainly indoor cells, with a radius typically less than 50 metres

Power Setting; The value of the control signal, which determines the desired transmitter, output Power. Typically, the power setting would be altered in response to power control commands

R;

Radio access bearer; The service that the access stratum provides to the non-access stratum for transfer of user data between User Equipment and CN.

Radio Access Mode; Mode of the cell, FDD or TDD

Radio Access Network Application Part; : Radio Network Signalling over the Iu.

Radio Access System; UTRA, GSM etc.

Radio Bearer ; The service provided by the RLC layer for transfer of user data between User Equipment and Serving RNC.

Radio frame; A radio frame is a numbered time interval of 10 ms duration used for data transmission on the radio physical channel. A radio frame is divided into 15 time slots of 0.666 ms duration. The unit of data that is mapped to a radio frame (10 ms time interval) may also be referred to as radio frame

Radio interface; The "radio interface" is the tetherless interface between User Equipment and a UTRAN access point. This term encompasses all the functionality required to maintain such interfaces

Radio link; A "radio link" is a logical association between single User Equipment and a single UTRAN access point. Its physical realization comprises one or more radio bearer transmissions

Radio link addition; The procedure where a new radio link is added to the active set.

Radio Link Control;

Radio link removal; The procedure where a radio link is removed from the active set.

Radio Network Controller; This equipment in the RNS is in charge of controlling the use and the integrity of the radio resources

Radio Network Subsystem Application Part; Radio Network Signaling over the Iur

Radio Network Subsystem; Either a full network or only the access part of a UTRAN offering the allocation and the release of specific radio resources to establish means of connection in between an UE and the UTRAN.

A Radio Network Subsystem is responsible for the resources and transmission/reception in a set of cells

Radio Network Temporary Identifier (RNTI);; A Radio Network Temporary Identifier is an identifier for a UE when an RRC connection exists. It is e.g. used by the MAC protocol on common Transport Channels (RACH, FACH, PCH).

Radio Resource Control;

Received Signal Code Power (RSCP);; Given only signal power is received, the average power of the received signal after despreading and combining

Receiver Antenna Gain (dBi); The maximum gain of the receiver antenna in the horizontal plane (specified as dB relative to an isotropic radiator).

Receiver Noise Figure (dB);; Receiver noise figure is the noise figure of the receiving system referenced to the receiver input

Receiver Sensitivity (dBm);; This is the signal level needed at the receiver input that just satisfies the required $E_b/(N_o+I_o)$.

Registered PLMN (RPLMN);; This is the PLMN on which the UE has performed a location registration successfully.

Registration Area; A (NAS) registration area is an area in which the UE may roam without a need to perform location registration, which is a NAS procedure.

Relay; Terminal devices capable of ODMA relay communications

Relay/Seed Gateway; Relay or Seed that communicates with the UTRAN, in either TDD or FDD mode

Relaylink; Relaylink is a communications link between two ODMA relay nodes.

Repeater; A "repeater" is a radio transceiver used to extend the transmission of a base station beyond its normal range.

Required $E_b/(N_o+I_o)$ (dB);; The ratio between the received energy per information bit to the total effective noise and interference power density needed to satisfy the quality objectives

Root Relay; ODMA relay node where communications originate or terminate

RRC Connection; A point-to-point bi-directional connection between RRC peer entities on the UE and the UTRAN sides, respectively. An UE has either zero or one RRC connection

S;

Seamless handover; "Seamless handover" is a handover without perceptible interruption of the radio connection

Sector; A "sector" is a sub-area of a cell. All sectors within one cell are served by the same base station. A radio link within a sector can be identified by a single logical identification belonging to that sector.

Seed; Deployed ODMA relay node with or without a display/keypad.

Selected PLMN; This is the PLMN that has been selected by the non-access stratum, either manually or automatically

Service Access Point;

Serving RNS; A role an RNS can take with respect to a specific connection between an UE and UTRAN. There is one Serving RNS for each UE that has a connection to UTRAN. The Serving RNS is in charge of the RRC connection between a UE and the UTRAN. The Serving RNS terminates the Iu for this

Shared Channel;

Signaling connection; An acknowledged-mode link between the user equipment and the core network to transfer higher layer information between the entities in the non-access stratum.

Signaling link; Provides an acknowledged-mode link layer to transfer the MS-UTRAN signaling messages as well as MS - Core Network signaling messages (using the signaling connection

Soft Handover; Soft handover is a category of handover procedures where the radio links are added and abandoned in such manner that the UE always keeps at least one radio link to the UTRAN.

SRNS Relocation; The change of Iu instance and transfer of the SRNS role to another RNS.

Suitable Cell; This is a cell on which an UE may camp. It must satisfy certain conditions

T;

Test environment; A "test environment" is the combination of a test propagation environment and a deployment scenario, which together describe the parameters necessary to perform a detailed analysis of a radio transmission technology.

Traffic channel; A "traffic channel" is a logical channel which carries user information

Transmission Time Interval; Transmission Time Interval is defined as the inter-arrival time of Transport Block Sets, i.e. the time it should take to transmit a Transport Block Set.

Transmitter Antenna Gain (dBi); The maximum gain of the transmitter antenna in the horizontal plane (specified as dB relative to an isotropic radiator

Transport Block; Transport Block is defined as the basic unit passed down to L1 from MAC, for L1 processing. An equivalent term for Transport Block is "MAC PDU".

Transport Block Set; Transport Block Set is defined as a set of Transport Blocks that is passed to L1 from MAC at the same time instance using the same transport channel. An equivalent term for Transport Block Set is "MAC PDU Set".

Transport Block Set Size; Transport Block Set Size is defined as the number of bits in a Transport Block Set

Transport Block Size; Transport Block Size is defined as the size (number of bits) of a Transport Block

Transport channel; The channels offered by the physical layer to Layer 2 for data transport between peer L1 entities are denoted as Transport Channels. Different types of transport channels are defined by how and with which characteristics data is transferred on the physical layer, e.g. whether using dedicated or common physical channels

Transport Format; A Transport Format is defined as a format offered by L1 to MAC for the delivery of a Transport Block Set during a Transmission Time Interval on a Transport Channel. The Transport Format constitutes of two parts – one dynamic part and one semi-static part.

Transport Format Combination; A Transport Format Combination is defined as the combination of currently valid Transport Formats on all Transport Channels of an MS, i.e. containing one Transport Format from each Transport Channel.

Transport Format Combination Set; A Transport Format Combination Set is defined as a set of Transport Format Combinations to be used by an MS

Transport Format Combination Indicator (TFCD); A Transport Format Combination Indicator is a representation of the current Transport Format Combination

Transport Format Identification (TFI); A label for a specific Transport Format within a Transport Format Set.

Transport Format Set; A set of Transport Formats. For example, a variable rate DCH has a Transport Format Set (one Transport Format for each rate), whereas a fixed rate DCH has a single Transport Format

U;

Universal Terrestrial Radio Access Network; UTRAN is a conceptual term identifying that part of the network which consists of RNCs and Node Bs between Iu and Uu

Uplink; An "uplink" is a unidirectional radio link for the transmission of signals from a UE to a base station, from a Mobile Station to a mobile base station or from a mobile base station to a base station

URA updating; URA updating is a family of procedures that updates the UTRAN registration area of a UE when a RRC connection exists and the position of the UE is known on URA level in the UTRAN

User Equipment; A Mobile Equipment with one or several UMTS Subscriber Identity Modules(s).

UTRAN Registration Area (URA); The UTRAN Registration Area is an area covered by a number of cells. The URA is only internally known in the UTRAN.

UTRAN access point; A conceptual point within the UTRAN performing radio transmission and reception. A UTRAN access point is associated with one specific cell, i.e. there exists one UTRAN access point for each cell. It is the UTRAN-side end point of a radio link.

Uu; The Radio interface between UTRAN and the User Equipment

V;

Visited PLMN of home country; This is a PLMN, different from the home PLMN, where the MCC part of the PLMN identity is the same as the MCC of the IMSI.

4 Abbreviations

4.1 A

| | |
|-------|--|
| AAL | ATM Adaptation Layer |
| AAL2 | ATM Adaptation Layer type 2 |
| AAL5 | ATM Adaptation Layer type 5 |
| ACCH | Associated Control Channel |
| ACIR | Adjacent Channel Interference Ratio |
| ACK | Acknowledgement |
| ACLR | Adjacent Channel Leakage Power Ratio |
| ACS | Adjacent Channel Selectivity |
| AESA | ATM End System Address |
| AI | Acquisition Indicator |
| AICH | Acquisition Indication Channel |
| ALCAP | Access Link Control Application Protocol |
| AP | Access preamble |

| | |
|-------|-------------------------------|
| ARP | Address Resolution Protocol |
| ARQ | Automatic Repeat Request |
| AS | Access Stratum |
| ASC | Access Service Class |
| ASN.1 | Abstract Syntax Notation One |
| ATM | Asynchronous Transfer Mode |
| AWGN | Additive White Gaussian Noise |

4.2 B

| | |
|------|-------------------------------------|
| BCCH | Broadcast Control Channel |
| BCFE | Broadcast Control Functional Entity |
| BCH | Broadcast Channel |
| BER | Bit Error Rate |
| BID | Binding Identity |
| BLER | Block Error Rate |
| BPSK | Binary Phase Shift Keying |
| BS | Base Station |
| BSC | Base Station Controller |
| BSS | Base Station System |
| BTS | Base Transceiver Station |

4.3 C

| | |
|--------|--|
| C- | Control- |
| CA | Capacity Allocation |
| CAA | Capacity Allocation Acknowledgement |
| CB | Cell Broadcast |
| CBR | Constant Bit Rate |
| CC | Call Control |
| CCCH | Common Control Channel |
| CCH | Control Channel |
| CCPCH | Common Control Physical Channel |
| CCTrCH | Coded Composite Transport Channel |
| CD | Capacity Deallocation or Collision Detection |
| CDA | Capacity Deallocation Acknowledgement |
| CDMA | Code Division Multiple Access |
| CFN | Connection Frame Number |
| CN | Core Network |
| CPICH | Common Pilot Channel |
| CPCH | Common Packet Channel |
| CPCS | Common Part Convergence Sublayer |
| CPS | Common Part Sublayer |
| CRC | Cyclic Redundancy Check |
| CRNC | Controlling Radio Network Controller |
| CS | Circuit Switched |
| CTCH | Common Traffic Channel |
| CTDMA | Code Time Division Multiple Access |
| SCTP | S Common Transport Protocol CHECK WITH wg3 |
| CW | Continuous Wave (unmodulated signal) |

4.4 D

| | |
|---------|---|
| DC | Dedicated Control (SAP) |
| DCA | Dynamic Channel Allocation |
| DCCH | Dedicated Control Channel |
| DCH | Dedicated Channel |
| DHO | Diversity Handover |
| DL | Downlink (Forward Link) |
| DPCCH | Dedicated Physical Control Channel |
| DPCH | Dedicated Physical Channel |
| DPDCH | Dedicated Physical Data Channel |
| DRNC | Drift Radio Network Controller |
| DRNS | Drift RNS |
| DRX | Discontinuous Reception |
| DS-CDMA | Direct-Sequence Code Division Multiple Access |
| DSCH | Downlink Shared Channel |
| DTCH | Dedicated Traffic Channel |
| DTX | Discontinuous Transmission |

4.5 E

| | |
|------|-------------------------------------|
| EIRP | Equivalent Isotropic Radiated Power |
|------|-------------------------------------|

4.6 F

| | |
|--------|--------------------------------------|
| FACH | Forward Access Channel |
| FAUSCH | Fast Uplink Signaling Channel |
| FBI | Feedback Information |
| FCS | Frame Check Sequence |
| FDD | Frequency Division Duplex |
| FDMA | Frequency Division Multiple Access |
| FEC | Forward Error Correction |
| FER | Frame Erasure Rate, Frame Error Rate |
| FN | Frame Number |
| FP | Frame Protocol |

4.7 G

| | |
|------|-------------------------------|
| GC | General Control (SAP) |
| GMSK | Gaussian Minimum Shift Keying |

| | |
|------|---|
| GP | Guard Period |
| GPRS | General Packet Radio System |
| GSM | Global System for Mobile communications |
| GTP | GPRS Tunneling Protocol |

4.8 H

| | |
|-----|-----------------------------|
| HCS | Hierarchical Cell Structure |
| HHO | Hard Handover |
| HO | Handover |

4.9 I

| | |
|------|--|
| IMA | Inverse Multiplexing on ATM |
| IMSI | International Mobile Subscriber Identity |
| IP | Internet Protocol |
| IP-M | IP Multicast |
| ISCP | Interference Signal Code Power |
| ITU | International Telecommunication Union |

4.10 J

| | |
|----|---------------------|
| JD | Joint Detection |
| JP | Joint Predistortion |

4.11 K

| | |
|------|-------------------------|
| kbps | kilo-bits per second |
| ksps | kilo-symbols per second |

4.12 L

| | |
|-----|---------------------------|
| L1 | Layer 1 (physical layer) |
| L2 | Layer 2 (data link layer) |
| L3 | Layer 3 (network layer) |
| LAC | Link Access Control |
| LAI | Location Area Identity |
| LCD | Low Constrained Delay |
| LLC | Logical Link Control |
| LSA | Local Service Area |

4.13 M

| | |
|------|---------------------------------|
| MA | Multiple Access |
| MAC | Medium Access Control |
| MCC | Mobile Country Code |
| Mcps | Mega-chips per second |
| MDS | Multimedia Distribution Service |

| | |
|--------|----------------------------------|
| ME | Mobile Equipment |
| MEHO | Mobile evaluated handover |
| MER | Message Error Rate |
| MM | Mobility Management |
| MNC | Mobile Network Code |
| MO | Mobile Originated |
| MOHO | Mobile Originated Handover |
| MS | Mobile Station |
| MSID | Mobile Station Identifier |
| MSC | Mobile Services Switching Center |
| MT | Mobile Terminated |
| MTP | Message Transfer Part |
| MTP3-B | Message Transfer Part level 3 |
| MUI | Mobile User Identifier |

4.14 N

| | |
|------|------------------------------|
| NAS | Non-Access Stratum |
| NBAP | Node B Application Part |
| NEHO | Network evaluated handover |
| NNI | Network-Node Interface |
| NRT | Non-Real Time |
| NSAP | Network Service Access Point |
| Nt | Notification (SAP) |

4.15 O

| | |
|-------|--------------------------------------|
| OCCCH | ODMA Common Control Channel |
| ODCCH | ODMA Dedicated Control Channel |
| ODCH | ODMA Dedicated Channel |
| ODMA | Opportunity Driven Multiple Access |
| O&M | Operation and Management |
| ORACH | ODMA Random Access Channel |
| ODTCH | ODMA Dedicated Traffic Channel |
| OVSF | Orthogonal Variable Spreading Factor |

4.16 P

| | |
|--------|--|
| PC | Power Control |
| PCCC | Parallel Concatenated Convolutional Code |
| PCCH | Paging Control Channel |
| PCH | Paging Channel |
| PCPCH | Physical Common Packet Channel |
| PCCPCH | Primary Common Control Physical Channel |
| PCS | Personal Communication System |
| PDH | Plesiochronous Digital Hierarchy |
| PDSCH | Physical Downlink Shared Channel |
| PDU | Protocol Data Unit |
| PG | Processing Gain |
| PHS | Personal Handyphone System |
| PHY | Physical layer |
| PhyCH | Physical Channel |

| | |
|-------|---|
| PI | Page Indicator |
| PICH | Page Indication Channel |
| PID | Packet Identification |
| PLMN | Public Land Mobile Network |
| PMD | Physical Media Dependent |
| PN | Pseudo Noise |
| PPM | Parts Per Million |
| PRACH | Physical Random Access Channel |
| PS | Packet Switched |
| PSC | Primary Synchronization Code PSCCCH |
| PSCH | Physical Shared Channel |
| PTM | Point-to-Multipoint |
| PTM-G | PTM Group Call |
| PTM-M | PTM Multicast |
| PU | Payload Unit |
| | Physical Shared Channel Control Channel |

4.17 Q

| | |
|------|--|
| QoS | Quality of Service |
| QPSK | Quadrature (Quaternary) Phase Shift Keying |

4.18 R

| | |
|-------|--|
| RAB | Radio Access Bearer |
| RACH | Random Access Channel |
| RANAP | Radio Access Network Application Part |
| RF | Radio Frequency |
| RL | Radio Link |
| RLC | Radio Link Control |
| RLCP | Radio Link Control Protocol |
| RNC | Radio Network Controller |
| RNS | Radio Network Subsystem |
| RNSAP | Radio Network Subsystem Application Part |
| RNTI | Radio Network Temporary Identity |
| RRC | Radio Resource Control |
| RRM | Radio Resource Management |
| RSCP | Received Signal Code Power |
| RSSI | Received Signal Strength Indicator |
| RT | Real Time |
| RU | Resource Unit |
| RX | Receive |

4.19 S

| | |
|--------|---|
| SAAL | Signaling ATM Adaptation Layer |
| SACCH | Slow Associated Control Channel |
| SAP | Service Access Point |
| SAR | Segmentation and Reassembly |
| SCCH | Synchronization Control Channel |
| SCCPCH | Secondary Common Control Physical Channel |
| SCH | Synchronization Channel |
| SDCCH | Stand-Alone Dedicated Control Channel |

| | |
|----------|---|
| SDH | Synchronous Digital Hierarchy |
| SDU | Service Data Unit |
| SF | Spreading Factor |
| SFN | System Frame Number |
| SIR | Signal-to-Interference Ratio |
| SMS | Short Message Service |
| SMS-CB | SMS Cell Broadcast |
| SP | Switching Point |
| SRNC | Serving Radio Network Controller |
| SRNS | Serving RNS |
| SS7 | Signaling System No. 7 |
| SSC | Secondary Synchronization Code |
| SSCOP | Service Specific Connection Oriented Protocol |
| SSCF | Service Specific Co-ordination Function |
| SSCF-NNI | Service Specific Coordination Function – Network Node Interface |
| SSCS | Service Specific Convergence Sublayer |
| SSDT | Site Selection Diversity Transmission |
| SSSAR | Service Specific Segmentation and Re-assembly sublayer |
| STC | Signaling Transport Converter |
| STTD | Space Time Transmit Diversity |

4.20 T

| | |
|------|--|
| TC | Transmission Convergence |
| TCH | Traffic Channel |
| TDD | Time Division Duplex |
| TDMA | Time Division Multiple Access |
| TF | Transport Format |
| TFC | Transport Format Combination |
| TFCI | Transport Format Combination Indicator |
| TFCS | Transport Format Combination Set |
| TFI | Transport Format Indicator |
| TFS | Transport Format Set |
| TMSI | Temporary Mobile Subscriber Identity |
| TN | Termination Node |
| TPC | Transmit Power Control |
| TrCH | Transport Channel |
| TSTD | Time Switched Transmit Diversity |
| TTI | Transmission Timing Interval |
| TX | Transmit |

4.21 U

| | |
|-----------------|--|
| UARFCN | UTRA Absolute Radio Frequency Channel Number |
| UARFN | UTRA Absolute Radio Frequency Number |
| UDD | Unconstrained Delay Data |
| UDP | User Datagram Protocol |
| UE | User Equipment |
| UE _r | User Equipment with ODMA relay operation enabled |
| UL | Uplink (Reverse Link) |
| UMTS | Universal Mobile Telecommunications System |
| UNI | User-Network Interface |
| UP | User Plane |
| URA | User Registration Area |

| | |
|-------|--|
| USCH | Uplink Shared Channel |
| USIM | UMTS Subscriber Identity Module |
| UTRA | Universal Terrestrial Radio Access |
| UTRAN | Universal Terrestrial Radio Access Network |

4.22 V

| | |
|-----|-----------------------|
| VA | Voice Activity factor |
| VBR | Variable Bit Rate |
| VC | Virtual Circuit |

4.23 W

| | |
|-------|--|
| WCDMA | Wideband Code Division Multiple Access |
|-------|--|

5 Equations

| | |
|------------------------------|---|
| $DPCH_E_c$ | Average energy per PN chip for DPCH. |
| $\frac{DPCH_E_c}{I_{or}}$ | The ratio of the received energy per PN chip of the DPCH to the total transmit power spectral density at the BS antenna connector. |
| E_b | Average energy per information bit for the PCCPCH, SCCPCH and DPCH, at the UE antenna connector. |
| $\frac{E_b}{N_t}$ | The ratio of combined received energy per information bit to the effective noise power spectral density for the PCCPCH, SCCPCH and DPCH at the UE antenna connector. Following items are calculated as overhead: pilot, TPC, TFICI, CRC, tail, repetition, convolution coding and turbo coding. |
| E_c | Average energy per PN chip. |
| $\frac{E_c}{I_{or}}$ | The ratio of the average transmit energy per PN chip for different fields or physical channels to the total transmit power spectral density. |
| F_{uw} | Frequency of unwanted signal |
| I_o | The total received power spectral density, including signal and interference, as measured at the UE antenna connector. |
| I_{oc} | The power spectral density of a band limited white noise source (simulating interference from other cells) as measured at the UE antenna connector. |
| I_{or} | The total transmit power spectral density of the Forward link at the base station antenna connector. |
| \hat{I}_{or} | The received power spectral density of the Forward link as measured at the UE antenna connector. |
| N_t | The effective noise power spectral density at the UE antenna connector. |
| $OCNS_E_c$ | Average energy per PN chip for the OCNS. |
| $\frac{OCNS_E_c}{I_{or}}$ | The ratio of the average transmit energy per PN chip for the OCNS to the total transmit power spectral density. |
| $PCCPCH \frac{E_c}{I_o}$ | The ratio of the received PCCPCH energy per chip to the total received power spectral density at the UE antenna connector. |
| $\frac{PCCPCH_E_c}{I_{or}}$ | The ratio of the average transmit energy per PN chip for the PCCPCH to the total transmit power spectral density. |
| $SCCPCH$ | Secondary Common Control Physical Channel. |
| $SCCPCH_E_c$ | Average energy per PN chip for SCCPCH. |

Annex B (informative): Change Request History

| TSG_M | TSG_DOC | SPEC | VERS_ | VERS | CR | RE | SUBJECT |
|-------|---------|------|-------|------|----|----|---------|
| | | | | | | | |

History

| Document history | |
|---|------------------------------|
| 8-Oct -99 | V.3.0.0 Approved by TSGRAN#5 |
| | |
| | |
| | |
| Editor: Peter Okrah Motorola SPS Tel. : +1 480-413-6414 Fax : +1 480-413-6480 Email : Peter.Okrah@motorola.com | |
| This document was written in Microsoft Word 97. | |