

5 Test environment for RF test

This section contains all the exceptions of the common test parameters specified in clause 4 for specific needs of test cases defined in TS 36.521-1 [21]. Exceptions specified in clause 5 overwrite the parameter settings of clause 4; exceptions defined within the test cases overwrite parameter settings of clause 4 and 5.

5.1 Requirements of *test* equipment

No common RF test environment requirements are specified in addition to the common requirements described in clause 4.2. Specific RF requirements are indicated within the test cases defined in TS 36.521-1 [21].

5.2 RF Reference system configurations

5.2.1 Common parameters for simulated E-UTRA cells

5.2.1.1 Combinations of system information blocks

The combination of system information blocks required by a test case depends on the test case scenario. In this clause, the following combinations of system information blocks are defined.

Combination 1 is the default combination which applies to the following test case scenarios:

- E-UTRA FDD single cell scenario
- E-UTRA TDD single cell scenario
- E-UTRA FDD intra-frequency multi cell scenario
- E-UTRA TDD intra-frequency multi cell scenario

Combination 2 applies to the following test case scenarios:

- E-UTRA FDD + MBMS
- E-UTRA TDD + MBMS

Combination 3 applies to the following test case scenarios:

- E-UTRA FDD intra-band carrier aggregation component carriers cell scenario
- E-UTRA FDD inter-band carrier aggregation component carriers cell scenario
- E-UTRA TDD intra-band carrier aggregation component carriers cell scenario

The combinations of system information blocks for test cases in TS 36.521-1 [21] is defined in table 5.2-1.1-1.

Table 5.2.1.1-1: Combinations of system information blocks

Combination No.	System information block type											
	SIB2	SIB3	SIB4	SIB5	SIB6	SIB7	SIB8	SIB9	SIB10	SIB11	SIB12	SIB13
1	X	X										
2	X	X										X
3	X	X		X								

5.2.1.2 Scheduling of system information blocks

The scheduling configurations for combinations of system information blocks are defined in the following tables. SIB1 will be transmitted during subframes#5 which $SFN \bmod 2 = 0$, and SIB2+SIB3 will be transmitted during

subframes#5 which SFN mod 2 = 1 with 8 radio frames periodicity. SIB5 will be transmitted during subframes#5 which SFN mod 2 = 1 with 64 radio frames periodicity

Table 5.2.1.2-1: Scheduling for combination 1

Scheduling Information No.	Periodicity [radio frames]	Mapping of system information blocks
1	8	SIB2, SIB3

Table 5.2.1.2-2: Scheduling for combination 2

Scheduling Information No.	Periodicity [radio frames]	Mapping of system information blocks
1	8	SIB2, SIB3
2	64	SIB13

Table 5.2.1.2-3: Scheduling for combination 3

Scheduling Information No.	Periodicity [radio frames]	Mapping of system information blocks
1	8	SIB2, SIB3
2	64	SIB5

- SystemInformationBlockType2

As defined in Table 4.4.3.3-1 with the following exceptions:

Table 5.2.1.2-2: SystemInformationBlockType2 exceptions

Derivation Path: 36.331 clause 6.3.1			
Information Element	Value/remark	Comment	Condition
SystemInformationBlockType2 ::= SEQUENCE {			
timeAlignmentTimerCommon	infinity		
}			

5.2.1.3 Common contents of system information messages

- MasterInformationBlock

As defined in Table 4.4.3.2-1 without exceptions.

- SystemInformation

As defined in Table 5.2.1.3-1As defined in Table without exceptions.

Table 5.2.1.3-1: System Information

Derivation Path: Clause 4.4.3.2 Table 4.4.3.2-2			
Information Element	Value/remark	Comment	Condition
SystemInformation ::= SEQUENCE {			
criticalExtensions CHOICE {			
systemInformation-r8 SEQUENCE {			
sib-TypeAndInfo SEQUENCE (SIZE (1..maxSIB)) OF CHOICE {}	See subclause 5.2.1.1 and 5.2.1.2		
criticalExtensionsFuture SEQUENCE {}	Not present		
}			
}			
}			

- SystemInformationBlockType1

As defined in Table 4.4.3.2-3 with the following exceptions:

Table 5.2.1.3-2: System InformationBlockType1 exceptions

Derivation Path: Clause 4.4.3.2 Table 4.4.3.2-3			
Information Element	Value/remark	Comment	Condition
SystemInformationBlockType1 ::= SEQUENCE {			
si-WindowLength	ms40		
}			

5.2A Generic RF procedures

Editor's note: The UE test state used for testing is specified in the individual test cases in the corresponding test specification TS 36.521-1 [21] or TS 36.521-3 [34].

This clause describes UE test states which can be used in the initial condition of many test cases defined in TS 36.521-1 [21] and TS 36.521-3 [34].

5.2A.1 UE RF test states

Table 5.2A.1-1: The E-UTRAN UE states

		RRC	ECM	EMM	ESM	UE Test Mode
State 3A-RF	Generic Default RB Established, UE Test Mode Activated	RRC_CONNECTED 1 data radio bearer configured	ECM-CONNECTED	EMM-REGISTERED	1 default EPS bearer context active	Active

5.2A.2 Generic Default Radio Bearer Establishment, UE Test Mode Activated (State 3A-RF)

5.2A.2.1 Initial conditions

System Simulator:

- 1 cell, default parameters.
- The procedure shall be performed under ideal radio conditions as defined in clause 5

User Equipment:

- The Test USIM shall be inserted.

5.2A.2.2 Definition of system information messages

The default system information messages are used.

5.2A.2.3 Procedure

Table 5.2A.2.3-1: UE registration with default EPS bearer establishment and test mode activation procedures

Step	Procedure	Message Sequence	
		U - S	Message
1 to 18	Same procedure for steps 1 to 18 as specified in the procedure in clause 4.5.2A.3	-	-

5.2A.2.4 Specific message contents

All specific message contents shall be referred to clause 4.5.2A.4, with the exceptions below.

Table 5.2A.2.4-1: ACTIVATE DEFAULT EPS BEARER CONTEXT REQUEST (Step 16 in Table 4.5.2A.3-1)

Derivation Path: Table 4.7.3-6			
Information Element	Value/remark	Comment	Condition
PDN address			
Length of PDN address contents	5 octets		
PDN type value	'001'B	IPv4	
PDN address information	IPv4 address	The SS provides a valid IPv4 address	
ESM cause	IF "PDN type" IE in step 4 is 'IPv4v6' THEN '00110010'B ELSE Not present	"PDN type IPv4 only allowed"	

5.2A.3 Void

5.2A.4 Procedure to configure SCC

Table 5.2A.4-1: UE RRC reconfiguration with sCELLToAdd

Step	Procedure	Message Sequence	
		U - S	Message
1	The SS transmits an <i>RRCConnectionReconfiguration(sCellToAddModList)</i> message to establish the SCC.	<--	RRC: <i>RRCConnectionReconfiguration</i>
2	The UE transmits an <i>RRCConnectionReconfigurationComplete</i>	-->	RRC: <i>RRCConnectionReconfigurationComplete</i>

5.2 A.41. Specific message contents

All specific message contents shall be referred to clause 4.5.2A.4, with exceptions as below.

5.2A.4.1.1 Exceptions for all CA tests

RRCConnectionReconfiguration

Table 5.2A.4.1.1-1: RRCConnectionReconfiguration

Derivation Path: Clause 4.6.1 Table 4.6.1-8, condition SCell_AddMod

MAC configurations

Table 5.2A.4.1.1-2: MAC-MainConfig-RBC

Derivation Path: Clause 4.8.2.1.5 Table 5.5.1.1-1, condition Scell_AddMod			
Information Element	Value/remark	Comment	Condition
MAC-MainConfig-RBC ::= SEQUENCE {			
mac-MainConfig-v1020SEQUENCE {			SCell_AddMod
sCellDeactivationTimer-r10	Not present		
extendedBSR-Sizes-r10	Not Present		
extendedPHR-r10	Not Present		
}			
}			

Condition	Explanation
SCell_AddMod	Addition or modification of Scell

5.2A.4.1.2 Exceptions for UL CA tests

RadioResourceConfigCommonSCell-r10-DEFAULT

Table 5.2A.4.1.2-1: RadioResourceConfigCommonSCell-r10-DEFAULT

Derivation Path: Clause 4.6.3 Table 4.6.3-13A			
Information Element	Value/remark	Comment	Condition
RadioResourceConfigCommonSCell-r10 ::= SEQUENCE {			
ul-Configuration-r10 SEQUENCE {			UL CA
ul-FreqInfo-r10 SEQUENCE {			
ul-CarrierFreq-r10	Not Present	For FDD: If absent, the (default) value determined from the default TX-RX frequency separation defined in 3GPP TS 36.101 [27], table 5.7.3-1 applies. For TDD: This parameter is absent and it is equal to the downlink frequency.	
ul-Bandwidth-r10	Not Present	Same downlink bandwidth as used for target SCell	
additionalSpectrumEmissionSCell-r10	1 (CA_NS_01)		
}			
soundingRS-UL-ConfigCommon-r10	Not present		
}			
}			

Condition	Explanation
UL CA	When UL Carrier Aggregation is used.

PhysicalConfigDedicatedSCell-r10-DEFAULT

Table 5.2A.4.1.2-2: PhysicalConfigDedicatedSCell-r10-DEFAULT

Derivation Path: Clause 4.6.3 Table 4.6.3-6A			
Information Element	Value/remark	Comment	Condition
PhysicalConfigDedicatedSCell-r10 ::= SEQUENCE {			
ul-Configuration-r10	Present		
ul-Configuration-r10 SEQUENCE {			UL CA
antennaInfoUL-r10	Not Present		
pusch-ConfigDedicatedSCell-r10	Not present		
uplinkPowerControlDedicatedSCell-r10	UplinkPowerControlDedicatedSCell-r10-DEFAULT		
cqi-ReportConfigSCell-r10	Not present		
soundingRS-UL-ConfigDedicated-r10	Not present		
soundingRS-UL-ConfigDedicated-v1020	Not present		
soundingRS-UL-ConfigDedicatedAperiodic-r10	Not present		
}			
}			

Condition	Explanation
UL CA	When UL Carrier Aggregation is used.

5.3 Default RRC message and information elements contents

5.3.1 Radio resource control information elements

As defined in clause 4.6.3 with the following exceptions:

Table 5.3.1-1: TDD-Config-DEFAULT

Derivation Path: Clause 4.6.3 Table 4.6.3-23			
Information Element	Value/remark	Comment	Condition
TDD-Config-DEFAULT ::= SEQUENCE {			
subframeAssignment	sa1		
specialSubframePatterns	ssp4		RF
}			

Condition	Explanation
RF	For all the RF tests specified in 36.521-1

Table 5.3.1-2: RadioResourceConfigCommonSIB-DEFAULT

Derivation Path: Clause 4.6.3 Table 4.6.3-14			
Information Element	Value/remark	Comment	Condition
RadioResourceConfigCommonSIB-DEFAULT ::= SEQUENCE {			
rach-ConfigCommon	RACH-ConfigCommon-DEFAULT		
bcch-Config	BCCH-Config-DEFAULT		
pcch-Config	PCCH-Config-DEFAULT		
prach-Config	PRACH-ConfigSIB-DEFAULT		
pdsch-ConfigCommon	PDSCH-ConfigCommon-DEFAULT		
pusch-ConfigCommon	PUSCH-ConfigCommon-DEFAULT		
pucch-ConfigCommon	PUCCH-ConfigCommon-DEFAULT		
soundingRS-UL-ConfigCommon CHOICE {			
release	NULL		
}			
uplinkPowerControlCommon	UplinkPowerControlCommon-DEFAULT		
ul-CyclicPrefixLength	len1		
}			

Table 5.3.1-3: PRACH-Config-DEFAULT

Derivation Path: Clause 4.6.3 Table 4.6.3-7			
Information Element	Value/remark	Comment	Condition
PRACH-Config-DEFAULT ::= SEQUENCE {			
prach-ConfigInfo SEQUENCE {			
prach-ConfigIndex	3		TDD
}			
}			

Condition	Explanation
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TDD	TDD cell environment
-----	----------------------

Table 5.3.1-4: RadioResourceConfigCommonSCell-r10-DEFAULT

Derivation Path: Clause 4.6.3 Table 4.6.3-13A			
Information Element	Value/remark	Comment	Condition
RadioResourceConfigCommonSCell-r10 ::= SEQUENCE {			
ul-Configuration-r10	Not Present		
ul-Configuration-r10 SEQUENCE {	Not Present		
}			

Table 5.3.1-5: PhysicalConfigDedicatedSCell-r10-DEFAULT

Derivation Path: Clause 4.6.3 Table 4.6.3-6A			
Information Element	Value/remark	Comment	Condition
PhysicalConfigDedicatedSCell-r10 ::= SEQUENCE {			
ul-Configuration-r10	Not Present		
ul-Configuration-r10 SEQUENCE {	Not Present		
}			

5.4 Default NAS message and information elements contents

5.5 Reference radio bearer configurations

5.5.1 SRB and DRB parameters

5.5.1.1 MAC configurations

As defined in clause 4.8.2.1.5 with the following exceptions:

Table 5.5.1.1-1: MAC-MainConfig-RBC

Derivation Path: Clause 4.8.2.1.5, Table 4.8.2.1.5-1			
Information Element	Value/remark	Comment	Condition
MAC-MainConfig-RBC ::= SEQUENCE {			
ul-SCH-Config	Not present		SCell_AddMod
ul-SCH-Config SEQUENCE {			
maxHARQ-Tx	n1	Only one transmission per UL HARQ	
}			
drx-Config	Not present		SCell_AddMod
drx-Config CHOICE {			
release	NULL		
}			
timeAlignmentTimerDedicated	infinity		
}			

Condition	Explanation
SCell_AddMod	Addition or modification of Scell

5.5.1.2 Physical Layer configurations

Table 5.5.1.2-1: PhysicalConfigDedicated-DEFAULT

Derivation Path: Clause 4.8.2.1.6 Table 4.8.2.1.6-1			
Information Element	Value/remark	Comment	Condition
PhysicalConfigDedicated-DEFAULT ::= SEQUENCE {			
pdsch-ConfigDedicated	PDSCH-ConfigDedicated-DEFAULT	See subclause 4.6.3	SRB1
	Not present		RBC
pucch-ConfigDedicated	PUCCH-ConfigDedicated-DEFAULT	See subclause 4.6.3	SRB1
	Not present		RBC
pusch-ConfigDedicated	PUSCH-ConfigDedicated-DEFAULT	See subclause 4.6.3	SRB1
	Not present		RBC
uplinkPowerControlDedicated	UplinkPowerControlDedicated-DEFAULT	See subclause 4.6.3	SRB1
	Not present		RBC
tpc-PDCCH-ConfigPUCCH	Not present		SRB1
	TPC-PDCCH-Config-DEFAULT using condition PUCCH	See subclause 4.6.3	RBC
tpc-PDCCH-ConfigPUSCH	Not present		SRB1
	TPC-PDCCH-Config-DEFAULT using condition PUSCH	See subclause 4.6.3	RBC
cqi-ReportConfig	Not present		SRB1
	Not present		RBC
soundingRS-UL-ConfigDedicated	Not present		SRB1
	Not present		RBC
antennaInfo CHOICE {			
defaultValue	NULL		
}			
schedulingRequestConfig	Not present		SRB1
	Not present	See subclause 4.6.3	RBC
}			
cqi-ReportConfig-r10	Not present		SCell_AddMod

Condition	Explanation
SRB1	Used at configuration of SRB1 during RRC connection (re-)establishment
RBC	Used at configuration of a radio bearer combination during SRB2+DRB establishment
SCell_AddMod	Addition or modification of SCell

5.5.1.3 SRB and DRB combinations

5.5.1.3.1 Combinations on DL-SCH and UL-SCH

5.5.1.3.1.1 SRB1 and SRB2 for DCCH + n x AM DRB + m x UM DRB, where n=1 and m=0

This SRB and DRB combination is setup in UE Registration procedure and the Generic Radio Bearer Establishment with UE Test Mode Activated using specific message content - the default *RRCConnectionReconfiguration* message with condition SRB2-DRB(n, m).

6 Test environment for Signalling test

6.1 Requirements of test equipment

The requirements of test equipment specified in this subclause apply to Signalling test cases defined in TS 36.523-1 [18], in addition to the common requirements of test equipment specified in clause 4.2 of this specification.

Test equipment shall be able to simulate cells of Radio Access Technology (RAT) E-UTRA, UTRA, GSM or HRPD / 1xRTT. Regardless of respective RAT, the overall number and configuration of cells to be simulated simultaneously by test equipment shall not exceed the resources specified in the following Table 6.1-1:

Table 6.1-1: Maximum resources in terms of number / configuration of cells to be simulated simultaneously in a test setup

Simulation of	Max. number / configuration of cells (SISO / SIMO)	Max. number / configuration of cells (MIMO)
E-UTRA single-mode networks (FDD or TDD)	3x cells	n/a
E-UTRA dual-mode networks (FDD and TDD)	3x cells	n/a
E-UTRA networks involving Carrier Aggregation	4x cells	n/a
Mixed E-UTRA / UTRA networks	3x cells	n/a
Mixed E-UTRA / GSM networks	3x cells	n/a
Mixed E-UTRA / HRPD or 1xRTT networks	3x cells	n/a
Mixed E-UTRA / UTRA / GSM networks	3x cells	n/a
Note 1:	No differentiation between cell configuration types (as defined in clause 6.3.3) here, because these types are relevant to specific test cases and their TTCN-3 implementation only.	
Note 2:	Only network scenarios specified in clause 4.4.1 and 6.3.2.1 have been covered.	
Note 4:	In case of Carrier Aggregation, each cell can act as a PCell, an SCell, or a standalone cell (not used as a CA component carrier). In Release 10 a maximum of 1 SCell can be aggregated with a PCell.	
Note 5:	Virtual Cells are not included in the maximum cell number as they do not require resources in the SS.	

Exceptions to the requirements outlined above are possible but need special evidence to be provided explicitly in the test case prose and should be allowed only if the test case purpose cannot be met otherwise.

6.2 Reference test conditions

The reference test conditions specified in this subclause apply to all Signalling test cases defined in TS 36.523-1 [18] unless otherwise specified, in addition to the common reference test conditions specified in subclause 4.3 of this specification.

6.2.1 Physical channel allocations

6.2.1.1 Antennas

If the UE has two Rx antennas, the same downlink signal is applied to each one, except if MIMO is tested. Both UE Rx antennas shall be connected.

If the UE has one Rx antenna, the downlink signal is applied to it.

6.2.1.2 Downlink physical channels and physical signals

Power allocation of downlink physical channels for Signalling test cases is specified in table 6.2.1.2-1.

Table 6.2.1.2-1: Power allocation for OFDM symbols and reference signals for Signalling test cases

Physical Channel	EPRE Ratio	Comment
PBCH	PBCH_RA = 0 dB	
	PBCH_RB = 0 dB	
PSS	PSS_RA = 0 dB	
SSS	SSS_RA = 0 dB	
PCFICH	PCFICH_RB = 0 dB	
PDCCH	PDCCH_RA = 0 dB	
	PDCCH_RB = 0 dB	
PDSCH (BCCH, CCCH, PCCH)	PDCCH_RA = 0 dB	To be consistent with default physical channel configuration in 36.331 [17], 9.2.4
	PDCCH_RB = 0 dB	
PDSCH (DCCH, DTCH)	PDSCH_RA = -3 dB	To reduce interference from PDSCH of intra-frequency neighbour cells
	PDSCH_RB = -3 dB	To reduce interference from PDSCH of intra-frequency neighbour cells
PHICH	PHICH_RB = 0 dB	

6.2.1.3 Mapping of downlink physical channels and signals to physical resources

Same as clause 4.3.3.3

6.2.1.4 Uplink physical channels and physical signals

[FFS].

6.2.1.5 Mapping of uplink physical channels and signals to physical resources

[FFS].

6.2.2 Signal levels

6.2.2.1 Downlink signal levels

The default settings of suitable cells and non-suitable cells for E-UTRA are specified in table 6.2.2.1-1.

Cells which are expected to be undetectable for UE under test shall fulfil the condition of non-suitable “Off” cell in table 6.2.2.1-1.

Table 6.2.2.1-1: Default settings of suitable / non-suitable cells

Power level type	E-UTRAN (Note 1-3)		UTRAN	GERAN
	Unit	Power level		
Serving cell	dBm/15kHz	-85	Table 6.1.1 (FDD) / 6.1.6a (TDD) [5]	Table 6.1.10 [5]
Suitable neighbour intra-frequency cell	dBm/15kHz	-91	Table 6.1.2 (FDD) / 6.1.7 (TDD) [5]	n/a
Suitable neighbour inter-frequency cell	dBm/15kHz	-97	Table 6.1.2 (FDD) / 6.1.7 (TDD) [5]	Table 6.1.10 [5]
Non-suitable cell	dBm/15kHz	-115	Table 6.1.3 (FDD) / 6.1.8 (TDD) [5]	Table 6.1.11 [5]
Non-suitable "Off" cell	dBm/15kHz	≤ -145	Table 6.1.4 (FDD) / 6.1.9 (TDD) [5]	Cell is switched-off
Note 1: The power level is specified in terms of cell-specific RS EPRE instead of RSRP as RSRP is a measured value and cannot be directly controlled by the SS. Note 2: Power levels are specified based on the precondition that q-Hyst, a3-Offset and hysteresis are 0 dB. Note 3: The power level is specified at each UE Rx antenna.				

The default signal level uncertainty is specified in table 6.2.2.1-2 for any level specified, unless a tighter uncertainty is specified by a test case in TS 36.523-1 [18].

Table 6.2.2.1-2: SS signal level uncertainty

	Absolute signal level uncertainty for each cell	Relative signal level uncertainty between multiple cells
Intra-frequency	+/-3 dB at each test port	+/-3 dB
Inter-frequency	+/-3 dB at each test port	See Note 1
Note 1: For Inter-frequency cells the relative signal level uncertainty between multiple cells is determined by the absolute uncertainty of each cell, and does not have any additional constraint.		

Cell-specific RS EPRE setting should be equal to or higher than -115 dBm except for Non-suitable "Off" cell. The figure is chosen to ensure that for all bands the DL signal is within the RSRP measurement range specified in TS 36.133 [39] clauses 9.1.2 and 9.1.3, taking into account the SS default absolute signal level uncertainty.

NOTE: (The power spectral density of a white noise source; specified in TS 36.133 [39]) can be assumed to be -Infinity [dBm/15kHz] for all intra and inter frequency test cases. It is applicable to both idle mode and connected mode in TS 36.523-1 [18], unless otherwise specified in specific test cases.

For test cases requiring AWGN (Noc), the default level uncertainty is specified in table 6.2.2.1-3 for any level specified, unless a tighter uncertainty is specified by a test case in TS 36.523-1 [18].

Table 6.2.2.1-3: SS AWGN level uncertainty

	Absolute AWGN level uncertainty for each frequency
Intra-frequency	+/-3 dB at each test port
Inter-frequency	+/-3 dB at each test port

6.2.2.2 Measurement accuracy and side conditions

Measurement accuracy shall be considered in setting downlink power levels.

RSRP measurement accuracy in E-UTRA RRC_IDLE state is specified in table 6.2.2.2-1, derived from TS 36.133 [39] clauses 4.2.2.3 and 4.2.2.4. This measurement accuracy is applicable to idle mode test cases specified in TS 36.523-1 [18]. For the serving cell and suitable neighbour cells, the following side conditions shall be satisfied including the effect of signal level uncertainty.

- RSRP \geq -121 dBm
- RSRP $\hat{E}_s/I_{ot} \geq$ -4 dB
- SCH_RP \geq -121 dBm
- SCH $\hat{E}_s/I_{ot} \geq$ -4 dB

Table 6.2.2-1: RSRP measurement accuracy in E-UTRA RRC_IDLE state

	Absolute RSRP measurement accuracy	Relative RSRP measurement accuracy
Intra-frequency	+/-6 dB	+/-3 dB
Inter-frequency	+/-6 dB	+/-5 dB

RSRP measurement accuracy in E-UTRA RRC_CONNECTED state is specified in table 6.2.2.2-2, derived from TS 36.133 [39] clauses 9.1.2 and 9.1.3 selecting Normal condition. The ranges and side conditions in TS 36.133 [39] clauses 9.1.2 and 9.1.3 apply. This measurement accuracy is applicable to connected mode test cases specified in TS 36.523-1 [18]. For the serving cell and suitable neighbour cells, the following side conditions shall be satisfied including the effect of signal level uncertainty.

- RSRP \geq -124 dBm
- RSRP $\hat{E}_s/I_{ot} >$ -6 dB- I_o : -118 dBm/15kHz ... -70 dBm/BWChannel (for absolute RSRP measurement accuracy)
- I_o : -118 dBm/15kHz ... -50 dBm/BWChannel (for relative RSRP measurement accuracy)

Table 6.2.2-2: RSRP measurement accuracy in E-UTRA RRC_CONNECTED state

	Absolute RSRP measurement accuracy	Relative RSRP measurement accuracy
Intra-frequency	+/-6 dB	+/-3 dB
Inter-frequency	+/-6 dB	+/-6 dB

Signal level difference between the serving cell and any suitable intra-frequency neighbour cell shall be nominally 6 dB to satisfy the measurement accuracy requirement and its side conditions specified in TS 36.133 [39]. This figure is chosen based on the following preconditions for intra-frequency cells.

- Interference to reference signals from reference signals of other cells is eliminated by Physical Cell Identity shifting as specified in TS 36.523-3 [20].
- Interference to reference signals from PDSCH with SI-RNTI of other cells is negligible because it's sparse enough.
- Interference to reference signals from PDSCH of the serving cell is controlled by satisfying the conditions of clauses 6.2.2.1 and 6.2.2.2.
- Interference to P-SS/S-SS from P-SS/S-SS of other cells is eliminated by frame timing shifting as specified in TS 36.523-3 [20].
- Interference to P-SS/S-SS from PDSCH of other cells is eliminated by PDSCH resource allocation as specified in TS 36.523-3 [20].

6.2.3 Default test frequencies

The default channel bandwidth of 5/10/20 MHz is applied to the signalling test. The test frequencies are defined so that no frequency overlapping takes place, in order to avoid unnecessary inter-frequency interference.

For Band 13, Band 18 and Band 31, only one test frequency f_1 is defined. All operating Bands except Band 13, Band 18 and Band 31 can accommodate at least two test frequencies f_1 and f_2 ($f_1 < f_2$). An additional test frequency f_3 can be defined for the operating Bands with at least triple of the default bandwidth. The fourth test frequency f_4 ($f_3 < f_1 < f_4 < f_2$) is applicable to the operating Bands which have at least quadruple of the default bandwidth.

To the single cell signalling test with channel bandwidth different from the default bandwidths of the operating bands, Mid Range defined in clause 4.3.1 is applied.

6.2.3.1 Test frequencies for signalling test

Test frequencies for signalling test are specified in table 6.2.3.1-1 and 6.2.3.1-1a for FDD and table 6.2.3.1-2 and 6.2.3.1-2a for TDD. Except f4 and a few f1, f5 which are specified according to EA RFCN of the concerned operating Bands, the majority of the test frequencies in table 6.2.3.1-1, 6.2.3.1-1a, 6.2.3.1-2 and 6.2.3.1-2a are specified in terms of Low, Mid and High which are referred to the Low Range, Mid Range and High Range in clause 4.3.1.

Table 6.2.3.1-1: Test frequencies for E-UTRA FDD(5MHz)

E-UTRA Operating Band	Bandwidth [MHz]	f1, f5		f2, f6		f3, f7		f4	
		N _{UL}	N _{DL}	N _{UL}	N _{DL}	N _{UL}	N _{DL}	N _{UL}	N _{DL}
1	60	Mid	Mid	High	High	Low	Low	18350	350
2	60	Mid	Mid	High	High	Low	Low	18950	950
3	75	Mid	Mid	High	High	Low	Low	19625	1625
4	45	Mid	Mid	High	High	Low	Low	20225	2225
5	25	Mid	Mid	High	High	Low	Low	20575	2575
6	10	Low	Low	High	High	N/A	N/A	N/A	N/A
7	70	Mid	Mid	High	High	Low	Low	21150	3150
8	35	Mid	Mid	High	High	Low	Low	21675	3675
9	35	Mid	Mid	High	High	Low	Low	22025	4025
10	60	Mid	Mid	High	High	Low	Low	22500	4500
12	17	Mid	Mid	High	High	Low	Low	N/A	N/A
14	10	Low	Low	High	High	N/A	N/A	N/A	N/A
...									
17	12	Low	Low	High	High	N/A	N/A	N/A	N/A
19	15	Mid	Mid	High	High	Low	Low	N/A	N/A
21	15	Mid	Mid	High	High	Low	Low	N/A	N/A
22	80	Mid	Mid	High	High	Low	Low	24950	6950
...									
23	20	25575	7575	High	High	Low	Low	25625	7625
24	34	Mid	Mid	High	High	Low	Low	25920	7920
25	65	Mid	Mid	High	High	Low	Low	26390	8390
26	35	Mid	Mid	High	High	Low	Low	26865	8865
27	17	Mid	Mid	High	High	Low	Low	N/A	N/A
28 ¹	45	Mid	Mid	High	High	Low	Low	27560	9560
31	5	Mid	Mid	N/A	N/A	N/A	N/A	N/A	N/A

Note 1: Band 28 is tested at the upper duplexer in Table 4.3.1.1.28-2

Table 6.2.3.1-1a: Test frequencies for E-UTRA FDD(10MHz)

E-UTRA Operating Band	Bandwidth [MHz]	f1, f5		f2, f6		f3, f7		f4	
		N _{UL}	N _{DL}	N _{UL}	N _{DL}	N _{UL}	N _{DL}	N _{UL}	N _{DL}
11	20	Low	Low	High	High	N/A	N/A	N/A	N/A
13	10	Mid	Mid	N/A	N/A	N/A	N/A	N/A	N/A
18	15	Low	Low	N/A	N/A	N/A	N/A	N/A	N/A
20	30	Mid	Mid	High	High	Low	Low	N/A	N/A
23	20	Low	Low	High	High	N/A	N/A	N/A	N/A

Table 6.2.3.1-2: Test frequencies for E-UTRA TDD (5MHz)

E-UTRA Operating Band	Bandwidth [MHz]	f1, f5	f2, f6	f3, f7	f4
33	20	36075	High	Low	36125
34	15	Mid	High	Low	N/A
35	60	Mid	High	Low	36700
36	60	Mid	High	Low	37300
37	20	37625	High	Low	37675
...					
42	100	Mid	High	Low	42640
43	100	Mid	High	Low	44640
44	50	Mid	High	Low	46115

Table 6.2.3.1-2a: Test frequencies for E-UTRA TDD(20MHz)

E-UTRA Operating Band	Bandwidth [MHz]	f1, f5	f2, f6	f3, f7	f4
38	50	Low	High	N/A	N/A
39	40	Low	High	N/A	N/A
40	100	Mid	High	Low	39350
41	194	Mid	High	Low	40970

6.2.3.2 Test frequencies for CA signalling test

Test frequencies for CA signalling testing are specified in Table 6.2.3.2-1 for CA Intra-Band contiguous case; and Tables 6.2.3.2-2 and 6.2.3.2-3 for CA Inter-band case.

NOTE 1: Alternative test frequencies for additional channel bandwidth combinations may need to be specified when new CA configurations or CA Bandwidth Combination Sets are introduced in TS 36.101 subclause 5.6A.

For CA Intra-Band contiguous scenarios then f1, f2 and f3 are used.

NOTE 2: f2 and f3 are not adjacent frequencies; hence those cannot be used simultaneously as Pcell and SCell for CA Intra-Band contiguous scenarios.

For CA Inter-Band scenarios then f1, f2, f5 and f6 are used.

NOTE 3: Table 6.2.3.2-2 specifies the test frequencies for operation with PCell in the frequency band mentioned first (= carrier 1) and SCell in the frequency band mentioned second (= carrier 2) in the E-UTRA CA Configuration name acc. to TS 36.101 subclause 5.6A (e.g. PCell in band 1 and SCell in band 5 for CA_1A-5A configuration),
Table 6.2.3.2-3 specifies the test frequencies for operation with reverse allocation of PCell and SCell to the frequency bands of the E-UTRA CA Configuration for CA Inter-band operation.

Table 6.2.3.2-1: Test frequencies for E-UTRA PCell and SCell for CA contiguous Intra-band operation

E-UTRA CA Configuration	Bandwidth [MHz]	CC Combination / N _{RB_agg}	Test Frequency	CC N _{RB}	N _{UL}	Frequency of Uplink [MHz]	N _{DL}	Frequency of Downlink [MHz]
CA_1C	60	100 + 100	f1	CC 100	18300	1950	300	2140
			f2	CC 100	18498	1969.8	498	2159.8
			f3	CC 100	18102	1930.2	102	2120.2
CA_7C	70	100 + 100	f1	CC 100	21000	2525	3000	2645
			f2	CC 100	21198	2544.8	3198	2664.8
			f3	CC 100	20802	2505.2	2802	2625.2
CA_38C	50	100 + 100	f1	CC 100	37900	2585	37900	2585
			f2	CC 100	38098	2604.8	38098	2604.8
			f3	N/A	N/A	N/A	N/A	N/A
CA_40C	100	100 + 100	f1	CC 100	39050	2340	39050	2340
			f2	CC 100	39248	2359.8	39248	2359.8
			f3	CC 100	38852	2320,2	38852	2320,2
CA_41C	194	100 + 100	f1	CC 100	40520	2583	40520	2583
			f2	CC 100	40718	2602.8	40718	2602.8
			f3	CC 100	40322	2563.2	40322	2563.2

Table 6.2.3.2-2: Test frequencies for E-UTRA PCell and SCell for CA Inter-band operation

E-UTRA CA Configuration	Bandwidth carrier 1 + carrier 2 [MHz+MHz]	CC Combination / N _{RB_agg}	Test Frequency	CC N _{RB}	N _{UL}	Frequency of Uplink [MHz]	N _{DL}	Frequency of Downlink [MHz]
CA_1A-5A	60+25	50 + 50	f1	CC 50	18300	1950	300	2140
			f2	CC 50	[18450]	[1970]	[450]	[2160]
			f5	CC 50	20450	829	2450	874
			f6	CC 50	20600	844	2600	889
CA_1A-18A	60 + 15	50 + 50	f1	CC 50	23900	820	5900	865
			f2	N/A	N/A	N/A	N/A	N/A
			f5	CC 50	18300	1950	300	2140
			f6	CC 50	18450	1970	450	2160
CA_11A-18A	20 + 15	50 + 50	f1	CC 50	23900	820	5900	865
			f2	N/A	N/A	N/A	N/A	N/A
			f5	CC 50	22800	1432.9	4800	1480.9
			f6	CC 50	22900	1442.9	4900	1490.9
CA_1A-19A	60+15	75 + 50	f1	CC 75	18324	1952.4	324	2142.4
			f2	CC 75	[18525]	[1972.5]	[525]	[2162.5]
			f5	CC 50	24100	840	6100	885
			f6	N/A	N/A	N/A	N/A	N/A
CA_1A-21A	60+15	75 + 75	f1	CC 75	18324	1952.4	324	2142.4
			f2	CC 75	[18525]	[1972.5]	[525]	[2162.5]
			f5	CC 75	24525	1455.4	6525	1503.4
			f6	N/A	N/A	N/A	N/A	N/A
CA_3A-5A	75+25	50 + 50	f1	CC 50	19575	1747.5	1575	1842.5
			f2	CC 50	[19900]	[1780]	[1900]	[1875]
			f5	CC 50	20450	829	2450	874
			f6	CC 50	20600	844	2600	889
CA_3A-7A	75+70	50 + 50	f1	CC 50	19575	1747.5	1575	1842.5
			f2	CC 50	[19900]	[1780]	[1900]	[1875]
			f5	CC 50	20800	2505	2800	2625
			f6	CC 50	21400	2565	3400	2685
CA_3A-8A	75+35	50+50	f1	CC 50	19575	1747.5	1575	1842.5
			f2	CC 50	19900	1780	1900	1875
			f5	CC 50	21625	897.5	3625	942.5
			f6	CC 50	21750	910	3750	955
CA_7A-20A	70+30	50 + 50	f1	CC 50	21100	2535	3100	2655
			f2	CC 50	[21400]	[2565]	[3400]	[2685]
			f5	CC 50	24200	837	6200	796
			f6	CC 50	24400	857	6400	816
CA_4A-5A	45+25	50 + 50	f1	CC 50	20175	1732.5	2175	2132.5
			f2	CC 50	20350	1750	2350	2150
			f5	CC 50	20450	829	2450	874
			f6	CC 50	20600	844	2600	889
CA_4A-12A	45+17	50+50	f1	CC 50	20175	1732.5	2175	2132.5
			f2	CC 50	20350	1750	2350	2150
			f5	CC 50	23060	704	5060	734
			f6	CC 50	23130	711	5130	741
CA_4A-13A	45+10	50 + 50	f1	CC 50	20175	1732,5	2175	2132,5
			f2	CC 50	20350	1750	2350	2150
			f5	CC 50	23230	782	5230	751
			f6	N/A	N/A	N/A	N/A	N/A
CA_2A-17A	60+12	50 + 50	f1	CC 50	18900	1880	900	1960
			f2	CC 50	19150	1905	1150	1985
			f5	CC 50	23790	710	5790	740
			f6	N/A	N/A	N/A	N/A	N/A
CA_4A-17A	45+12	50 + 50	f1	CC 50	20175	1732,5	2175	2132,5
			f2	CC 50	20350	1750	2350	2150
			f5	CC 50	23790	710	5790	740
			f6	N/A	N/A	N/A	N/A	N/A
CA_5A-12A	25+17	50+50	f1	CC 50	20525	836.5	2525	881.5
			f2	CC 50	20600	844	2600	889

		f5	CC 50	23060	704	5060	734
		f6	CC 50	23130	711	5130	741

Table 6.2.3.2-3: Test frequencies for E-UTRA PCell and SCell for reverse CA Inter-band operation

E-UTRA CA Configuration	Bandwidth carrier 1 + carrier 2 [MHz+MHz]	CC Combination / N _{RB_agg}	Test Frequency	CC N _{RB}	N _{UL}	Frequency of Uplink [MHz]	N _{DL}	Frequency of Downlink [MHz]
CA_2A-17A (reverse)	60+12	50 + 50	f5	CC 50	18900	1880	900	1960
			f6	CC 50	19150	1905	1150	1985
			f1	CC 50	23790	710	5790	740
			f2	N/A	N/A	N/A	N/A	N/A
CA_4A-17A (reverse)	45+12	50 + 50	f5	CC 50	20175	1732,5	2175	2132,5
			f6	CC 50	20350	1750	2350	2150
			f1	CC 50	23790	710	5790	740
			f2	N/A	N/A	N/A	N/A	N/A

6.3 Reference system configurations

The reference system configurations specified in this subclause apply to all Signalling test cases defined in TS 36.523 -1 [18] unless otherwise specified, in addition to the common reference system configurations specified in subclause 4.4 of this specification.

For Signalling testing, MIMO (Multiple Input Multiple Output) is not applied for all cell configurations regardless of UEMIMO functionality. Only one SS Tx antenna is used.

One or two UE antennas are used for all signalling test cases. (*1)

(*1) Two UE antennas configuration is possible for UE diversity case.

6.3.1 Default parameter specific for simulated cells

Default parameters specific for simulated cells are specified in this subclause.

6.3.1.1 Intra-frequency neighbouring cell list in SIB4 for E-UTRA cells

Intra-frequency neighbouring cell list for signalling test cases is defined in table 6.3.1.1-1. This table is referred to in the default contents of IE *intraFreqNeighbouringCellList* in *SystemInformationBlockType4* defined in table 4.4.3.3-3.

Table 6.3.1.1-1: Intra-frequency neighbouring cell lists for E-UTRA cells

cell ID	Test Frequency	intra-frequency neighbouring cell list						
		number of entries	phys CellId[n]			q-OffsetCell [n]		
			1	2	3	1	2	3
Cell 1	f1	3	Cell 2	Cell 4	Cell 11	dB0	dB0	dB0
Cell 2	f1	3	Cell 1	Cell 4	Cell 11	dB0	dB0	dB0
Cell 4	f1	3	Cell 1	Cell 2	Cell 11	dB0	dB0	dB0
Cell 11	f1	3	Cell 1	Cell 2	Cell 4	dB0	dB0	dB0
Cell 3	f2	1	Cell 23	-	-	dB0	-	-
Cell 23	f2	1	Cell 3	-	-	dB0	-	-

NOTE: The intra-frequency E-UTRA neighbouring cell list for signalling NAS test cases when cells are on same PLMN is defined in table 6.3.2.3.1-1.

6.3.1.2 Inter-frequency carrier frequency list in SIB5 for E-UTRA cells

Inter-frequency E-UTRA carrier frequency list for signalling test cases is defined in table 6.3.1.2-1. This table is referred to in the default contents of IE *interFreqCarrierFreqList* in *SystemInformationBlockType5* defined in table 4.4.3.3-4.

Table 6.3.1.2-1: Inter-frequency carrier frequency lists for E-UTRA cells

cell ID	Test Frequency	interFreqCarrierFreqList			
		number of entries	dl-CarrierFreq[n]		
			1	2	3
Cell 1 Cell 2 Cell 4 Cell 11	f1	3	f2	f3	f5
Cell 3 Cell 23	f2	3	f1	f3	f5
Cell 6	f3	3	f1	f2	f5
Cell 10	f5	3	f1	f2	f3
Note 1:	The inter-frequency E-UTRA carrier frequency list for signalling NAS test cases when cells are on same PLMN is defined in table 6.3.2.3.2-1.				
Note 2:	Depending on the Band under test, f3 may not be applicable.				
Note 3:	In case of Test frequency f1, f2 and f3, dl-CarrierFreq f5 as part of inter-frequency list is applicable only in case of multi-band scenarios.				
Note 4:	In case of Test frequency f5, dl-CarrierFreq f1 as part of inter-frequency list is applicable only in case of multi-band scenarios.				

In the case of dual mode multi-cell network scenarios as defined in subclause 4.4.1.3, inter-frequency E-UTRA carrier frequency list for signalling test cases is defined in table 6.3.1.2-2.

Table 6.3.1.2-2: Inter-frequency carrier frequency lists for E-UTRA cells in dual mode scenario

cell ID	Test Frequency	interFreqCarrierFreqList			
		number of entries	dl-CarrierFreq[n]		
			1	2	3
Cell 1 Cell 2 Cell 4	f1	3	f2	f5	f6
Cell 3	f2	3	f1	f5	f6
Cell 10, Cell 30, Cell 31	f5	3	f1	f2	f6
Cell 28, Cell 29	f6	3	f1	f2	f5

6.3.1.3 UTRA carrier frequency list in SIB6 for E-UTRA cells

UTRA carrier frequency list for signalling test cases is defined in table 6.3.1.3-1. This table is referred to in the default contents of IE *carrierFreqListUTRA-FDD* and *carrierFreqListUTRA-TDD* in *SystemInformationBlockType6* defined in table 4.4.3.3-5.

Table 6.3.1.3-1: UTRA carrier frequency lists for E-UTRA cells

interFreqCarrierFreqList			
number of entries	carrierFreq[n]		
	1	2	3
3	f8	f9	f10
Note: Band VI has two entries.			

Table 6.3.1.3-2: Mapping of UTRA cell with TS 34.108 [5]

UTRA cell	Frequency	UTRA cell in TS 34.108, clause 6.1	UTRA frequency in TS 34.108
Cell 5	f8	Cell 1	High
Cell 7	f8	Cell 2	High
Cell 8	f9	Cell 4	Mid (Note 2)
Cell 9	f10	Cell 7	Low
Note 1: The following simultaneous co-existences in the test are not allowed: <ul style="list-style-type: none"> - cells on f1 (eUTRA cell 1, cell 2, cell 4, cell 11) and f9 (UTRA cell 8); - cells on f2 (eUTRA cell 3, cell 12, cell 23) and f8 (UTRA cell 5, cell 7); - cells on f3 (eUTRA cell 6, Cell 13) and f10 (UTRA cell 9). Note 2: On UTRA Band VI, the Low range test frequency is applied to f9 for Cell 8.			

6.3.1.4 GERAN carrier frequency group list in SIB7 for E-UTRA cells

GERAN carrier frequency group list for signalling test cases is defined in table 6.3.1.4-1. This table is referred to in the default contents of IE *carrierFreqsInfoList* in *SystemInformationBlockType7* defined in table 4.4.3.3-6.

Table 6.3.1.4-1: GERAN carrier frequency group list for E-UTRA cells

carrierFreqsInfoList				
number of entries	index (n)	carrierFreqs[n]		
		startingARFCN[n]	explicitListOfARFCNs[n]	
			number of entries	ARFCN-ValueGERAN
1	1	f11	2	f12, f13

Table 6.3.1.4-2: Mapping of GERAN cells with TS 51.010-1 [25]

GERAN cell	Frequency	GERAN cell in TS 51.010-1, clause 40
Cell 24	f11	Cell A
Cell 25	f12	Cell D
Cell 26	f13	Cell B

NOTE 2: Unless otherwise stated, GERAN cells 24/25/26 take the default values of GERAN cells A/B/D as defined in TS 51.010 clause 40.

6.3.1.5 CDMA2000 HRPD carrier frequency list in SIB8 for E-UTRA cells

CDMA2000 HRPD carrier frequency list for signalling test cases is defined in table 6.3.1.5-1. This table is referred to in the default contents of IE *cellReselectionParametersHRPD* in *SystemInformationBlockType8* defined in table 4.4.3.3-7.

Table 6.3.1.5-1: CDMA2000 HRPD carrier frequency list for E-UTRA cells

neighCellsPerFreqList					
number of entries	index (n)	arfcn[n]	physCellIdList[n]		
			number of entries	index	PhysCellIdCDMA2000
3	1	f14	2	1	Cell 15
				2	Cell 16
	2	f15	1	1	Cell 17
				3	f16

6.3.1.6 CDMA2000 1xRTT carrier frequency list in SIB8 for E-UTRA cells

CDMA2000 1xRTT carrier frequency list for signalling test cases is defined in table 6.3.1.6-1. This table is referred to in the default contents of IE *cellReselectionParameters1XRTT* in *SystemInformationBlockType8* defined in table 4.4.3.3-7.

Table 6.3.1.6-1: CDMA2000 1xRTT carrier frequency list for E-UTRA cells

neighCellsPerFreqList					
number of entries	index (n)	arfcn[n]	physCellIdList[n]		
			number of entries	index	PhysCellIdCDMA2000
3	1	f17	2	1	Cell 19
				2	Cell 20
	2	f18	1	1	Cell 21
				3	f19

6.3.1.7 E-UTRA carrier frequency list in SIB19 for UTRA cells

E-UTRA carrier frequency list for signalling test cases is defined in table 6.3.1.7-1. This table is referred to in the default contents of IE *utra-FrequencyAndPriorityInfoList* in System Information Block type 19 defined in table 4.4.4.1-1.

Table 6.3.1.7-1: E-UTRA carrier frequency list for UTRA cells

utra-FrequencyAndPriorityInfoList					
number of entries	earfcn[n]				
	1	2	3	4	-
4	f1	f2	f3	f4	-
Note: Depending on the Band under test, f2, f3 and f4 may not be applicable.					

6.3.2 Default configurations for NAS test cases

The default configurations specified in this subclause apply only to NAS test cases. They apply to all NAS test cases unless otherwise specified.

6.3.2.1 Simulated network scenarios for NAS test cases

Simulated network scenarios for NAS test cases to be tested are specified in the pre-test conditions of each individual test case.

NOTE: The number of cells specified does not necessarily correspond to the maximum number of resources to be configured simultaneously in test equipment. Please refer to Table 6.1-1 for such information.

Any combination is allowed with the following restrictions:

- Cell E should not be used if Cell G or Cell H is used, otherwise two different PLMNs will be operated on the same frequency
- a maximum 3 cells on the same frequency can be used, i.e. only 3 cells out of cells A, B, C, D and M may be used simultaneously in each individual test case when cells in the test case are in different PLMNs (refer to Table 6.3.2.2-3).

6.3.2.2 Simulated NAS cells

Simulated NAS cells and default parameters are specified in table 6.3.2.2-1.

Unless otherwise specified, the default parameters specified in section 4 also apply to all NAS cells.

Table 6.3.2.2-1: Default parameters for simulated NAS cells

NAS cell ID	Tracking Area			TA# list (Note 1)	GUTI (Note 2)		M-TMSI	
	TA#	PLMN			TAC	MME Identifier		
		MCC	MNC			MME Group ID		MME Code
Cell A	TAI-1	(Note 3)		1	TAI-1	32769	1	Arbitrarily selected according to TS 23.003 subclause 2.8 [2].
Cell B	TAI-2	(Note 3)		2	TAI-2	32770	1	
Cell C	TAI-3	(Note 3)		3	TAI-3	32771	1	
Cell D	TAI-4	(Note 3)		4	TAI-4	32772	1	
Cell E	TAI-12	002	101	3	TAI-12	32777	1	
Cell F								
Cell G	TAI-7	(Note 4)	02	1	TAI-7	32775	1	
Cell H	TAI-8	(Note 4)	02	2	TAI-8	32776	1	
Cell I	TAI-9	002	101	1	TAI-9	32777	1	
Cell J	TAI-10	003	101	1	TAI-10	32778	1	
Cell K	TAI-9	002	101	1	TAI-9	32777	1	
Cell L	TAI-11	002	101	2	TAI-11	32779	1	
Cell M	TAI-1	(Note 3)		1	TAI-1	32769	1	
<p>Note 1: The value(s) in the column TA# list indicates TAI(s) included in the response messages of the registration procedure (ATTACH ACCEPT or TRACKING AREA UPDATE ACCEPT) when the UE performs the registration procedure on a corresponding cell.</p> <p>Note 2: The value in the column GUTI indicates GUTI included in the response messages of the registration procedure (ATTACH ACCEPT or TRACKING AREA UPDATE ACCEPT) when the UE performs the registration procedure on a corresponding cell.</p> <p>Note 3: Set to the same Mobile Country Code and Mobile Network Code stored in EF_{IMSI} on the test USIM card (subclause 4.9.3).</p> <p>Note 4: Set to the same Mobile Country Code stored in EF_{IMSI} on the test USIM card (subclause 4.9.3).</p> <p>Note 5: Cell A is a serving cell and the other cells are suitable neighbour cells. The definitions are specified in subclause 6.2.2.1.</p>								

Table 6.3.2.2-2: Default cell identifiers for simulated NAS cells when cells are in same PLMN

NAS cell ID	Frequency	E-UTRAN Cell Identifier		Physical layer cell identity	rootSequenceIndex FDD	rootSequenceIndex TDD
		eNB Identifier	Cell Identity			
Cell A	f1	'0000 0000 0000 0001 0001'B	'0000 0001'B	1	22	0
Cell B	f1	'0000 0000 0000 0001 0001'B	'0000 0010'B	2	86	8
Cell C	f2	'0000 0000 0000 0001 0010'B	'0000 0011'B	3	22	0
Cell D	f1	'0000 0000 0000 0001 0001'B	'0000 0100'B	4	150	16
Cell E	NA	NA	NA	NA	NA	NA
Cell F	NA	NA	NA	NA	NA	NA
Cell G	NA	NA	NA	NA	NA	NA
Cell H	NA	NA	NA	NA	NA	NA
Cell I	NA	NA	NA	NA	NA	NA
Cell J	NA	NA	NA	NA	NA	NA
Cell M	f2	'0000 0000 0000 0010 0001'B	'0001 0001'B	17	86	8

Table 6.3.2.2-3: Default cell identifiers for simulated NAS cells when cells are in different PLMNs

NAS cell ID	PLMN	Frequency	E-UTRAN Cell Identifier		Physical layer cell identity	rootSequenceIndex FDD	rootSequenceIndex TDD
			eNB Identifier	Cell Identity			
Cell A	MCC/MNC= MCC/MNC in USIM	f1	'0000 0000 0000 0010 0001'B	'0000 0001'B	1	22	0
Cell B	MCC/MNC= MCC/MNC in USIM	f1	'0000 0000 0000 0010 0001'B	'0000 0010'B	2	86	8
Cell C	MCC/MNC= MCC/MNC in USIM	f1	'0000 0000 0000 0010 0001'B	'0000 0011'B	3	150	16
Cell D	MCC/MNC= MCC/MNC in USIM	f1	'0000 0000 0000 0010 0001'B	'0000 0100'B	4	214	24
Cell E	MCC=002 MNC=101	f2	'0000 0000 0000 0011 0101'B	'0001 0111'B	23	22	0
Cell F	NA	NA	NA	NA	NA	NA	NA
Cell G	MCC = MCC in USIM MNC=02	f2	'0000 0000 0000 0010 0010'B	'0000 1011'B	11	86	8
Cell H	MCC= MCC in USIM MNC=02	f2	'0000 0000 0000 0010 0010'B	'0000 1100'B	12	150	16
Cell I	MCC=002 MNC=101	f3 (Note 1)	'0000 0000 0000 0010 0011'B	'0000 1101'B	13	22	0
Cell J	MCC=003 MNC=101	f4 (Note 1)	'0000 0000 0000 0010 0100'B	'0000 1110'B	14	22	0
Cell K	MCC=002 MNC=101	f3 (Note 1)	'0000 0000 0000 0010 0011'B	'0000 1111'B	15	86	8
Cell L	MCC=002 MNC=101	f3 (Note 1)	'0000 0000 0000 0010 0011'B	'0001 0000'B	16	150	16
Cell M	MCC/MNC= MCC/MNC in USIM	f1	'0000 0000 0000 0010 0001'B	'0001 0001'B	17	278	32

Note 1: The test frequency f3 or f4 is allocated to the cell if f1 and f2 are already allocated to the cells in the test. Otherwise, f1 or f2 is allocated, instead.

6.3.2.3 Broadcast system information

6.3.2.3.1 Intra-frequency neighbouring cell list in SIB4 for E-UTRA NAS cells

Intra-frequency neighbouring cell list of the same PLMN for the NAS signalling test is defined in table 6.3.2.3.1-1 when SIB4 to be broadcast.

Table 6.3.2.3.1-1: Intra-freq. lists in SIB4 for NAS test cases (same PLMN)

NAS cell ID	Test Frequency	Intra-frequency neighbouring cell list		
		number of entries	physCellId[n]	
			1	2
Cell A	f1	2	Cell B	Cell D
Cell B	f1	2	Cell A	Cell D
Cell D	f1	2	Cell A	Cell B
Cell C	f2	1	Cell M	N/A
Cell M	f2	1	Cell C	N/A

6.3.2.3.2 Inter-frequency carrier frequency list in SIB5 for E-UTRA NAS cells

Inter-frequency neighbouring carrier and cell lists for NAS signalling test cases are defined in table 6.3.2.3.2-1 for same PLMN and table 6.3.2.3.2-2 for different PLMN.

Table 6.3.2.3.2-1: Inter-freq. lists in SIB5 for NAS test cases (same PLMN)

NAS cell ID	Test Frequency	interFreqCarrierFreqList		
		number of entries	dl-CarrierFreq[n]	
			1	2
Cell A Cell B Cell D	f1	1	f2	NA
Cell C Cell M	f2	1	f1	NA
NOTE: Operating on Band 13, SIB5 is not broadcast.				

Table 6.3.2.3.2-2: Inter-freq. lists in SIB5 for NAS test cases (different PLMN)

NAS cell ID	Test Frequency	interFreqCarrierFreqList			Condition
		number of entries	dl-CarrierFreq[n]		
			1	2	
Cell A Cell B Cell C Cell D Cell M	f1	0	NA	NA	
Cell G Cell H	f2	0	NA	NA	
Cell I Cell K Cell L	f3	0	NA	NA	E-NOT-CONF
		1	f2		E-CONF
Cell J	f4	0	NA	NA	
Cell E	f2	1	f3	NA	

Condition	Explanation
E-NOT-CONF	cell E is not configured in the test
E-CONF	cell E is configured in the test

6.3.3 Cell configurations

For the purpose of test not involving Carrier Aggregation, three types of SS cell configurations are defined, full (Active) cell configuration, broadcast only cell configuration and minimum uplink cell configuration.

The abovementioned configurations can also be used in Carrier Aggregation test cases, either for PCells or SCells. However another configuration, the virtual cell configuration, can additionally be used for an SCell that is not active.

6.3.3.1 Full cell configuration

Full cell configuration is also called active cell configuration. The cell configuration, in minimum, has all defined DL and UL physical channels configured, i.e.

in DL: PBCH, PCFICH, PDCCH, PDSCH, PHICH,

in UL: PRACH, PUCCH, PUSCH.

The DL and UL Reference and synchronization (both primary and secondary) signals are also configured.

6.3.3.2 Minimum uplink cell configuration

In this cell configuration,

in DL: physical channels capable of transmission, i.e. PBCH, PCFICH, PDCCH, PDSCH are configured;

DL physical reference and synchronization (both primary and secondary) signals are also configured.

In UL: PRA CH is configured. SS shall report any detection of PRA CH preambles, in order to assign test verdicts. Decoding the preambles is not required.

6.3.3.3 Broadcast only cell configuration

In this cell configuration,

in DL: physical channels capable of transmission, i.e. PBCH, PCFICH, PDCCH, PDSCH are configured;

DL physical reference and synchronization (both primary and secondary) signals are also configured.

in UL: no physical resources are configured, neither channels, nor signals.

6.3.3.3A Virtual cell configuration

In this cell configuration,

in DL: no physical resources are configured, neither channels, nor signals;

in UL: no physical resources are configured, neither channels, nor signals.

6.3.3.4 Application of different cell configurations

By default, the cells specified in 36.523-1 are defined with the full cell configuration, unless it is explicitly specified as either the broadcast only, minimum uplink, or virtual cell configuration. The full cell configuration is suitable for UE to start camping, establish RRC connection or hand over from another active cell.

The broadcast only cells identified as 'DL only' can be applied in some RRC measurement test cases to those neighbour cells which UE shall not camp on during the test case execution.

The capability of a minimum uplink cell is much weaker than a full cell, but stronger than a broadcast only cell in UL. This cell configuration identified as 'min UL' can be applied in the idle mode test cases to those neighbour cells which a conformant UE shall not camp on during the test case execution.

The virtual cell configuration can only be used in Carrier Aggregation test cases as an SCell which is not active, i.e. the UE has it configured via RRC signalling but does not need to send or receive anything in this SCell.

If a cell configuration is specified in a test case it shall remain unchanged throughout the test case specification. In addition, there shall not be any requirement in the test specification or test implementation for a cell reconfiguration from one of the above configurations to the other.

For the UE conformance test, the broadcast only cell configuration can be replaced and implemented with the minimum uplink or full cell configurations. The minimum uplink cell configuration can also be implemented with the full cell configuration. The replacements in the implementation have no impact on the test purposes and the test requirements. The implementation guidelines are referred to 36.523-3.

6.3.4 SCell configurations

For the purpose of System Simulator resource management for Carrier Aggregation testing the following types of SCell configurations are defined:

- Active SCell: A cell that becomes an SCell at any point of time during the test case and which, while being an SCell, is activated .
- Inactive SCell: A cell that becomes an SCell at any point of time during the test case, but is never activated while being an SCell.

SCell activation is defined as sending an Activation/Deactivation MAC Control Element (ref. 36.321 cl. 6.1.3.8) to the UE to activate the SCell.

The SCell type does not depend on what the cell is used for in the test case while not being an SCell, and does not directly relate to the cell type specified in section 6.3.3. In particular an Inactive SCell can still be used as full cell or

broadcast only cell (e.g. for measurements to be performed on such a cell), and may be used for UE dedicated traffic while not acting as an SCell.

Also note that an Active SCell will not become an Inactive SCell if the SCell is deactivated via Activation/Deactivation MAC Control Element or after the *sCellDeactivationTimer* timer expires.

6.4 Generic procedures

This clause describes UE test states which can be used in the initial condition of many test cases defined in TS 36.523-1 [18] in addition to the states already specified in clause 4.5 of this specification.

6.4.1 Initial UE states and setup procedures

6.4.1.1 Initial UE states and setup procedures

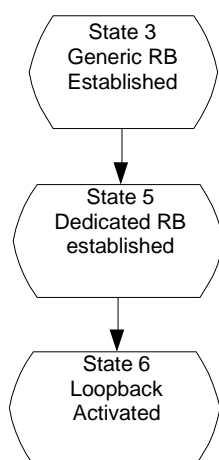


Figure 6.4.1.1-1: Initial UE states

In order that the UE can set up a call or session in E-UTRAN, there are a number of setup procedures to be undertaken in a hierarchical sequence to move between known states. The sequences are shown in figure 6.4.1.1-1 and the status of the relevant protocols in the UE in the different states are given in table 6.4.1.1-1. State 3 is defined in clause 4.5.1.

Table 6.4.1.1-1: Protocol state for each initial UE state

		RRC	ECM	EMM	ESM
State 5	Dedicated RB established	RRC_CONNECTED	ECM_CONNECTED	EMM-REGISTERED	1 default EPS bearer context active N dedicated EPS bearer context(s) active
State 6	Loopback Activated	RRC_CONNECTED	ECM_CONNECTED	EMM-REGISTERED	1 default EPS bearer context active N dedicated EPS bearer context(s) active

6.4.1.2 Dedicated Bearer Establishment (to state 5)

6.4.1.2.1 Initial conditions

System Simulator:

- Parameters are set to the default parameters for the basic single cell environment, as defined in subclause 4.4, unless otherwise specified in the test case.

User Equipment:

- The UE shall be in Generic RB established (State 3).

6.4.1.2.2 Definition of system information messages

The default system information messages are used.

6.4.1.2.3 Procedure

The establishment of dedicated radio bearer connection is assumed to always be mobile terminated.

Table 6.4.1.2.3-1: Procedure for dedicated bearer establishment

Step	Procedure	Message Sequence	
		U - S	Message
1	The SS configures new data radio bearer(s) and the associated dedicated EPS bearer context(s).	<--	RRC: RRCConnectionReconfiguration NAS: ACTIVATE DEDICATED EPS BEARER CONTEXT REQUEST
2	The UE transmits an <i>RRCConnectionReconfigurationComplete</i> message to confirm the establishment of the new data radio bearer(s), associated with the dedicated EPS bearer context(s) in the NAS message.	-->	RRC: RRCConnectionReconfigurationComplete
3	The UE transmits an ACTIVATE DEDICATED EPS BEARER CONTEXT ACCEPT message.	-->	NAS: ACTIVATE DEDICATED EPS BEARER CONTEXT ACCEPT

6.4.1.2.4 Specific message contents

All specific message contents shall be referred to clause 4.6 and 4.7.

6.4.1.3 Loopback Activation (to state 6)

Editor's Note: This section will be completed when message for loopback activation is defined in TS 36.509. The table below is just an example and should be aligned with TS 36.509.

6.4.1.3.1 Initial conditions

System Simulator:

- Parameters are set to the default parameters for the basic single cell environment, as defined in subclause 4.4, unless otherwise specified in the test case.

User Equipment:

- The UE shall be in Dedicated Radio Bearer Established (State 5).

6.4.1.3.2 Definition of system information messages

The default system information messages are used.

6.4.1.3.3 Procedure

Table 6.4.1.3.3-1: Procedure for loopback activation

Step	Procedure	Message Sequence	
		U - S	Message
1	The SS transmits an ACTIVATE RB TEST MODE message to activate UE radio bearer test mode procedure.	<--	RRC: DLInformationTransfer TC: ACTIVATE RB TEST MODE
2	The UE transmits an ACTIVATE RB TEST MODE COMPLETE message.	-->	RRC: ULInformationTransfer TC: ACTIVATE RB TEST MODE COMPLETE
3	The SS transmits a CLOSE UE TEST LOOP message to enter the UE test loop mode.	<--	RRC: DLInformationTransfer TC: CLOSE UE TEST LOOP
4	The UE transmits a CLOSE UE TEST LOOP COMPLETE message to confirm that loopback entities for the radio bearer(s) have been created and loop back is activated (State 6).	-->	RRC: ULInformationTransfer TC: CLOSE UE TEST LOOP COMPLETE

6.4.1.3.4 Specific message contents

All specific message contents shall be referred to clause 4.6, 4.7 and 4.7A.

6.4.2 Test procedures

6.4.2.1 Introduction

This section defines test procedures which can be used within test procedure sequences for test steps where checking the UE state is needed.

For each test procedure,

- at the start of the test procedure,
 - the System Simulator condition and the value of system information messages are the ones applicable in the test case referring to this test procedure, as they are after the execution of the test step immediately preceding the test step where the test procedure is used;
 - the initial UE condition is one indicated in the test case referring to this procedure, as it is after the execution of the test step immediately preceding the test step where the test procedure is used.
- at the end of the test procedure,
 - the System Simulator condition after the test procedure execution is complete is the same as before it is started (this should not be changed by the test procedure).

6.4.2.2 Test procedure to check RRC_IDLE state

This procedure aims at checking whether the UE is in RRC_IDLE on a certain cell of a test case or not.

Table 6.4.2.2-1: Test procedure sequence

St	Procedure	Message Sequence		TP	Verdict
		U - S	Message/PDU/SDU		
0	The SS waits 1 second.	-	-	-	-
1	The SS sends RRC <i>Paging</i> message with UE S-TMSI on the cell(s) specified in the test case.	<--	RRC: <i>Paging</i> (PCCH)	-	-
2	Check: Does the UE send an <i>RRCConnectionRequest</i> message on the cell specified in the test case ?	-->	RRC: <i>RRCConnectionRequest</i>		P
3	The SS transmits a <i>RRCConnectionSetup</i> message	<--	RRC: <i>RRCConnectionSetup</i>	-	-
4	The UE transmits an <i>RRCConnectionSetupComplete</i> message to confirm the successful completion of the connection establishment and to initiate the session management procedure by including the SERVICE REQUEST message.	-->	RRC: <i>RRCConnectionSetupComplete</i> NAS: SERVICE REQUEST	-	-
5 - 6	Void	-	-	-	-
7	The SS transmits a <i>SecurityModeCommand</i> message to activate AS security.	<--	RRC: <i>SecurityModeCommand</i>	-	-
8	The UE transmits a <i>SecurityModeComplete</i> message.	-->	RRC: <i>SecurityModeComplete</i>	-	-
9	The SS transmits a <i>RRCConnectionReconfiguration</i> message to establish the default bearer with condition SRB2-DRB(1, 0) according to 4.8.2.2.1.1,	<--	RRC: <i>RRCConnectionReconfiguration</i>	-	-
10	The UE transmits an <i>RRCConnectionReconfigurationComplete</i> message.	-->	RRC: <i>RRCConnectionReconfigurationComplete</i>	-	-
11	The SS release the RRC connection.	<--	RRC: <i>RRCConnectionRelease</i>	-	-

6.4.2.3 Test procedure to check RRC_CONNECTED state

Table 6.4.2.3-1: Test procedure sequence

St	Procedure	Message Sequence		TP	Verdict
		U - S	Message/PDU/SDU		
1	The SS sends <i>UECapabilityEnquiry</i> message to the UE.	<--	<i>UECapabilityEnquiry</i>	-	-
2	Check: Does the UE send a <i>UECapabilityInformation</i> message?	-->	<i>UECapabilityInformation</i>		P

6.4.2.4 Test procedure Paging (for NAS testing)

This procedure aims at checking whether the UE is in registered with a certain S-TMSI.

For the PS domain this procedure is identical to the procedure in 6.4.2.2 except that the S-TMSI as indicated in step 1 is the one explicitly specified in the test step calling this procedure.

For the CS domain the test procedure is FFS (i.e. it shall be avoided to make use of CS paging in the test case design).

6.4.2.5 Test procedure for no response to paging (for NAS testing)

This procedure aims at checking that the UE ignores paging messages with a specified identity.

The procedure is defined in table 6.4.2.5-1.

Table 6.4.2.5-1: Test procedure sequence

St	Procedure	Message Sequence		TP	Verdict
		U - S	Message		
0	The SS waits 1 second.	-	-	-	-
1	The SS transmits a paging message using the UE identity and the CN domain which are both specified in the referring test step, and on the cell which is specified in the referring test step.	<--	Paging	-	-
2	Check: Does the UE send an <i>RRCConnectionRequest</i> message on the cell where the paging was transmitted within the next 3s?	-->	<i>RRCConnectionRequest</i>		F

6.4.2.6 Test procedure to check that a dedicated EPS bearer context is active (for NAS testing)

This procedure aims at checking that a dedicated EPS bearer context is active.

The procedure is defined in table 6.4.2.6-1.

Table 6.4.2.6-1: Test procedure sequence

St	Procedure	Message Sequence		TP	Verdict
		U - S	Message		
1	The SS modifies existing data radio bearer(s) and the associated EPS bearer context(s) with Bearer QoS update.	<--	RRC: <i>RRCConnectionReconfiguration</i> NAS: MODIFY EPS BEARER CONTEXT REQUEST	-	-
2	The UE transmits an <i>RRCConnectionReconfigurationComplete</i> message to confirm the modification of the existing data radio bearer(s), associated with the EPS bearer context(s) in the NAS message.	-->	RRC: <i>RRCConnectionReconfigurationC</i> <i>omplete</i>	-	-
3	Check: Does the UE transmit a MODIFY EPS BEARER CONTEXT ACCEPT message?	-->	RRC: <i>ULInformationTransfer</i> NAS: MODIFY EPS BEARER CONTEXT ACCEPT		P

6.4.2.7 Test procedure to check that UE is camped on a new E-UTRAN cell

This procedure aims at checking whether the UE is camping on a new E-UTRAN cell with different TAI of a test case or not.

The procedure is defined in table 6.4.2.7-1.

Table 6.4.2.7-1: Test procedure sequence

St	Procedure	Message Sequence		TP	Verdict
		U - S	Message		
1	The UE transmits an <i>RRCConnectionRequest</i> message on the cell specified in the test case.	-->	RRC: <i>RRCConnectionRequest</i>	-	-
2	SS transmit an <i>RRCConnectionSetup</i> message.	<--	RRC: <i>RRCConnectionSetup</i>	-	-
3	The UE transmits an <i>RRCConnectionSetupComplete</i> message to confirm the successful completion of the connection establishment and a TRACKING AREA UPDATE REQUEST message is sent to update the registration of the actual tracking area.	-->	RRC: <i>RRCConnectionSetupComplete</i> NAS: TRACKING AREA UPDATE REQUEST	-	-
4	SS responds with TRACKING AREA UPDATE ACCEPT message.	<--	RRC: <i>DLInformationTransfer</i> NAS: TRACKING AREA UPDATE ACCEPT	-	-
5	Check: Does the UE send a TRACKING AREA UPDATE COMPLETE on the cell specified in the test case?	-->	RRC: <i>ULInformationTransfer</i> NAS: TRACKING AREA UPDATE COMPLETE	-	P
6	The SS transmits an <i>RRCConnectionRelease</i> message to release RRC connection and move to RRC_IDLE.	<--	RRC: <i>RRCConnectionRelease</i>	-	-

NOTE 1: The periodic tracking area updating timer T3412 is deactivated by default during the attach procedure (TS 36.508 clause 4.7.2).

NOTE 2: The SS does not initiate authentication and NAS SECURITY MODE COMMAND are not performed (reuse of keys allocated during the attach procedure).

6.4.2.7A Test procedure to check that UE is camped on E-UTRAN cell upon mobility from another RAT

This procedure aims at checking whether the UE is camping on a E-UTRAN cell upon mobility from another RAT after Inter RAT reselection.

The procedure if PDP context was established before inter RAT reselection, is defined in table 6.4.2.7A-1.

Table 6.4.2.7A-1: Test procedure sequence

St	Procedure	Message Sequence		TP	Verdict
		U - S	Message		
1	The UE transmits a <i>RRCConnectionRequest</i> message on the cell specified in the test case.	-->	RRC: <i>RRCConnectionRequest</i>	-	-
2	SS transmit an <i>RRCConnectionSetup</i> message.	<--	RRC: <i>RRCConnectionSetup</i>	-	-
3	The UE transmits a <i>RRCConnectionSetupComplete</i> message to confirm the successful completion of the connection establishment and a TRACKING AREA UPDATE REQUEST message is sent to update the registration of the actual tracking area.	-->	RRC: <i>RRCConnectionSetupComplete</i> NAS: TRACKING AREA UPDATE REQUEST	-	-
4	The SS transmits a NAS SECURITY MODE COMMAND message to activate NAS security (mapped security context) (Note 1).	<--	RRC: <i>DLInformationTransfer</i> NAS: SECURITY MODE COMMAND	-	-
5	The UE transmits a NAS SECURITY MODE COMPLETE message and establishes the initial security configuration.	-->	RRC: <i>ULInformationTransfer</i> NAS: SECURITY MODE COMPLETE	-	-
6	SS responds with TRACKING AREA UPDATE ACCEPT message.	<--	RRC: <i>DLInformationTransfer</i> NAS: TRACKING AREA UPDATE ACCEPT	-	-
7	Check: Does the UE send a TRACKING AREA UPDATE COMPLETE on the cell specified in the test case?	-->	RRC: <i>ULInformationTransfer</i> NAS: TRACKING AREA UPDATE COMPLETE	-	P
8	The SS transmits an <i>RRCConnectionRelease</i> message to release RRC connection and move to RRC_IDLE.	<--	RRC: <i>RRCConnectionRelease</i>	-	-
Note 1: Step 4 and 5 are executed only when UE and SS does not have a native security context.					

The procedure if PDP context was not established before inter RAT reselection, is defined in table 6.4.2.7A-2.

Table 6.4.2.7A-2: Test procedure sequence

St	Procedure	Message Sequence		TP	Verdict
		U - S	Message		
-	EXCEPTION: For Rel-8 and Rel-9 steps 1 to 6 are optional and depend on UE implementation. A Rel-10 UE directly starts attach procedure from step 6.	-	-	-	-
1	The UE transmits a <i>RRCConnectionRequest</i> message on the cell specified in the test case.	-->	RRC: <i>RRCConnectionRequest</i>	-	-
2	SS transmit an <i>RRCConnectionSetup</i> message.	<--	RRC: <i>RRCConnectionSetup</i>	-	-
3	The UE transmits a <i>RRCConnectionSetupComplete</i> message to confirm the successful completion of the connection establishment and a TRACKING AREA UPDATE REQUEST message is sent to update the registration of the actual tracking area.	-->	RRC: <i>RRCConnectionSetupComplete</i> NAS: TRACKING AREA UPDATE REQUEST	-	-
4	The SS transmits a TRACKING AREA UPDATE REJECT message with cause #40 (No EPS bearer context activated) to force attach the UE	<--	RRC: <i>DLInformationTransfer</i> NAS: TRACKING AREA UPDATE REJECT	-	-
-	EXCEPTION: Step 5 describes the behaviour that depends on UE behaviour (Note 1).	-	-	-	-
5	The SS transmits an <i>RRCConnectionRelease</i> message to release RRC connection and move to RRC_IDLE.	<--	RRC: <i>RRCConnectionRelease</i>	-	-
-	EXCEPTION: Step 6 describes a behaviour which depends on the UE capability	-	-	-	-
6	IF NOT <i>pc_Auto_PDN_Connectivity</i> , the user initiates an attach by MMI or by AT command. (Note 2)	-	-	-	-
7-22	Steps 2 to 17 of the generic UE Registration procedure (4.5 .2.3-1) are executed to successfully complete the Attach procedure.	-	-	-	-
Note 1: SS waits for 1 second to receive the Attach Request on the existing RRC Connection. In case Attach Request is not received within 1 second, existing RRC Connection is released.					
Note 2: The request is assumed to be triggered by AT command AT+CGDCONT=1,"IP" followed by AT+CGACT=1					

6.4.2.7A.1 Specific message contents

Table 6.4.2.7A.1-1: TRACKING AREA UPDATE REQUEST (Step 3, table 6.4.2.7A-1, 6.4.2.7A-2)

Derivation Path: 36.508 clause 4.7.2			
Information Element	Value/remark	Comment	Condition
EPS update type			
EPS update type Value	'000'B	TA updating	TA_only
	'001'B	Combined TA/LA updating	No_LAU_CombinedRAU_GERAN_UTRA
	'010'B	Combined TA/LA updating with IMSI attach	LAU_CombinedRAU_GERAN_UTRA
"Active" flag	Any allowed value		
NAS key set identifier			
NAS key set identifier	The valid NAS key set identifier of the UE		
TSC	'0'B	native security context (for KSI _{ASME})	Native_Security_Context
	'1'B	mapped security context (for KSI _{SGSN})	Mapped_Security_Context
GPRS ciphering key sequence number	Not present or any allowed value		
Old P-TMSI signature	Any allowed value		
Additional GUTI	Not present or any allowed value		
Nonce _{UE}	Not present or any allowed value		
UE radio capability information update needed	Not present or any allowed value		
EPS bearer context status	Not present or (octet 3 = '00100000'B and octet 4 = '00000000'B)		Bearer_Established
	Not present or (octet 3 = '00000000'B and octet 4 = '00000000'B)		No_Bearer_Established

Condition	Explanation
TA_only	See the definition below table 4.7.2-24.
combined_TA_LA	See the definition below table 4.7.2-24.
Native_Security_Context	UE has performed AKA on the EUTRA Cell
Mapped_Security_Context	UE has performed AKA on the UTRA/GERAN Cell
No_LAU_CombinedRAU_GERAN_UTRA	UE has not performed location area update procedure or a combined routing area update procedure in A/Gb or lu mode
LAU_CombinedRAU_GERAN_UTRA	UE has performed location area update procedure or a combined routing area update procedure in A/Gb or lu mode
Bearer_Established	Bearer is Established when UE earlier camped at UTRAN/GERAN cell or UE previously successfully camped in EUTRA cell.
No_Bearer_Established	Bearer is not Established when UE earlier camped at UTRAN/GERAN cell and UE did not previously camped in EUTRA cell.

This message is sent integrity protected when a valid security context exists and without integrity protection otherwise.

6.4.2.8 Test procedure to check that UE is camped on a new UTRAN cell

This procedure aims at checking whether the UE is camping on a new UTRAN cell of a test case or not.

The procedure is defined in table 6.4.2.8-1.

Table 6.4.2.8-1: Test procedure sequence

St	Procedure	Message Sequence		TP	Verdict
		U - S	Message		
1	The UE transmits a RRC CONNECTION REQUEST message on the cell specified in the test case.	-->	RRC: RRC CONNECTION REQUEST	-	-
2	The SS transmits an RRC CONNECTION SETUP message.	<--	RRC: RRC CONNECTION SETUP	-	-
3	The UE transmits an RRC CONNECTION SETUP COMPLETE message.	-->	RRC: RRC CONNECTION SETUP COMPLETE	-	-
4	The UE transmits a ROUTING AREA UPDATE REQUEST message.	-->	RRC: INITIAL DIRECT TRANSFER NAS: ROUTING AREA UPDATE REQUEST	-	-
5	The SS transmits a SECURITY MODE COMMAND message.	<--	RRC: SECURITY MODE COMMAND	-	-
6	The UE transmits a SECURITY MODE COMPLETE message.	-->	RRC: SECURITY MODE COMPLETE	-	-
7	The SS transmits a ROUTING AREA UPDATE ACCEPT message.	<--	RRC: DOWNLINK DIRECT TRANSFER NAS: ROUTING AREA UPDATE ACCEPT	-	-
8	The UE transmits a ROUTING AREA UPDATE COMPLETE message.	-->	RRC: UPLINK DIRECT TRANSFER NAS: ROUTING AREA UPDATE COMPLETE	-	-
9	The SS transmits a RRC CONNECTION RELEASE message.	<--	RRC: RRC CONNECTION RELEASE	-	-
10	Check: Does the UE transmit an RRC CONNECTION RELEASE COMPLETE message on the cell specified in the test?	-->	RRC: RRC CONNECTION RELEASE COMPLETE	-	P

NOTE: The TS 34.108 [5] and TS 34.123-1 [7] use Network Mode of Operation I as default, for this reason a combined MM/GMM procedure is performed.

6.4.2.9 Test procedure to check that UE is camped on a new GERAN cell

This procedure aims at checking whether the UE is camping on a new GERAN cell of a test case or not.

The procedure is defined in table 6.4.2.9-1.

Table 6.4.2.9-1: Test procedure sequence

St	Procedure	Message Sequence		TP	Verdict
		U - S	Message		
1	Check: Does the UE send a CHANNEL REQUEST message on the cell(s) specified in the test case?	-->	CHANNEL REQUEST	-	-
2	An uplink TBF is established in order to allow the UE to transmit a ROUTING AREA UPDATE REQUEST message signalling.	-	-	-	-
3	The UE transmits a ROUTING AREA UPDATE REQUEST message.	-->	ROUTING AREA UPDATING REQUEST	-	-
4	A downlink TBF is established by the SS in order to transmit the AUTHENTICATION AND CIPHERING REQUEST message	-	-	-	-
5	The SS transmits an AUTHENTICATION AND CIPHERING REQUEST message.	<--	AUTHENTICATION AND CIPHERING REQUEST	-	-
6	An uplink TBF is established in order to allow the UE to transmit an AUTHENTICATION AND CIPHERING RESPONSE message	-	-	-	-
7	The UE transmits a AUTHENTICATION AND CIPHERING RESPONSE message.	-->	AUTHENTICATION AND CIPHERING RESPONSE	-	-
8	A downlink TBF is established by the SS in order to transmit the ROUTING AREA UPDATE ACCEPT message	-	-	-	-
9	The SS transmits a ROUTING AREA UPDATE ACCEPT message.	<--	ROUTING AREA UPDATING ACCEPT	-	-
10	An uplink TBF is established in order to allow the UE to transmit a ROUTING AREA UPDATE COMPLETE message	-	-	-	-
11	The UE transmits a ROUTING AREA UPDATE COMPLETE message.	-->	ROUTING AREA UPDATING COMPLETE	-	P

NOTE: The TS 51.010-1 [25] uses Network Mode of Operation I as default, for this reason a combined MM/GMM procedure is performed.

6.4.2.10 Test procedure to check that UE performs tracking area updating procedure without ISR and security reconfiguration after successful completion of handover from UTRA

This procedure aims at checking whether the UE performs tracking area updating procedure where ISR is not activated and security reconfiguration after successful completion of handover from UTRA.

The procedure is defined in table 6.4.2.10-1.

Table 6.4.2.10-1: Test procedure sequence

St	Procedure	Message Sequence		TP	Verdict
		U - S	Message		
1	The UE transmits an <i>ULInformationTransfer</i> message on the cell specified in the test case. This message includes a TRACKING AREA UPDATE REQUEST message.	-->	RRC: <i>ULInformationTransfer</i> NAS: TRACKING AREA UPDATE REQUEST	-	-
2	The SS transmits a <i>DLInformationTransfer</i> message on the cell specified in the test case. This message includes a TRACKING AREA UPDATE ACCEPT message.	<--	RRC: <i>DLInformationTransfer</i> NAS: TRACKING AREA UPDATE ACCEPT	-	-
3	The UE transmits an <i>ULInformationTransfer</i> message on the cell specified in the test case. This message includes a TRACKING AREA UPDATE COMPLETE message.	-->	RRC: <i>ULInformationTransfer</i> NAS: TRACKING AREA UPDATE COMPLETE	-	-
-	EXCEPTION: Steps 4a1 to 4a2 describe behaviour that depends on the IE included in TRACKING AREA UPDATE REQUEST in step 1.	-	-	-	-
4a1	IF TRACKING AREA UPDATE REQUEST transmitted in step 1 does not contain a valid KSI_{ASME} THEN the SS transmits a <i>DLInformationTransfer</i> message on the cell specified in the test case. This message includes an AUTHENTICATION REQUEST message.	<--	RRC: <i>DLInformationTransfer</i> NAS: AUTHENTICATION REQUEST	-	-
4a2	The UE transmits an <i>ULInformationTransfer</i> message on the cell specified in the test case. This message includes an AUTHENTICATION RESPONSE message.	-->	RRC: <i>ULInformationTransfer</i> NAS: AUTHENTICATION RESPONSE	-	-
5	The SS transmits a <i>DLInformationTransfer</i> message on the cell specified in the test case. This message includes a SECURITY MODE COMMAND message to take the native EPS security context into use.	<--	RRC: <i>DLInformationTransfer</i> NAS: SECURITY MODE COMMAND	-	-
6	The UE transmits an <i>ULInformationTransfer</i> message on the cell specified in the test case. This message includes a SECURITY MODE COMPLETE message.	-->	RRC: <i>ULInformationTransfer</i> NAS: SECURITY MODE COMPLETE	-	-
7	The SS transmits an <i>RRCConnectionReconfiguration</i> message to perform intra cell handover and security reconfiguration on the cell specified in the test case.	<--	RRC: <i>RRCConnectionReconfiguration</i>	-	-
8	Check: Does the UE transmit an <i>RRCConnectionReconfigurationComplete</i> message on the cell specified in the test case?	-->	RRC: <i>RRCConnectionReconfigurationComplete</i>	-	P

Table 6.4.2.10-2: Message TRACKING AREA UPDATE REQUEST (step 1, Table 6.4.2.10-1)

Derivation Path: 36.508 clause 4.7.2-27			
Information Element	Value/remark	Comment	Condition
NAS key set identifier			
NAS key set identifier	The valid NAS key set identifier of the UE	mapped security context (for KSI _{SGSN})	
TSC	1		
Non-current native NAS key set identifier			
NAS key set identifier	The valid NAS key set identifier of the UE	native security context (for KSI _{ASME})	
TSC	0		
Old P-TMSI signature	any allowed value		
Additional GUTI	any allowed value		

Table 6.4.2.10-3: RRCConnectionReconfiguration (step 7, Table 6.4.2.10-1)

Derivation Path: 36.508, Table 4.6.1-8
--

Table 6.4.2.10-4: SecurityConfigHO (IE in RRCConnectionReconfiguration, Table 6.4.2.10-3)

Derivation Path: 36.508, Table 4.6.4-1			
Information Element	Value/remark	Comment	Condition
SecurityConfigHO ::= SEQUENCE {			
handoverType CHOICE {			
intraLTE SEQUENCE {			
keyChangeIndicator	TRUE		
nextHopChainingCount	0		
}			
}			
}			

6.4.3 Reference test procedures for TTCN development

This clause describes reference test procedures for the purpose of TTCN development.

6.4.3.1 UE triggered establishment of a dedicated EPS bearer context

Table 6.4.3.1-1: Test procedure sequence

St	Procedure	Message Sequence	
		U - S	Message
1	Cause the UE to request bearer resource allocation of dedicated EPS bearer associated with first PDN connectivity. (see Note 1)	-	-
-	EXCEPTION: Steps 2a1 to 2a7 describe behaviour that depends on RRC state; the "lower case letter" identifies a step sequence that takes place if the UE is in RRC_IDLE state.	-	-
2a1	IF the UE is in RRC_IDLE state THEN the UE transmits an <i>RRCConnectionRequest</i> message.	-->	RRC: <i>RRCConnectionRequest</i>
2a2	The SS transmits an <i>RRCConnectionSetup</i> message.	<--	RRC: <i>RRCConnectionSetup</i>
2a3	The UE transmits an <i>RRCConnectionSetupComplete</i> including the SERVICE REQUEST message.	-->	RRC: <i>RRCConnectionSetupComplete</i> NAS: SERVICE REQUEST
2a4	The SS transmits a <i>SecurityModeCommand</i> message to activate AS security.	<--	RRC: <i>SecurityModeCommand</i>
2a5	The UE transmits a <i>SecurityModeComplete</i> message and establishes the initial security configuration.	-->	RRC: <i>SecurityModeComplete</i>
2a6	The SS transmits an <i>RRCConnectionReconfiguration</i> message to configure data radio bearer(s) associated with the existing EPS bearer context. The <i>RRCConnectionReconfiguration</i> message is using condition SRB2-DRB(n, m) where n and m are the number of DRBs associated with existing EPS bearer contexts and configured respectively with RLC-AM and RLC-UM.	<--	RRC: <i>RRCConnectionReconfiguration</i>
2a7	The UE transmits an <i>RRCConnectionReconfigurationComplete</i> message.	-->	RRC: <i>RRCConnectionReconfigurationComplete</i>
3	The UE transmits an <i>ULInformationTransfer</i> message including the BEARER RESOURCE ALLOCATION REQUEST message.	-->	RRC: <i>ULInformationTransfer</i> NAS: BEARER RESOURCE ALLOCATION REQUEST
4	The SS transmits an <i>RRCConnectionReconfiguration</i> message including the ACTIVATE DEDICATED EPS BEARER CONTEXT REQUEST message to establish the dedicated EPS bearer context.	<--	RRC: <i>RRCConnectionReconfiguration</i> NAS: ACTIVATE DEDICATED EPS BEARER CONTEXT REQUEST
5	The UE transmits an <i>RRCConnectionReconfigurationComplete</i> message.	-->	RRC: <i>RRCConnectionReconfigurationComplete</i>
6	The UE transmits an <i>ULInformationTransfer</i> message including the ACTIVATE DEDICATED EPS BEARER CONTEXT ACCEPT message.	-->	RRC: <i>ULInformationTransfer</i> NAS: ACTIVATE DEDICATED EPS BEARER CONTEXT ACCEPT
Note 1: The request is assumed to be triggered by AT command +CGDSCONT, and +CGACT (activated).			
Note 2: If UE sends IP related data this shall be handled by the SS.			

6.4.3.2 UE triggered establishment of a default EPS bearer context associated with an additional PDN

Table 6.4.3.2-1: Test procedure sequence

St	Procedure	Message Sequence	
		U - S	Message
1	Cause the UE to request connectivity to an additional PDN. (see Note 1)	-	-
-	EXCEPTION: Steps 2a1 to 2a7 describe behaviour that depends on RRC state; the "lower case letter" identifies a step sequence that takes place if the UE is in RRC_IDLE state.	-	-
2a1	IF the UE is in RRC_IDLE state THEN the UE transmits an <i>RRCCONNECTIONREQUEST</i> message.	-->	RRC: <i>RRCCONNECTIONREQUEST</i>
2a2	The SS transmits an <i>RRCCONNECTIONSETUP</i> message.	<--	RRC: <i>RRCCONNECTIONSETUP</i>
2a3	The UE transmits an <i>RRCCONNECTIONSETUPCOMPLETE</i> including the SERVICE REQUEST message.	-->	RRC: <i>RRCCONNECTIONSETUPCOMPLETE</i> NAS: SERVICE REQUEST
2a4	The SS transmits a <i>SECURITYMODECOMMAND</i> message to activate AS security.	<--	RRC: <i>SECURITYMODECOMMAND</i>
2a5	The UE transmits a <i>SECURITYMODECOMPLETE</i> message and establishes the initial security configuration.	-->	RRC: <i>SECURITYMODECOMPLETE</i>
2a6	The SS transmits an <i>RRCCONNECTIONRECONFIGURATION</i> message to configure data radio bearer(s) associated with the existing EPS bearer context. The <i>RRCCONNECTIONRECONFIGURATION</i> message is using condition SRB2-DRB(n, m) where n and m are the number of DRBs associated with existing EPS bearer contexts and configured respectively with RLC-AM and RLC-UM.	<--	RRC: <i>RRCCONNECTIONRECONFIGURATION</i>
2a7	The UE transmits an <i>RRCCONNECTIONRECONFIGURATIONCOMPLETE</i> message.	-->	RRC: <i>RRCCONNECTIONRECONFIGURATIONCOMPLETE</i>
3	The UE transmits an <i>ULINFORMATIONTRANSFER</i> message including the PDN CONNECTIVITY REQUEST message.	-->	RRC: <i>ULINFORMATIONTRANSFER</i> NAS: PDN CONNECTIVITY REQUEST
4	The SS transmits an <i>RRCCONNECTIONRECONFIGURATION</i> message including the ACTIVATE DEFAULT EPS BEARER CONTEXT REQUEST message to establish the default EPS bearer context.	<--	RRC: <i>RRCCONNECTIONRECONFIGURATION</i> NAS: ACTIVATE DEFAULT EPS BEARER CONTEXT REQUEST
5	The UE transmits an <i>RRCCONNECTIONRECONFIGURATIONCOMPLETE</i> message.	-->	RRC: <i>RRCCONNECTIONRECONFIGURATIONCOMPLETE</i>
6	The UE transmits an <i>ULINFORMATIONTRANSFER</i> message including the ACTIVATE DEFAULT EPS BEARER CONTEXT ACCEPT message.	-->	RRC: <i>ULINFORMATIONTRANSFER</i> NAS: ACTIVATE DEFAULT EPS BEARER CONTEXT ACCEPT
Note 1: The request is assumed to be triggered by AT command +CGDCONT and +CGACT (activated).			
Note 2: If UE sends IP related data this shall be handled by the SS.			

Table 6.4.3.2-2: Message PDN CONNECTIVITY REQUEST (step 3, Table 6.4.3.2-1)

Derivation Path: TS 36.508 Table 4.7.3-20			
Information Element	Value/remark	Comment	Condition
EPS bearer identity	0000	No EPS bearer identity assigned	
Procedure transaction identity	PTI-1	UE assigns a particular PTI not yet used between 1 and 254	
ESM information transfer flag	Not present	This IE is only used during an attach procedure.	
Access point name	APN-1(New PDN name)	The requested PDN is different from default PDN	

6.4.3.3 UE triggered modification of an EPS bearer context

Table 6.4.3.3-1: Test procedure sequence

St	Procedure	Message Sequence	
		U - S	Message
1	Cause the UE to request bearer resource modification of EPS bearer associated with first PDN connectivity. (see Note 1)	-	-
-	EXCEPTION: Steps 2a1 to 2a7 describe behaviour that depends on RRC state; the "lower case letter" identifies a step sequence that takes place if the UE is in RRC_IDLE state.	-	-
2a1	IF the UE is in RRC_IDLE state THEN the UE transmits an <i>RRCConnectionRequest</i> message.	-->	RRC: <i>RRCConnectionRequest</i>
2a2	The SS transmits an <i>RRCConnectionSetup</i> message.	<--	RRC: <i>RRCConnectionSetup</i>
2a3	The UE transmits an <i>RRCConnectionSetupComplete</i> including the SERVICE REQUEST message.	-->	RRC: <i>RRCConnectionSetupComplete</i> NAS: SERVICE REQUEST
2a4	The SS transmits a <i>SecurityModeCommand</i> message to activate AS security.	<--	RRC: <i>SecurityModeCommand</i>
2a5	The UE transmits a <i>SecurityModeComplete</i> message and establishes the initial security configuration.	-->	RRC: <i>SecurityModeComplete</i>
2a6	The SS transmits an <i>RRCConnectionReconfiguration</i> message to configure data radio bearer(s) associated with the existing EPS bearer context. The <i>RRCConnectionReconfiguration</i> message is using condition SRB2-DRB(n, m) where n and m are the number of DRBs associated with existing EPS bearer contexts and configured respectively with RLC-AM and RLC-UM.	<--	RRC: <i>RRCConnectionReconfiguration</i>
2a7	The UE transmits an <i>RRCConnectionReconfigurationComplete</i> message.	-->	RRC: <i>RRCConnectionReconfigurationComplete</i>
3	The UE transmits an <i>ULInformationTransfer</i> message including the BEARER RESOURCE MODIFICATION REQUEST message.	-->	RRC: <i>ULInformationTransfer</i> NAS: BEARER RESOURCE MODIFICATION REQUEST
4	The SS transmits an <i>RRCConnectionReconfiguration</i> message including the MODIFY EPS BEARER CONTEXT REQUEST message to modify the EPS bearer context.	<--	RRC: <i>RRCConnectionReconfiguration</i> NAS: MODIFY EPS BEARER CONTEXT REQUEST
5	The UE transmits an <i>RRCConnectionReconfigurationComplete</i> message.	-->	RRC: <i>RRCConnectionReconfigurationComplete</i>
6	Check: Does the UE transmit an <i>ULInformationTransfer</i> message including the MODIFY EPS BEARER CONTEXT ACCEPT message?	-->	RRC: <i>ULInformationTransfer</i> NAS: MODIFY EPS BEARER CONTEXT ACCEPT
Note 1: The request is assumed to be triggered by AT command +CGCMOD.			
Note 2: If UE sends IP related data this shall be handled by the SS.			

6.4.3.4 UE triggered deletion of an EPS bearer context

Table 6.4.3.4-1: Test procedure sequence

St	Procedure	Message Sequence	
		U - S	Message
1	Cause the UE to request bearer resource release of dedicated EPS bearer associated with first PDN connectivity. (see Note 1)	-	-
-	EXCEPTION: Steps 2a1 to 2a7 describe behaviour that depends on RRC state; the "lower case letter" identifies a step sequence that takes place if the UE is in RRC_IDLE state.	-	-
2a1	IF the UE is in RRC_IDLE state THEN the UE transmits an <i>RRCConnectionRequest</i> message.	-->	RRC: <i>RRCConnectionRequest</i>
2a2	The SS transmits an <i>RRCConnectionSetup</i> message.	<--	RRC: <i>RRCConnectionSetup</i>
2a3	The UE transmits an <i>RRCConnectionSetupComplete</i> including the SERVICE REQUEST message.	-->	RRC: <i>RRCConnectionSetupComplete</i> NAS: SERVICE REQUEST
2a4	The SS transmits a <i>SecurityModeCommand</i> message to activate AS security.	<--	RRC: <i>SecurityModeCommand</i>
2a5	The UE transmits a <i>SecurityModeComplete</i> message and establishes the initial security configuration.	-->	RRC: <i>SecurityModeComplete</i>
2a6	The SS transmits an <i>RRCConnectionReconfiguration</i> message to configure data radio bearer(s) associated with the existing EPS bearer context. The <i>RRCConnectionReconfiguration</i> message is using condition SRB2-DRB(n, m) where n and m are the number of DRBs associated with existing EPS bearer contexts and configured respectively with RLC-AM and RLC-UM.	<--	RRC: <i>RRCConnectionReconfiguration</i>
2a7	The UE transmits an <i>RRCConnectionReconfigurationComplete</i> message.	-->	RRC: <i>RRCConnectionReconfigurationComplete</i>
3	The UE transmits an <i>ULInformationTransfer</i> message including the BEARER RESOURCE MODIFICATION REQUEST message.	-->	RRC: <i>ULInformationTransfer</i> NAS: BEARER RESOURCE MODIFICATION REQUEST
4	The SS transmits an <i>RRCConnectionReconfiguration</i> message including the DEACTIVATE EPS BEARER CONTEXT REQUEST message to delete EPS bearer context.	<--	RRC: <i>RRCConnectionReconfiguration</i> NAS: DEACTIVATE EPS BEARER CONTEXT REQUEST
5	The UE transmits an <i>RRCConnectionReconfigurationComplete</i> message	-->	RRC: <i>RRCConnectionReconfigurationComplete</i>
6	The UE transmits an <i>ULInformationTransfer</i> message including the DEACTIVATE EPS BEARER CONTEXT ACCEPT message.	-->	RRC: <i>ULInformationTransfer</i> NAS: DEACTIVATE EPS BEARER CONTEXT ACCEPT
Note 1: The request is assumed to be triggered by AT command +CGACT (deactivated).			
Note 2: If UE sends IP related data this shall be handled by the SS.			

6.4.3.5 UE triggered CS call

Table 6.4.3.5-1: Test procedure sequence

St	Procedure	Message Sequence	
		U - S	Message
1	Cause the UE to originate CS call. (see Note 1)	-	-
-	EXCEPTION: Steps 2a1 to 2b1 describe behaviour that depends on RRC state; the "lower case letter" identifies a step sequence that takes place depending on RRC state.	-	-
2a1	IF the UE is in RRC_IDLE state THEN the UE transmits an <i>RRConnectionRequest</i> message.	-->	RRC: <i>RRConnectionRequest</i>
2a2	The SS transmits an <i>RRConnectionSetup</i> message.	<--	RRC: <i>RRConnectionSetup</i>
2a3	The UE transmits an <i>RRConnectionSetupComplete</i> including the EXTENDED SERVICE REQUEST message.	-->	RRC: <i>RRConnectionSetupComplete</i> NAS: EXTENDED SERVICE REQUEST
2b1	ELSE The UE transmits an <i>ULInformationTransfer</i> message including the EXTENDED SERVICE REQUEST message.	-->	RRC: <i>ULInformationTransfer</i> NAS: EXTENDED SERVICE REQUEST
Note 1: The request is assumed to be triggered by AT command D.			

6.4.3.6 UE triggered MO SMS over SGs

Table 6.4.3.6-1: Test procedure sequence

St	Procedure	Message Sequence	
		U - S	Message
1	Cause the UE to originate SMS message. (see Note 1)	-	-
-	EXCEPTION: Steps 2a1 to 2a7 describe behaviour that depends on RRC state; the "lower case letter" identifies a step sequence that takes place if the UE is in RRC_IDLE state.	-	-
2a1	IF the UE is in RRC_IDLE state THEN the UE transmits an <i>RRCCONNECTIONREQUEST</i> message.	-->	RRC: <i>RRCCONNECTIONREQUEST</i>
2a2	The SS transmits an <i>RRCCONNECTIONSETUP</i> message.	<--	RRC: <i>RRCCONNECTIONSETUP</i>
2a3	The UE transmits an <i>RRCCONNECTIONSETUPCOMPLETE</i> including the SERVICE REQUEST message.	-->	RRC: <i>RRCCONNECTIONSETUPCOMPLETE</i> NAS: SERVICE REQUEST
2a4	The SS transmits a <i>SECURITYMODECOMMAND</i> message to activate AS security.	<--	RRC: <i>SECURITYMODECOMMAND</i>
2a5	The UE transmits a <i>SECURITYMODECOMPLETE</i> message and establishes the initial security configuration.	-->	RRC: <i>SECURITYMODECOMPLETE</i>
2a6	The SS transmits an <i>RRCCONNECTIONRECONFIGURATION</i> message to configure data radio bearer(s) associated with the existing EPS bearer context. The <i>RRCCONNECTIONRECONFIGURATION</i> message is using condition SRB2-DRB(n,m) where n and m are the number of DRBs associated with existing EPS bearer contexts and configured respectively with RLC-AM and RLC-UM.	<--	RRC: <i>RRCCONNECTIONRECONFIGURATION</i>
2a7	The UE transmits an <i>RRCCONNECTIONRECONFIGURATIONCOMPLETE</i> message.	-->	RRC: <i>RRCCONNECTIONRECONFIGURATIONCOMPLETE</i>
3	The UE transmits an <i>ULINFORMATIONTRANSFER</i> message including the UPLINK NAS TRANSPORT message to send the SMS message.	-->	RRC: <i>ULINFORMATIONTRANSFER</i> NAS: UPLINK NAS TRANSPORT
4	The SS transmits a <i>DLINFORMATIONTRANSFER</i> message including the DOWNLINK NAS TRANSPORT message to acknowledge receipt of the SMS message.	<--	RRC: <i>DLINFORMATIONTRANSFER</i> NAS: DOWNLINK NAS TRANSPORT
5	The SS transmits a <i>DLINFORMATIONTRANSFER</i> message including the DOWNLINK NAS TRANSPORT message to send the delivery report.	<--	RRC: <i>DLINFORMATIONTRANSFER</i> NAS: DOWNLINK NAS TRANSPORT
6	The UE transmits an <i>ULINFORMATIONTRANSFER</i> message including the UPLINK NAS TRANSPORT message to acknowledge receipt of the delivery report.	-->	RRC: <i>ULINFORMATIONTRANSFER</i> NAS: UPLINK NAS TRANSPORT
Note 1: The request is assumed to be triggered by AT command +CMGW and +CMSS.			

6.4.3.7 CS fallback to UTRAN procedures (LAI of UTRAN cell same as the LAI received in combined Attach procedure in EUTRA cell)

All procedures specified in this clause are referred to the UTRA target cell where the UE has been redirected or handed over from the EUTRA cell after a CS call requested. The default message contents are found in TS 34.108 [5], clause 9.

The procedures in 6.4.3.7.1 – 6.4.3.7.4 are applied if the UE supports (EUTRA) RRC connection release with redirection and Multi Cell System Information to UTRAN. The procedures in 6.4.3.7.5 - 6.4.3.7.7 are applied if the UE supports PS HO from EUTRA to UTRAN.

6.4.3.7.1 CS fallback to UTRAN with redirection / MT call (PS bearers not established)

Table 6.4.3.7.1-1: Test procedure sequence

St	Procedure	Message Sequence		TP	Verdict
		U - S	Message		
1	The UE transmits an RRC CONNECTION REQUEST message.	-->	RRC CONNECTION REQUEST	-	-
2	The SS transmits an RRC CONNECTION SETUP message.	<--	RRC CONNECTION SETUP	-	-
3	The UE transmits an RRC CONNECTION SETUP COMPLETE message.	-->	RRC CONNECTION SETUP COMPLETE	-	-
-	EXCEPTION: In parallel to the events described in step 4 to 15 the step specified in Table 6.4.3.7.1-2 takes place.	-	-	-	-
4	Check: Does the UE transmit a PAGING RESPONSE message?	-->	PAGING RESPONSE	-	P
5-15	Steps 7 to 17 of the generic test procedure in TS 34.108 [5] subclause 7.2.3.1.3 are performed using the UTRA reference radio bearer parameters and combination "UTRA Speech" according to subclause 4.8.3 and Table 4.8.3-1. NOTE: Mobile terminating CS call is established.	-	-	-	-
16	The SS transmits a SECURITY MODE COMMAND message for the PS domain. See Note 1.	<--	SECURITY MODE COMMAND	-	-
17	The UE transmits a SECURITY MODE COMPLETE message.	-->	SECURITY MODE COMPLETE	-	-
18	The SS transmits a ROUTING AREA UPDATE ACCEPT message.	<--	ROUTING AREA UPDATE ACCEPT	-	-
19	The UE transmits a ROUTING AREA UPDATE COMPLETE message.	-->	ROUTING AREA UPDATE COMPLETE	-	-
Note 1: A real network will initiate the security mode command procedure for the PS domain immediately after receiving the ROUTING AREA UPDATE REQUEST, but in this test procedure it was chosen to complete the procedure for CS domain first, in order to avoid the possibility of a security mode command procedure running in parallel with another RRC procedure.					

Table 6.4.3.7.1-2: Parallel behaviour

St	Procedure	Message Sequence		TP	Verdict
		U - S	Message		
1	The UE transmits a ROUTING AREA UPDATE REQUEST message.	-->	ROUTING AREA UPDATE REQUEST	-	-

6.4.3.7.2 CS fallback to UTRAN with redirection / MO call (PS bearers not established)

Table 6.4.3.7.2-1: Test procedure sequence

St	Procedure	Message Sequence		TP	Verdict
		U - S	Message		
1	The UE transmits an RRC CONNECTION REQUEST message.	-->	RRC CONNECTION REQUEST	-	-
2	The SS transmits an RRC CONNECTION SETUP message.	<--	RRC CONNECTION SETUP	-	-
3	The UE transmits an RRC CONNECTION SETUP COMPLETE message.	-->	RRC CONNECTION SETUP COMPLETE	-	-
-	EXCEPTION: In parallel to the events described in step 4 to 15 the step specified in Table 6.4.3.7.2-2 takes place.	-	-	-	-
4	Check: Does the UE transmit a CM SERVICE REQUEST message?	-->	CM SERVICE REQUEST	-	P
5-15	Steps 6 to 16 of the generic test procedure in TS 34.108 [5] subclause 7.2.3.2.3 are performed using the UTRA reference radio bearer parameters and combination "UTRA Speech" according to subclause 4.8.3 and Table 4.8.3-1. NOTE: Mobile originating CS call is established.	-	-	-	-
16	The SS transmits a SECURITY MODE COMMAND message for the PS domain. See Note 1.	<--	SECURITY MODE COMMAND	-	-
17	The UE transmits a SECURITY MODE COMPLETE message.	-->	SECURITY MODE COMPLETE	-	-
18	The SS transmits a ROUTING AREA UPDATE ACCEPT message.	<--	ROUTING AREA UPDATE ACCEPT	-	-
19	The UE transmits a ROUTING AREA UPDATE COMPLETE message.	-->	ROUTING AREA UPDATE COMPLETE	-	-
Note 1: A real network will initiate the security mode command procedure for the PS domain immediately after receiving the ROUTING AREA UPDATE REQUEST, but in this test procedure it was chosen to complete the procedure for CS domain first, in order to avoid the possibility of a security mode command procedure running in parallel with another RRC procedure.					

Table 6.4.3.7.2-2: Parallel behaviour

St	Procedure	Message Sequence		TP	Verdict
		U - S	Message		
1	The UE transmits a ROUTING AREA UPDATE REQUEST message.	-->	ROUTING AREA UPDATE REQUEST	-	-

6.4.3.7.3 CS fallback to UTRAN with redirection / MT call (PS bearer established)

Table 6.4.3.7.3-1: Test procedure sequence

St	Procedure	Message Sequence		TP	Verdict
		U - S	Message		
1-19	Steps 1-19 of table 6.4.3.7.1-1. NOTE: Mobile terminating CS call is established and Routing Area Update procedure is performed			-	-
20	Check: Does the UE transmit a SERVICE REQUEST message?	-->	SERVICE REQUEST	-	P
21	SS transmits a RADIO BEARER SETUP message, using the UTRA reference radio bearer parameters and combination "UTRA PS RB + Speech" according to subclause 4.8.3 and Table 4.8.3-1. NOTE: Mobile originating packet switched session is established.	<--	RADIO BEARER SETUP	-	-
22	The UE transmits a RADIO BEARER SETUP COMPLETE message	-->	RADIO BEARER SETUP COMPLETE	-	-

6.4.3.7.4 CS fallback to UTRAN with redirection / MO call (PS bearer established)

Table 6.4.3.7.4-1: Test procedure sequence

St	Procedure	Message Sequence		TP	Verdict
		U - S	Message		
1-19	Steps 1-19 of table 6.4.3.7.2-1. NOTE: Mobile originating CS call is set up and Routing Area Update procedure is performed	-	-	-	-
20	Check: Does the UE transmit a SERVICE REQUEST message?	-->	SERVICE REQUEST	-	P
21	SS transmits a RADIO BEARER SETUP message, using the UTRA reference radio bearer parameters and combination "UTRA PS RB + Speech" according to subclause 4.8.3 and Table 4.8.3-1. NOTE: Mobile originating packet switched session is established.	<--	RADIO BEARER SETUP	-	-
22	The UE transmits a RADIO BEARER SETUP COMPLETE message	-->	RADIO BEARER SETUP COMPLETE	-	-

6.4.3.7.5 CS fallback to UTRAN with Handover / MT call

Table 6.4.3.7.5-1: Test procedure sequence

St	Procedure	Message Sequence		TP	Verdict
		U - S	Message		
1	Check: Does the UE transmit a HANDOVER TO UTRAN COMPLETE message?	-->	HANDOVER TO UTRAN COMPLETE	-	P
-	EXCEPTION: In parallel to the events described in step 2a1 to 9 the steps specified in table 6.4.3.7.5-2 takes place.	-	-	-	-
-	Exception: Steps 2a1 to 2a10 and 2b1 to 2b9 describe behaviour that depends on the UE capability; the "lower case letter" identifies a step sequence that takes place if a capability is supported. Note: One sequence of steps 2a1 to 2a10 or 2b1 to 2b9 are executed	-	-	-	-
2a1	IF the UE does not determine the LAI of the new UTRAN cell, THEN Check: Does the UE transmit a LOCATION UPDATING REQUEST message?	-->	LOCATION UPDATING REQUEST	-	P
2a2	The SS transmits AUTHENTICATION REQUEST	<--	AUTHENTICATION REQUEST	-	-
2a3	The UE transmits AUTHENTICATION RESPONSE	-->	AUTHENTICATION RESPONSE	-	-
2a4	The SS transmits a SECURITY MODE COMMAND message for the CS domain.	<--	SECURITY MODE COMMAND	-	-
2a5	The UE transmits a SECURITY MODE COMPLETE message.	-->	SECURITY MODE COMPLETE	-	-
2a6	The SS transmits a LOCATION UPDATING ACCEPT message.	<--	LOCATION UPDATING ACCEPT	-	-
2a7	The SS transmits a SECURITY MODE COMMAND message for the PS domain.	<--	SECURITY MODE COMMAND	-	-
2a8	The UE transmits a SECURITY MODE COMPLETE message.	-->	SECURITY MODE COMPLETE	-	-
2a9	The SS transmits an UTRAN MOBILITY INFORMATION message to notify CN information.	<--	UTRAN MOBILITY INFORMATION	-	-
2a10	The UE transmits an UTRAN MOBILITY INFORMATION CONFIRM message.	-->	UTRAN MOBILITY INFORMATION CONFIRM	-	-
	Exception: Steps 2b1 to 2b4 takes place if pc_UMI_ProcNeeded_DuringCSFB				
2b1	The SS transmits a SECURITY MODE COMMAND message for the PS domain.	<--	SECURITY MODE COMMAND	-	-
2b2	The UE transmits a SECURITY MODE COMPLETE message.	-->	SECURITY MODE COMPLETE	-	-
2b3	The SS transmits an UTRAN MOBILITY INFORMATION message to notify CN information.	<--	UTRAN MOBILITY INFORMATION	-	-
2b4	The UE transmits an UTRAN MOBILITY INFORMATION CONFIRM message.	-->	UTRAN MOBILITY INFORMATION CONFIRM	-	-
2b5	Check: Does the UE transmit a PAGING RESPONSE?	-->	PAGING RESPONSE	-	P
2b6	The SS transmits AUTHENTICATION REQUEST	<--	AUTHENTICATION REQUEST	-	-
2b7	The UE transmits AUTHENTICATION RESPONSE	-->	AUTHENTICATION RESPONSE	-	-
2b8	The SS transmits a SECURITY MODE COMMAND message for the CS domain.	<--	SECURITY MODE COMMAND	-	-
2b9	The UE transmits a SECURITY MODE COMPLETE message.	-->	SECURITY MODE COMPLETE	-	-
3-9	Steps 11 to 17 of the generic test procedure in TS 34.108 subclause 7.2.3.1.3 are performed using the UTRA reference radio bearer parameters and combination "UTRA PS RB + Speech" according to subclause 4.8.3 and	-	-	-	-

	Table 4.8.3-1. NOTE: Mobile terminating CS call is established.				
10	The SS transmits a ROUTING AREA UPDATE ACCEPT.	<--	ROUTING AREA UPDATE ACCEPT	-	-
11	The UE sends ROUTING AREA UPDATE COMPLETE.	-->	ROUTING AREA UPDATE COMPLETE	-	-

Table 6.4.3.7.5-2: Parallel behaviour

St	Procedure	Message Sequence		TP	Verdict
		U - S	Message		
1	The UE transmits a ROUTING AREA UPDATE REQUEST message.	-->	ROUTING AREA UPDATE REQUEST	-	-

6.4.3.7.5.1 Specific message contents

Table 6.4.3.7.5.1-1: Void**Table 6.4.3.7.5.1-2: LOCATION UPDATING ACCEPT (step 2a6 of table 6.4.3.7.5-1)**

Derivation Path: TS 36.508 Table 4.7B.2-5			
Information Element	Value/remark	Comment	Condition
Mobile identity	Not present		

6.4.3.7.6 CS fallback to UTRAN with Handover / MO call

Table 6.4.3.7.6-1: Test procedure sequence

St	Procedure	Message Sequence		TP	Verdict
		U - S	Message		
1	Check: Does the UE transmit a HANDOVER TO UTRAN COMPLETE message?	-->	HANDOVER TO UTRAN COMPLETE	-	P
-	EXCEPTION: In parallel to the events described in step 2a1 to 9 the steps specified in table 6.4.3.7.6-2 takes place.	-	-	-	-
-	Exception: Steps 2a1 to 2a11 and 2b1 to 2b9 describe behaviour that depends on the UE capability; the "lower case letter" identifies a step sequence that takes place if a capability is supported. Note: One sequence of steps 2a1 to 2a11 or 2b1 to 2b9 are executed	-	-	-	-
2a1	IF the UE does not determine the LAI of the new UTRAN cell, THEN Check: Does the UE transmit a LOCATION UPDATING REQUEST message?	-->	LOCATION UPDATING REQUEST	-	P
2a2	The SS transmits AUTHENTICATION REQUEST	<--	AUTHENTICATION REQUEST	-	-
2a3	The UE transmits AUTHENTICATION RESPONSE	-->	AUTHENTICATION RESPONSE	-	-
2a4	The SS transmits a SECURITY MODE COMMAND message for the CS domain.	<--	SECURITY MODE COMMAND	-	-
2a5	The UE transmits a SECURITY MODE COMPLETE message.	-->	SECURITY MODE COMPLETE	-	-
2a6	The SS transmits a LOCATION UPDATING ACCEPT message.	<--	LOCATION UPDATING ACCEPT	-	-
2a7	Check: Does the UE transmit a CM SERVICE REQUEST?	-->	CM SERVICE REQUEST	-	P
2a8	The SS transmits a SECURITY MODE COMMAND message for the PS domain.	<--	SECURITY MODE COMMAND	-	-
2a9	The UE transmits a SECURITY MODE COMPLETE message.	-->	SECURITY MODE COMPLETE	-	-
2a10	The SS transmits an UTRAN MOBILITY INFORMATION message to notify CN information.	<--	UTRAN MOBILITY INFORMATION	-	-
2a11	The UE transmits an UTRAN MOBILITY INFORMATION CONFIRM message.	-->	UTRAN MOBILITY INFORMATION CONFIRM	-	-
2a12	The SS transmits a CM SERVICE ACCEPT message.	<--	CM SERVICE ACCEPT	-	-
	Exception: Steps 2b1 to 2b4 takes place if pc_UMI_ProcNeeded_DuringCSFB				
2b1	The SS transmits a SECURITY MODE COMMAND message for the PS domain.	<--	SECURITY MODE COMMAND	-	-
2b2	The UE transmits a SECURITY MODE COMPLETE message.	-->	SECURITY MODE COMPLETE	-	-
2b3	The SS transmits an UTRAN MOBILITY INFORMATION message to notify CN information.	<--	UTRAN MOBILITY INFORMATION	-	-
2b4	The UE transmits an UTRAN MOBILITY INFORMATION CONFIRM message.	-->	UTRAN MOBILITY INFORMATION CONFIRM	-	-
2b5	Check: Does the UE transmit a CM SERVICE REQUEST?	-->	CM SERVICE REQUEST	-	P
2b6	The SS transmits AUTHENTICATION REQUEST	<--	AUTHENTICATION REQUEST	-	-
2b7	The UE transmits AUTHENTICATION RESPONSE	-->	AUTHENTICATION RESPONSE	-	-
2b8	The SS transmits a SECURITY MODE COMMAND message for the CS domain.	<--	SECURITY MODE COMMAND	-	-
2b9	The UE transmits a SECURITY MODE COMPLETE message.	-->	SECURITY MODE COMPLETE	-	-
3	The UE transmits a SETUP message.	-->	SETUP	-	-

4-9	Steps 11 to 16 of the generic test procedure in TS 34.108 subclause 7.2.3.2.3 are performed using the UTRA reference radio bearer parameters and combination "UTRA PS RB + Speech" according to subclause 4.8.3 and Table 4.8.3-1. NOTE: Mobile originating CS call is established.	-	-	-	-
10	The SS transmits a ROUTING AREA UPDATE ACCEPT.	<--	ROUTING AREA UPDATE ACCEPT	-	-
11	The UE sends ROUTING AREA UPDATE COMPLETE.	-->	ROUTING AREA UPDATE COMPLETE	-	-

Table 6.4.3.7.6-2: Parallel behaviour

St	Procedure	Message Sequence		TP	Verdict
		U - S	Message		
1	The UE transmits a ROUTING AREA UPDATE REQUEST message.	-->	ROUTING AREA UPDATE REQUEST	-	-

6.4.3.7.6.1 Specific message contents

None.

Table 6.4.3.7.6.1-1: LOCATION UPDATING ACCEPT (step 2a6 of table 6.4.3.7.6-1)

Derivation Path: TS 36.508 Table 4.7B.2-5			
Information Element	Value/remark	Comment	Condition
Mobile identity	Not present		

6.4.3.7.7 CS fallback to UTRAN with Handover / emergency call

Table 6.4.3.7-1: Test procedure sequence

St	Procedure	Message Sequence		TP	Verdict
		U - S	Message		
1	Check: Does the UE transmit a HANDOVER TO UTRAN COMPLETE message?	-->	HANDOVER TO UTRAN COMPLETE	-	P
-	EXCEPTION: In parallel to the events described in step 2a1 to 9 the steps specified in table 6.4.3.7-2 takes place.	-	-	-	-
-	Exception: Steps 2a1 to 2a11 and 2b1 to 2b9 describe behaviour that depends on the UE capability; the "lower case letter" identifies a step sequence that takes place if a capability is supported. Note: One sequence of steps 2a1 to 2a11 or 2b1 to 2b9 are executed	-	-	-	-
2a1	IF the UE does not determine the LAI of the new UTRAN cell, THEN Check: Does the UE transmit a LOCATION UPDATING REQUEST message?	-->	LOCATION UPDATING REQUEST	-	P
2a2	The SS transmits AUTHENTICATION REQUEST	<--	AUTHENTICATION REQUEST	-	-
2a3	The UE transmits AUTHENTICATION RESPONSE	-->	AUTHENTICATION RESPONSE	-	-
2a4	The SS transmits a SECURITY MODE COMMAND message for the CS domain.	<--	SECURITY MODE COMMAND	-	-
2a5	The UE transmits a SECURITY MODE COMPLETE message.	-->	SECURITY MODE COMPLETE	-	-
2a6	The SS transmits a LOCATION UPDATING ACCEPT message.	<--	LOCATION UPDATING ACCEPT	-	-
2a7	Check: Does the UE transmit a CM SERVICE REQUEST?	-->	CM SERVICE REQUEST	-	P
2a8	The SS transmits a SECURITY MODE COMMAND message for the PS domain.	<--	SECURITY MODE COMMAND	-	-
2a9	The UE transmits a SECURITY MODE COMPLETE message.	-->	SECURITY MODE COMPLETE	-	-
2a10	The SS transmits an UTRAN MOBILITY INFORMATION message to notify CN information.	<--	UTRAN MOBILITY INFORMATION	-	-
2a11	The UE transmits an UTRAN MOBILITY INFORMATION CONFIRM message.	-->	UTRAN MOBILITY INFORMATION CONFIRM	-	-
2a12	The SS transmits a CM SERVICE ACCEPT message.	<--	CM SERVICE ACCEPT	-	-
	Exception: Steps 2b1 to 2b4 takes place if pc_UMI_ProcNeeded_DuringCSFB				
2b1	The SS transmits a SECURITY MODE COMMAND message for the PS domain.	<--	SECURITY MODE COMMAND	-	-
2b2	The UE transmits a SECURITY MODE COMPLETE message.	-->	SECURITY MODE COMPLETE	-	-
2b3	The SS transmits an UTRAN MOBILITY INFORMATION message to notify CN information.	<--	UTRAN MOBILITY INFORMATION	-	-
2b4	The UE transmits an UTRAN MOBILITY INFORMATION CONFIRM message.	-->	UTRAN MOBILITY INFORMATION CONFIRM	-	-
2b5	Check: Does the UE transmit a CM SERVICE REQUEST?	-->	CM SERVICE REQUEST	-	P
2b6	The SS transmits AUTHENTICATION REQUEST	<--	AUTHENTICATION REQUEST	-	-
2b7	The UE transmits AUTHENTICATION RESPONSE	-->	AUTHENTICATION RESPONSE	-	-
2b8	The SS transmits a SECURITY MODE COMMAND message for the CS domain.	<--	SECURITY MODE COMMAND	-	-
2b9	The UE transmits a SECURITY MODE COMPLETE message.	-->	SECURITY MODE COMPLETE	-	-
3	The UE transmits an EMERGENCY SETUP	-->	EMERGENCY SETUP	-	-

	message.				
4-9	Steps 12 to 17 of the test procedure in TS 34.123-1 [7] subclause 13.2.1.1 are performed using the UTRA reference radio bearer parameters and combination "UTRA PS RB + Speech" according to subclause 4.8.3 and Table 4.8.3-1. NOTE: Emergency call is established..	-	-	-	-
10	The SS transmits a ROUTING AREA UPDATE ACCEPT.	<--	ROUTING AREA UPDATE ACCEPT	-	-
11	The UE sends ROUTING AREA UPDATE COMPLETE.	-->	ROUTING AREA UPDATE COMPLETE	-	-

Table 6.4.3.7.7-2: Parallel behaviour

St	Procedure	Message Sequence		TP	Verdict
		U - S	Message		
1	The UE transmits a ROUTING AREA UPDATE REQUEST message.	-->	ROUTING AREA UPDATE REQUEST	-	-

6.4.3.7.7.1 Specific message contents

UTRAN MOBILITY INFORMATION (step 2a10 & 2b1 of table 6.4.3.7.7-1): same as Table 6.4.3.7.5.1-1

Table 6.4.3.7.7.1-1: LOCATION UPDATING ACCEPT (step 2a6 of table 6.4.3.7.7-1)

Derivation Path: TS 36.508 Table 4.7B.2-5			
Information Element	Value/remark	Comment	Condition
Mobile identity	Not present		

6.4.3.8 CS fallback to GERAN procedures (LAI of GERAN cell same as the LAI received in combined Attach procedure in EUTRA cell)

All procedures specified in this clause are referred to the GERAN target cell where the UE has been redirected or handed over from the EUTRA cell after a CS call requested. The default message contents are found in TS 34.108 [5], clause 9.

The procedures in 6.4.3.8.1 – 6.4.3.8.4 are applied if the UE supports (EUTRA) RRC connection release with redirection or Cell Change order and Multi Cell System Information to GERAN.

6.4.3.8.1 CS fallback to GERAN with redirection or CCO / MT call (DTM not supported)

Table 6.4.3.8.1-1: Test procedure sequence

St	Procedure	Message Sequence		TP	Verdict
		U - S	Message		
1	The UE transmits a CHANNEL REQUEST message.	-->	CHANNEL REQUEST	-	-
2	The SS transmits an IMMEDIATE ASSIGNMENT message.	<--	IMMEDIATE ASSIGNMENT	-	-
3	Void	-	-	-	-
-	EXCEPTION: In parallel to the events described in step 4 to 19 the steps specified in table 6.4.3.8.1-2 takes place	-	-	-	-
4	Check: Does the UE transmit a PAGING RESPONSE message?	-->	PAGING RESPONSE	-	P
4A	The UE transmits a <i>Classmark Change</i> message	-->	CLASSMARK CHANGE	-	-
-	EXCEPTION: Step 4B describes behaviour that depends on the UE capability.	-	-	-	-
4B	IF pc_UTRA then the UE transmits a Utran <i>Classmark</i> message	-->	UTRAN CLASSMARK CHANGE	-	-
5-19	Steps 5 to 19 of the generic test procedure in TS 51.010-1 sub clause 10.3.3 are performed NOTE: Mobile terminating CS call is established.	-	-	-	-
20	The SS transmits DISCONNECT.	<--	DISCONNECT	-	-
21	The UE transmits RELEASE..	-->	RELEASE	-	-
22	The SS transmits RELEASE COMPLETE.	<--	RELEASE COMPLETE	-	-
23	The SS transmits CHANNEL RELEASE, with GPRS Resumption Field set to 1	<--	CHANNEL RELEASE	-	-
24-34	Steps 1 to 11 of the generic test procedure in sub clause 6.4.2.9 are performed.	-	-	-	-

Table 6.4.3.8.1-2: Parallel behaviour

St	Procedure	Message Sequence		TP	Verdict
		U - S	Message		
1	The UE transmits a GPRS SUSPENSION REQUEST message.	-->	GPRS SUSPENSION REQUEST	-	-

6.4.3.8.2 CS fallback to GERAN with redirection or CCO / MO call (DTM not supported)

Table 6.4.3.8.2-1: Test procedure sequence

St	Procedure	Message Sequence		TP	Verdict
		U - S	Message		
1	The UE transmits a CHANNEL REQUEST message.	-->	CHANNEL REQUEST	-	-
2	The SS transmits an IMMEDIATE ASSIGNMENT message.	<--	IMMEDIATE ASSIGNMENT	-	-
3	Void	-	-	-	-
-	EXCEPTION: In parallel to the events described in step 4 to 17 the steps specified in table 6.4.3.8.2-2 takes place	-	-	-	-
4	Check: Does the UE transmit a CM SERVICE REQUEST message?	-->	CM SERVICE REQUEST	-	P
4A	The UE transmits a <i>Classmark Change</i> message	-->	CLASSMARK CHANGE	-	-
-	EXCEPTION: Step 4B describes behaviour that depends on the UE capability.	-	-	-	-
4B	IF pc_UTRA then the UE transmits a Utran <i>Classmark</i> message	-->	UTRAN CLASSMARK CHANGE	-	-
5-17	Steps 5 to 17 of the generic test procedure in TS 51.010-1 sub clause 10.2.3 are performed NOTE: Mobile originating CS call is established.	-	-	-	-
18	The SS transmits DISCONNECT.	<--	DISCONNECT	-	-
19	The UE transmits RELEASE..	-->	RELEASE	-	-
20	The SS transmits RELEASE COMPLETE.	<--	RELEASE COMPLETE	-	-
21	The SS transmits CHANNEL RELEASE, with GPRS Resumption Field set to 1	<--	CHANNEL RELEASE	-	-
22-32	Steps 1 to 11 of the generic test procedure in sub clause 6.4.2.9 are performed.	-	-	-	-

Table 6.4.3.8.2-2: Parallel behaviour

St	Procedure	Message Sequence		TP	Verdict
		U - S	Message		
1	The UE transmits a GPRS SUSPENSION REQUEST message.	-->	GPRS SUSPENSION REQUEST	-	-

6.4.3.8.3 CS fallback to GERAN with PS Handover / MT call (EDTM not supported)

Same as test procedure sequence in 36.523-1 [18] clause 13.1.11.3.2 from steps 11 to end.

6.4.3.8.4 CS fallback to GERAN with PS Handover / MO call (EDTM not supported)

Same as test procedure sequence in 36.523-1 [18] clause 13.1.12.3.2 from steps 4 to end.

6.4.3.8.5 CS fallback to GERAN with PS Handover / MT call (EDTM supported)

Same as test procedure sequence in 36.523-1 [18] clause 13.1.13.3.2 from steps 7 to end.

6.4.3.9 SRVCC Handover to UTRA

The procedure specified in this clause are referred to the UTRA target cell where the UE has been SRVCC handed over from the EUTRA cell. The default message contents are found in TS 34.108 [5], clause 9.

Table 6.4.3.9-1: Test procedure sequence

St	Procedure	Message Sequence		TP	Verdict
		U - S	Message		
1	Check: Does the UE transmit a HANDOVER TO UTRAN COMPLETE message?	-->	HANDOVER TO UTRAN COMPLETE	-	P
-	EXCEPTION: In parallel to the events described in step 2 to 7 the steps specified in table 6.4.3.9-2 takes place.	-	-	-	-
2	The SS transmits a SECURITY MODE COMMAND message for the CS domain.	<--	SECURITY MODE COMMAND	-	-
3	The UE transmits a SECURITY MODE COMPLETE message.	-->	SECURITY MODE COMPLETE	-	-
4	The SS transmits an UTRAN MOBILITY INFORMATION message to notify CN information.	<--	UTRAN MOBILITY INFORMATION	-	-
5	The UE transmits an UTRAN MOBILITY INFORMATION CONFIRM message.	-->	UTRAN MOBILITY INFORMATION CONFIRM	-	-
6	The SS transmits a TMSI REALLOCATION COMMAND message.	<--	TMSI REALLOCATION COMMAND	-	-
7	The UE transmits a TMSI REALLOCATION COMPLETE message.	-->	TMSI REALLOCATION COMPLETE	-	-
8	The SS transmits a ROUTING AREA UPDATE ACCEPT.	<--	ROUTING AREA UPDATE ACCEPT	-	-
9	The UE sends ROUTING AREA UPDATE COMPLETE.	-->	ROUTING AREA UPDATE COMPLETE	-	-

Table 6.4.3.9-2: Parallel behaviour

St	Procedure	Message Sequence		TP	Verdict
		U - S	Message		
1	The UE transmits a ROUTING AREA UPDATE REQUEST message.	-->	ROUTING AREA UPDATE REQUEST	-	-

6.4.3.9.1 Specific message contents

Table 6.4.3.9.1-1: SECURITY MODE COMMAND (step 2, Table 8.4.1.2.3.2-1)

Derivation Path: 34.108 clause 9.1.1 (SECURITY MODE COMMAND message)		
Information Element	Condition	Value/remark
Ciphering mode info		Not Present

6.4.3A Test case postambles

6.4.3A.1 Introduction

In order to make test cases perfectly reproducible, the UE under test is switched off after the test procedure sequence of a test case is complete. In order to make it possible to run a number of test cases without any manual operation, it is important that the SS can properly handle any possible signalling from the UE between the end of the test procedure sequence and until the UE is off.

After the last verdict of a test procedure sequence is assigned, it is necessary to:

- terminate any ongoing signalling procedure,
- switch off the UE.

Usually, this can be performed by completing necessary TAU/LAU/RAU procedures, completing any ongoing voice call (CS or IMS), and switching off the UE with a detach procedure.

6.4.3A.2 Reference end states

Test procedures in TS 36.523-1 may only partially terminate ongoing signalling procedures, provided they indicate a reference end state at the end of the test procedure sequence, so that a matching procedure in TS 36.523-3 can be executed to switch off the UE.

Reference end states definitions include the necessary pieces of information to predict UE behaviour during the postambles.

If any extra information was stored in the UE or the USIM due to the test procedure sequence, it should be removed explicitly by the test procedure sequence, before the UE can be left in a reference end state.

Table 6.4.3A.2-1: Reference end states

Name	Description	Optional information
E-UTRA idle (E1)	The UE: - is camped on an E-UTRA cell, and RRC idle and - registered for EPS services and EPS update status is "updated" and - is registered for non-EPS services and update status is updated (if CS fallback or SMS over SGs is supported) and - has one or more default EPS bearer context are active, zero or more dedicated EPS bearer contexts are active.	The test case may indicate that the UE is not registered for non-EPS services, though the UE supports CS fallback or SMS over SGs.
E-UTRA connected (E2)	Same as E-UTRA idle , except that: - the UE is RRC connected and - DRBs for all active EPS bearer contexts are established.	Same as for E-UTRA idle .
E-UTRA connected, T3440 started (E2_T3440)	Same as E-UTRA idle , except that: - the UE is RRC connected and - Timer T3440 is started in UE.	Same as for E-UTRA idle .
E-UTRA test mode (E3)	Same as E-UTRA connected and - test mode is active and - test loop is closed.	Same as for E-UTRA idle .
E-UTRA deregistered (E4)	The UE is: - camped on an E-UTRA cell, and idle and - not registered of EPS services and - not registered for non-EPS services.	
UTRA idle (U1)	The UE is: - camped on a UTRA cell, RRC idle and - IMSI attached and update status is "updated" (if the UE supports CS domain) and - GPRS attached, GPRS update state is "updated", and zero or one or several PDP context(s) with interactive or background QoS are active.	The test case may indicate that the UE is not IMSI attached though the UE supports CS domain.
UTRA connected (U2)	Same as UTRA idle , except that: - the UE is in CELL_DCH state and - a RAB associated with the active PDP context is established.	The test case may indicate that the UE is not IMSI attached though the UE supports CS domain.
UTRA handover (U3)	The UE: - was E-UTRA connected and - has completed a handover to UMTS and - hasn't yet sent or received any NAS signalling on the target UTRAN cell.	Same as for UTRA connected .
UTRA CS fallback (U4)	The UE: - was E-UTRA idle or E-UTRA connected and - has transmitted an EXTENDED SERVICE REQUEST message due to MO or MT CS fallback call and - either the UE has completed a handover to UMTS or the UE has been redirected to UMTS and has established the RRC connection to a UTRA cell, and the target UTRA cell has activated security and RABs for all previously active EPS bearer contexts were established and - the UE hasn't yet sent or received any NAS signalling on the target UTRAN cell	
UTRA CS call (U5)	The UE was in UTRAN CS fallback and the UE has completed LAU/RAU procedure if necessary and has established a CS call or the UE was in E-UTRAN connected and the UE has completed LAU/RAU procedure if necessary and has performed a handover to UTRAN with SRVCC.	
UTRA deregistered (U6)	The UE is: - camped on a UTRA cell, and idle and - not registered GPRS/non-GPRS services	
GERAN idle (G1)	The UE: - is camped on an GERAN cell, in idle mode and GPRS idle state and - is registered for PS services and GPRS update status is "updated" and zero or one or several PDP context(s) with interactive or background QoS are active. - is IMSI attached (if CS domain is supported)	
GERAN PS handover (G2)	The UE: - was E-UTRA connected and	

	- has performed a PS handover procedure to a GERAN cell and - hasn't yet sent or received any NAS signalling on the target GERAN cell.	
GERAN CS fallback (G3)	The UE: - was E-UTRA idle or E-UTRA connected and - has transmitted an EXTENDED SERVICE REQUEST message due to MO or MT CS fallback call and - either the UE has completed a PS handover to GERAN or a CCO to GERAN or the UE has been redirected to GERAN and has entered dedicated mode, and if DTM is supported, - the UE hasn't yet sent or received any NAS signalling on the target GERAN cell	
GERAN CS call (G4)	The UE was in GERAN CS fallback and the UE has established a CS call or the UE was in E-UTRAN connected and has performed a handover to GERAN with SRVCC.	
GERAN deregistered (G5)	The UE is: - camped on a GERAN cell, and idle and - not registered GPRS/non-GPRS services	
1xRTT state 1 (1x1)	FFS	
...	...	
HRPD state 1 (H1)	FFS	
...	...	

6.5 Default RRC message and information element contents

The default RRC message and information element contents specified in this subclause apply to all Signalling test cases defined in TS 36.523-1 [18] unless otherwise specified, in addition to the default RRC message and information element contents specified in subclause 4.6 of this specification.

6.5.1 Measurement information elements

- MeasConfig-DEFAULT

Table 6.5.1-1: MeasConfig-DEFAULT

Derivation Path: 36.331, clause 6.3.5			
Information Element	Value/remark	Comment	Condition
MeasConfig-DEFAULT ::= SEQUENCE {			
measObjectToRemoveList	Not present		
measObjectToAddModList	Not present		
reportConfigToRemoveList	Not present		
reportConfigToAddModList	Not present		
measIdToRemoveList	Not present		
measIdToAddModList	Not present		
quantityConfig	QuantityConfig-DEFAULT		
measGapConfig	Not present		
	MeasGapConfig-GP1		INTER-FREQ, UTRAN
	MeasGapConfig-GP2		GERAN, INTER-RAT
s-Measure	Not present		
preRegistrationInfoHRPD	Not present		
speedStatePars	Not present		
}			

Condition	Explanation
-----------	-------------

INTER-FREQ	For E-UTRA inter-freq measurements
UTRAN	For inter-RAT measurements with UTRAN
GERAN	For inter-RAT measurements with GERAN
INTER-RAT	For inter-RAT measurements with UTRAN and GERAN

- MeasGapConfig-GP1

Table 6.5.1-2: MeasGapConfig-GP1

Derivation Path: 36.331, clause 6.3.5			
Information Element	Value/remark	Comment	Condition
MeasGapConfig-GP1 ::= CHOICE {			
setup SEQUENCE {			
gapOffset CHOICE {			
gp0	30	TGRP = 40 ms	
}			
}			
}			

- MeasGapConfig-GP2

Table 6.5.1-3: MeasGapConfig-GP2

Derivation Path: 36.331, clause 6.3.5			
Information Element	Value/remark	Comment	Condition
MeasGapConfig-GP2 ::= CHOICE {			
setup SEQUENCE {			
gapOffset CHOICE {			
gp1	30	TGRP = 80 ms	
}			
}			
}			

6.6 Default NAS message and information element contents

The default NAS message and information element contents specified in this subclause apply to all Signalling test cases defined in TS 36.523-1 [18] unless otherwise specified, in addition to the default NAS message and information element contents specified in subclause 4.7 of this specification.

6.6.1 Reference default EPS bearer contexts

The following table defines Reference default EPS bearer contexts. Default EPS bearer context 1 is the default "default EPS bearer context" which is used in the common procedures and test cases where no particular default EPS bearer context is specified.

Table 6.6.1-1: Reference default EPS bearer contexts

Parameters	Reference default EPS bearer context #1	Reference default EPS bearer context #2	Reference default EPS bearer context #3
EPS QoS			
QCI (Note 1)	9 (non-GBR QCI)	5 (non-GBR QCI)	FFS
Maximum bit rate for uplink	64 kbps (Note 2)	64 kbps (Note 2)	FFS
Maximum bit rate for downlink	64 kbps (Note 2)	64 kbps (Note 2)	FFS
Guaranteed bit rate for uplink	64 kbps (Note 2)	64 kbps (Note 2)	FFS
Guaranteed bit rate for downlink	64 kbps (Note 2)	64 kbps (Note 2)	FFS
Maximum bit rate for uplink (extended)	0	0	FFS
Maximum bit rate for downlink (extended)	0	0	FFS
Guaranteed bit rate for uplink (extended)	0	0	FFS
Guaranteed bit rate for downlink (extended)	0	0	FFS
Negotiated QoS	Note 3, Note 4	Note 3, Note 4	FFS
Negotiated LLC SAPI	Note 4	Note 4	FFS
Radio priority	Note 4	Note 4	FFS
APN-AMBR	Not present	Not present	FFS
Configuration protocol	PPP	PPP	FFS
Note 1: For all non-GBR QCIs, the maximum and guaranteed bit rates shall be ignored. Note 2: According to TS 24.301, the UE ignores these parameters for a non-GBR QCI. Note 3: Parameters included for UEs capable of UTRAN according to TS 34.123-3 clause 8.10. Note 4: Parameters included for UEs capable of GERAN according to TS 51.010 subclause 40.5.			

6.6.2 Reference dedicated EPS bearer contexts

The following table defines Reference dedicated EPS bearer contexts. Dedicated EPS bearer context #1 is the default "dedicated EPS bearer context" which is used in the common procedures and test cases where no particular dedicated EPS bearer context is specified.

Table 6.6.2-1: Reference dedicated EPS bearer contexts

Parameters	Reference dedicated EPS bearer context #1	Reference dedicated EPS bearer context #2	Reference dedicated EPS bearer context #3	Reference dedicated EPS bearer context #4
Linked EPS bearer identity	Reference default EPS bearer #1	Reference default EPS bearer #1	Reference default EPS bearer #2	Reference default EPS bearer #2
EPS QoS				
QCI (Note 1)	1 (GBR QCI)	5 (non-GBR QCI)	2 (GBR QCI)	1 (GBR QCI)
Maximum bit rate for uplink	384 kbps	384 kbps (Note 2)	432 kbps	384 kbps
Maximum bit rate for downlink	384 kbps	384 kbps (Note 2)	432 kbps	384 kbps
Guaranteed bit rate for uplink	128 kbps	128 kbps (Note 2)	432 kbps	128 kbps
Guaranteed bit rate for downlink	128 kbps	128 kbps (Note 2)	432 kbps	128 kbps
Maximum bit rate for uplink (extended)	0	0	0	0
Maximum bit rate for downlink (extended)	0	0	0	0
Guaranteed bit rate for uplink (extended)	0	0	0	0
Guaranteed bit rate for downlink (extended)	0	0	0	0
TFT				
TFT operation code	"create new TFT"	"create new TFT"	"create new TFT"	"create new TFT"
E bit	0	0	0	0
Packet filters (Note 5)	1, 2	3	5	4
Negotiated QoS				
Traffic Class	conversational	See "PDP ContextDchForLTE" (Note 3); See "PDP context3" (Note 6)	conversational	conversational
Delivery Order	'no'	See "PDP ContextDchForLTE" (Note 3); See "PDP context3" (Note 6)	'no'	'no'
Delivery of erroneous SDU	'no'	See "PDP ContextDchForLTE" (Note 3); See "PDP context3" (Note 6)	'no'	'no'
Maximum SDU size	150	See "PDP ContextDchForLTE" (Note 3); See "PDP context3" (Note 6)	1400	150
Maximum bit rate for uplink	384 kbps	See "PDP ContextDchForLTE" (Note 3); See "PDP context3" (Note 6)	432 kbps	384 kbps
Maximum bit rate for downlink	384 kbps	See "PDP ContextDchForLTE" (Note 3); See "PDP context3" (Note 6)	432 kbps	384 kbps
Residual BER	$5 \cdot 10^{-2}$	See "PDP ContextDchForLTE" (Note 3); See "PDP context3" (Note 6)	10^{-5}	$5 \cdot 10^{-2}$
SDU error ratio	10^{-2}	See "PDP ContextDchForLTE" (Note 3); See "PDP context3" (Note 6)	$7 \cdot 10^{-3}$	10^{-2}

		ContextDchForLTE" (Note 3); See "PDP context3" (Note 6)		
Transfer delay	80 ms	See "PDP ContextDchForLTE" (Note 3); See "PDP context3" (Note 6)	130 ms	80 ms
Traffic Handling priority	0	See "PDP ContextDchForLTE" (Note 3); See "PDP context3" (Note 6)	0	0
Guaranteed bit rate for uplink	0	See "PDP ContextDchForLTE" (Note 3); See "PDP context3" (Note 6)	0	0
Guaranteed bit rate for downlink	0	See "PDP ContextDchForLTE" (Note 3); See "PDP context3" (Note 6)	0	0
Signalling Indication	0	See "PDP ContextDchForLTE" (Note 3); See "PDP context3" (Note 6)	0	0
Source Statistics Descriptor	0	See "PDP ContextDchForLTE" (Note 3); See "PDP context3" (Note 6)	0	1
Maximum bit rate for downlink (extended)	0	See "PDP ContextDchForLTE" (Note 3); See "PDP context3" (Note 6)	0	0
Guaranteed bit rate for downlink (extended)	0	See "PDP ContextDchForLTE" (Note 3); See "PDP context3" (Note 6)	0	0
Maximum bit rate for uplink (extended)	0	See "PDP ContextDchForLTE" (Note 3); See "PDP context3" (Note 6)	0	0
Guaranteed bit rate for uplink (extended)	0	See "PDP ContextDchForLTE" (Note 3); See "PDP context3" (Note 6)	0	0
Negotiated LLC SAPI	3 (Note 6)	See "PDP context3" (Note 6)	-	3 (Note 6)
Radio priority	1 (Note 6)	See "PDP context3" (Note 6)	-	1 (Note 6)
Protocol configuration options	-	-	-	-

Note 1: For all non-GBR QCI, the maximum and guaranteed bit rates shall be ignored.

Note 2: According to TS 24.301, the UE ignores these parameters for a non-GBR QCI.

Note 3: Parameters included for UEs capable of UTRAN according to TS 34.123-3 clause 8.10 (table 8.10.1 and 8.10.2).

Note 5: This row refers to the reference packet filters defined in the tables below. For each reference dedicated EPS bearer context, of reference packet filter numbers is provided.

Note 6: Parameter included for UEs capable of GERAN; when value is not provided then value from TS 51.010 subclause 40.5 is applied.

Table 6.6.2-2: Reference packet filter #1

Derivation path: 24.008 table 10.5.162			
Information Element	Value/Remark	Comment	Condition
Identifier	0 0 0 1 0 0 0 0	DL only filter, ID=0	
Evaluation precedence	(0 0 0 0 0 0 0 0) + EPS Bearer ID - 6	0 to 7	
Component type 1 ID	0 0 0 1 0 0 0 0	IPv4 remote address type	remoteIPv4
	0 0 1 0 0 0 0 0	IPv6 remote address type	remoteIPv6
Component type 1 Value	remoteAddress 255.255.255.255	See note 1	remoteIPv4
	remoteAddress ff:ff:ff:ff:ff:ff:ff:ff:ff:ff:ff:ff:ff:ff:ff:ff	See note 1	remoteIPv6
Component type 2 ID	0 1 0 1 0 0 0 0	Single remote port type	
Component type 2 Value	31 160 + EPS Bearer ID - 6		
Component type 3 ID	0 0 1 1 0 0 0 0	Protocol identifier/Next header type	
Component type 3 Value	17	UDP	
Note 1: remoteAddress should be set to the address of an IP server able to send a flow of downlink IP/UDP packets to the UE. remoteIPv4 applies if the UE has acquired an IPv4 address only, remoteIPv6 applies if the UE has acquired an IPv6 address only, or both an IPv6 and an IPv4 address.			

Table 6.6.2-3: Reference packet filter #2

Derivation path: 24.008 table 10.5.162			
Information Element	Value/Remark	Comment	Condition
Identifier	0 0 1 0 0 0 0 1	UL only filter, ID=1	
Evaluation precedence	(0 0 0 0 0 0 0 0) + EPS Bearer ID - 6 + 8	8 to 15	
Component type 1 ID	0 0 0 1 0 0 0 0	IPv4 remote address type	remoteIPv4
	0 0 1 0 0 0 0 0	IPv6 remote address type	remoteIPv6
Component type 1 Value	remoteAddress 255.255.255.255	See note 1	remoteIPv4
	remoteAddress ff:ff:ff:ff:ff:ff:ff:ff:ff:ff:ff:ff:ff:ff:ff:ff	See note 1	remoteIPv6
Component type 2 ID	0 1 0 1 0 0 0 0	Single remote port type	
Component type 2 Value	61 000 + EPS Bearer ID - 6		
Component type 3 ID	0 0 1 1 0 0 0 0	Protocol identifier/Next header type	
Component type 3 Value	17	UDP	
Note 1: remoteAddress should be set to the address of an IP server able to process a flow of uplink IP/UDP packets received from the UE. When configured together with packet filter #1, remoteAddress is the same as that for packet filter #1. remoteIPv4 applies if the UE has acquired an IPv4 address only, remoteIPv6 applies if the UE has acquired an IPv6 address only, or both an IPv6 and an IPv4 address.			

Table 6.6.2-4: Reference packet filter #3

Derivation path: 24.008 table 10.5.162			
Information Element	Value/Remark	Comment	Condition
Identifier	0 0 1 1 0 0 1 0	Bidirectional filter, ID=2	
Evaluation precedence	0 0 0 0 1 1 1 1	Lowest priority	
Component type 1 ID	0 0 0 1 0 0 0 0	IPv4 remote address type	remoteIPv4
	0 0 1 0 0 0 0 0	IPv6 remote address type	remoteIPv6
Component type 1 Value	remoteAddress 255.255.255.255	See note 1	remoteIPv4
	remoteAddress ff:ff:ff:ff:ff:ff:ff:ff:ff:ff:ff:ff:ff:ff:ff:ff	See note 1	remoteIPv6
Note 1: remoteAddress should be set to the address of an IP server able to process a uplink IP packets from the UE and transmit downlink IP packets to the UE. remoteIPv4 applies if the UE has acquired an IPv4 address only, remoteIPv6 applies if the UE has acquired an IPv6 address only, or both an IPv6 and an IPv4 address.			

Table 6.6.2-5: Reference packet filter #4

Derivation path: 24.008 table 10.5.162			
Information Element	Value/Remark	Comment	Condition
Identifier	0 0 1 1 0 0 1 1	Bidirectional, ID=3	
Evaluation precedence	(0 0 0 0 0 0 0 0) + EPS Bearer ID – 6	0 to 7	
Component type 1 ID	0 1 0 1 0 0 0 1	Remote port range type	
Component type 1 Value	media port	SS speech media port as used in the SDP negotiation (RTP remote port); see Note 1	
	media port + 1	RTCP remote port; see Note 1	
Component type 2 ID	0 0 1 1 0 0 0 0	Protocol identifier/Next header type	
Component type 2 Value	17	UDP	
Note 1: Acc. to TS 26.114 and RFC 4566 a "media port" can be understood as the transport port to which a media stream is sent.			

Table 6.6.2-6: Reference packet filter #5

Derivation path: 24.008 table 10.5.162			
Information Element	Value/Remark	Comment	Condition
Identifier	0 0 1 1 0 1 0 0	Bidirectional, ID=4	
Evaluation precedence	(0 0 0 0 0 0 0 0) + EPS Bearer ID – 6	0 to 7	
Component type 1 ID	0 1 0 1 0 0 0 1	Remote port range type	
Component type 1 Value	media port	SS video media port as used in the SDP negotiation (RTP remote port); see Note 1	
	media port + 1	RTCP remote port; see Note 1	
Component type 2 ID	0 0 1 1 0 0 0 0	Protocol identifier/Next header type	
Component type 2 Value	17	UDP	
Note 1: Acc. to TS 26.114 and RFC 4566 a "media port" can be understood as the transport port to which a media stream is sent.			

6.6A Default SMS over SGs message and information element contents

The default SMS over SGs message and information element contents specified in this subclause apply to all SMS over SGs Signalling test cases defined in TS 36.523-1 [18] unless otherwise specified. All the messages and information elements are listed in alphabetical order.

6.6A.1 CM-sublayer messages

- CP-ACK

This message is sent between the SS and the UE, in both directions.

Table 6.6A.1-1: Message CP-ACK

Derivation Path: 24.011 clause 7.2.2			
Information Element	Value/remark	Comment	Condition
Protocol discriminator	'1001'B	SMS messages	
Transaction identifier	Any allowed value		
Message type	'00000100'B	CP-ACK	

- CP-DATA

This message is sent between the SS and the UE, in both directions.

Table 6.6A.1-2: Message CP-DATA

Derivation Path: 24.011 clause 7.2.1			
Information Element	Value/remark	Comment	Condition
Protocol discriminator	'1001'B	SMS messages	
Transaction identifier	Any allowed value		
Message type	'00000001'B	CP-DATA	
CP-User data	RP-ACK RPDU or RP-DATA RPDU (as specified in the test case)		

6.6A.2 Short Message Relay Layer (SM-RL) messages

- RP-ACK RPDU

This message is sent between the SS and the UE, in both directions.

Table 6.6A.2-1: Message RP-ACK RPDU

Derivation Path: 24.011 clause 7.3.3			
Information Element	Value/remark	Comment	Condition
RP-Message Type	'010'B	RP-ACK_PDU uplink	Uplink_SMS
	'011'B	RP-ACK_PDU downlink	Downlink_S MS
RP-Message Reference	Same as in associated (preceding) RP-DATA RPDU		
RP-User Data	Not present or any allowed value		Uplink_SMS
	Not present		Downlink_S MS

Condition	Explanation
Uplink_SMS	This condition applies when the message is sent by the UE to the SS.
Downlink_SMS	This condition applies when the message is sent by the SS to the UE.

- RP-DATA RPDU

This message is sent between the SS and the UE, in both directions.

Table 6.6A.2-2: Message RP-DATA RPDU

Derivation Path: 24.301 clause 8.2.23			
Information Element	Value/remark	Comment	Condition
RP-Message Type	'001'B	RP-DATA_PDU downlink	Downlink_S MS
	'000'B	RP-DATA_PDU uplink	Uplink_SMS
RP-Message Reference	Any allowed value		
RP-Originator Address	Any allowed value	originating Service Centre address	Downlink_S MS
	Not present		Uplink_SMS
RP-Destination Address	Not present		Downlink_S MS
	Any allowed value	destination Service Centre address	Uplink_SMS
RP-User Data	SMS-SUBMIT or SMS- DELIVER (as set in the test case)		

Condition	Explanation
Uplink_SMS	See the definition below table 6.6A.2-1.
Downlink_SMS	See the definition below table 6.6A.2-1.

6.6A.3 Short Message Transfer Layer (SM-TL) messages

- SMS-DELIVER

This message is sent by the SS to the UE.

Table 6.6A.3-1: Message SMS-DELIVER

Derivation Path: 23.040 clause 9.2.2.1			
Information Element	Value/remark	Comment	Condition
TP-MTI	'00'B	SMS-DELIVER	
TP-MMS	'1'B	No more messages are waiting for the MS in this SC	
TP-RP	Any allowed value		
TP-UDHI	'0'B		
TP-SRI	'0'B		
TP-OA	Any allowed value		
TP-PID	'00000000'B		
TP-DCS	Any allowed value		
TP-SCTS	Any allowed value		
TP-UDL	160		
TP-UD (140 octets)	text of message (160 characters)	The 160 characters in TP-UD shall include at least one occurrence of each character in the default alphabet (see 3GPP TS 23.038, clause 6.2.1).	

- SMS-SUBMIT

This message is sent by the UE to the SS.

Table 6.6A.3-2: Message SMS-SUBMIT

Derivation Path: 23.040 clause 9.2.2.2			
Information Element	Value/remark	Comment	Condition
TP-MTI	'01'B	SMS-SUBMIT	
TP-RD	Any allowed value		
TP-VPF	Any allowed value		
TP-RP	Any allowed value		
TP-UDHI	Not present or any allowed value		
TP-SRR	Not present or any allowed value		
TP-MR	Any allowed value		
TP-DA	Any allowed value		
TP-PID	'00000000'B		
TP-DCS	Any allowed value		
TP-VP	Not present or any allowed value		
TP-UDL	160		
TP-UD (140 octets)	text of message (160 characters)		

6.6B Reference radio bearer configurations

6.6B.1 SRB and DRB parameters and combinations

6.6B.1.1 SRB and DRB parameters

6.6B.1.1.1 Physical Layer configurations

Table 6.6B.1.1.1-1: PhysicalConfigDedicated-DEFAULT

Derivation Path: TS 36.508 clause 4.8.2.1.6, Table 4.8.2.1.6-1			
Information Element	Value/remark	Comment	Condition
PhysicalConfigDedicated-DEFAULT ::= SEQUENCE {			
cqi-ReportConfig	CQI-ReportConfig-DEFAULT using condition CQI_PERIODIC	See subclause 4.6.3	SRB1 or RBC or RBC-HO or HO-TO-EUTRA
soundingRS-UL-ConfigDedicated	SoundingRS-UL-ConfigDedicated-DEFAULT	See subclause 4.6.3	SRB1 or RBC or RBC-HO or HO-TO-EUTRA
}			

Condition	Explanation
SRB1	Used at configuration of SRB1 during RRC connection (re-)establishment
RBC	Used at configuration of a radio bearer combination during SRB2+DRB establishment
2TX	Used for cells with two antenna ports
RBC-HO	Used during Handover
HO-TO-EUTRA	Inter-RAT handover to E-UTRA

6.7 Timer Tolerances

The timer tolerances specified for the test environment in this subclause apply to all Signalling test cases defined in TS 36.523-1 [18] unless otherwise specified

All the timers used during testing are within a tolerance margin given by the equation below. If for a specific test a different tolerance value is required then this should be specified in the relevant test document (i.e. the document where the test is described).

Timer tolerance = 10% , or $5 \times RTT$, whichever value is the greater.

Where $RTT = 8$ TTIs for FDD, and $RTT =$ Maximum RTT from Table 6.7-1 for TDD (see Note).

NOTE: Since the exact RTT for TDD varies depending on the UL/DL configurations and subframe number [29], the maximum RTT is defined in Table 6.7-1.

Table 6.7-1: Maximum RTT for TDD UL/DL configurations

UL/DL Configuration	Maximum RTT (TTIs)
0	10
1*	11
2	12
3	15
4	16
5	TBD
6	11
*Note: Default UL/DL configuration defined in Table 4.6.3-23 of TS 36.508	

7 Test environment for RRM tests

This section contains all the exceptions of the common test parameters specified in clause 4 for specific needs of test cases defined in TS 36.521-3 [34], TS 34.121-1 [50] and TS 34.122[51]. Exceptions specified in clause 7 overwrite the parameter settings of clause 4; exceptions defined within the test cases overwrite parameter settings of clause 4 and 7.

This clause describes UE test states which can be used in the initial condition for TS 36.521-3 [34], TS 34.121-1 [50] and TS 34.122[51].

7.1 Requirements of *test* equipment

<void>

7.2 RRM Reference system configurations

7.2.1 Common parameters for simulated E-UTRA cells

7.2.1.1 Combinations of system information blocks

<void>

7.2.1.2 Scheduling of system information blocks

<void>

7.2.1.3 Common contents of system information messages

- SystemInformationBlockType2

As defined in Table 4.4.3.3-1 with the following exceptions:

Table 7.2.1.3-1: SystemInformationBlockType2 exceptions

Derivation Path: Clause 4.4.3.3, Table 4.4.3.3-1 SystemInformationBlockType2			
Information Element	Value/remark	Comment	Condition
mbsfn-SubframeConfig ::= SEQUENCE {			FDD
radioframeAllocationPeriod	n1	Every radio frame is with MBSFN subframe	
radioframeAllocationOffset	0		
subframeAllocation CHOICE {			
oneFrame	111111	Subframe 1, 2, 3, 6, 7, 8 is used for MBSFN	

- SystemInformationBlockType3

As defined in Table 4.4.3.3-2 with the following exceptions:

Table 7.2.1.3-2: SystemInformationBlockType3 exceptions

Derivation Path: Clause 4.4.3.3, Table 4.4.3.3-2 SystemInformationBlockType3			
Information Element	Value/remark	Comment	Condition
neighCellConfig	'10'B (The MBSFN subframe allocations of all neighbour cells are identical to or subsets of that in the serving cell)		FDD with E-UTRA FDD neighbour cell

- SystemInformationBlockType5

As defined in Table 4.4.3.3-3 with the following exceptions:

Table 7.2.1.3-3: SystemInformationBlockType5 exceptions

Derivation Path: Clause 4.4.3.3, Table 4.4.3.3-4 SystemInformationBlockType5			
Information Element	Value/remark	Comment	Condition
neighCellConfig[n]	'10'B (The MBSFN subframe allocations of all neighbour cells are identical to or subsets of that in the serving cell)		FDD with E-UTRA FDD neighbour cell
	'11'B (Different UL/DL allocation in neighbouring cells for TDD compared to the serving cell)		FDD with E-UTRA TDD neighbour cell, TDD with E-UTRA FDD neighbour cell

- SystemInformationBlockType7

As defined in Table 4.4.3.3-6 with the following exceptions:

Table 7.2.1.3-4: SystemInformationBlockType7 exceptions

Derivation Path: Clause 4.4.3.3, Table 4.4.3.3-6 SystemInformationBlockType7			
Information Element	Value/remark	Comment	Condition
commonInfo SEQUENCE {			
p-MaxGERAN	33 (33 dBm)		GSM 400 & GSM 900 & GSM 850 & GSM 700
	30 (30 dBm)		DCS 1800 & PCS 1900
}			

7.2.2 Common parameters for simulated GERAN cells

7.2.2.1 Mapping of GERAN cells

Unless otherwise stated, GERAN cells take the default values defined in Table 7.2.2.1-1.

Table 7.2.2.1-1: Mapping of GERAN cells with TS 51.010-1 [25]

GERAN cell	Frequency	GERAN cell in TS 51.010-1, clause 40
Cell 24	f11	Cell A
Cell 25	f12	Cell D
Cell 26	f13	Cell B

7.2A Generic RRM procedures

7.2A.1 UE RRM test states

Table 7.2A.1-1: The E-UTRAN UE states

		RRC	ECM	EMM	ESM	UE Test Mode
State 2A	Registered, Idle Mode, UE Test Mode Activated	Refer to Table 4.5.1-1	Refer to Table 4.5.1-1	Refer to Table 4.5.1-1	Refer to Table 4.5.1-1	Refer to Table 4.5.1-1
State 3A-RF	Generic Default RB Established, UE Test Mode Activated	Refer to Table 5.2A.1-1	Refer to Table 5.2A.1-1	Refer to Table 5.2A.1-1	Refer to Table 5.2A.1-1	Refer to Table 5.2A.1-1
State 3B-RF	Generic Default RB Established, UE Test Mode Activated, pre-registered on HRPD	RRC_CONNECTED 1 data radio bearer configured	ECM-CONNECTED	EMM-REGISTERED	1 default EPS bearer context active	Active

7.2A.2 UE Registration, UE Test Mode Activated (State 2A)

As described in clause 4.5.2A with following exceptions:

**Table 7.2A.2-1: ACTIVATE DEFAULT EPS BEARER CONTEXT REQUEST
(Step 16 in Table 4.5.2A.3-1)**

Derivation Path: Table 4.7.3-6			
Information Element	Value/remark	Comment	Condition
PDN address			
Length of PDN address contents	5 octets		
PDN type value	'001'B	IPv4	
PDN address information	IPv4 address	The SS provides a valid IPv4 address	
ESM cause	IF "PDN type" IE in step 4 is 'IPv4v6' THEN '00110010'B ELSE Not present	"PDN type IPv4 only allowed"	

7.2A.3 Generic Default Radio Bearer Establishment, UE Test Mode Activated (State 3A-RF)

As described in clause 5.2A.2.

7.2A.4 Generic Default Radio Bearer Establishment, UE Test Mode Activated, pre-registration on HRPD (State 3B-RF)

Editor's note: This section is incomplete. The following aspects are either missing or not yet determined: Other than UATI Request message and UATI Assignment message are FFS

7.2A.4.1 Initial conditions

System Simulator:

- Cell 1
- Cell 1 is transmitting SystemInformationBlockType8

User Equipment:

- The Test USIM shall be inserted.

7.2A.4.2 Definition of system information messages

As described in clause 4.5.2B.2.

7.2A.4.3 Procedure

Table 7.2A.4.3-1: UE registration with default EPS bearer establishment, test mode activation and HRPD pre-registration procedures (state 1 to state 3B-RF)

Step	Procedure	Message Sequence	
		U - S	Message
1 to 18	Same procedure for steps 1 to 18 as specified in the procedure in clause 4.5.2A.3 and 7.2A.2	-	-
19 to 36	Same procedure for steps 17 to 30D as specified in the procedure in clause 4.5.2B.3		

7.2A.4.4 Specific message contents

As described in clauses 4.5.2B.4 and 7.2A.2.

7.2A.5 Procedure to configure SCC

As described in clause 5.2A.4.

7.2B Other generic RRM procedures

7.2B.1 Tracking area updating procedure

The procedure is defined in table 7.2B.1-1.

Table 7.2B.1-1: Tracking area updating procedure

Step	Procedure	Message Sequence	
		U - S	Message
1	The SS transmits system information on the cell specified in the test case.	<--	RRC: SYSTEM INFORMATION (BCCH)
-	EXCEPTION: If all EPS bearer context is inactive in UE, for Rel-8 and Rel-9 steps 2 to 8a are optional and depend on UE implementation. A Rel-10 UE directly starts attach procedure from step 8a.	-	-
2	The UE transmits an <i>RRCCoalitionRequest</i> message on the cell specified in the test case.	-->	RRC: <i>RRCCoalitionRequest</i>
3	The SS transmits an <i>RRCCoalitionSetup</i> message.	<--	RRC: <i>RRCCoalitionSetup</i>
4	The UE transmits an <i>RRCCoalitionSetupComplete</i> message to confirm the successful completion of the connection establishment and a TRACKING AREA UPDATE REQUEST message is sent to update the registration of the actual tracking area.	-->	RRC: <i>RRCCoalitionSetupComplete</i> NAS: TRACKING AREA UPDATE REQUEST
-	EXCEPTION: If all EPS bearer context is marked as inactive in the EPS bearer context status IE included in the TRACKING AREA UPDATE REQUEST message then, events described in steps 5a to 24a. Otherwise, events described in steps 5 to 7.		
5	The SS responds with TRACKING AREA UPDATE ACCEPT message.	<--	RRC: <i>DLInformationTransfer</i> NAS: TRACKING AREA UPDATE ACCEPT
6	The UE transmits a TRACKING AREA UPDATE COMPLETE	-->	RRC: <i>ULInformationTransfer</i> NAS: TRACKING AREA UPDATE COMPLETE
7	The SS transmits an <i>RRCCoalitionRelease</i> message to release RRC connection and move to RRC_IDLE.	<--	RRC: <i>RRCCoalitionRelease</i>
5a	The SS responds with TRACKING AREA UPDATE REJECT message.	<--	RRC: <i>DLInformationTransfer</i> NAS: TRACKING AREA UPDATE REJECT
6a	EXCEPTION: Step 7a describes the behaviour that depends on UE behaviour (Note 3).	-	-
7a	The SS transmits an <i>RRCCoalitionRelease</i> message to release RRC connection and move to RRC_IDLE.	<--	RRC: <i>RRCCoalitionRelease</i>
8a	IF NOT <i>pc_Auto_Attach_after_TAU_Reject</i> , the user initiates an attach by MMI or by AT command.	-	-
9a-24a	Steps 2 to 17 of the generic UE Registration procedure (4.5.2a.3 and 7.2A.2) are executed to successfully complete the Attach procedure.	-	-

- NOTE 1: The periodic tracking area updating timer T3412 is deactivated by default during the attach procedure (TS 36.508 clause 4.7.2).
- NOTE 2: The SS does not initiate authentication and NAS SECURITY MODE COMMAND are not performed (reuse of keys allocated during the attach procedure).
- NOTE 3: The SS waits for 1 second to receive the Attach Request on the existing RRC Connection. In case Attach Request is not received within 1 second, existing RRC Connection is released.

7.3 Default RRC message and information elements contents

7.3.1 Contents of RRC messages

FFS.

7.3.2 Radio resource control information elements

Editor's note: Unless otherwise stated in the test parameters or messages exceptions in the respective test cases in TS 36.521-3 [34], PRACH configuration index and exceptional message as specified in Table 7.3.2-1 is used.

As defined in clause 4.6.3 with the following exceptions:

Table 7.3.2-1: PRACH-Config-DEFAULT

Derivation Path: Clause 4.6.3 Table 4.6.3-7			
Information Element	Value/remark	Comment	Condition
PRACH-Config-DEFAULT ::= SEQUENCE {			
prach-ConfigIndex	3		TDD
}			

Condition	Explanation
TDD	TDD cell environment

Table 7.3.2-2: RadioResourceConfigCommonSCell-r10-DEFAULT

Derivation Path: Clause 4.6.3 Table 4.6.3-13A			
Information Element	Value/remark	Comment	Condition
RadioResourceConfigCommonSCell-r10 ::= SEQUENCE {			
mbsfn-SubframeConfigList-r10 SEQUENCE {			FDD
radioframeAllocationPeriod	n1	Every radio frame is with MBSFN subframe	
radioframeAllocationOffset	0		
subframeAllocation CHOICE {			
oneFrame	111111	Subframe 1, 2, 3, 6, 7, 8 is used for MBSFN	
}			
}			
ul-Configuration-r10	Not Present		
}			

Condition	Explanation
FDD	FDD cell environment

Table 7.3.2-3: PhysicalConfigDedicatedSCell-r10-DEFAULT

Derivation Path: Clause 4.6.3 Table 4.6.3-6A			
Information Element	Value/remark	Comment	Condition
PhysicalConfigDedicatedSCell-r10 ::= SEQUENCE {			
ul-Configuration-r10	Not Present		
}			

7.3.3 Measurement information elements

As defined in clause 4.6.6 with the following exceptions:

Table 7.3.4-1: MeasObjectEUTRA-GENERIC (Freq)

Derivation Path: Clause 4.6.6, Table 4.6.6-2			
Information Element	Value/remark	Comment	Condition
neighCellConfig	10'B (The MBSFN subframe allocations of all neighbour cells are identical to or subsets of that in the serving cell)		FDD with E-UTRA FDD neighbour cell
	11'B (Different UL/DL allocation in neighbouring cells for TDD compared to the serving cell)		FDD with E-UTRA TDD neighbour cell, TDD with E-UTRA FDD neighbour cell

7.4 Default NAS message and information elements contents

7.5 Reference radio bearer configurations

7.5.1 SRB and DRB parameters

7.5.1.1 MAC configurations

As defined in clause 4.8.2.1.5 with the following exceptions:

Table 7.5.1.1-1: MAC-MainConfig-RBC

Derivation Path: Clause 4.8.2.1.5 Table 4.8.2.1.5-1			
Information Element	Value/remark	Comment	Condition
MAC-MainConfig-RBC ::= SEQUENCE {			
mac-MainConfig-v1020SEQUENCE {			SCell_AddMod
sCellDeactivationTimer-r10	Not present		
extendedBSR-Sizes-r10	Not Present		
extendedPHR-r10	Not Present		
}			
}			

Condition	Explanation
SCell_AddMod	Addition or modification of SCell

Annex A (informative): Connection Diagrams

Definition of Terms

System Simulator or SS – A device or system, that is capable of generating simulated Node B signalling and analysing UE signalling responses on one or more RF channels, in order to create the required test environment for the UE under test. It will also include the following capabilities:

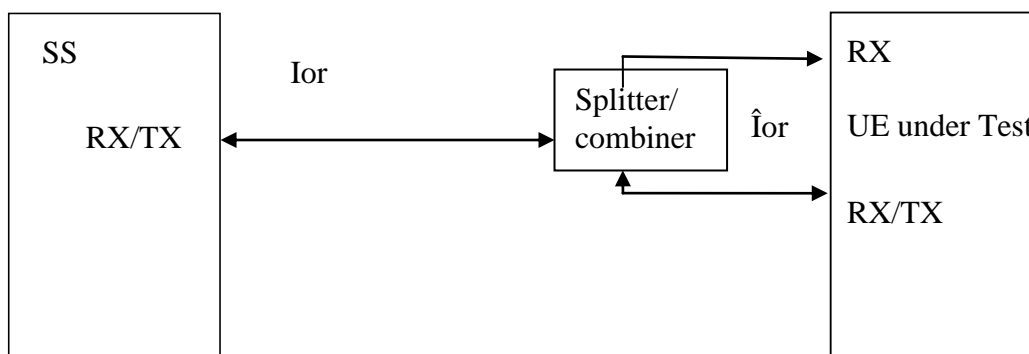
1. Measurement and control of the UE Tx output power through TPC commands
2. Measurement of Throughput
3. Measurement of signalling timing and delays
4. Ability to simulate UTRAN and/or E-UTRAN and/or GERAN signalling

Test System – A combination of devices brought together into a system for the purpose of making one or more measurements on a UE in accordance with the test case requirements. A test system may include one or more System Simulators if additional signalling is required for the test case. The following diagrams are all examples of Test Systems.

NOTE 1: The above terms are logical definitions to be used to describe the test methods used in the documents TS36.521-1, TS 36.523-1 and TS36.521-3 in practice, real devices called 'System Simulators' may also include additional measurement capabilities or may only support those features required for the test cases they are designed to perform.

NOTE 2: Components in the connection diagrams:

The components in the connection diagrams represent ideal components. They are intended to display the wanted signal flow. They don't mandate real implementations. An alternative to Figure A.3 is shown below as an example: It is nearer to real implementations. The signal levels are the same as in Figure A.3. The signal flow cannot be displayed as detailed as in Figure A.3.



Alternative to Figure A.3

Connection: Each connection is displayed as a one or two sided arrow, showing the intended signal flow.

Circulator: The signal, entering one port, is conducted to the adjacent port, indicated by the arrow. The attenuation among the above mentioned ports is ideally 0 and the isolation among the other ports is ideally ∞ .

Splitter: a splitter has one input and 2 or more outputs. The signal at the input is equally divided to the outputs. The attenuation from input to the outputs is ideally 0 and the isolation between the outputs is ideally ∞ .

Combiner: a combiner has one output and 2 or more inputs. The signals at the inputs are conducted to the output, all with the same, ideally 0 attenuation. The isolation between the inputs is ideally ∞ .

Switch: contacts a sink (or source) alternatively to two or more sources (or sinks).

Fader: The fader has one input and one output. The MIMO fading channel is represented by several single faders (e.g. 8 in case of a MIMO antenna configuration 4x2) The correlation among the faders is described in TS 36.521-1 clause B.2.2

Attenuator: TBD

General considerations on connections for CA testing

Figures A.32<x> to A.37<x> and A.41<x> to A.44<x> contain connection diagrams for CA testing. Different options (<x> = a, b, c) have been defined for each connection, to consider different UE employments with respect to UE antenna connectors and signal mapping:

- a: Separate antenna connectors for each CC. An optional *Combiner* may be used in case the UE employs one common wide band antenna only for the receive diversity for both CC-s.
- b: Common antenna connectors for both CC-s with same UL transmit antenna connector.
- c: Common antenna connectors for both CC-s with different UL transmit antenna connectors.

The connections are referred in tests as *Figure group* which imply figures with the same arabic numeral in the number, but different latin letter extension (e.g. Figure A.32a, A.32b etc). The selection of the connection option for testing is done according to the UE employment as appropriate.

Following symbolic is used in the connection diagrams to distinguish CC-s and paths:

- *p*: primary CC
- *s*: secondary CC
- <j>: (integer) defines the receive antenna and the path to it <j> for a given CC
- <i><j>: (integer) defines the path between transmit antenna <i> and receive antenna <j> for a given CC

The connections are general and support CA both in DL and UL. According to the test conditions, if the UL CA is not used, the “secondary CC of UL” in the connections may be ignored.

For contiguous CA, AWGN_p and AWGN_s affecting the same UE antenna connector can be unified to a single AWGN_{p/s} with higher bandwidth.

Figure A.1: Void

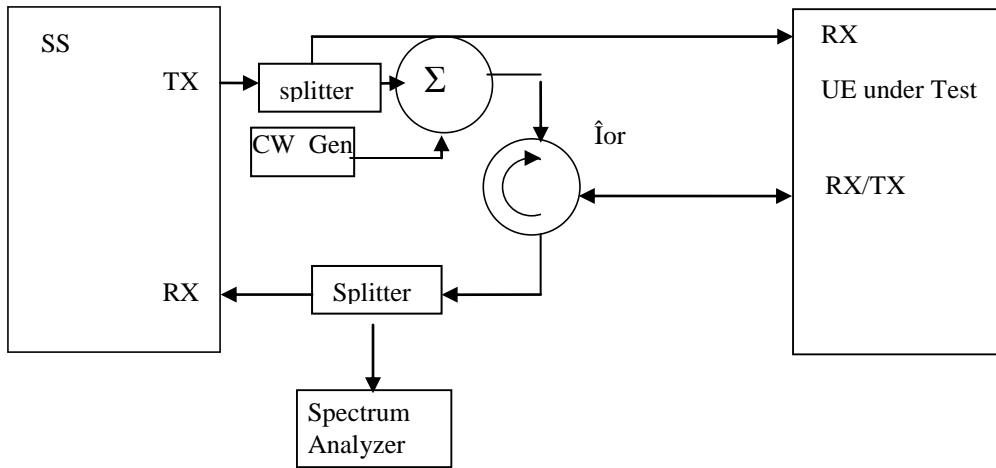


Figure A.2: Connection for Transmitter Intermodulation tests

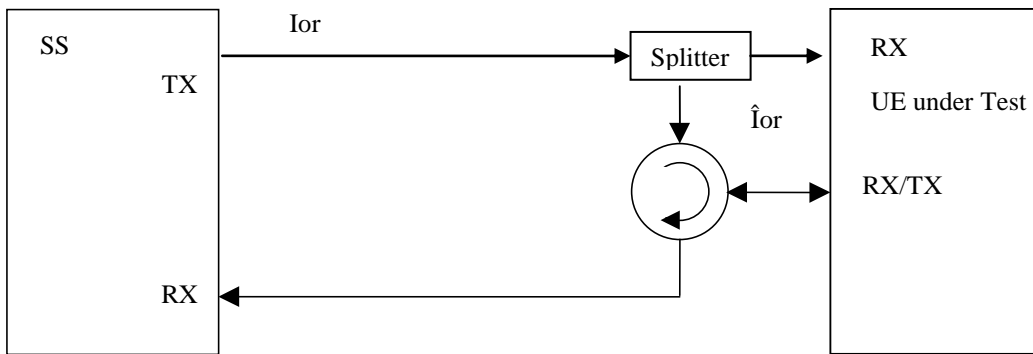


Figure A.3: Connection for basic single cell, RX and TX tests

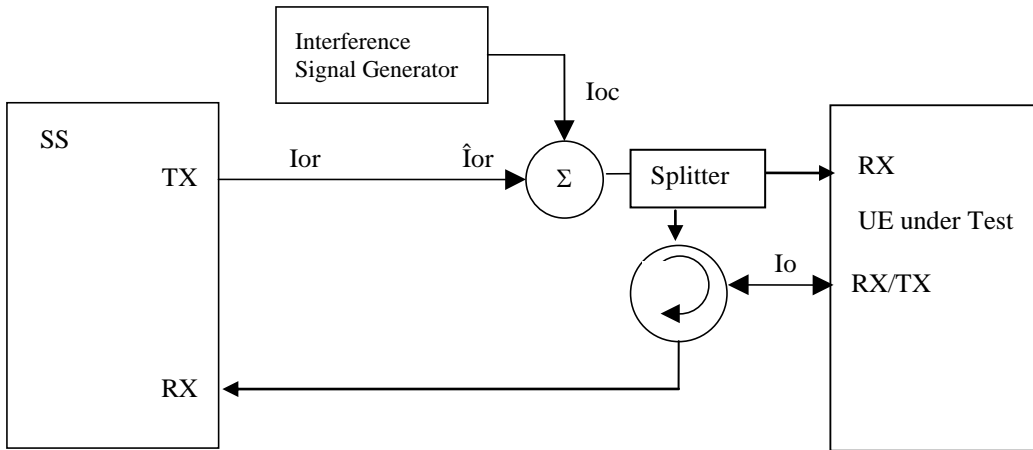


Figure A.4: Connection for Receiver tests with E-UTRA-Interference

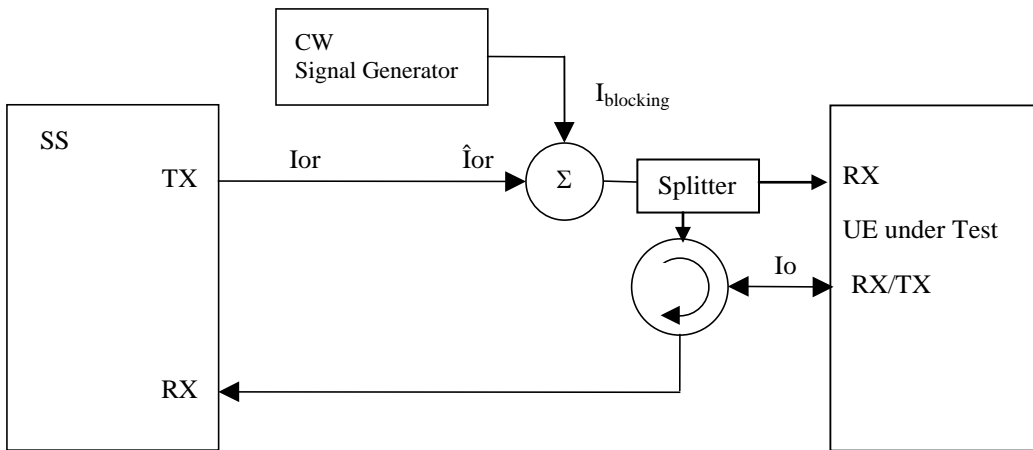


Figure A.5: Connection for Receiver tests with CW interferer

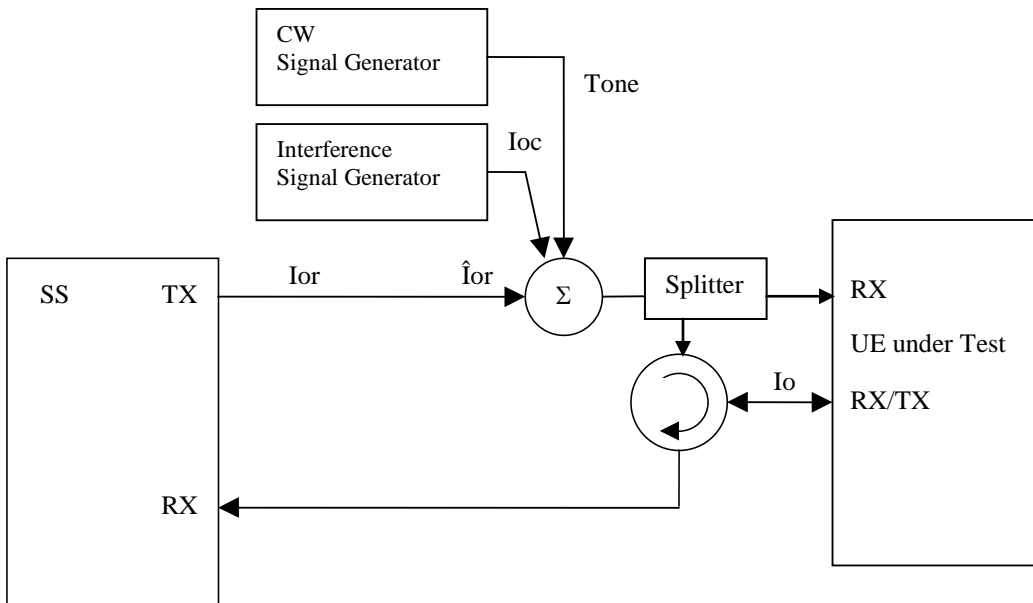


Figure A.6: Connection for Receiver tests with both E-UTRA Interference and additional CW signal

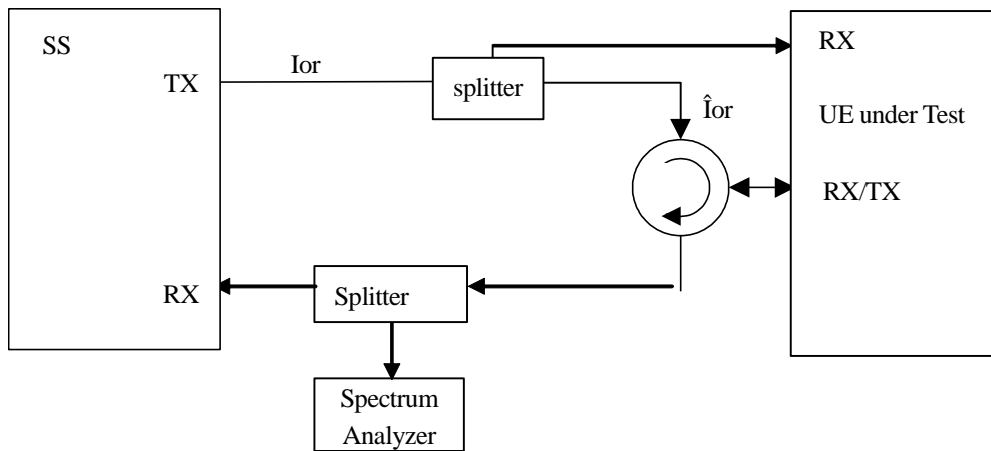


Figure A.7: Connection for TX-tests with additional Spectrum Analyzer

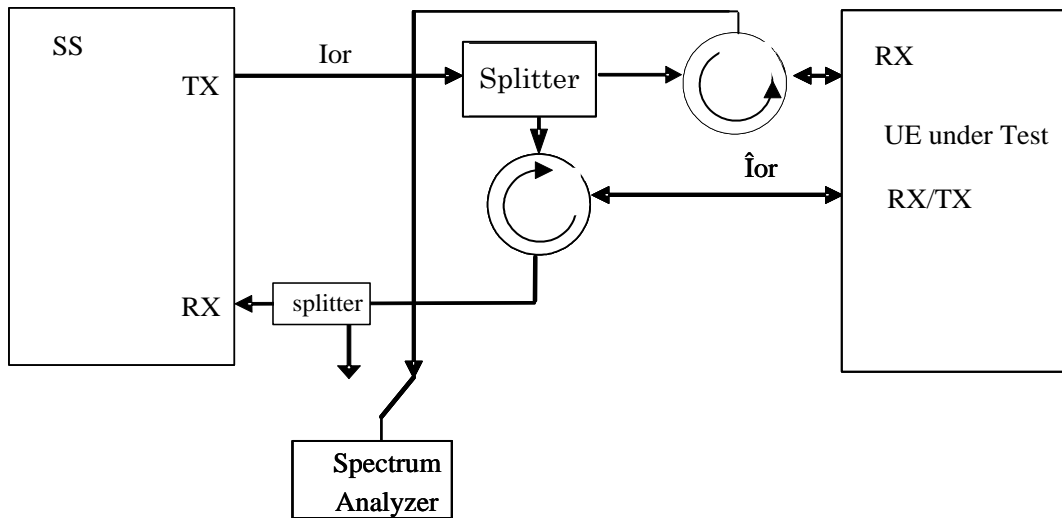


Figure A.8: Connection for RX-tests with additional Spectrum Analyzer

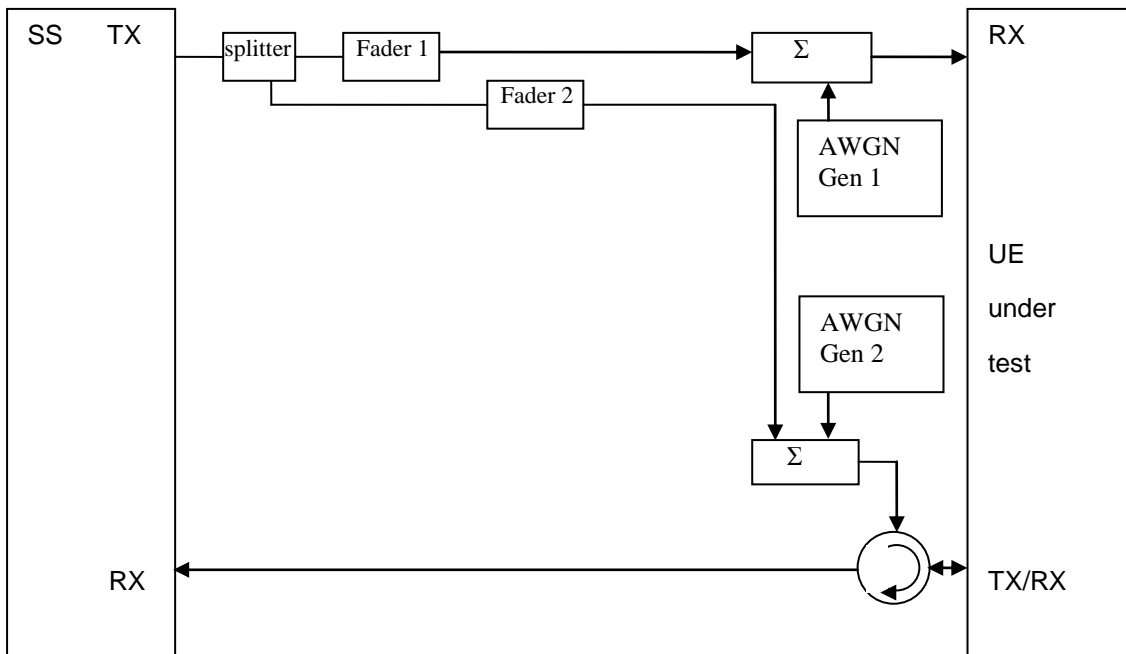


Figure A.9: Connection for RX performance tests with antenna configuration 1x2 (single antenna port)

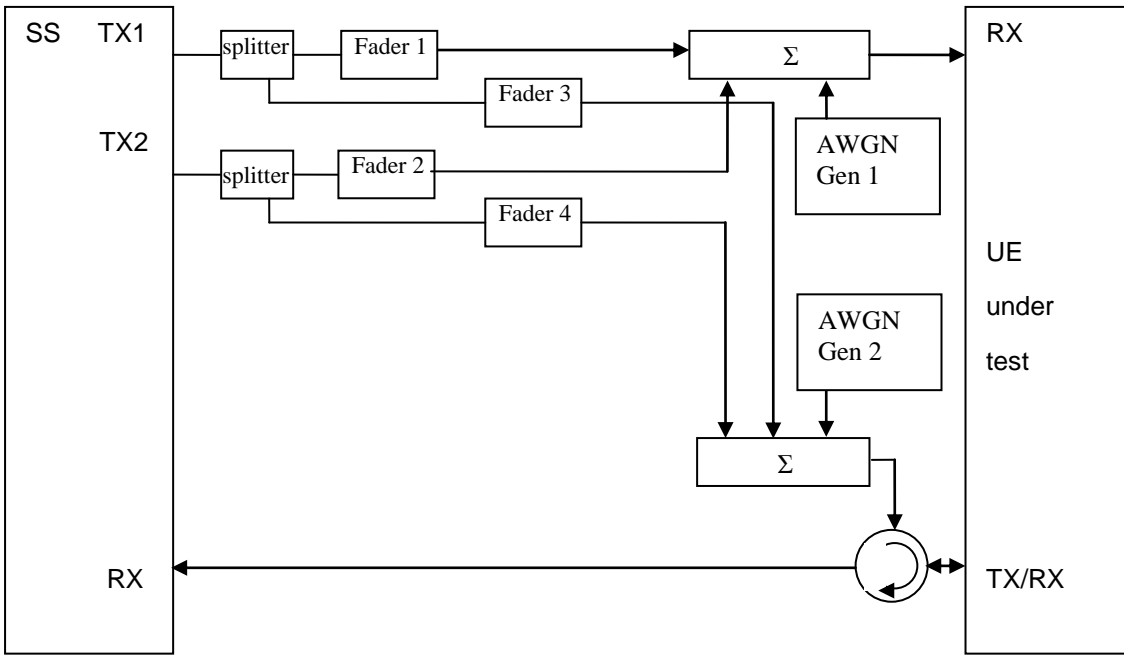


Figure A.10: Connection for RX performance tests with antenna configuration 2x2 (transmit diversity)

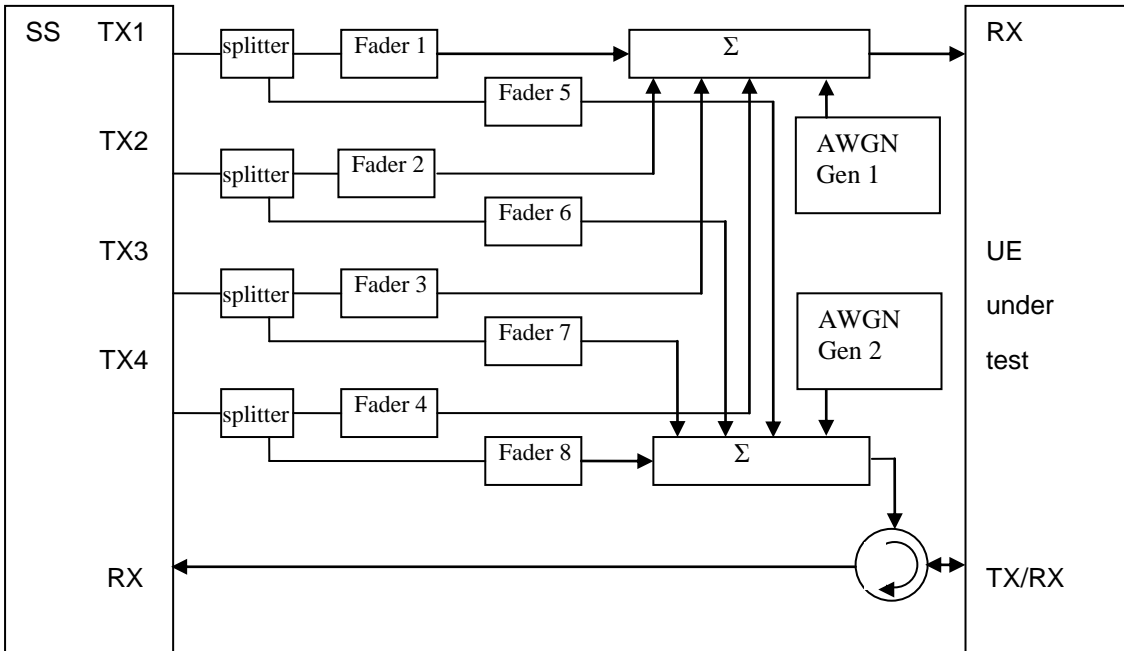


Figure A.11: Connection for RX performance tests with antenna configuration 4x2 (transmit diversity)

Figure A.12: Void

Figure A.13: Void

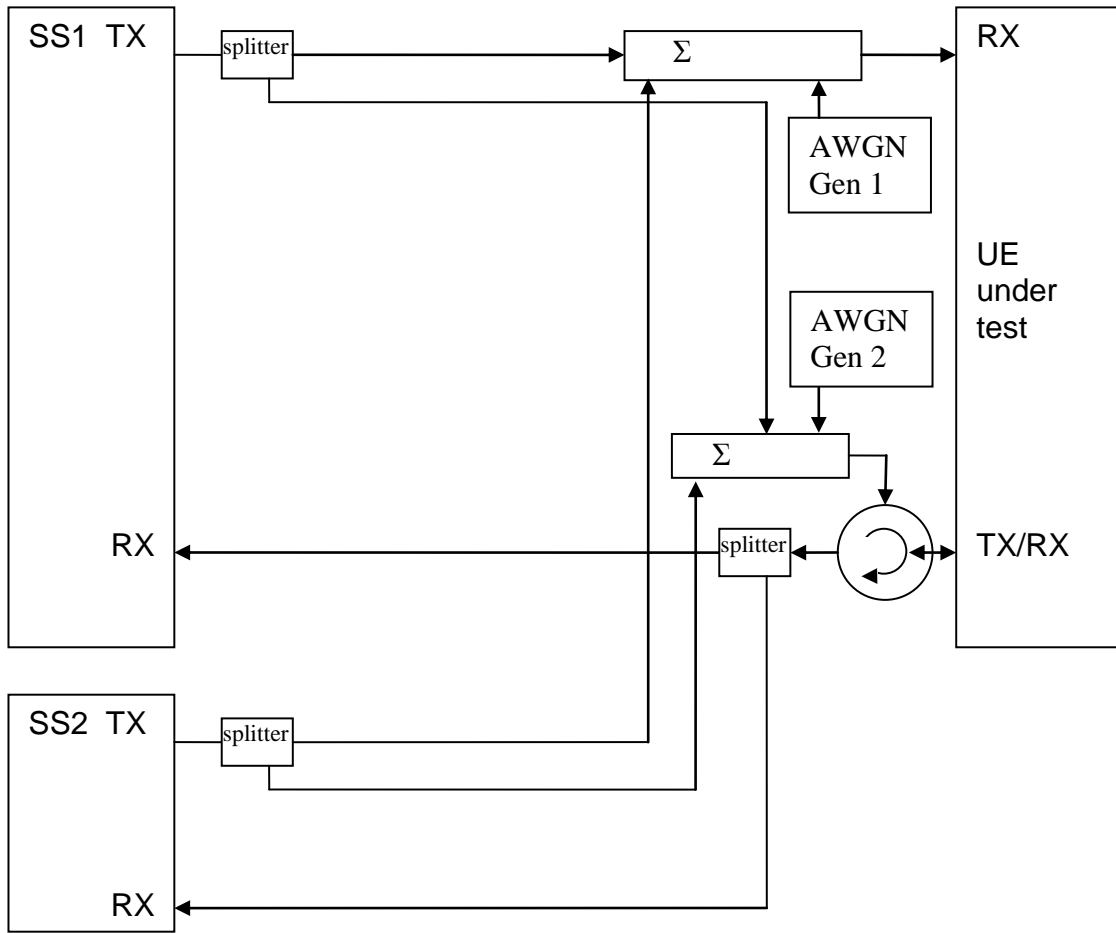


Figure A.14: Connection for 2 cells with static propagation and receive diversity

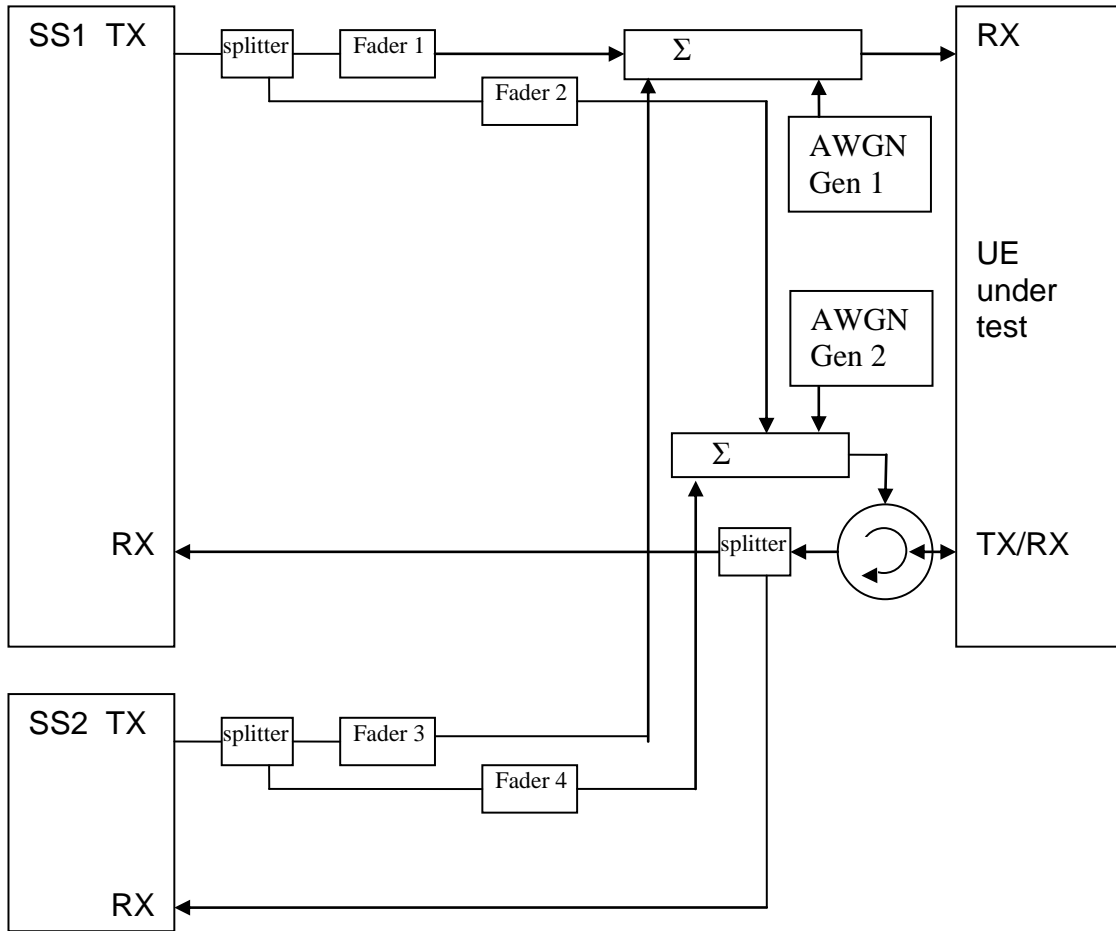


Figure A.15: Connection for 2 cells with multipath fading propagation and receive diversity

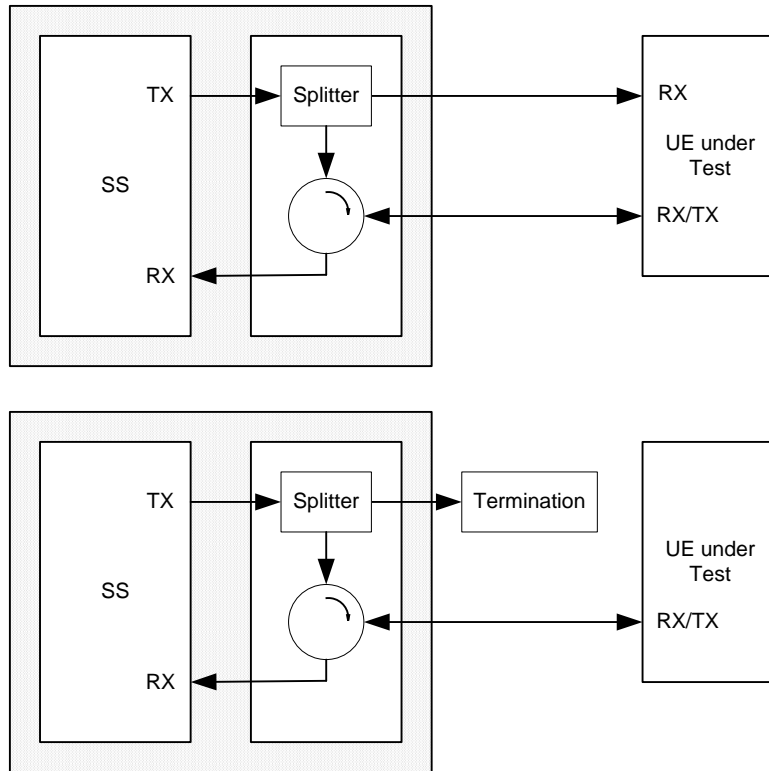


Figure A.16: Connection for single cell Signalling tests

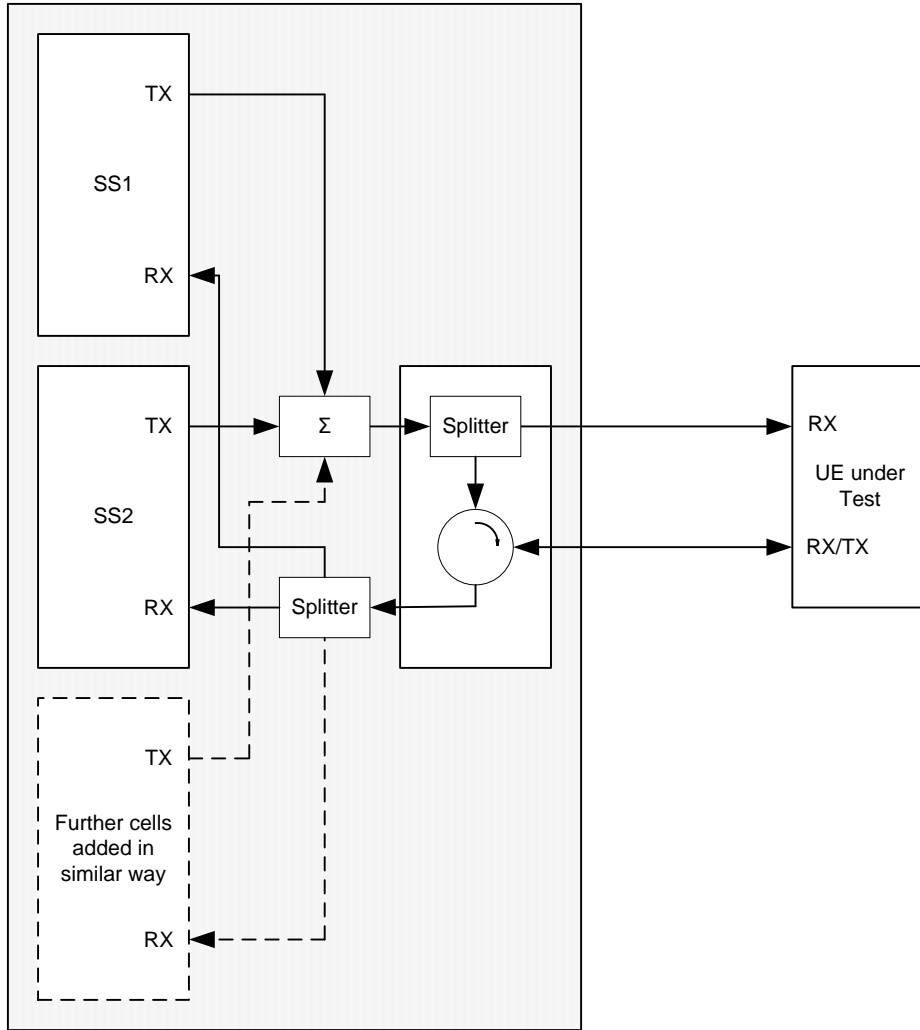


Figure A.17: Connection for multiple cells Signalling tests

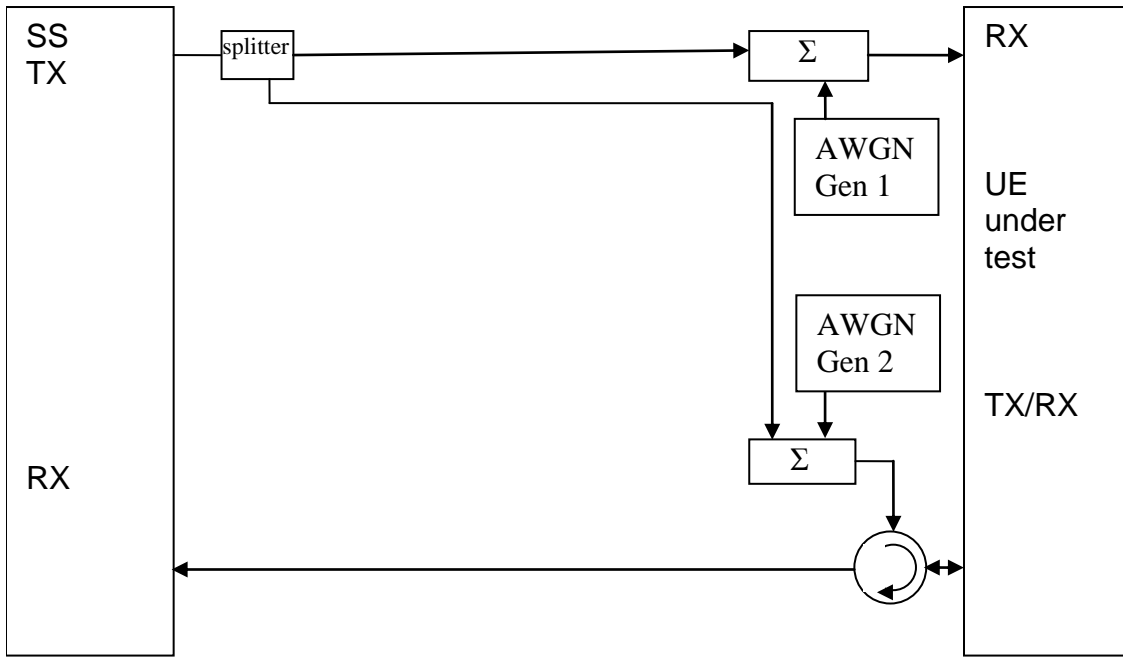


Figure A.18: Connection for 1 cell with antenna configuration 1x2 in static propagation conditions

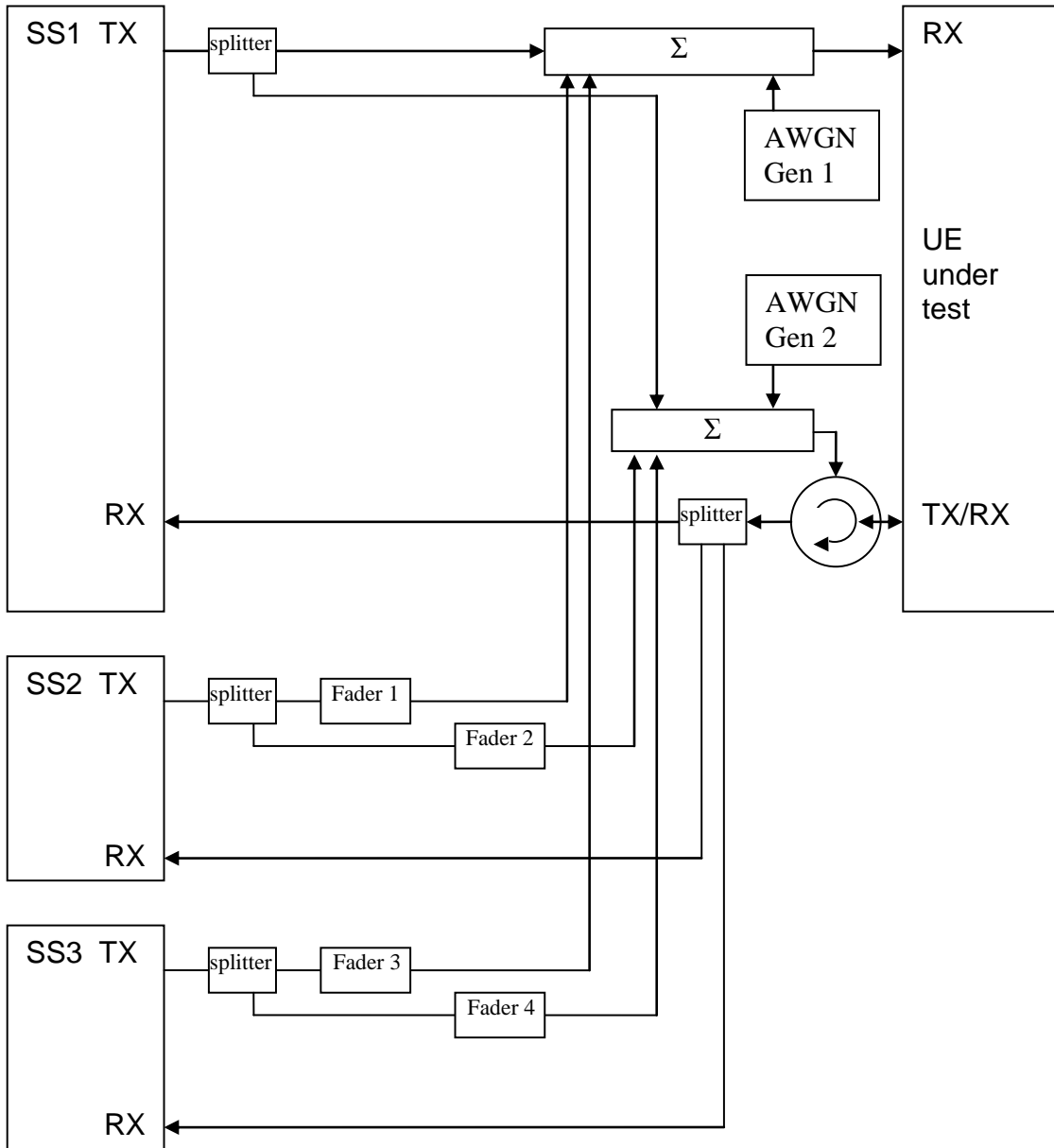


Figure A.19: Connection for 3 cells with antenna configuration 1x2 in static (cell 1) and multipath fading (cell 2 and 3) propagation conditions and receive diversity

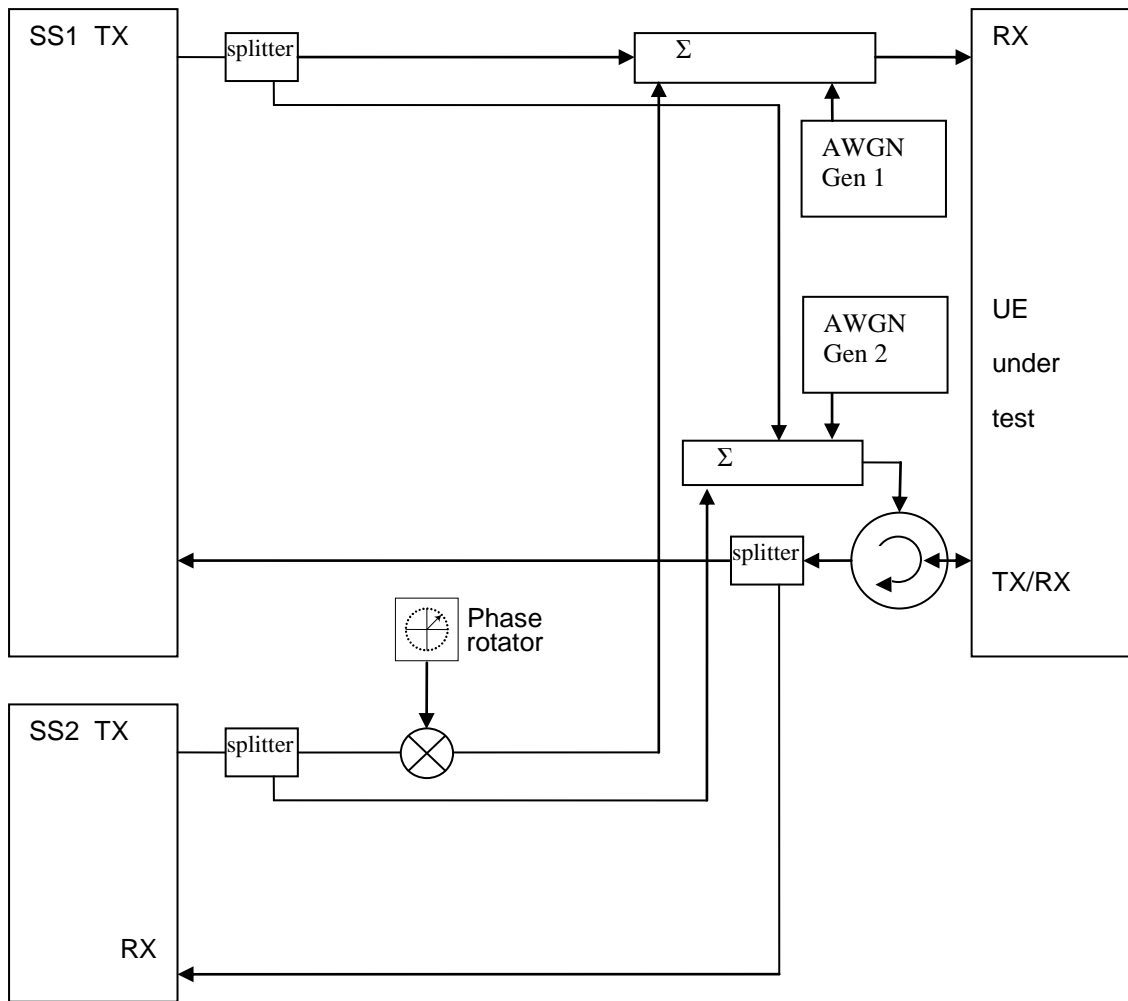


Figure A.20: Connection for 2 cells with static propagation and receive diversity with phase rotator (The frequency offset used in phase rotator is 5 Hz)

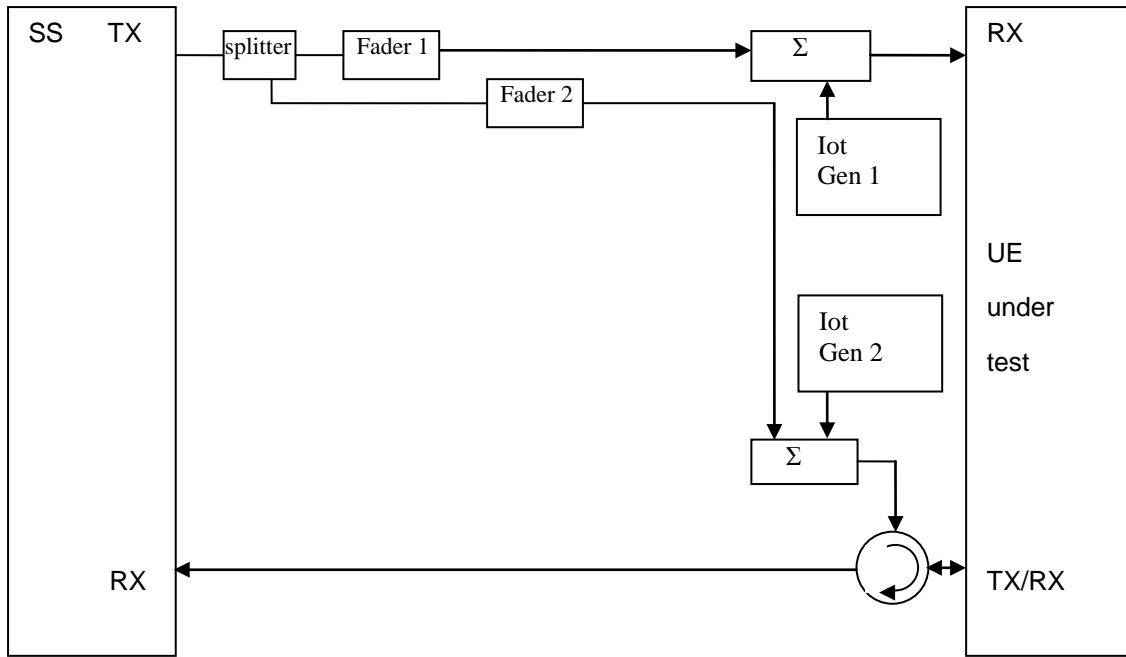


Figure A.21: Connection for frequency-selective interference with multipath fading propagation and receive diversity

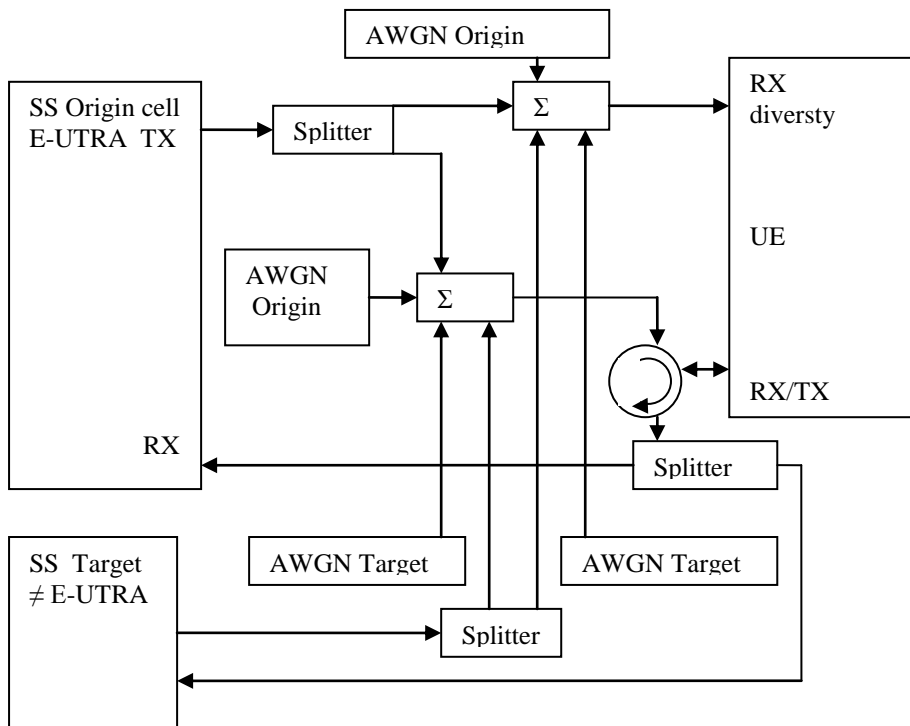


Figure A.22: Connection for 2 cells with static propagation condition. Origin (E-UTRAN) and target cell (≠ E-UTRAN) received with RX diversity

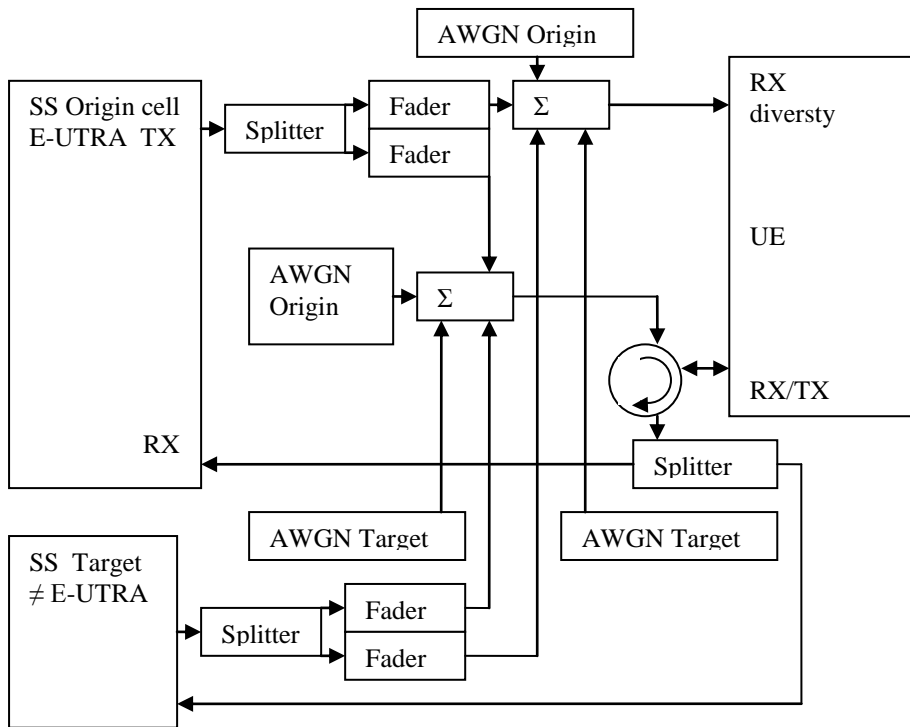


Figure A.23: Connection for 2 cells with multipath fading propagation condition. Origin (E-UTRAN) and target cell (\neq E-UTRAN) received with RX diversity

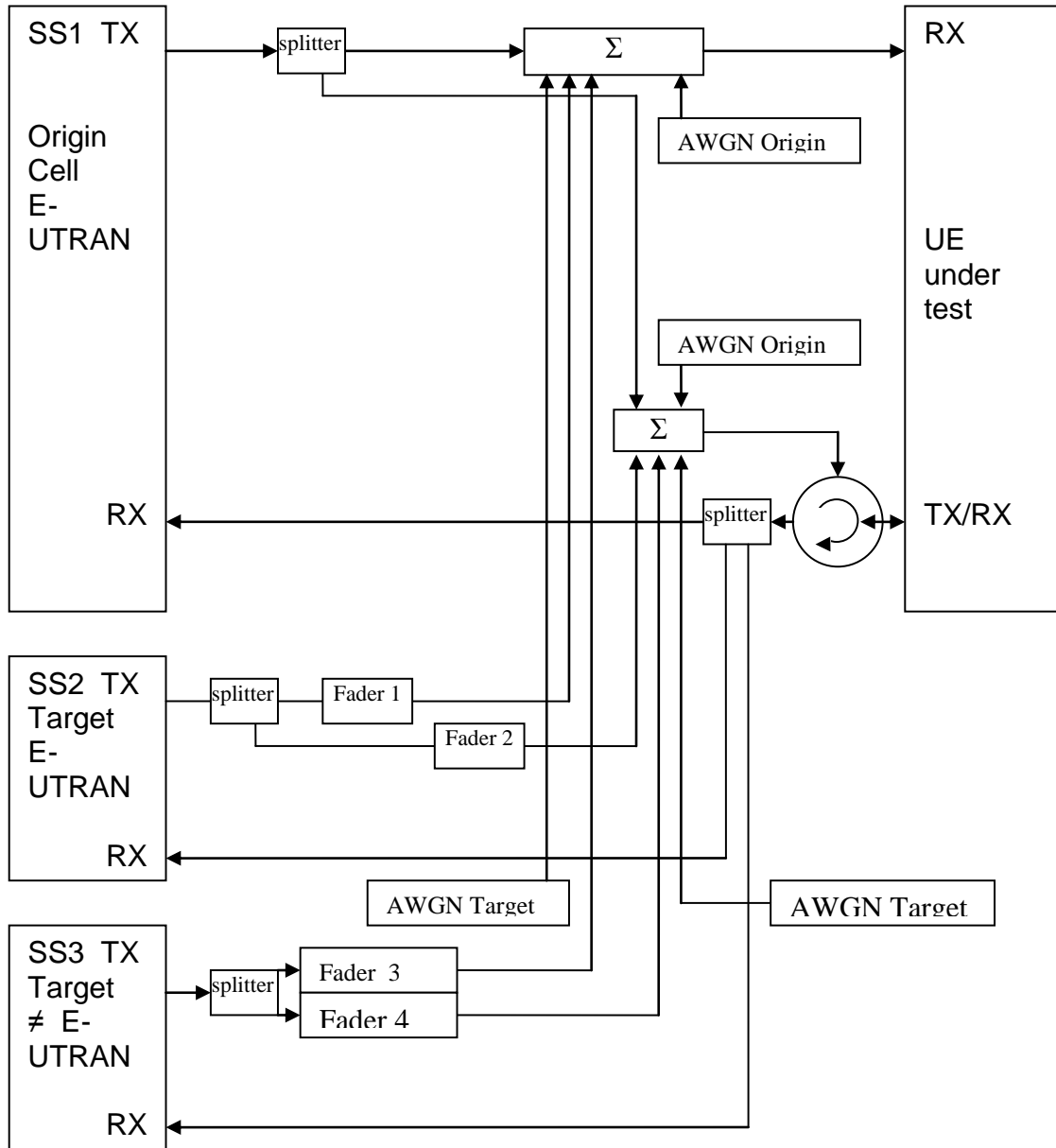


Figure A.24: Connection for 3 cells with antenna configuration 1x2 in static (cell 1) and multipath fading conditions (cell 2 and 3) and multiple RAT and receive diversity

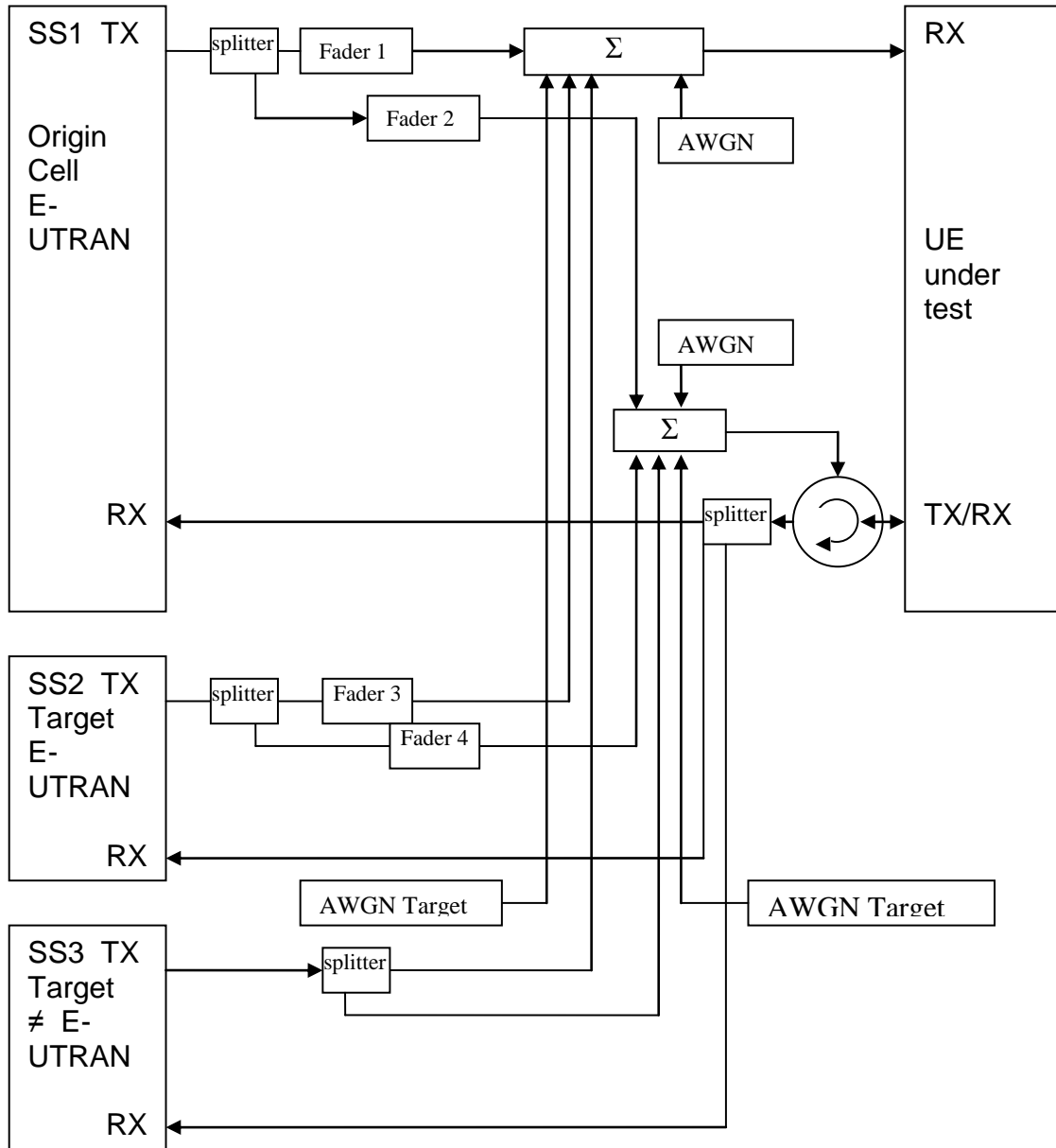


Figure A.25: Connection for 3 cells with antenna configuration 1x2 in multipath fading (cell 1 and 2) and multiple RAT (cell 3 static) and receive diversity

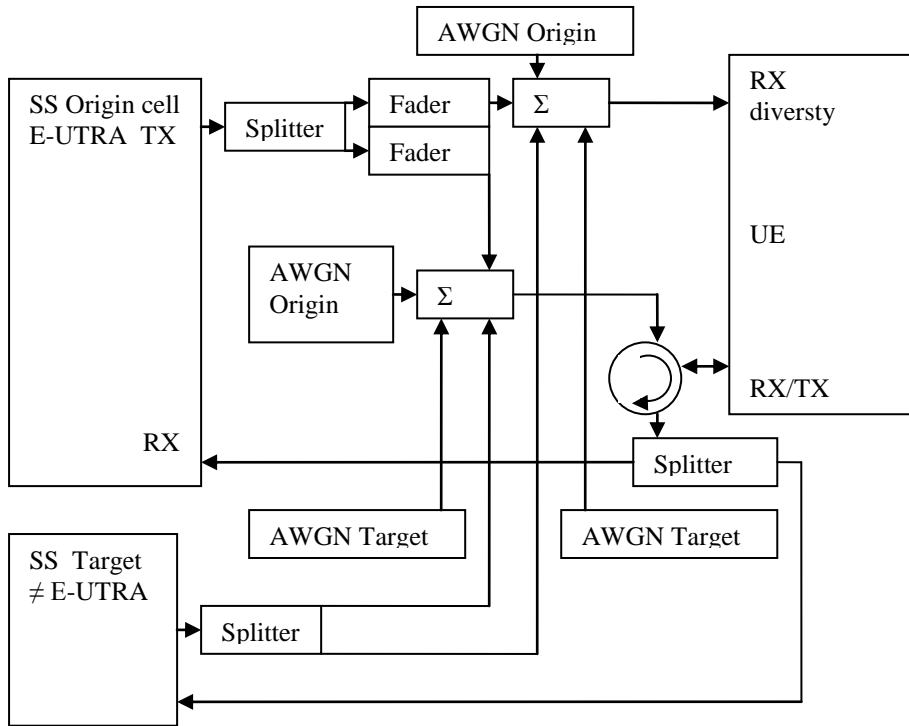


Figure A.26: Connection for 2 cells. Origin (E-UTRAN, multipath fading) and target cell (≠ E-UTRAN, static) received with RX diversity

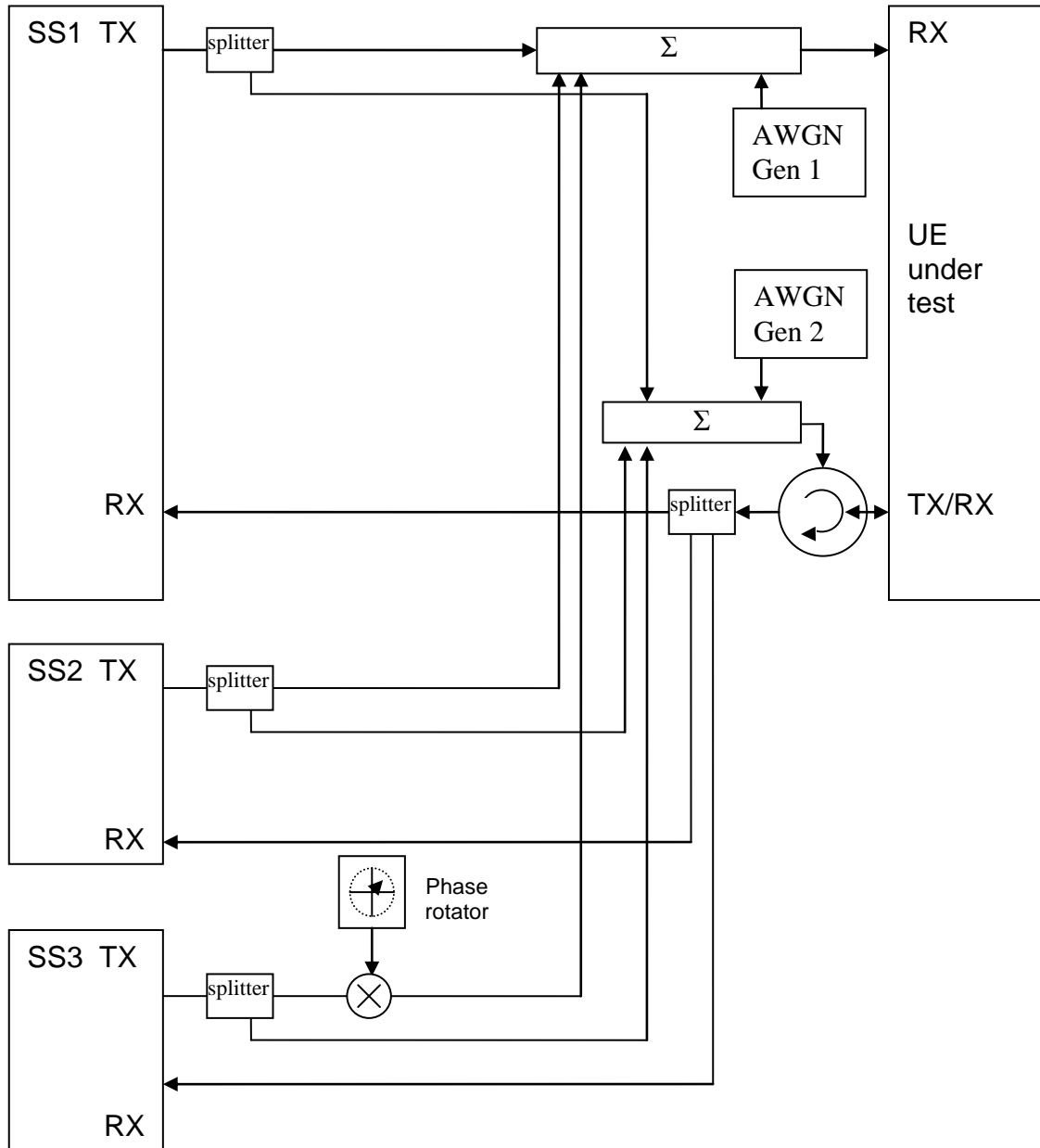


Figure A.27: Connection for 3 cells with static propagation and receive diversity

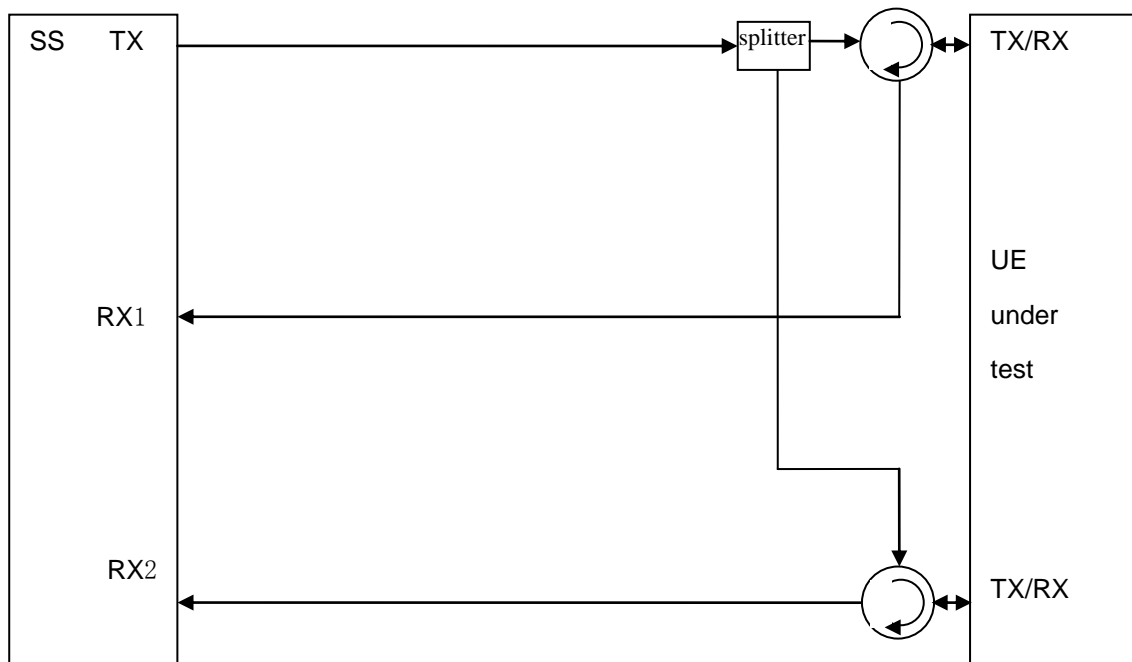


Figure A.28: Connection for basic UL MIMO with receive diversity

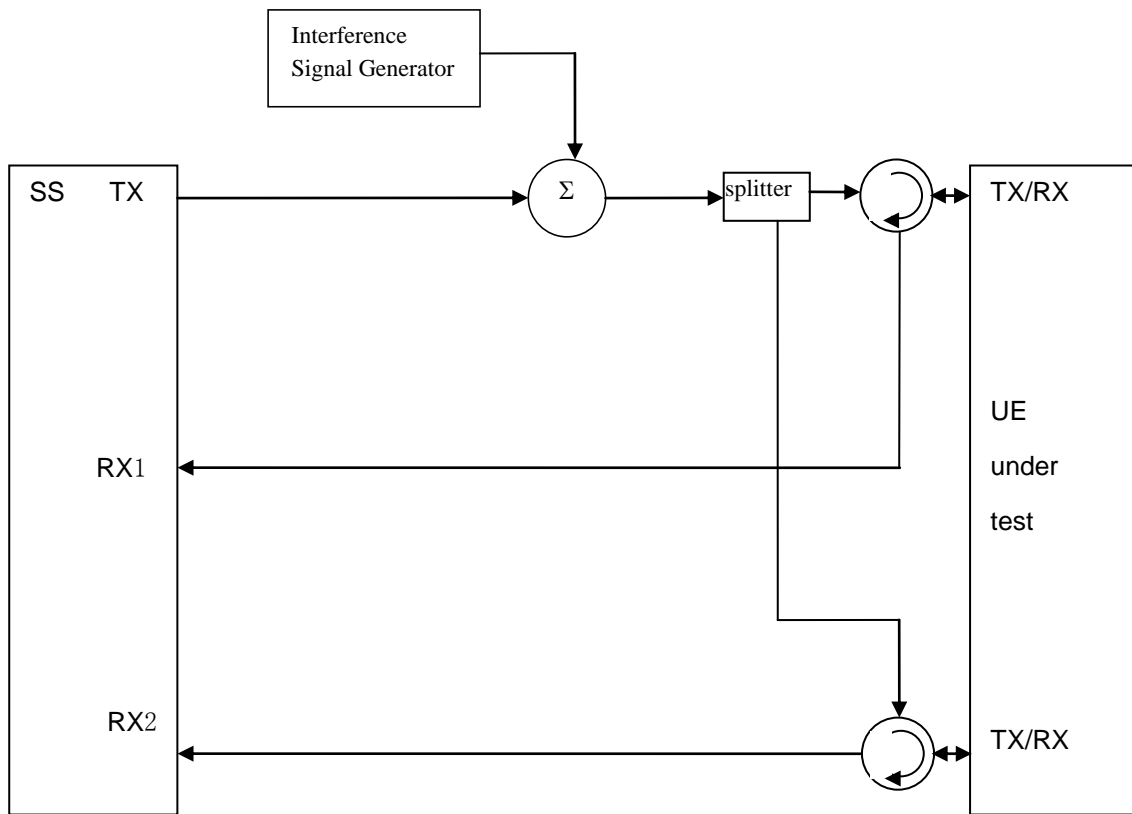


Figure A.29: Connection for UL MIMO Receiver tests with E-UTRA-Interference

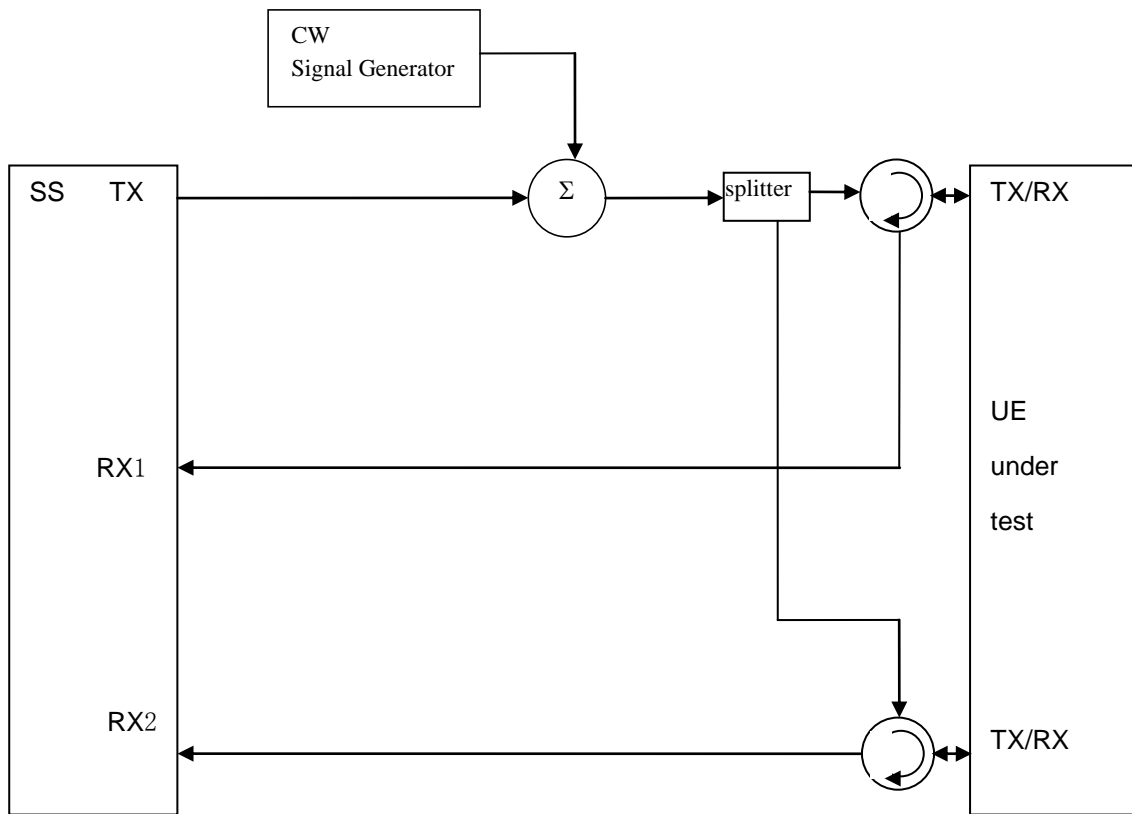


Figure A.30: Connection for UL MIMO Receiver tests with CW Interference

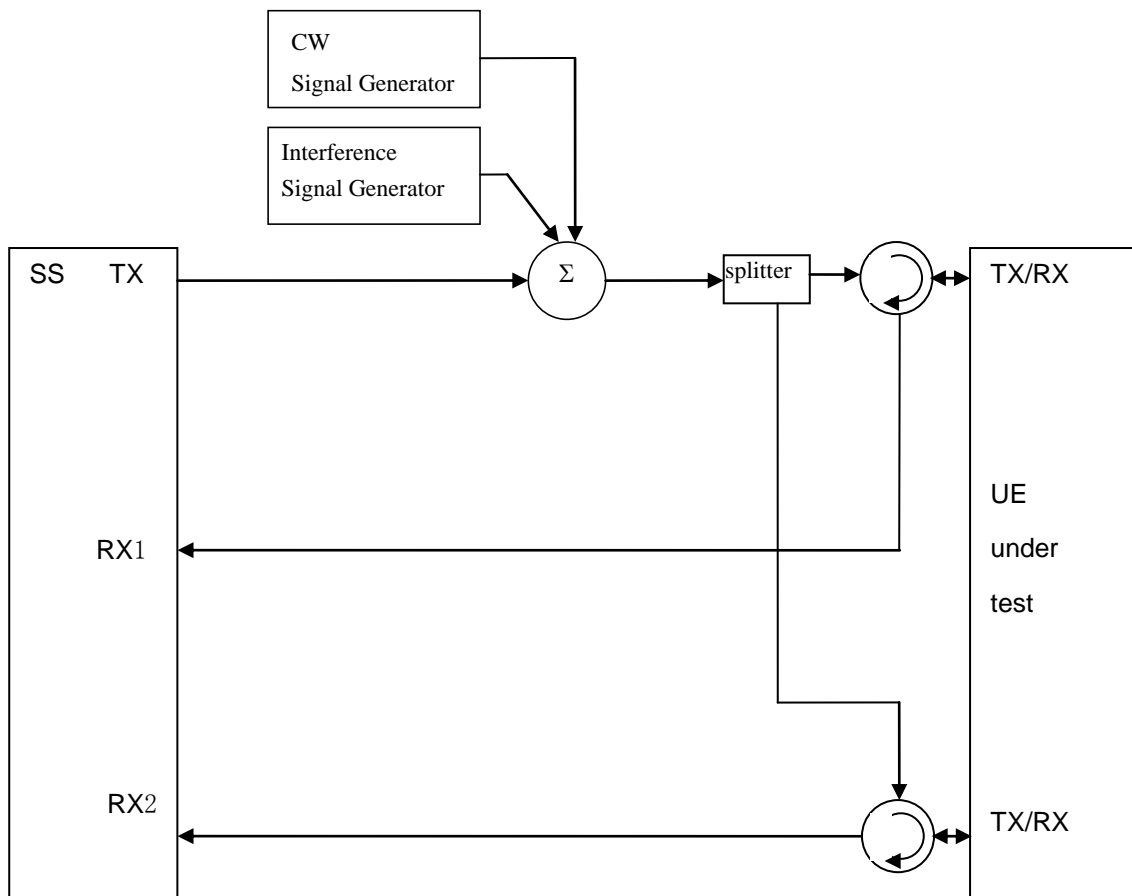


Figure A.31: Connection for UL MIMO Receiver tests with both E-UTRA-Interference and additional CW signal

Figure group A.32: Connections for basic Tx and Rx tests for CA

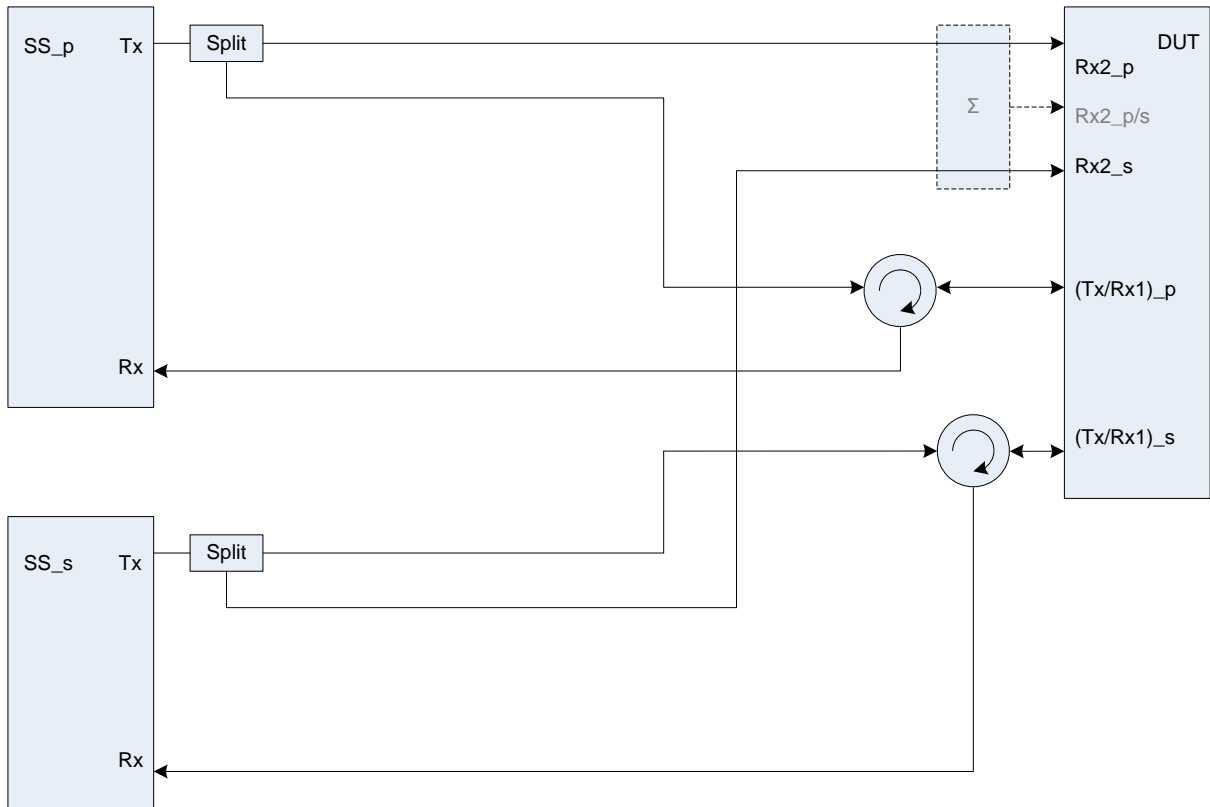


Figure A.32a: Connection for basic Tx and Rx tests for CA (separate connectors)

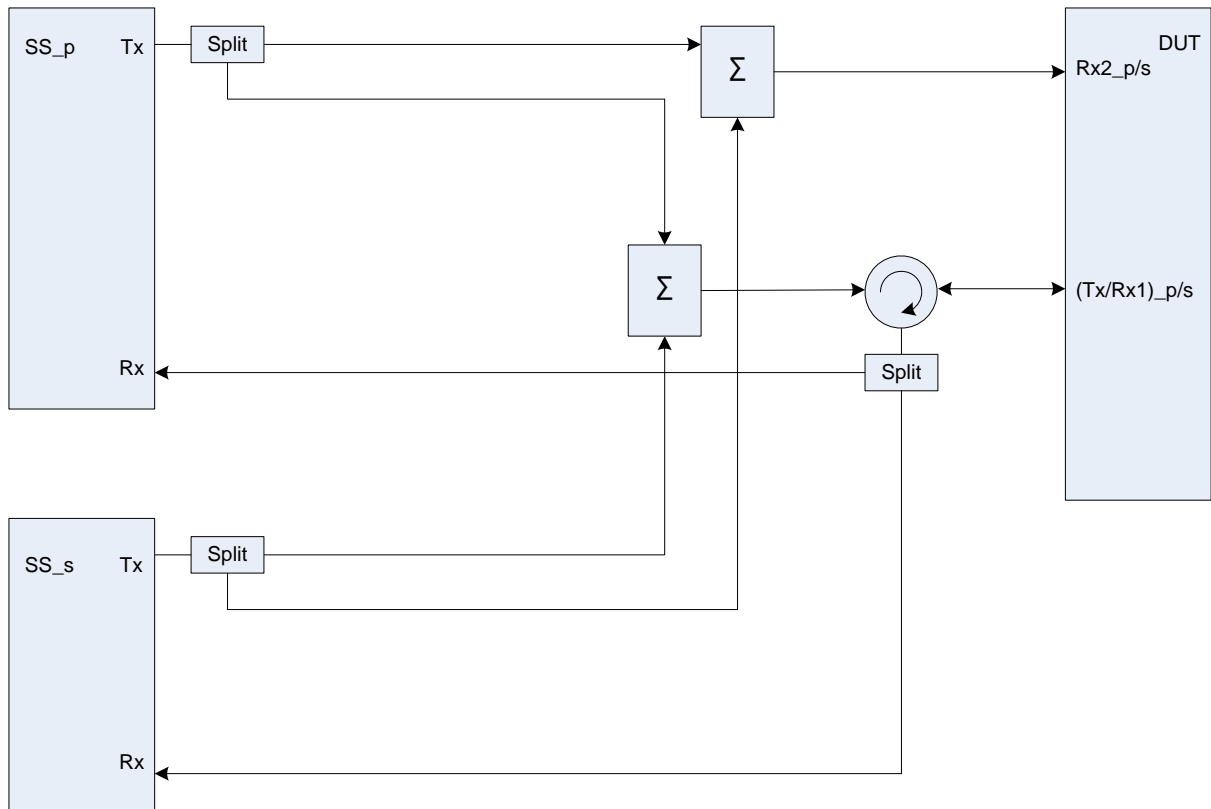


Figure A.32b: Connection for basic Tx and Rx tests for CA (common connectors, same UL antenna)

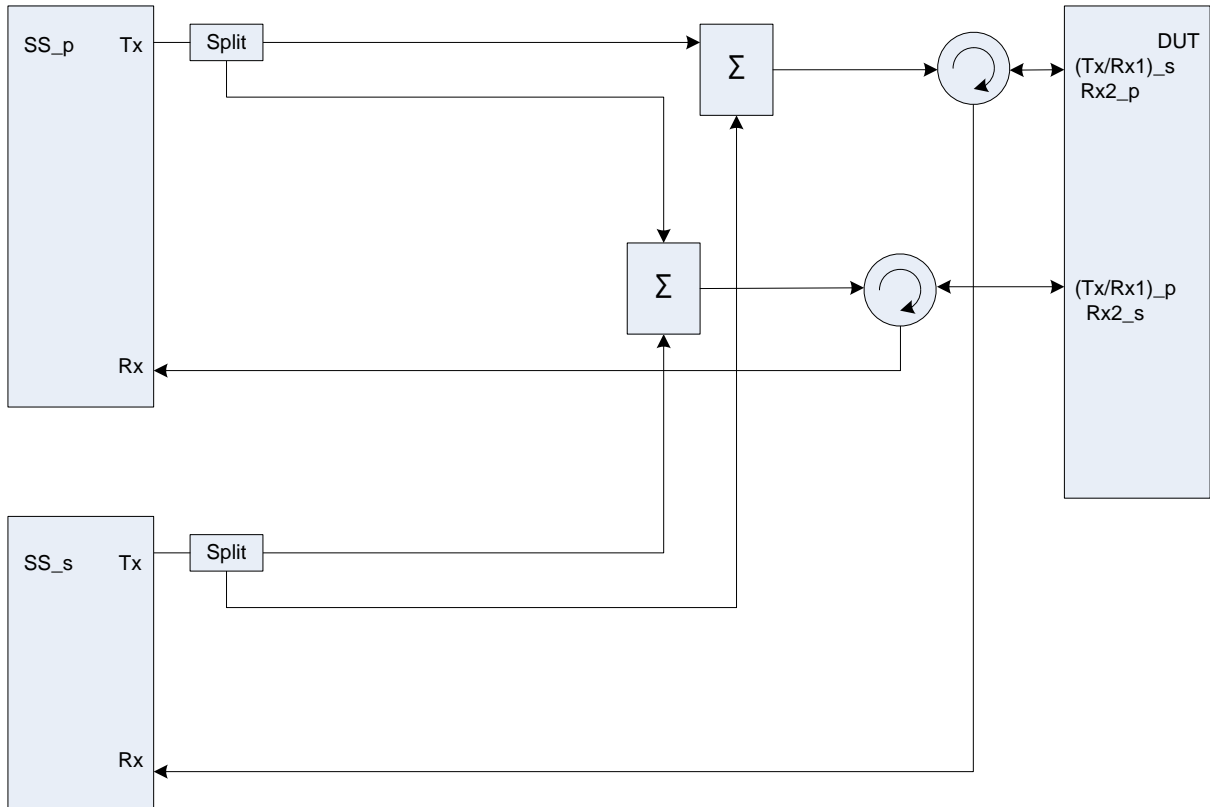


Figure A.32c: Connection for basic Tx and Rx tests for CA (common connectors, different UL antennas)

Figure group A.33: Connection for Tx tests for CA with additional Spectrum Analyzer

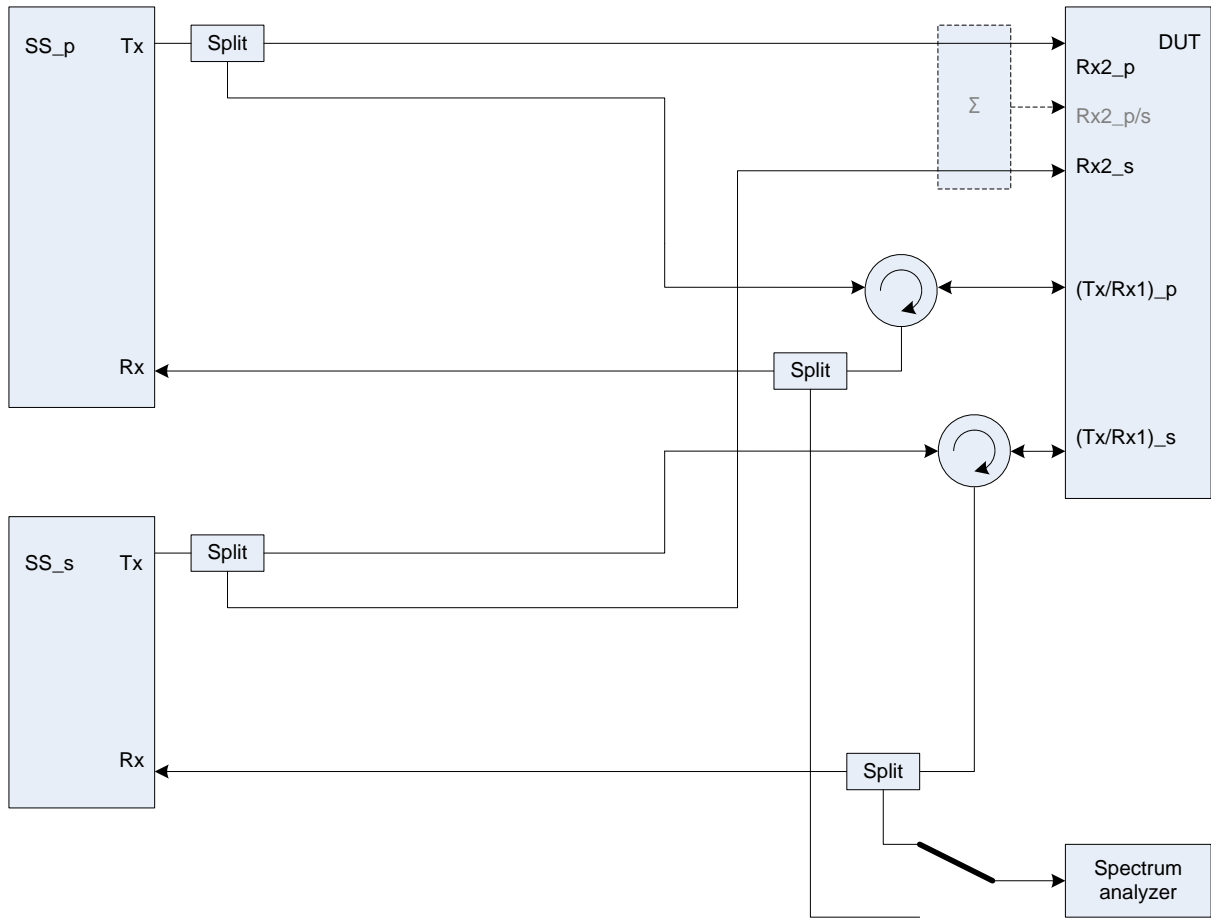


Figure A.33a: Connection for Tx tests for CA with additional Spectrum Analyzer (separate connectors)

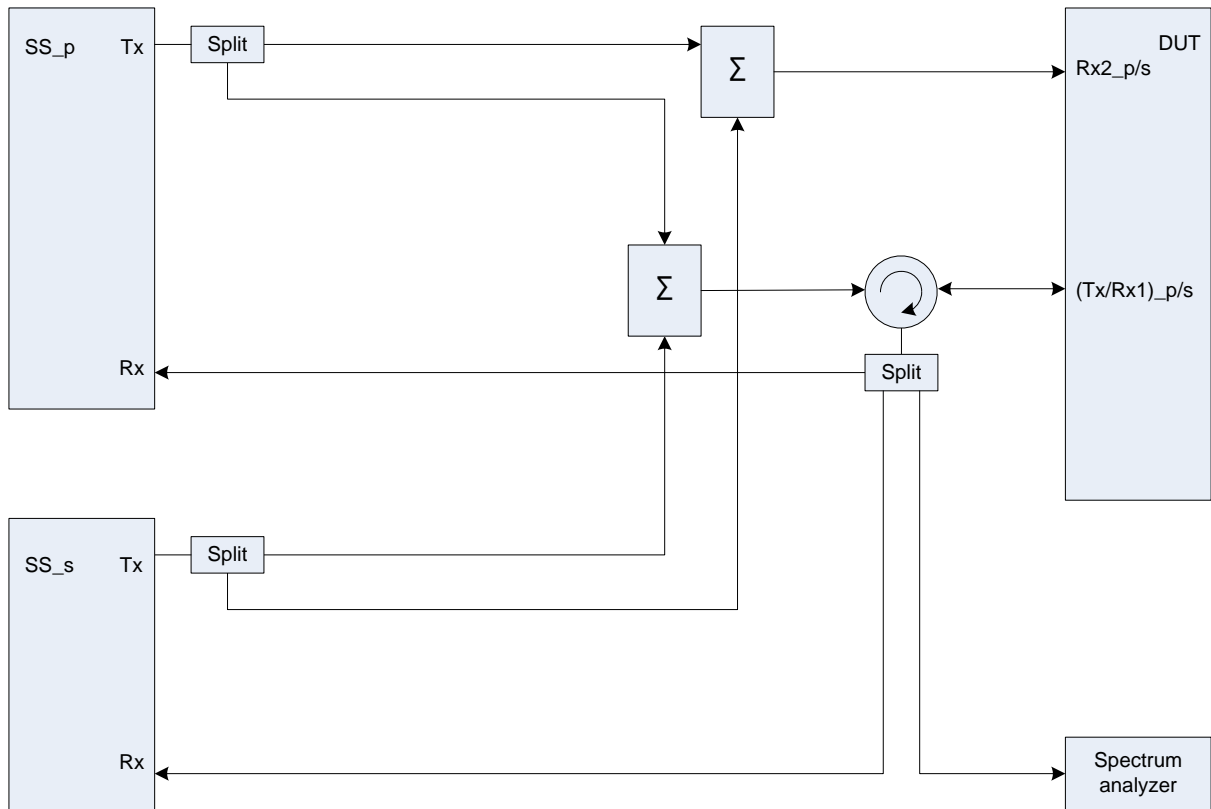


Figure A.33b: Connection for Tx tests for CA with additional Spectrum Analyzer (common connectors, same UL antenna)

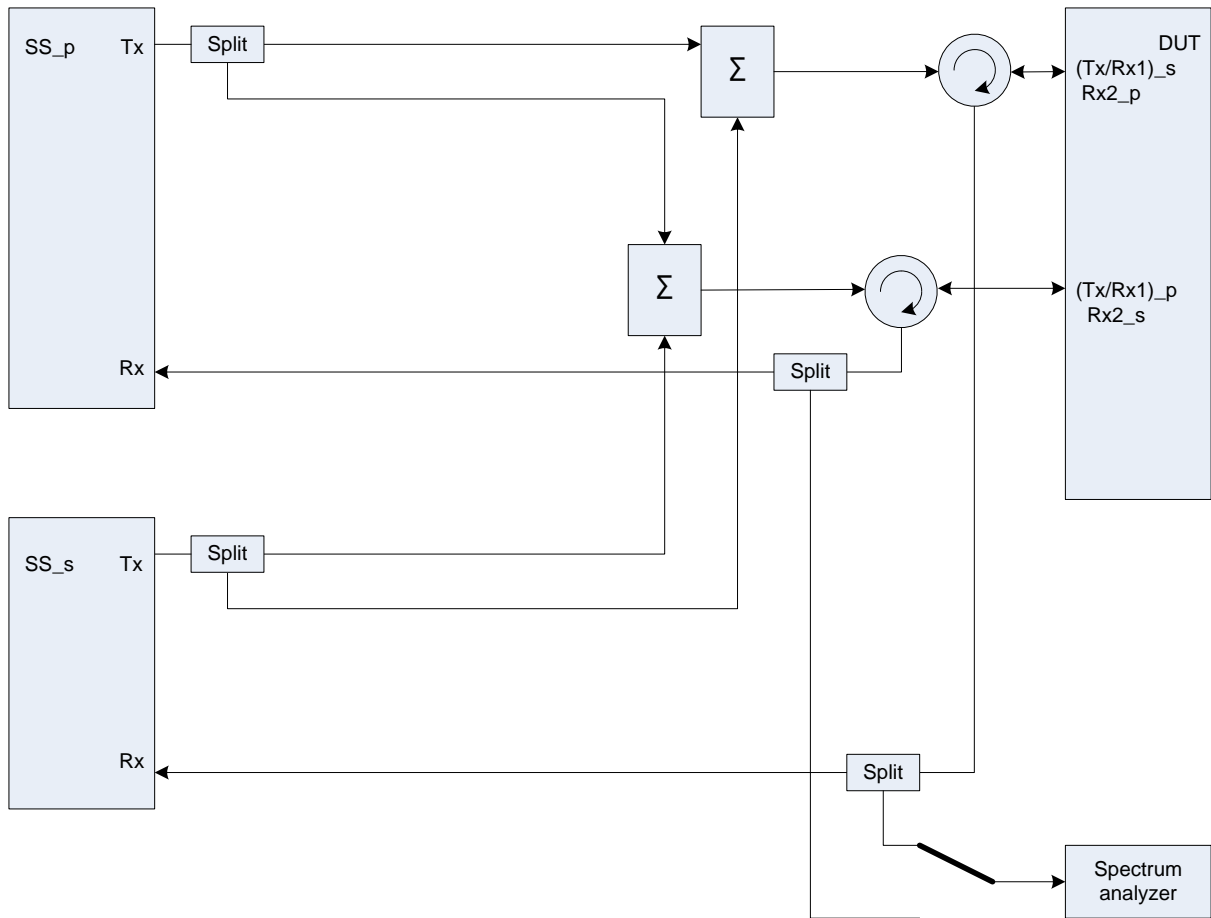


Figure A.33c: Connection for Tx tests for CA with additional Spectrum Analyzer (common connectors, different UL antennas)

Figure group A.34: Connection for Rx tests for CA with additional Interferer / CW

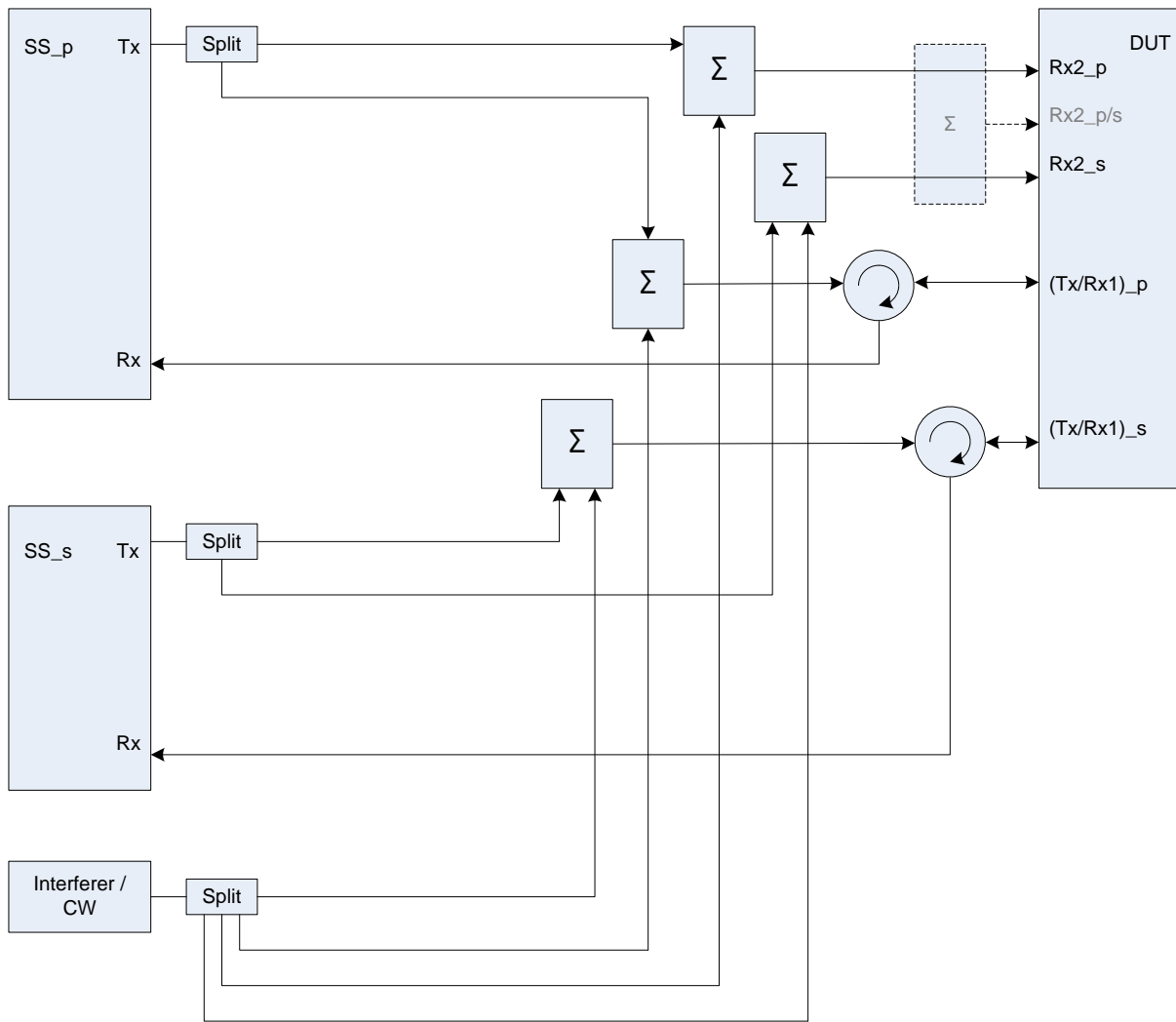


Figure A.34a: Connection for Rx tests for CA with additional Interferer / CW (separate connectors)

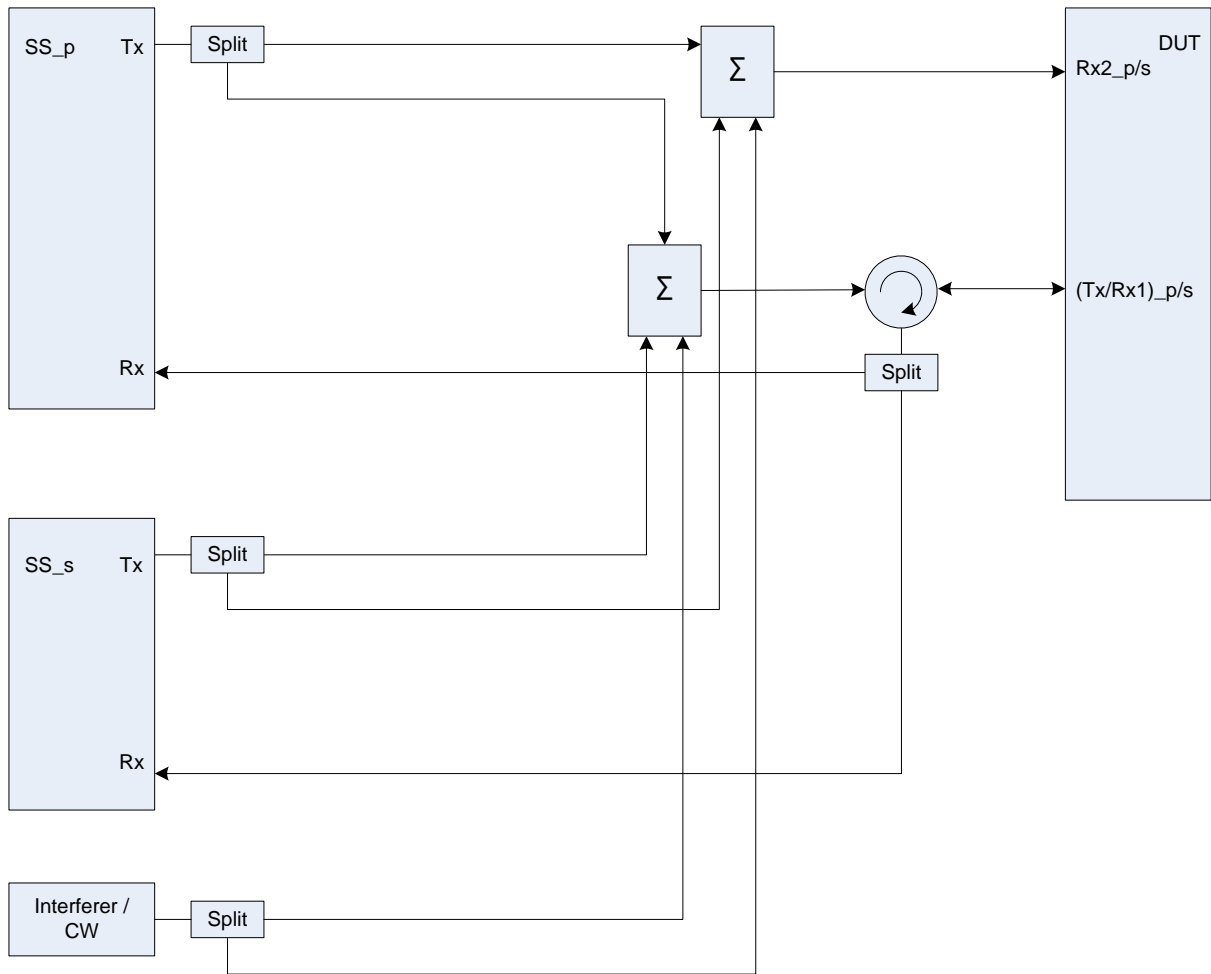


Figure A.34b: Connection for Rx tests for CA with additional Interferer / CW (common connectors, same UL antenna)

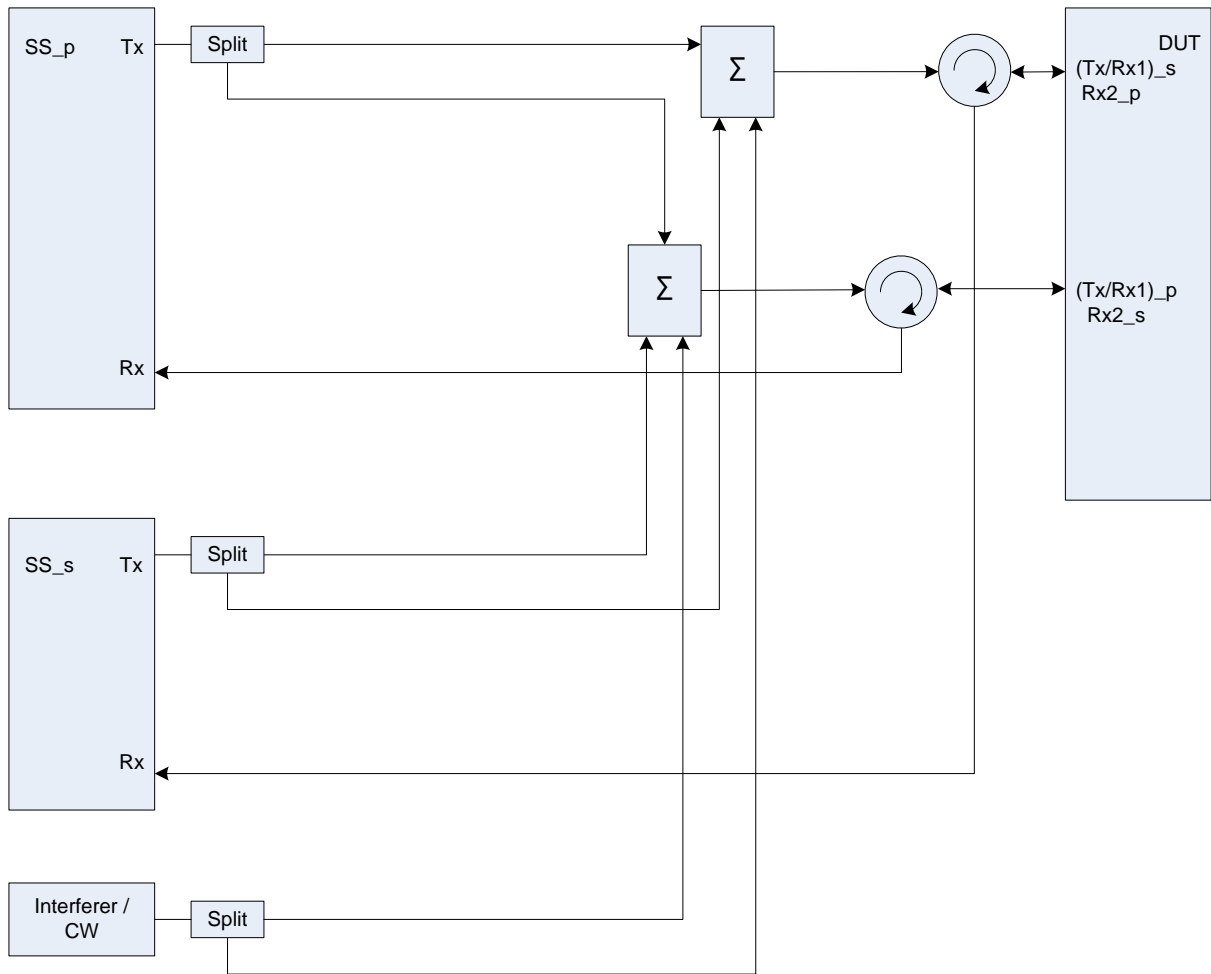


Figure A.34c: Connection for Rx tests for CA with additional Interferer / CW (common connectors, different UL antennas)

Figure group A.35: Connection for Rx performance tests for CA with antenna configuration 1x2

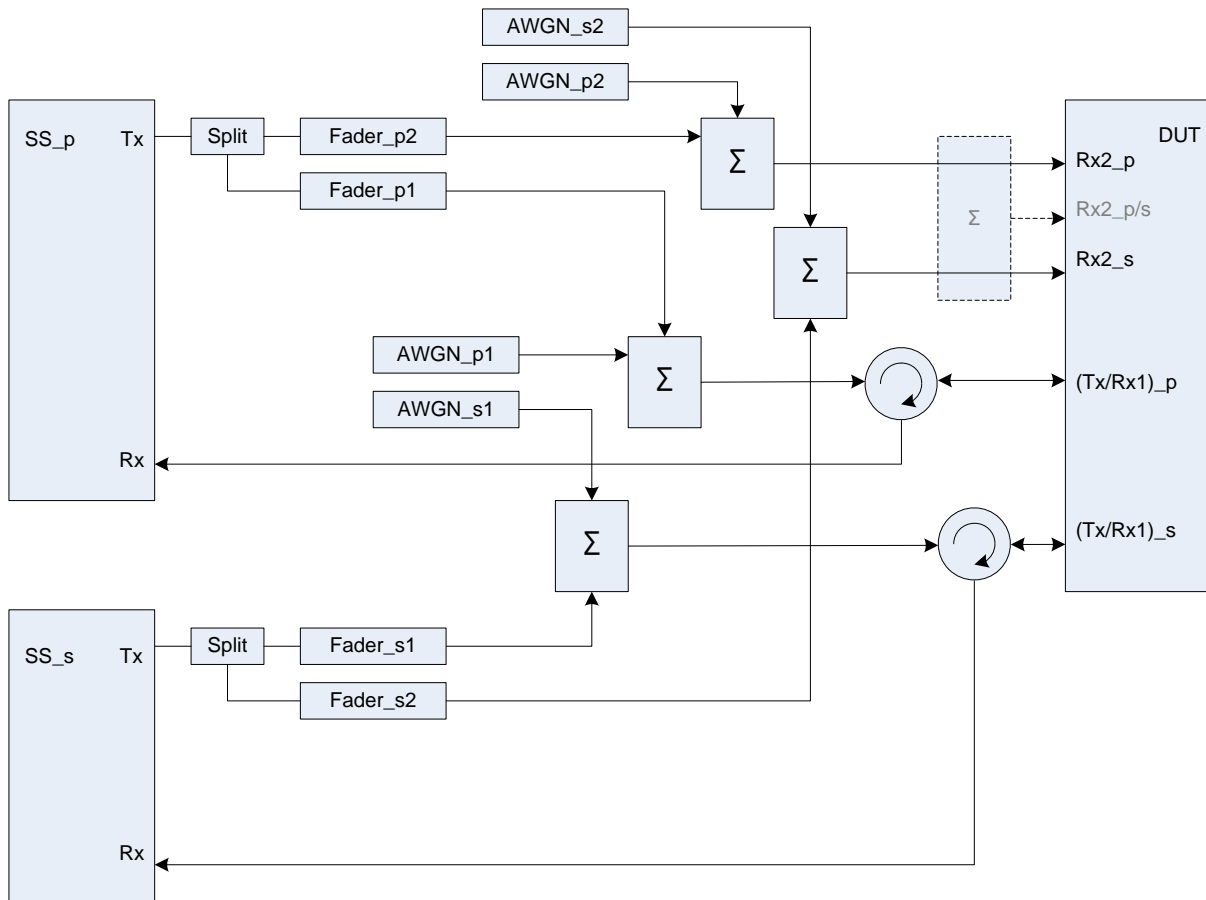


Figure A.35a: Connection for Rx performance tests for CA with antenna configuration 1x2 (separate connectors)

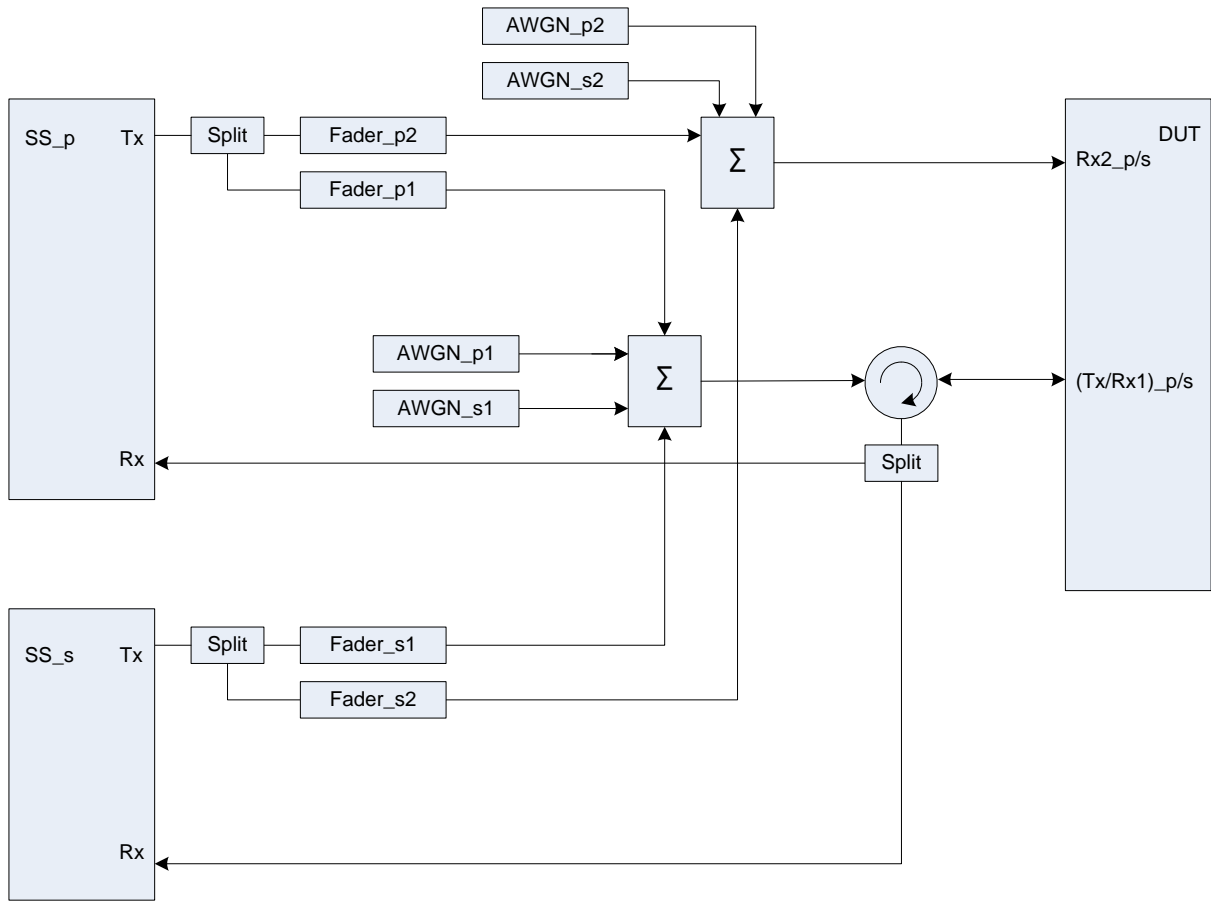


Figure A.35b: Connection for Rx performance tests for CA with antenna configuration 1x2 (common connectors, same UL antenna)

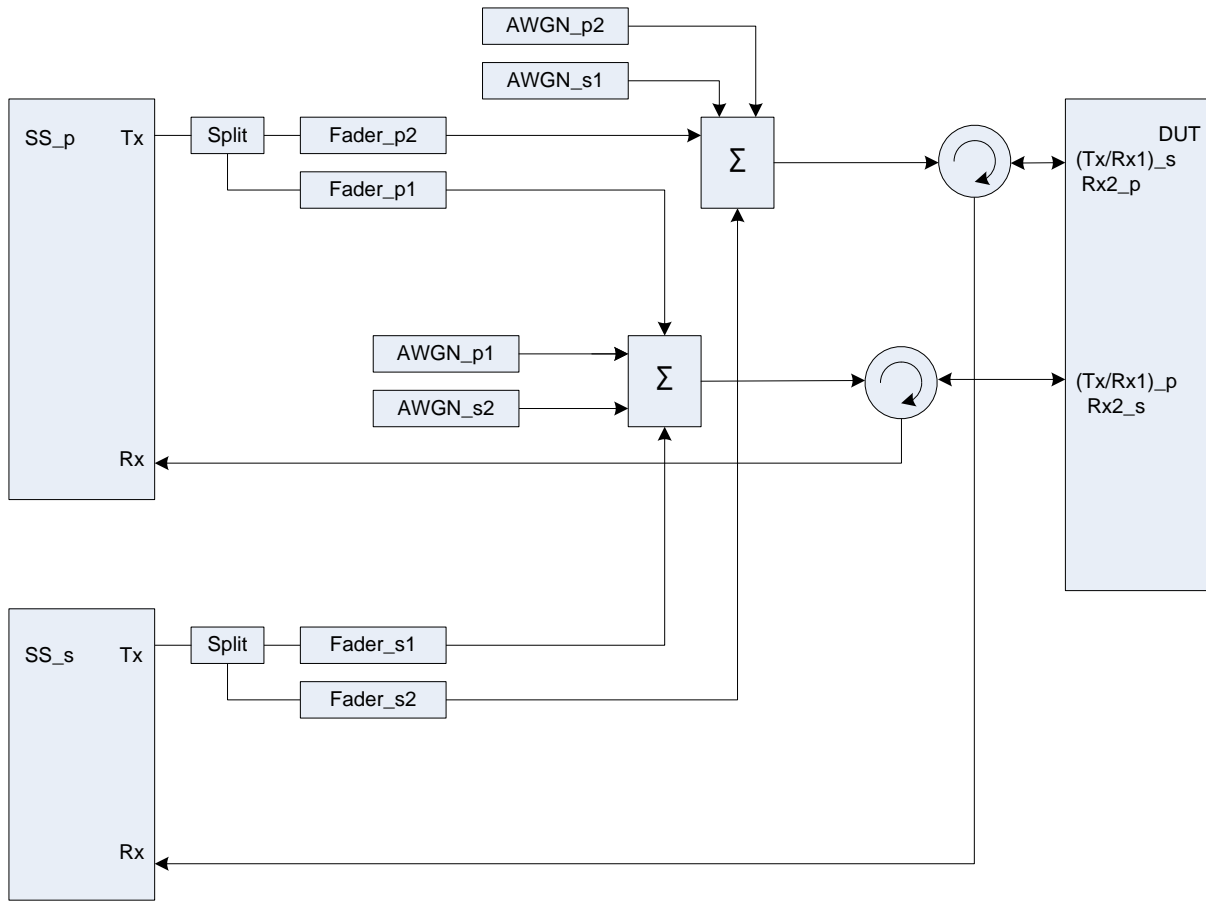


Figure A.35c: Connection for Rx performance tests for CA with antenna configuration 1x2 (common connectors, different UL antennas)

Figure group A.36: Connection for Rx performance tests for CA with antenna configuration 2x2

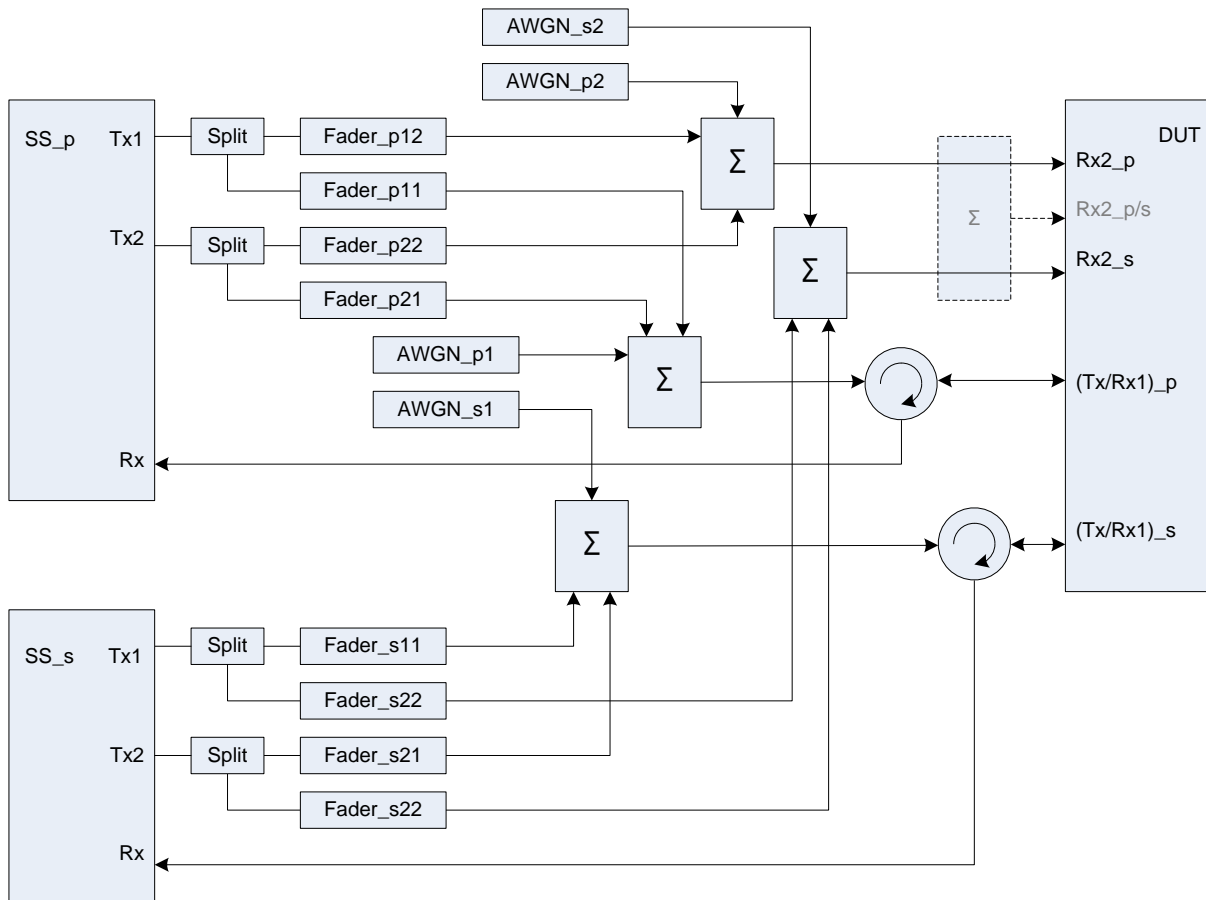


Figure A.36a: Connection for Rx performance tests for CA with antenna configuration 2x2 (separate connectors)

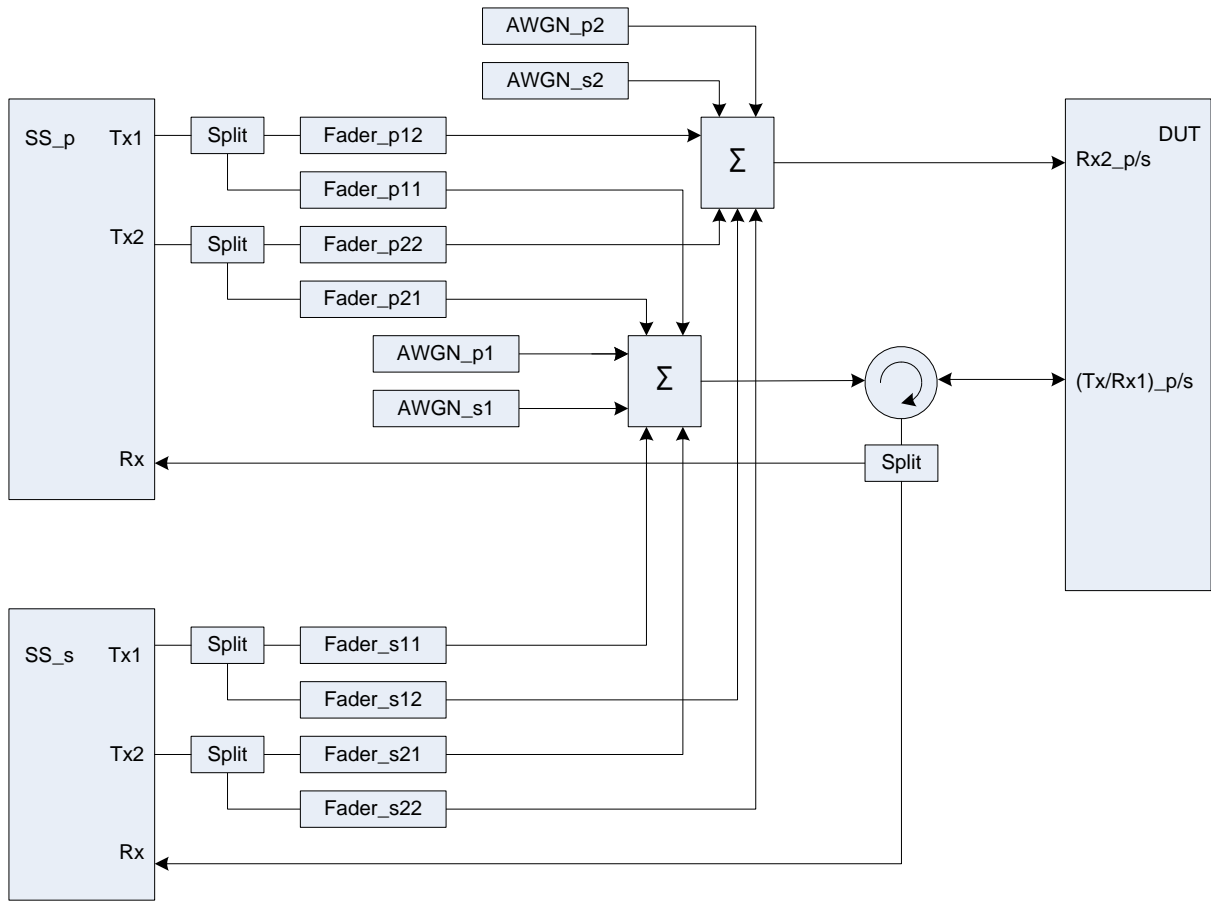


Figure A.36b: Connection for Rx performance tests for CA with antenna configuration 2x2 (common connectors, same UL antenna)

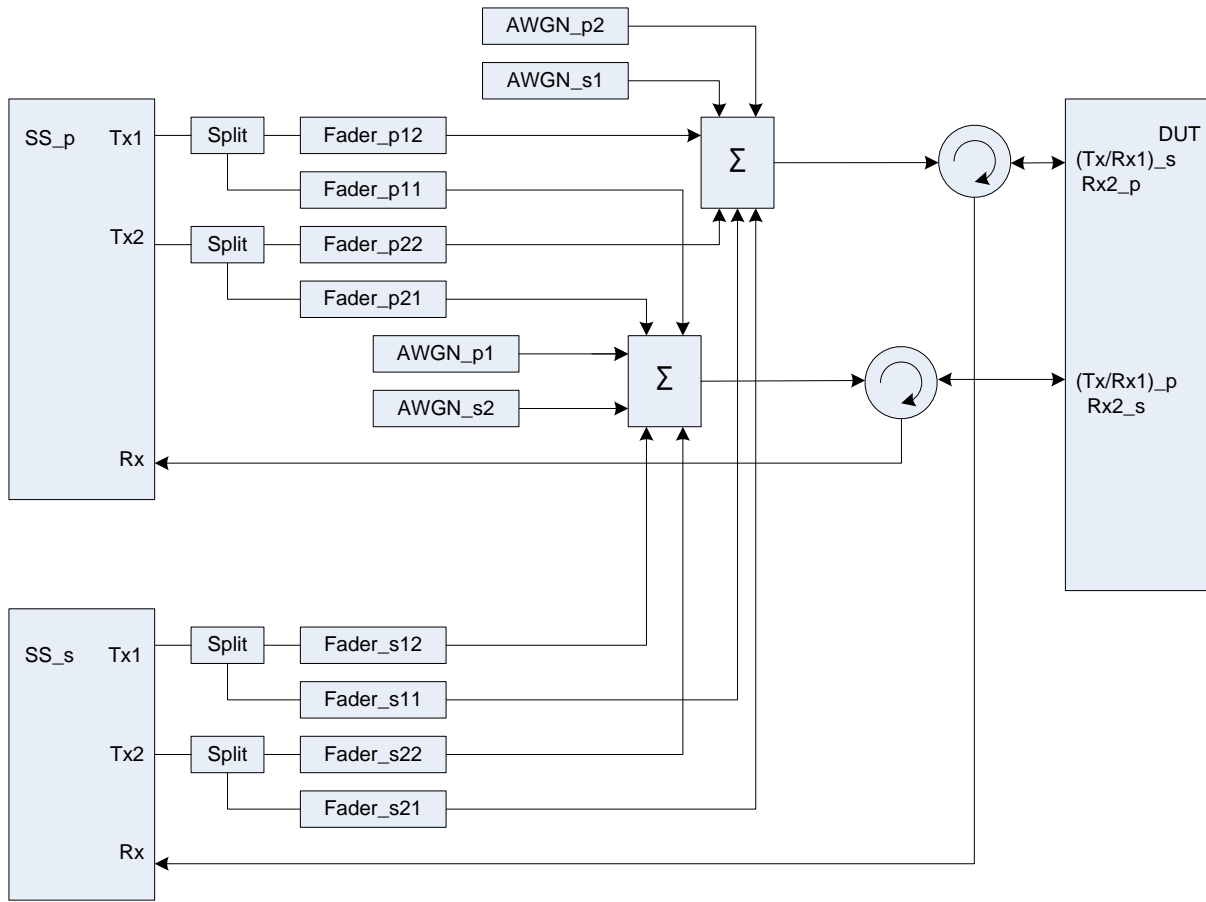


Figure A.36c: Connection for Rx performance tests for CA with antenna configuration 2x2 (common connectors, different UL antennas)

Figure group A.37: Connection for Tx tests for CA with additional CW and Spectrum Analyzer

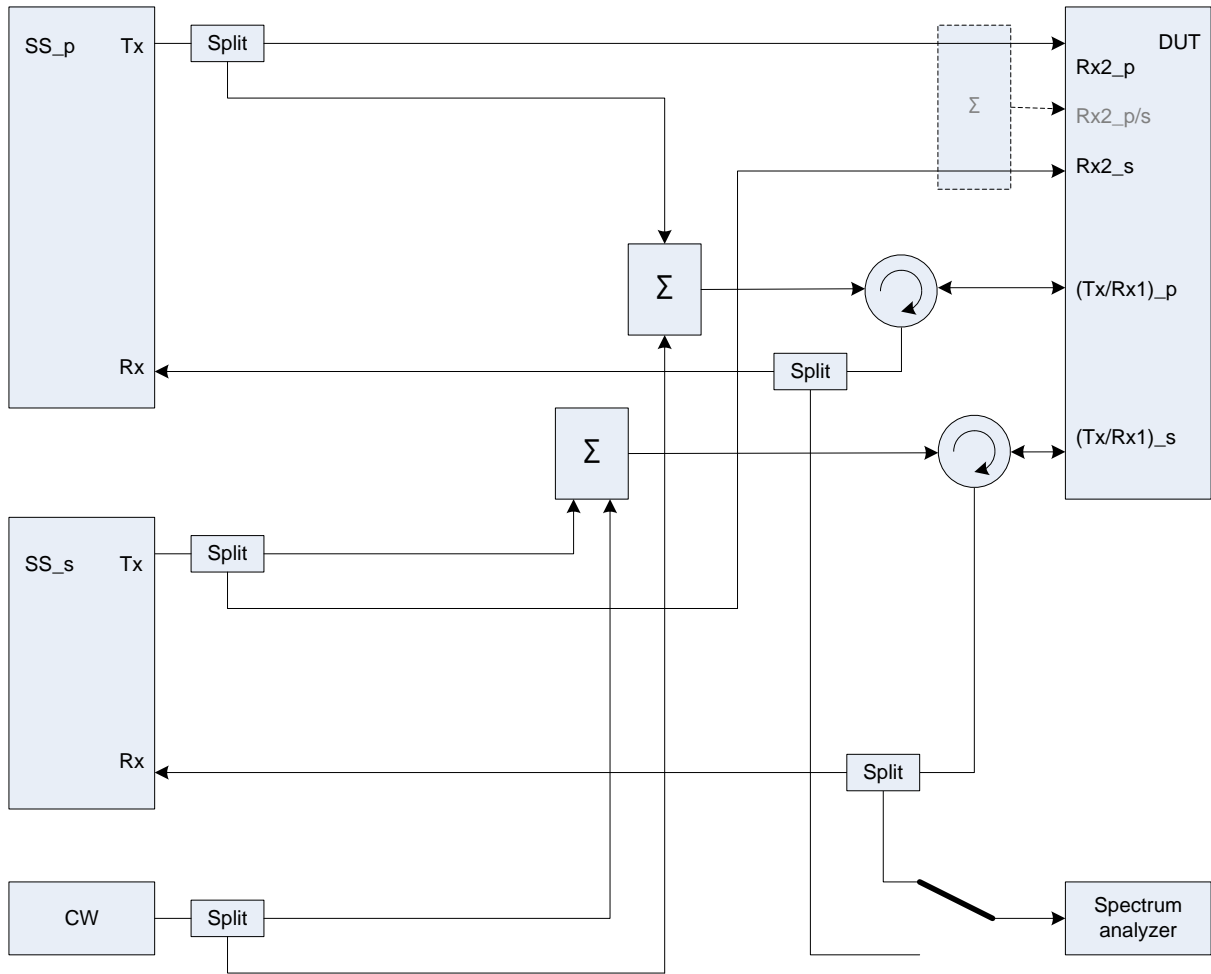


Figure A.37a: Connection for Tx tests for CA with additional CW and Spectrum Analyzer (separate connectors)

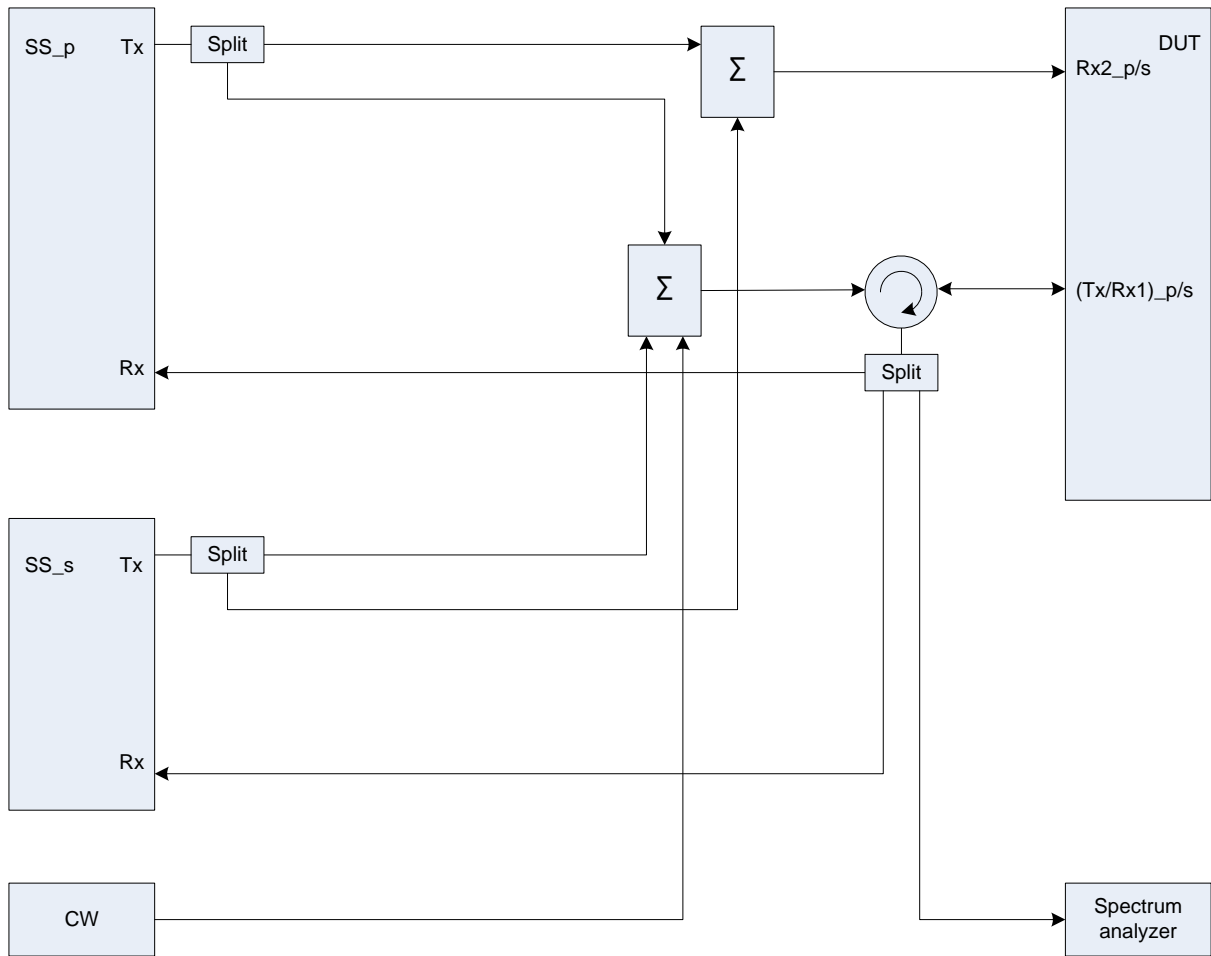


Figure A.37b: Connection for Tx tests for CA with additional CW and Spectrum Analyzer (common connectors, same UL antenna)

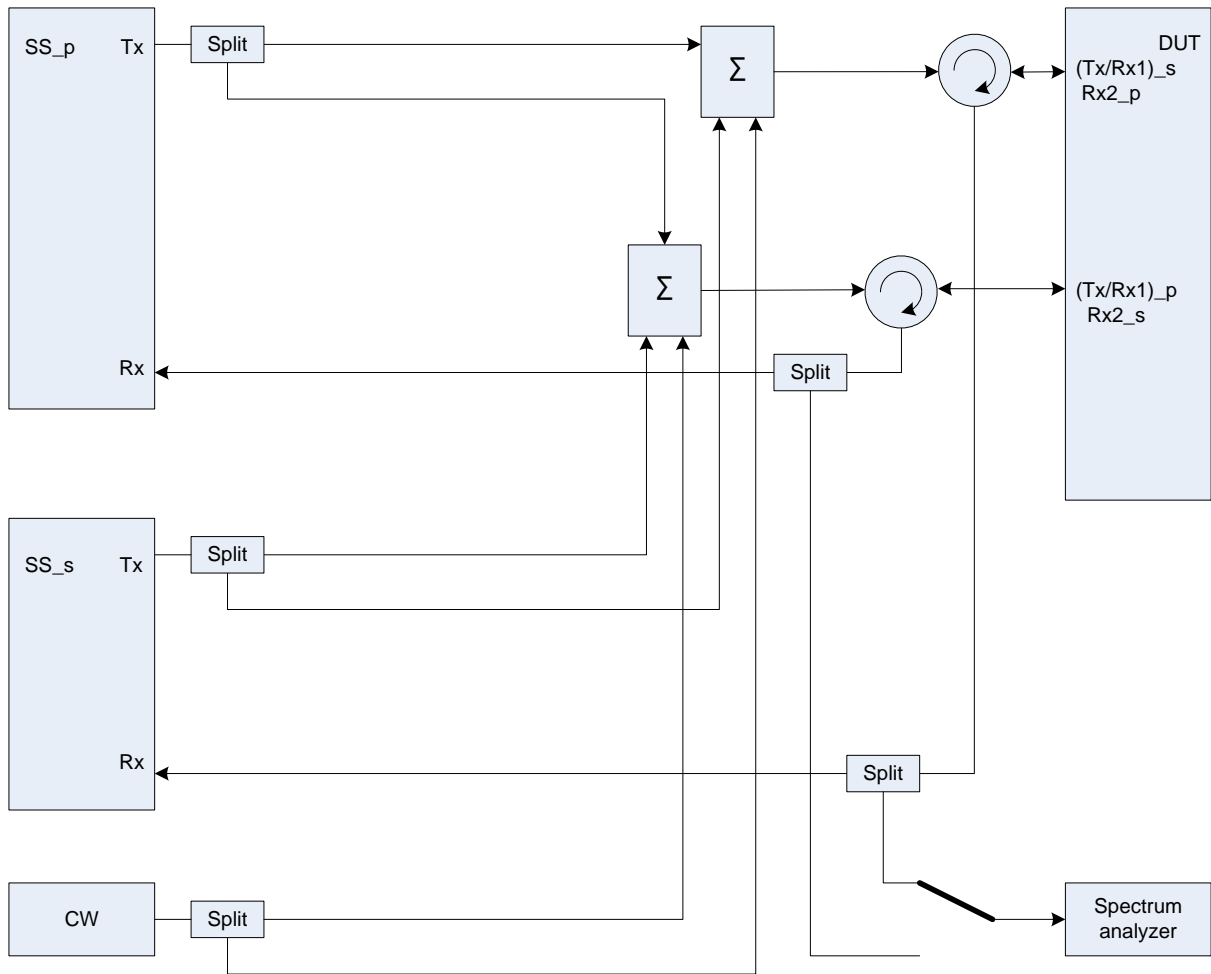


Figure A.37c: Connection for Tx tests for CA with additional CW and Spectrum Analyzer (common connectors, different UL antennas)

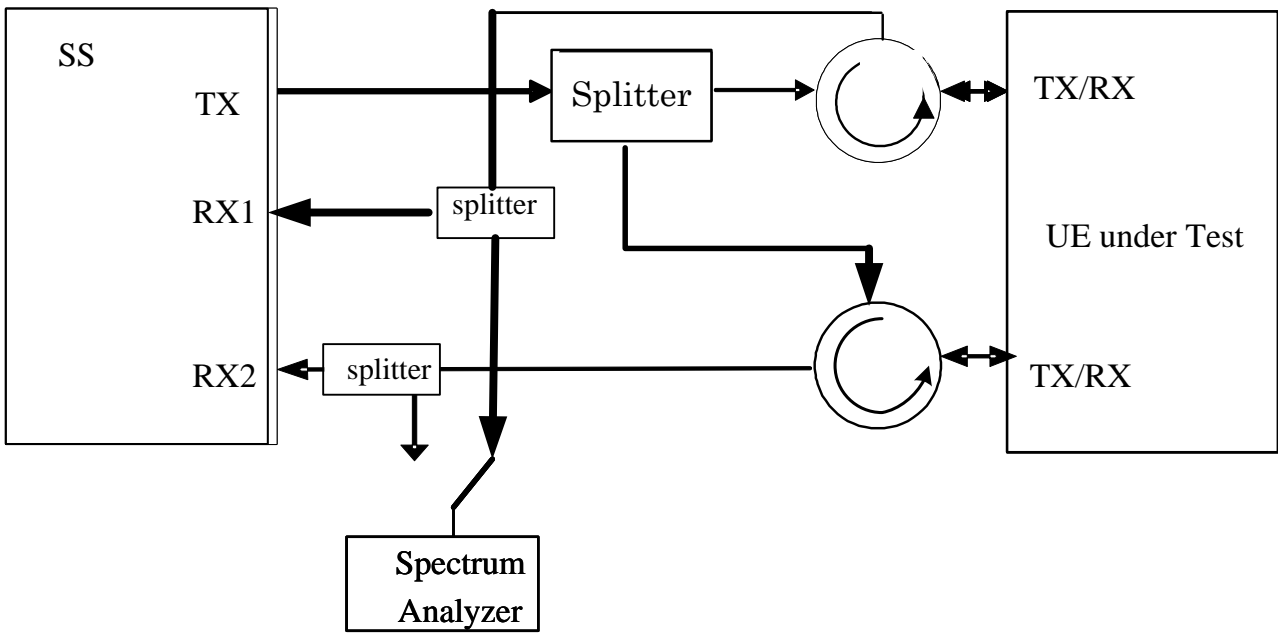


Figure A.38: Connection for UL MIMO tests with additional Spectrum Analyzer

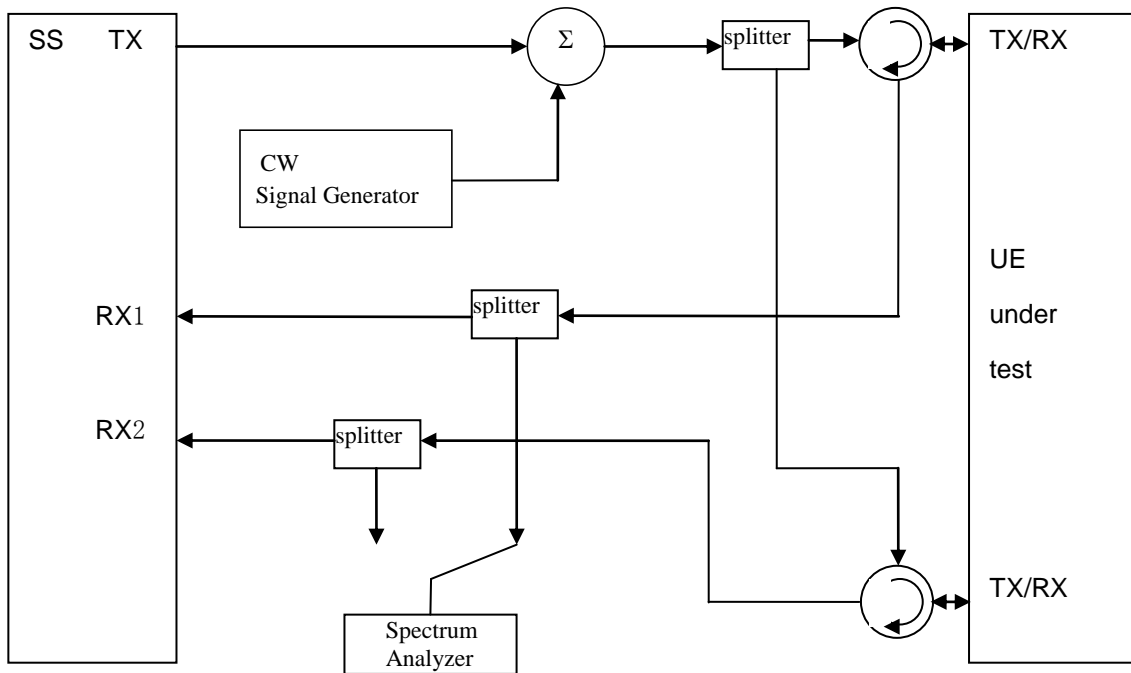


Figure A.39: Connection for Transmitter Intermodulation tests for UL-MIMO

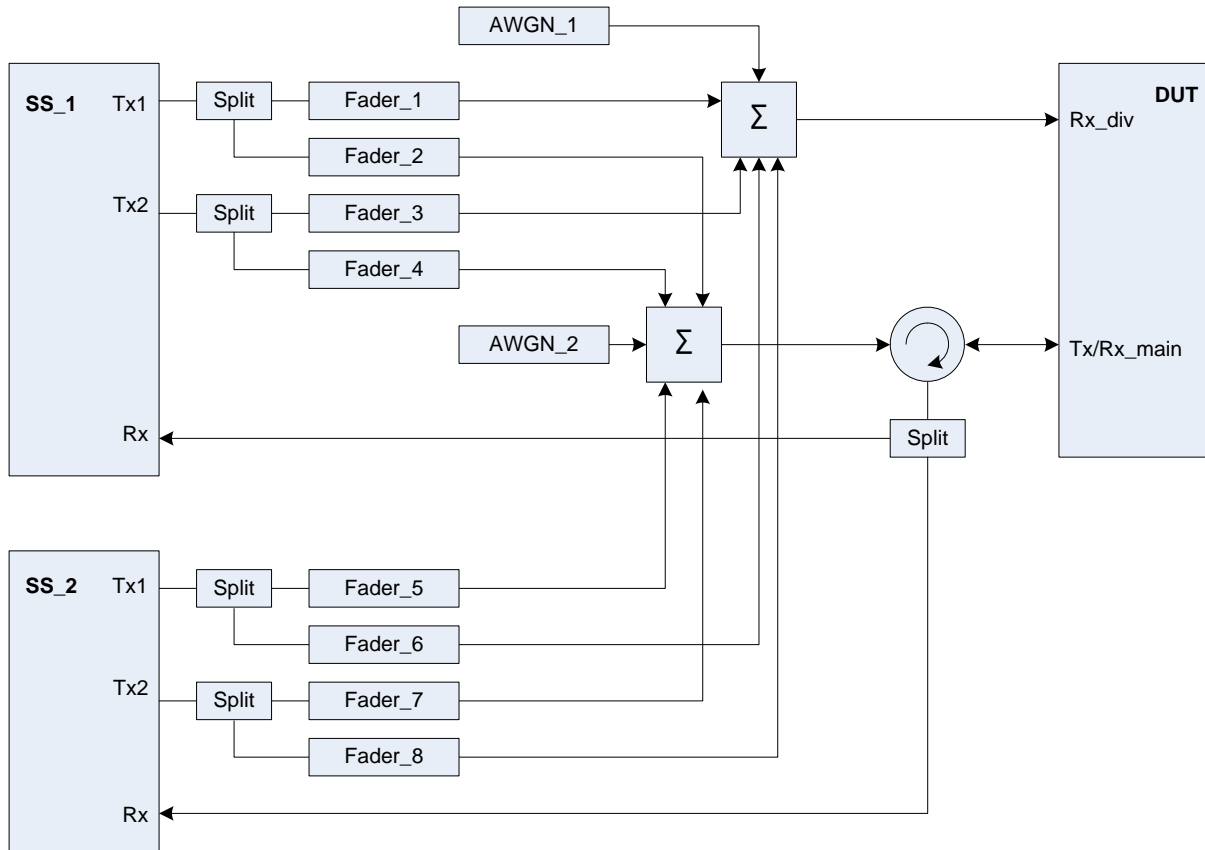


Figure A.40: Connection for 2 cells, antenna configuration 2x2, multipath fading and receive diversity

Figure group A.41: Connection for CA with intra-frequency interferer and static propagation channel

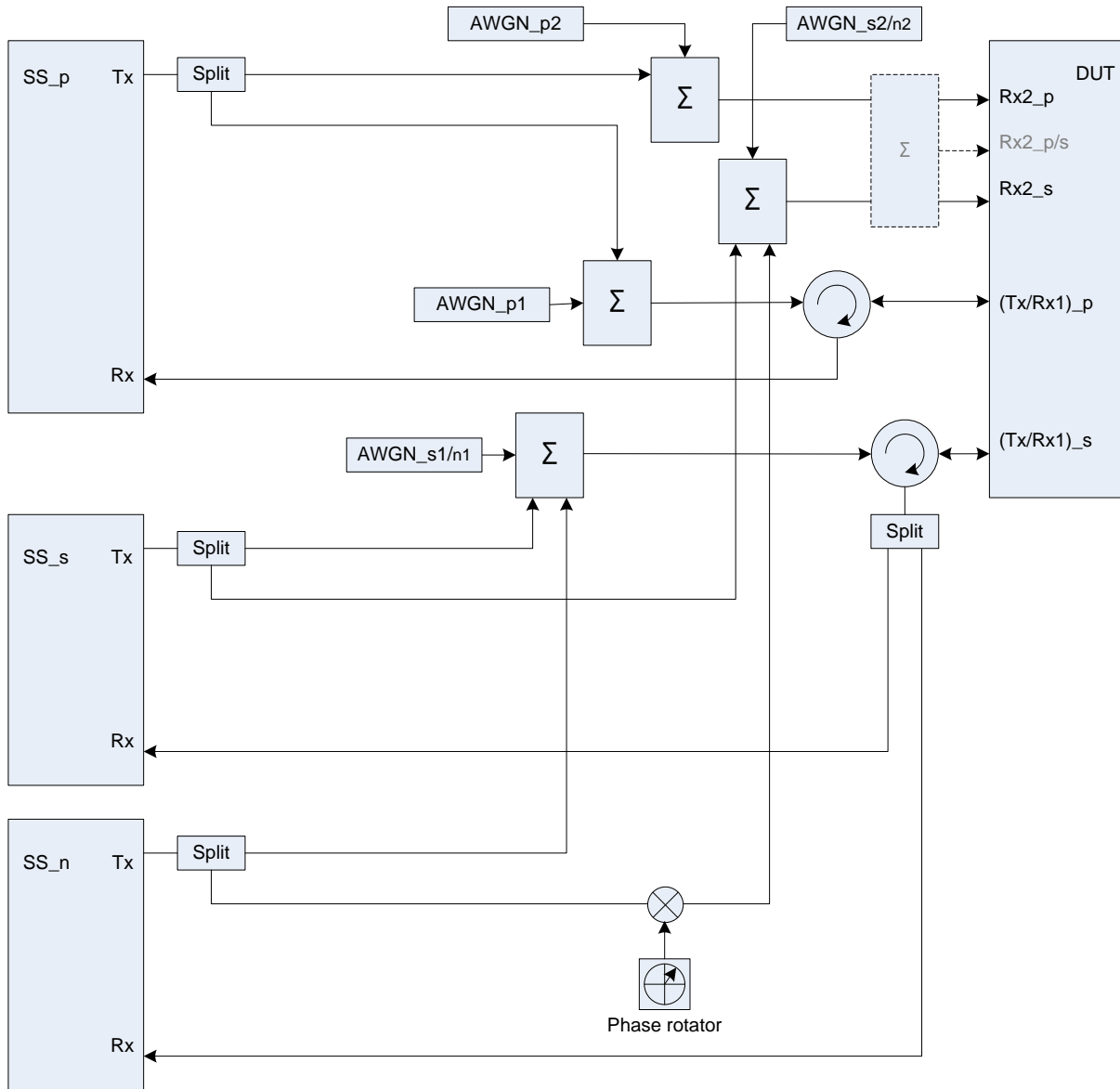


Figure A.41a: Connection for CA with intra-frequency interferer and static propagation channel (separate connectors) (The frequency offset used in phase rotator is 5 Hz)

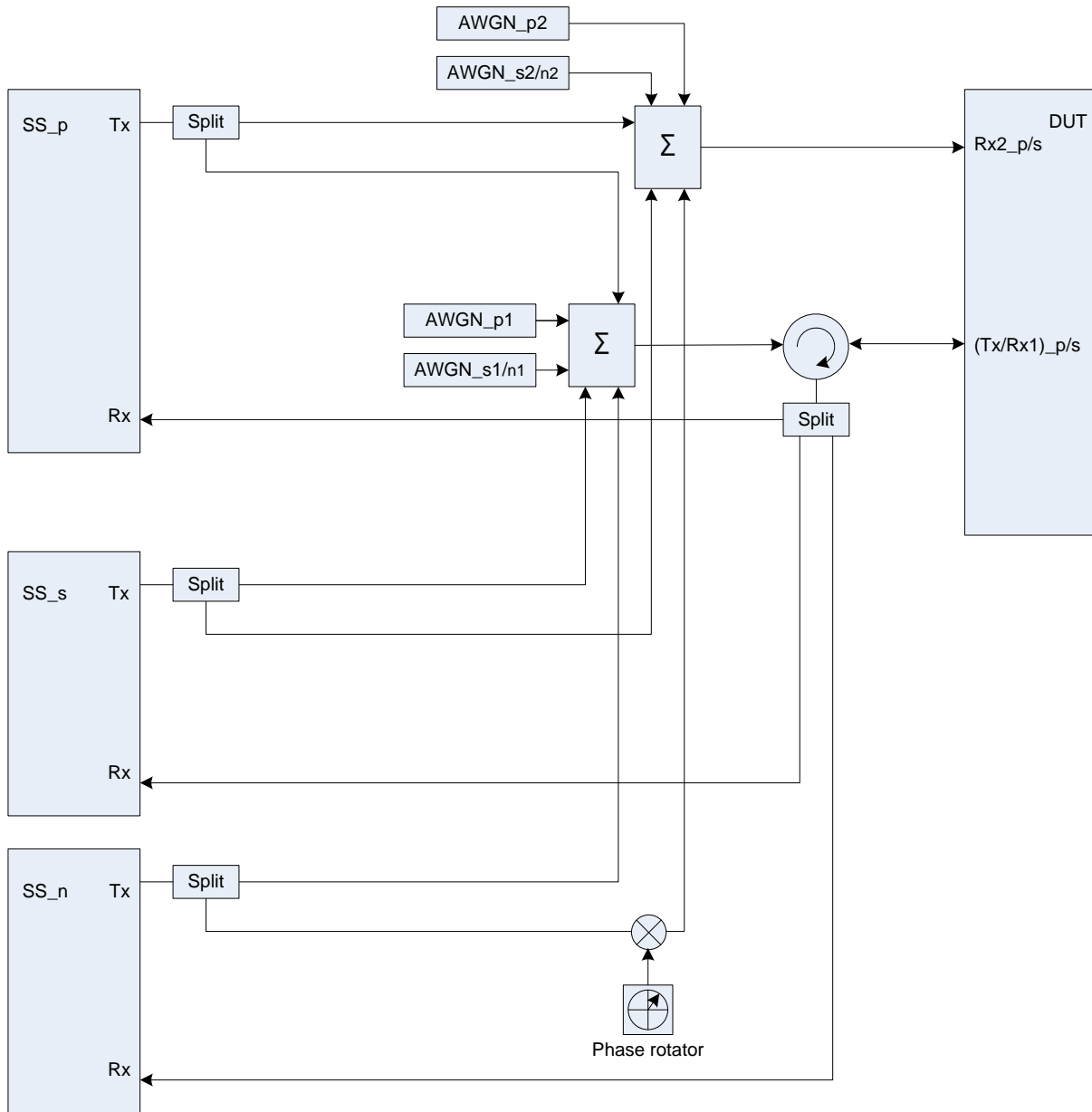


Figure A.41b: Connection for CA with intra-frequency interferer and static propagation channel (common connectors, same UL antenna) (The frequency offset used in phase rotator is 5 Hz)

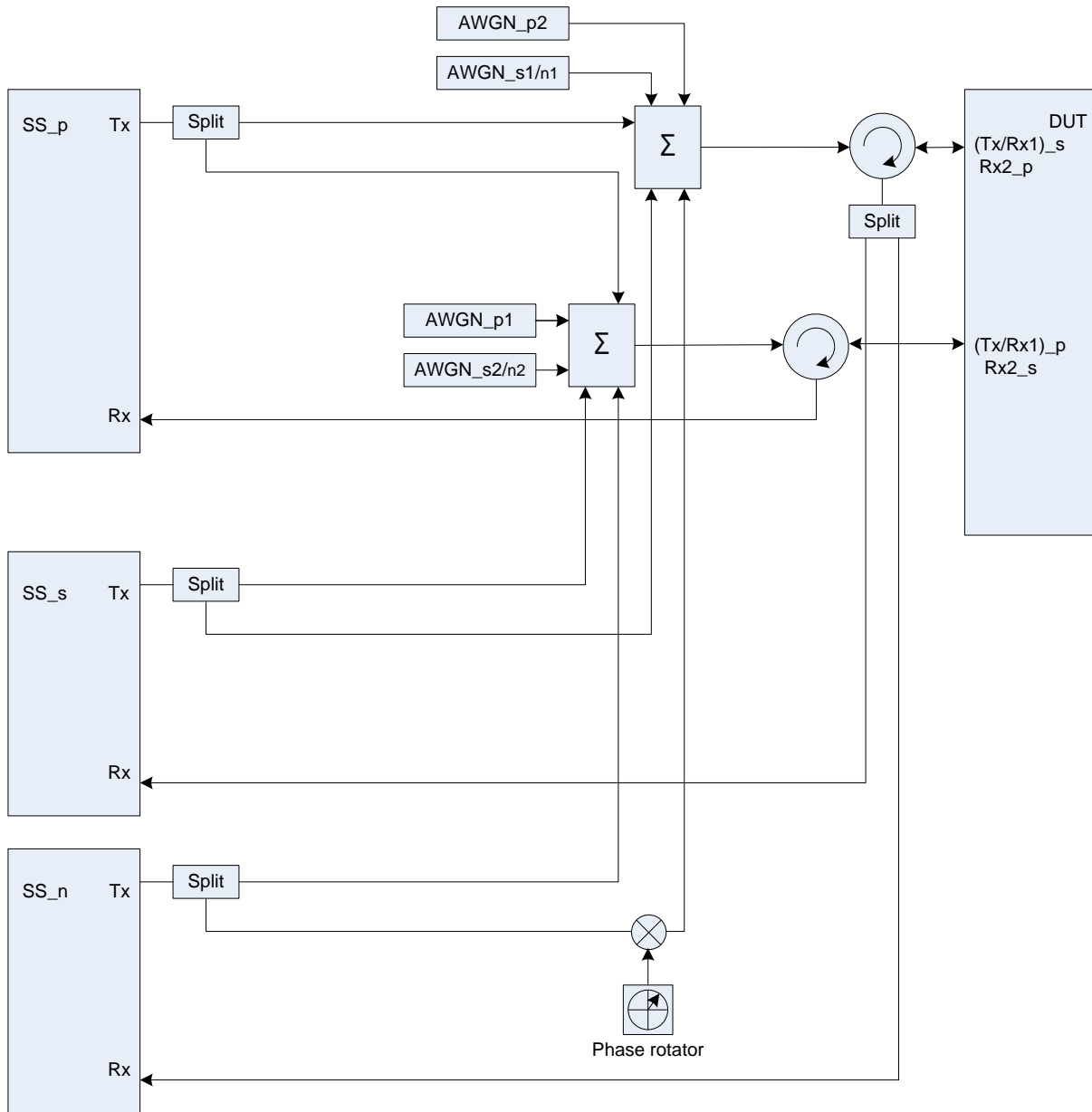


Figure A.41c: Connection for CA with intra-frequency interferer and static propagation channel (common connectors, different UL antennas) (The frequency offset used in phase rotator is 5 Hz)

Figure group A.42: Connection for CA with intra-frequency interferer and multipath fading propagation

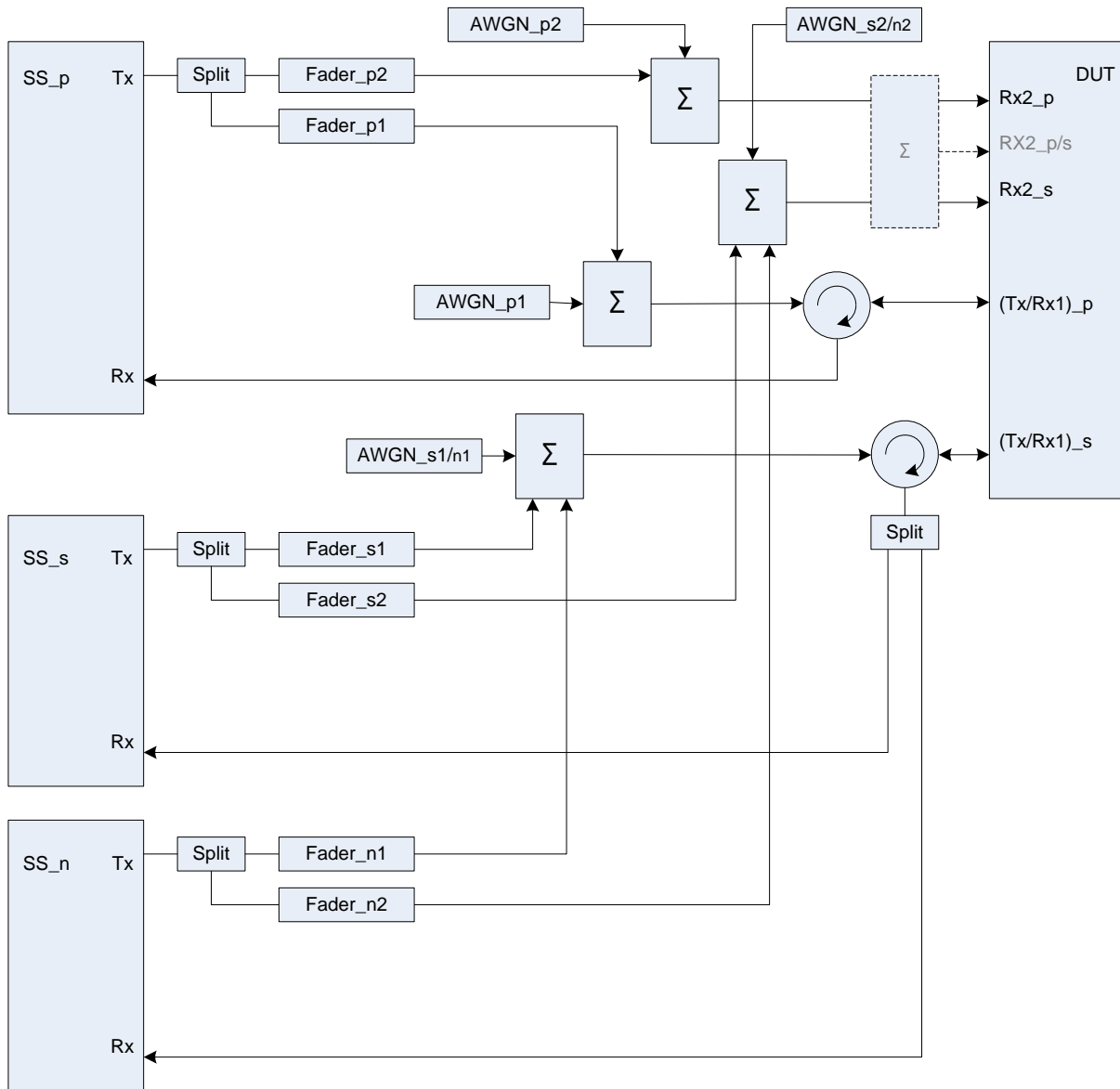


Figure A.42a: Connection for CA with intra-frequency interferer and multipath fading propagation (separate connectors)

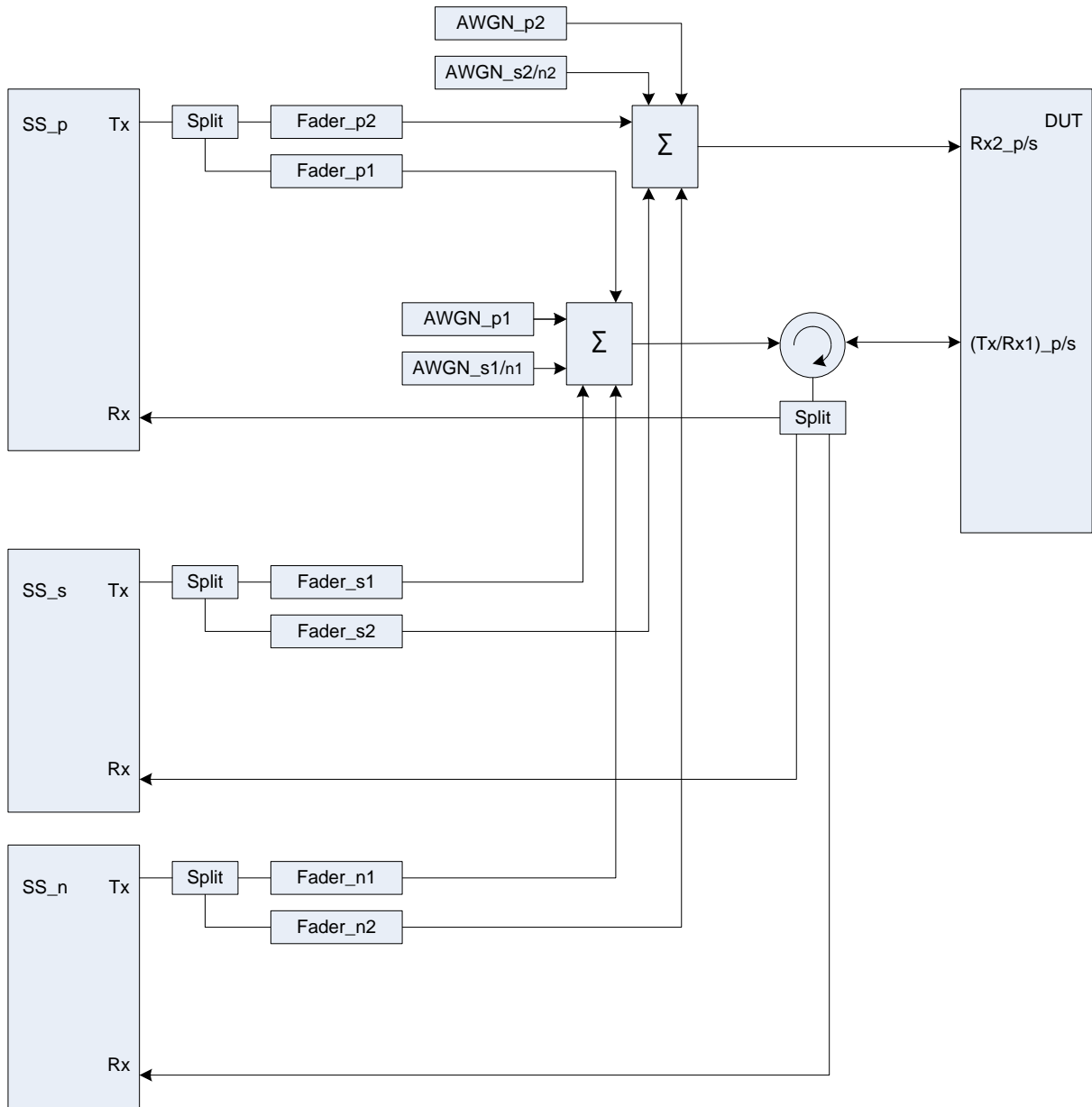


Figure A.42b: Connection for CA with intra-frequency interferer and multipath fading propagation (common connectors, same UL antenna)

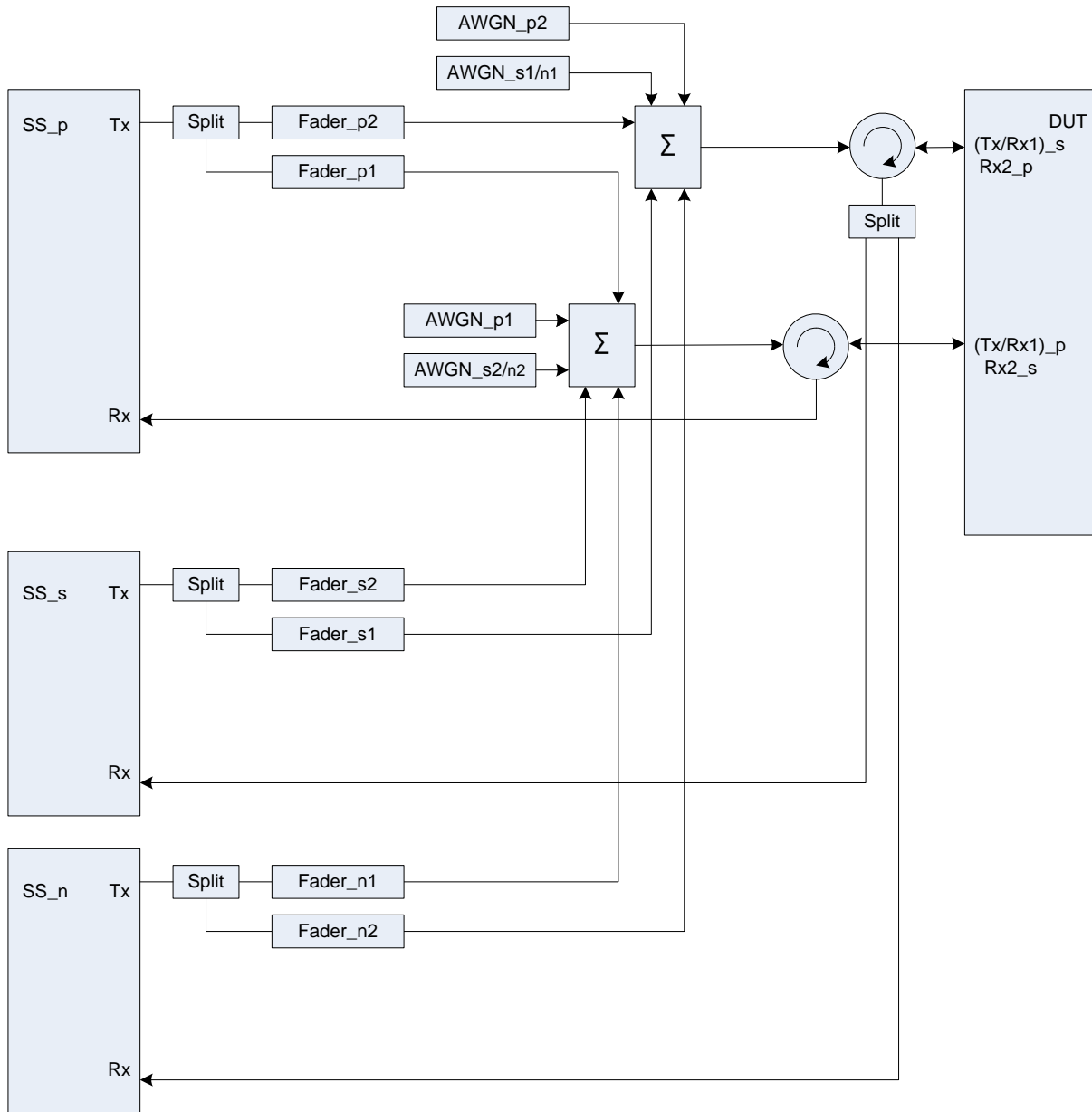


Figure A.42c: Connection for CA with intra-frequency interferer and multipath fading propagation (common connectors, different UL antennas)

Figure group A.43: Connection for CA with inter-frequency interferer and multipath fading propagation

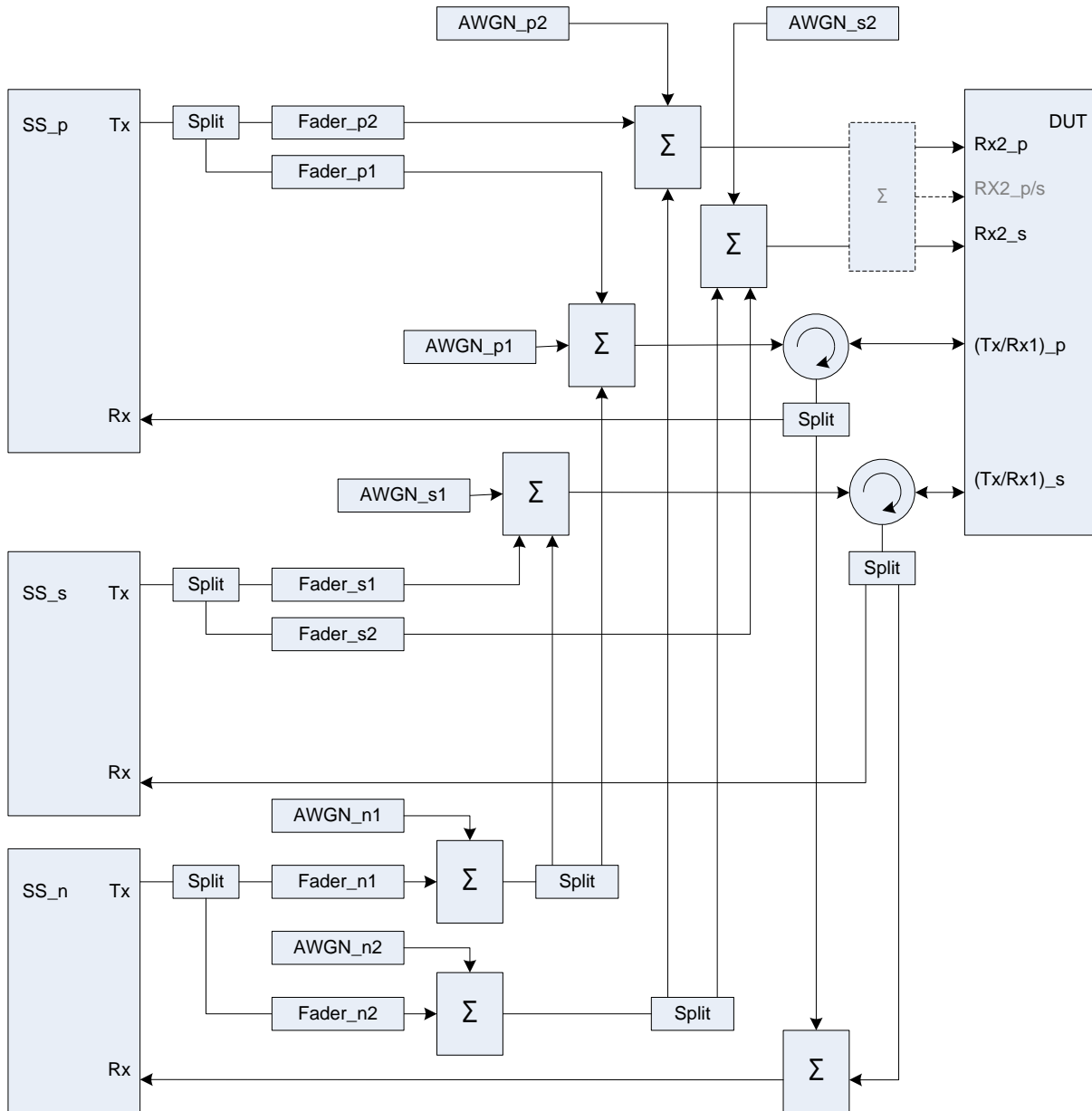


Figure A.43a: Connection for CA with inter-frequency interferer and multipath fading propagation (separate connectors)

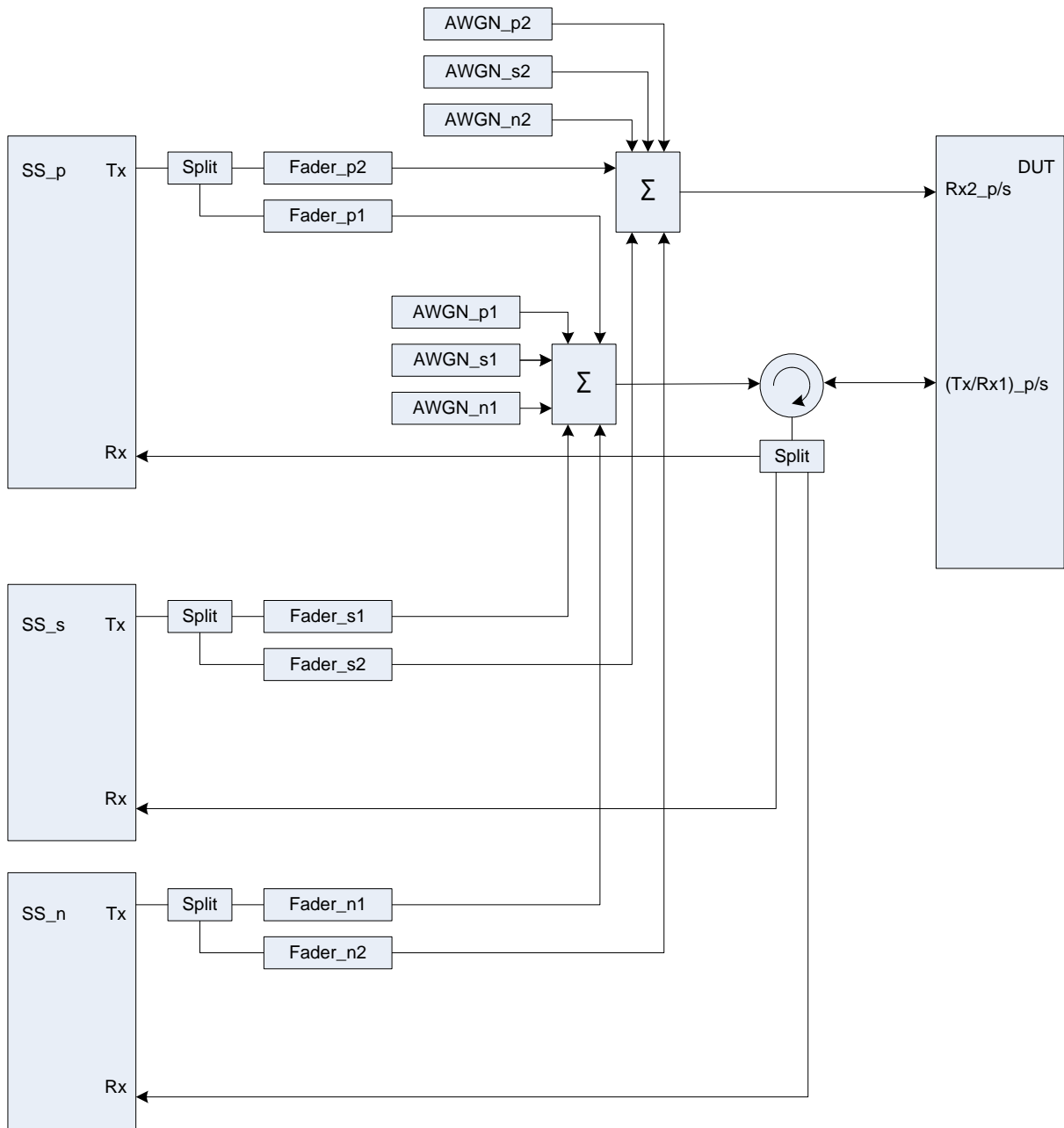


Figure A.43b: Connection for CA with inter-frequency interferer and multipath fading propagation (common connectors, same UL antenna)

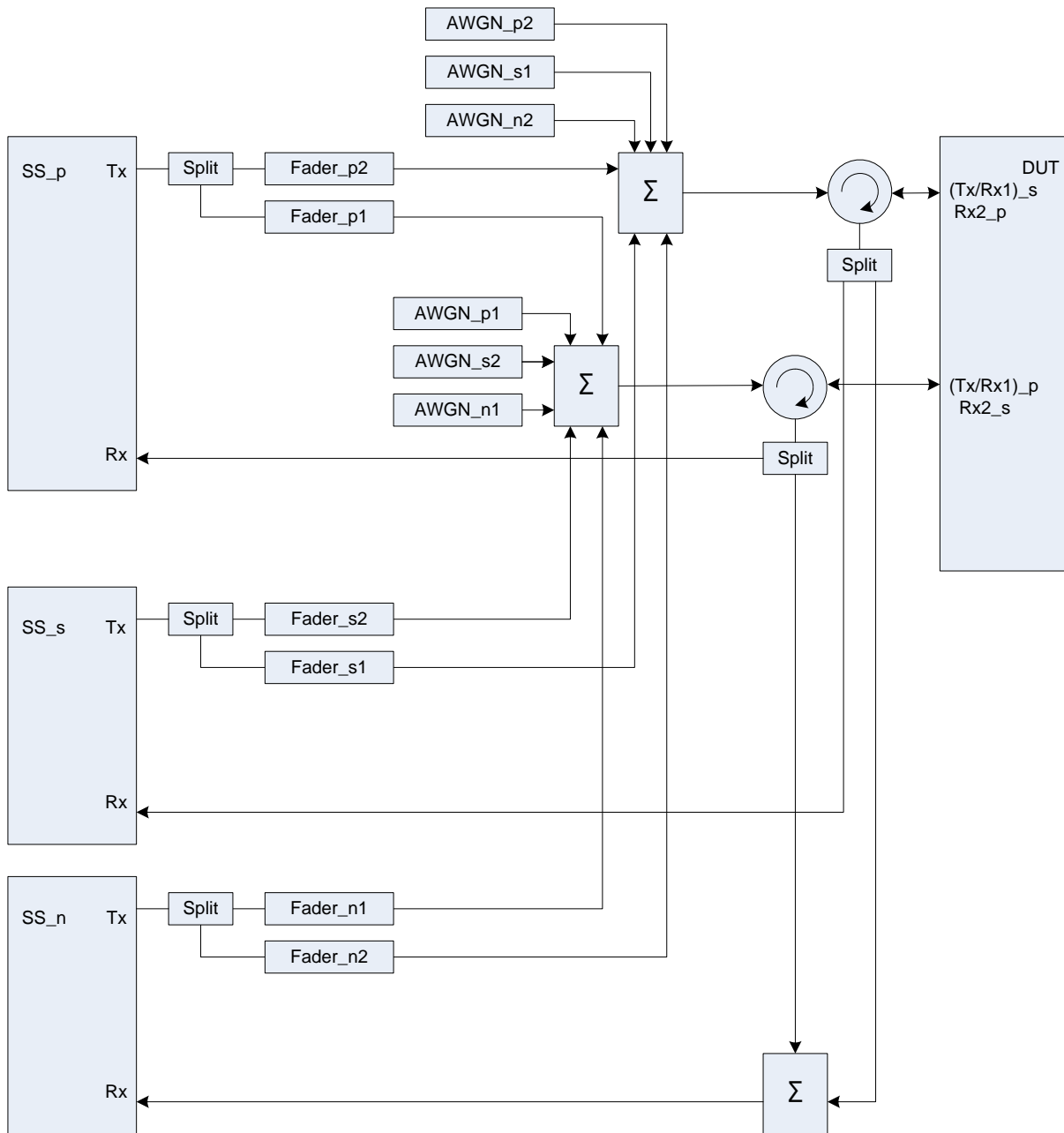


Figure A.43c: Connection for CA with inter-frequency interferer and multipath fading propagation (common connectors, different UL antennas)

Figure group A.44: Connection for CA with inter-RAT interferer and multipath fading propagation

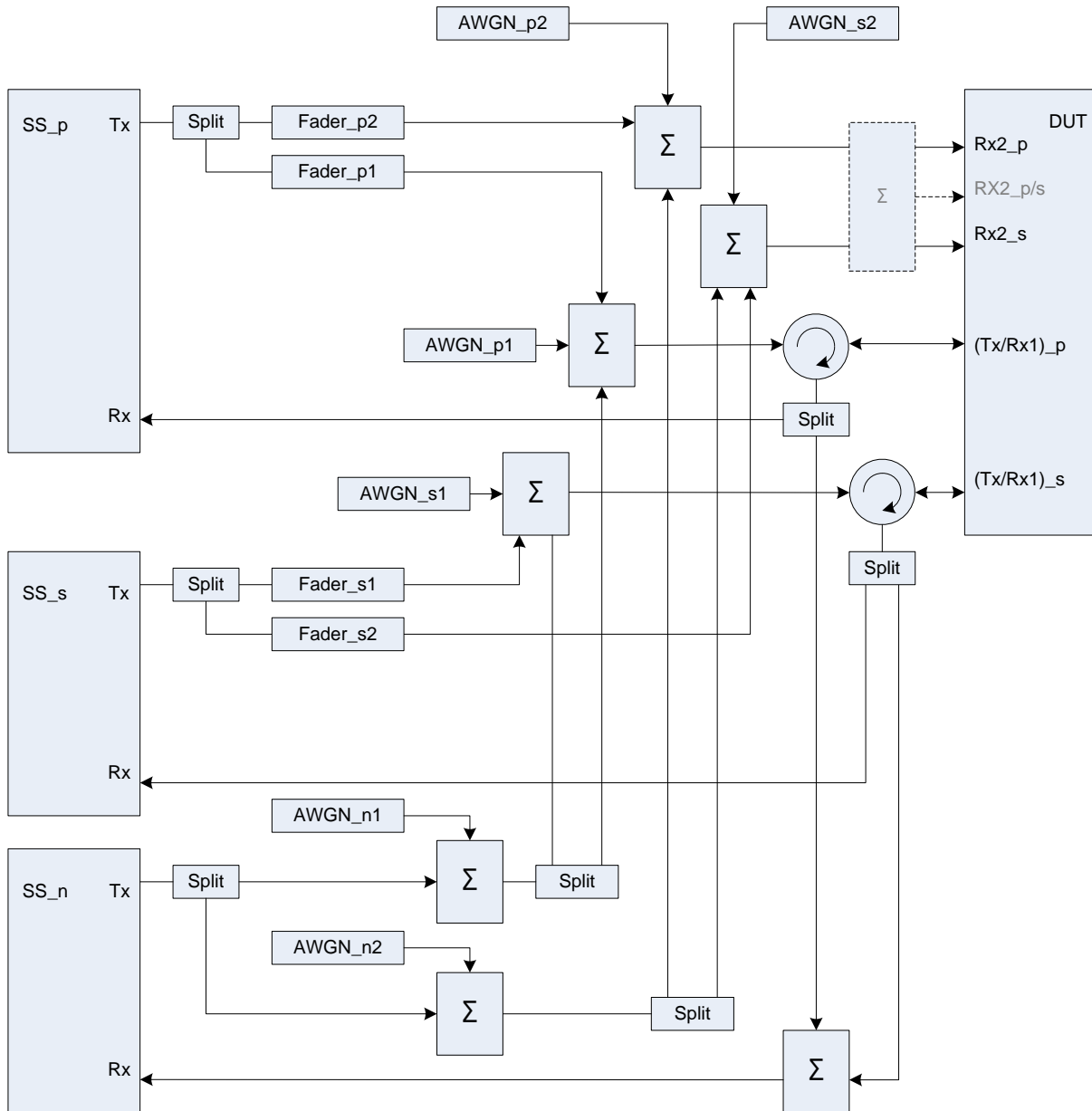


Figure A.44a: Connection for CA with inter-RAT interferer and multipath fading propagation (separate connectors)

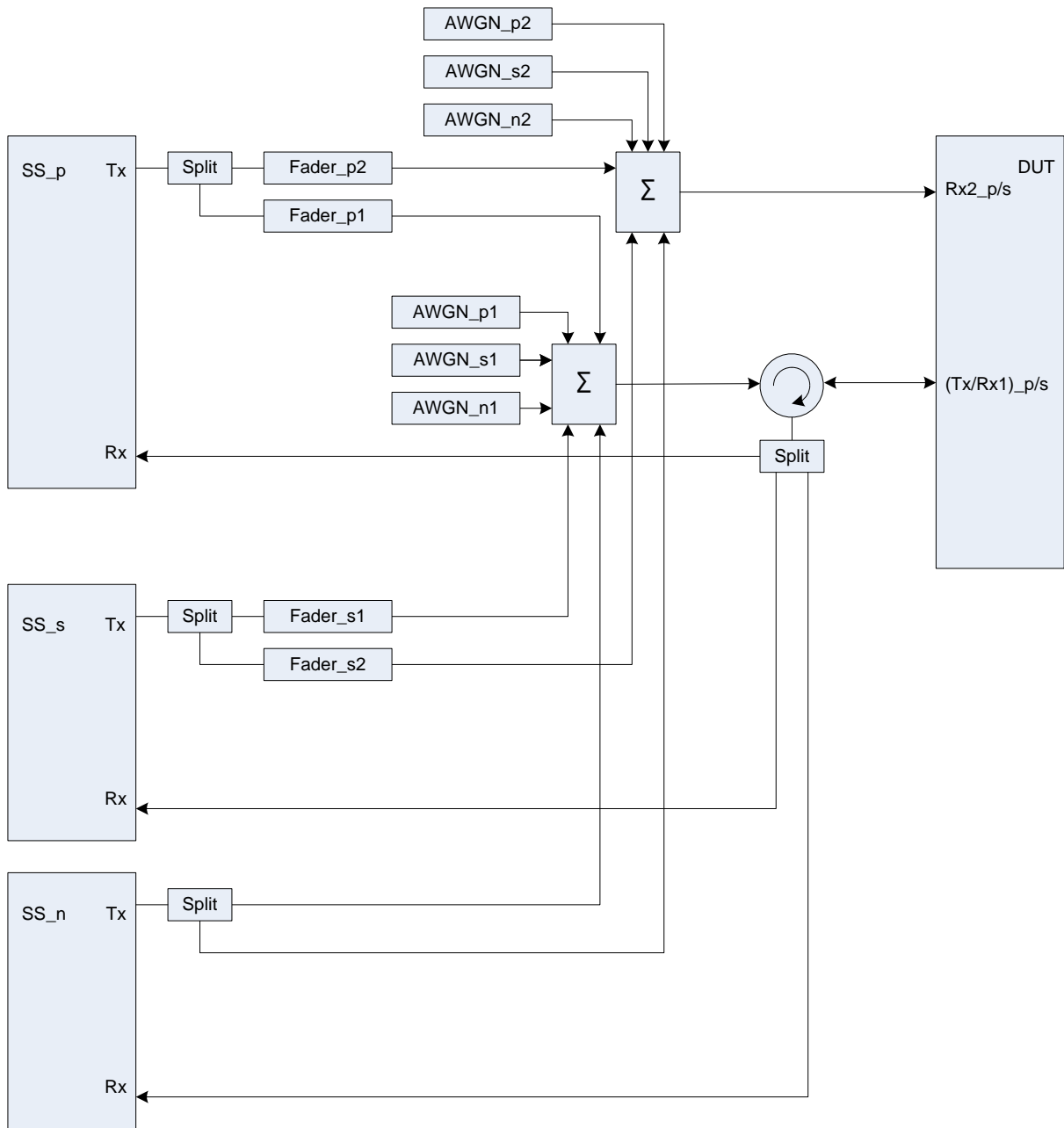


Figure A.44b: Connection for CA with inter-RAT interferer and multipath fading propagation (common connectors, same UL antenna)

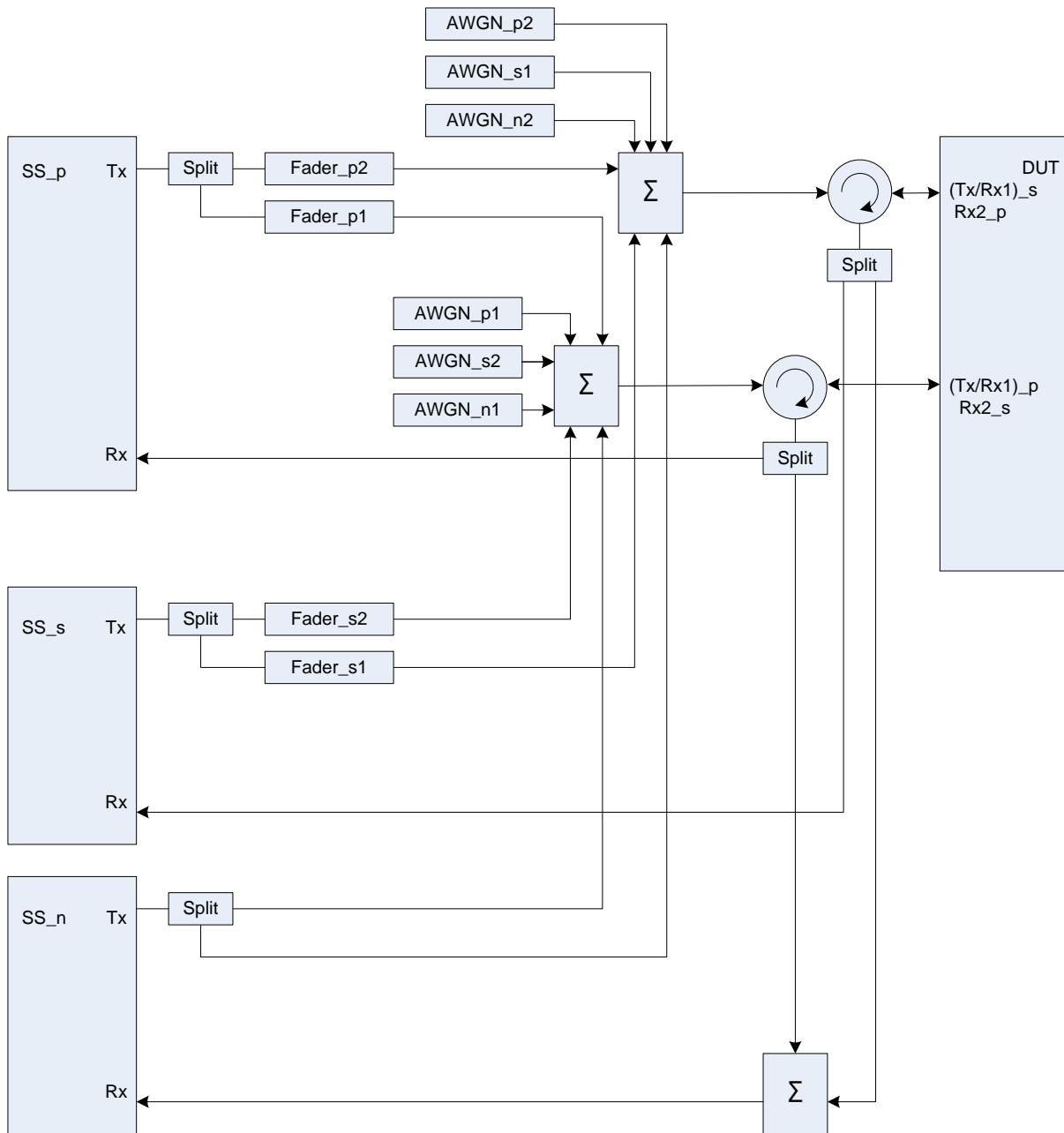


Figure A.44c: Connection for CA with inter-RAT interferer and multipath fading propagation (common connectors, different UL antennas)

Annex B (informative): Change history

Meeting-1st-Level	Doc-1st-Level	CR	Rev	Subject	Cat	Version-Current	Version-New	Doc-2nd-Level
RAN5 #37	R5-073107			Skeleton proposed for RAN5#37 Jeju			0.0.1	
RAN5 LTE workshop	R5w 080007			Proposed for RAN5 LTE workshop, Sophia Antipolis		0.0.1	0.0.2	
RAN5 #39	R5-081167			Following proposals have been incorporated: R5w 080046 R5w 080026 R5w 080036		0.0.2	0.0.3	
RAN5 #39	R5-081615			Following proposals and many editorial corrections have been incorporated: R5-081564, R5-081561, R5-081248, R5-081530, R5-081126, R5-081443, R5-081382, R5-081200		0.0.3	0.1.0	
RAN5 #39bis	R5-082141			Following proposals and many editorial corrections have been incorporated: R5-082149, "Updates of reference test conditions for TS 36.508" R5-082148, "Addition of E-UTRA TDD Test frequencies for TS36.508" R5-082150, "Default downlink signal channel powers for LTE UE test" R5-082146, "Addition of Cell Environment for multi Cell Configuration" R5-082140, "Proposal of LTE reference system configurations for TS 36.508" R5-082204, "Addition of Cell and UE configuration for TS 36.508" R5-082090, "Update of default RRC message contents" R5-082100, "Proposal on Structure of Default Message Contents for TS 36.508" R5-082091, "Addition of SRB and DRB radio bearer combinations to 36.508" R5-082173, "Connection Diagrams for TX and RX tests"		0.1.0	0.2.0	
RAN5 #40	R5-083399			Following proposals have been incorporated: R5-083800, "Mapping of DL physical channels to physical resources for TS 36.508", NEC R5-083403, "Addition of New Cell Environment for multi Cell Configuration", NTT DOCOMO R5-083529, "Proposal on default system information contents for TS 36.508", NTT DOCOMO R5-083395, "Corrections to generic procedures in TS 36.508", NTT DOCOMO R5-083623, "Update of RRC default message contents and RB combination parameters", Ericsson R5-083622, "Radio Resource Configuration specification for TS 36.508", NEC R5-083397, "Addition of Default NAS message contents in TS 36.508", NTT DOCOMO		0.2.0	1.0.0	
RAN5 #40bis	R5-084102			Following proposals have been incorporated: R5-084101, "Missing corrections to TS 36.508" R5-084110, "Updates of Test frequencies for TS 36.508" R5-084144, "The mapping of DL physical channels to physical resources for TS 36.508" R5-084198, "Update of RA and RB power ratios definition in TS 36.508" R5-084199, "Update of Reference System Configuration in 36.508" R5-084109, "Addition of default RRC message contents to TS 36.508" R5-084202, "Update of RRC Message Contents and RB Configurations in 36.508" R5-084265, "Addition of default RRC message contents for handover" R5-084162, "Connection Diagrams for performance		1.0.0	1.1.0	

Meeting-1st-Level	Doc-1st-Level	CR	Rev	Subject	Cat	Version-Current	Version-New	Doc-2nd-Level
				tests"				
RAN5 #41	R5-085145			Following proposals have been incorporated: R5-085087, "Updates of Test frequencies for TS 36.508" R5-085701, "Cleaning up section 5 in TS 36.508" R5-085252, "Correction to Section 4.3.3.2 of TS 36.508" R5-085315, "Connection Diagrams: delete the editorial note" R5-085454, "Addition of timer tolerances" R5-085566, "Addition of default settings of suitable / non-suitable cells in TS 36.508" R5-085541, "Update to default configurations of simulated cells in TS 36.508" R5-085514, "Update to default configurations of system information blocks in TS 36.508" R5-085472, "Addition of default settings of suitable / non-suitable cells in TS 36.508" R5-085394, "Update of Reference system configurations in 36.508" R5-085457, "Update to generic procedure in TS 36.508" R5-085458, "Addition of new generic procedure to check the UE does not answer to paging" R5-085523, "Update of default RRC message contents" R5-085381, "Addition to default RRC IE contents for measurement configuration" R5-085469, "Update to default NAS message contents in TS 36.508" R5-085451, "Parameter settings for reference RB configurations" R5-085556, "Common test USIM parameters for EPS testing"		1.1.0	2.0.0	
RAN#42	RP-085145			Approval of version 2.0.0 at RAN#42, then updated to v 8.0.0.		2.0.0	8.0.0	
				Editorial corrections.		8.0.0	8.0.1	
RAN5 #41bis	R5-086021	0001	-	Introduction of half cell configurations in eUTRA SS		8.0.1	8.1.0	
RAN5 #41bis	R5-086166	0002	-	Removal of Redundant Environmental Conditions		8.0.1	8.1.0	
RAN5 #41bis	R5-086221	0003	-	CR to 36.508: correction of EARFCN		8.0.1	8.1.0	
RAN5 #41bis	R5-086226	0004	-	Correction to the default system informations in TS 36.508		8.0.1	8.1.0	
RAN5 #41bis	R5-086236	0005	-	Connection diagrams for RRM		8.0.1	8.1.0	
RAN5 #41bis	R5-086346	0006	-	Update of the default message AUTHENTICATION FAILURE		8.0.1	8.1.0	
RAN5 #41bis	R5-086362	0007	-	update of reference configuration systems for CDMA2000 in 36.508		8.0.1	8.1.0	
RAN5 #41bis	R5-086363	0008	-	Updated of common and default parameters for CDMA2000 cells		8.0.1	8.1.0	
RAN5 #41bis	R5-086364	0009	-	Update of SystemInformationBlockType8 in 36.508		8.0.1	8.1.0	
RAN5 #41bis	R5-086369	0010	-	Addition of reference EPS bearer contexts		8.0.1	8.1.0	
RAN5 #41bis	R5-086370	0011	-	Mapping of default DL Physical Channels for TDD in 36.508		8.0.1	8.1.0	
RAN5 #41bis	R5-086400	0012	-	Addition of RS_EPRE powers to default DL signal levels		8.0.1	8.1.0	
RAN5 #42	R5-090084	0013	-	Test procedure to verify that an EPS bearer context is active		8.0.1	8.1.0	
RAN5 #42	R5-090362	0014	-	Correction to the definition of simulated NAS cells in TS 36.508		8.0.1	8.1.0	
RAN5 #42	R5-090464	0015	-	Clean up the test algorithm for authentication		8.0.1	8.1.0	
RAN5 #42	R5-090586	0016	-	Add specific information elements for RRC reconfiguration		8.0.1	8.1.0	
RAN5 #42	R5-090630	0017	-	Introduction of alternative DRX configurations		8.0.1	8.1.0	
RAN5 #42	R5-090681	0018	-	Correction to the default NAS message contents in TS 36.508		8.0.1	8.1.0	
RAN5 #42	R5-090682	0019	-	Correction to the definition of simulated cells in TS 36.508		8.0.1	8.1.0	

Meeting-1st-Level	Doc-1st-Level	CR	Rev	Subject	Cat	Version-Current	Version-New	Doc-2nd-Level
RAN5 #42	R5-090698	0020	-	Update of 4.5 generic procedures in 36.508		8.0.1	8.1.0	
RAN5 #42	R5-090699	0021	-	TDD RTT correction for timer tolerance		8.0.1	8.1.0	
RAN5 #42	R5-090759	0022	-	Correction to the default RRC message contents in TS 36.508		8.0.1	8.1.0	
RAN5 #42	R5-091000	0023	-	Correction to clause 4.3.3.3		8.0.1	8.1.0	
RAN5 #42	R5-091001	0024	-	LTE-RF: Clarification to 36.508 Simulated Cells for RF tests		8.0.1	8.1.0	
RAN5 #43	RP-090447	0025	-	Correction to Cell off power		8.1.0	8.2.0	R5-092086
RAN5 #43	RP-090447	0026	-	LTE Signalling Tests: UE Rx antenna connection		8.1.0	8.2.0	R5-092087
RAN5 #43	RP-090448	0027	-	CR to 36.508 for subclause 4.3.1 channel bandwidth clarification for RF tests (re-submit no changes)		8.1.0	8.2.0	R5-092124
RAN5 #43	RP-090448	0028	-	Text for 4.2.2: Minimum functional requirements		8.1.0	8.2.0	R5-092128
RAN5 #43	RP-090448	0029	-	Annex A: transition from 1 to 2 RX antenna		8.1.0	8.2.0	R5-092132
RAN5 #43	RP-090447	0030	-	Update of SN length in UM RLC default configuration		8.1.0	8.2.0	R5-092202
RAN5 #43	RP-090448	0031	-	TP for simulated UTRA TDD cell parameter		8.1.0	8.2.0	R5-092275
RAN5 #43	RP-090447	0032	-	Correction to specific message contents in setup procedure in TS 36.508		8.1.0	8.2.0	R5-092349
RAN5 #43	RP-090447	0033	-	Correction to the definition of simulated NAS cells in TS 36.508		8.1.0	8.2.0	R5-092352
RAN5 #43	RP-090447	0034	-	CR on 6.7 TDD Timer Tolerance in 36.508		8.1.0	8.2.0	R5-092363
RAN5 #43	RP-090448	0044	-	Update of 4.5.2A in 36.508 (Re-submit not change)		8.1.0	8.2.0	R5-092457
RAN5 #43	RP-090448	0035	-	Default value of q-RxLevMin for RF TCs		8.1.0	8.2.0	R5-092458
RAN5 #43	RP-090598	0045	-	CR to 36.508 Addition of test frequencies for band 18 and band 19		8.1.0	8.2.0	R5-092535
RAN5 #43	RP-090447	0036	-	Update of the default NAS message contents in TS 36.508		8.1.0	8.2.0	R5-092708
RAN5 #43	RP-090447	0037	-	Correction to reference radio bearer configurations		8.1.0	8.2.0	R5-092721
RAN5 #43	RP-090447	0038	-	Definition of default Test Control (TC) messages		8.1.0	8.2.0	R5-092734
RAN5 #43	RP-090448	0039	-	Modification of procedures in section 4.5.2.3 /4.5.2A		8.1.0	8.2.0	R5-092735
RAN5 #43	RP-090447	0040	-	Addition of default physical layer parameters		8.1.0	8.2.0	R5-092736
RAN5 #43	RP-090447	0041	-	Correction to default RRC message contents		8.1.0	8.2.0	R5-092738
RAN5 #43	RP-090447	0042	-	Introduction in 36.508 of a common tracking/routing area update procedure for Idle mode and RRC connection release test cases		8.1.0	8.2.0	R5-092765
RAN5 #43	RP-090447	0043	-	Corrections to default system configurations in TS 36.508		8.1.0	8.2.0	R5-092773
RAN5 #43	RP-090447	0046	-	Max. resources for signalling test cases		8.1.0	8.2.0	R5-092723
-	-	-	-	Editorial corrections and merging of all sections together		8.2.0	8.2.1	-
RAN5 #44	RP-090802	0047	-	Correction to the default value of ul-Bandwidth in TS 36.508	F	8.2.1	8.3.0	R5-094059
RAN5 #44	RP-090802	0048	-	UTRAN SIB scheduling for LTE interRAT test	F	8.2.1	8.3.0	R5-094072
RAN5 #44	RP-090802	0049	-	Correction to the default NAS message contents	F	8.2.1	8.3.0	R5-094141
RAN5 #44	RP-090802	0050	-	TDD fields in default physical layer parameters	F	8.2.1	8.3.0	R5-094279
RAN5 #44	RP-090802	0051	-	Addition of UTRA reference radio bearer parameters and GERAN reference PDP context parameters for E-UTRA Inter-RAT testing	F	8.2.1	8.3.0	R5-094304
RAN5 #44	RP-090801	0052	-	System information scheduling for RF testing	F	8.2.1	8.3.0	R5-094311
RAN5 #44	RP-090801	0053	-	Connection for 1 cell with antenna configuration 1x2 in static propagation conditions	F	8.2.1	8.3.0	R5-094364
RAN5	RP-090801	0054	-	Correction to 4.3.1.2.5 TDD reference test frequencies	F	8.2.1	8.3.0	R5-094373

Meeting-1st-Level	Doc-1st-Level	CR	Rev	Subject	Cat	Version-Current	Version-New	Doc-2nd-Level
#44				for Operating Band 37				
RAN5 #44	RP-090801	0055	-	LTE RF: Physical Layer configurations for RF/RRM testing	F	8.2.1	8.3.0	R5-094421
RAN5 #44	RP-090802	0056	-	Update of SN length in PDCP default configuration	F	8.2.1	8.3.0	R5-094533
RAN5 #44	RP-090802	0057	-	Corrections to default RRC message and IE contents	F	8.2.1	8.3.0	R5-094639
RAN5 #44	RP-090801	0058	-	Update of TDD reference test frequencies for operating band 40	F	8.2.1	8.3.0	R5-094786
RAN5 #44	RP-090810	0059	-	TDD special subframe pattern update	F	8.2.1	8.3.0	R5-094901
RAN5 #44	RP-090802	0060	-	corrections to reference RB configurations	F	8.2.1	8.3.0	R5-095064
RAN5 #44	RP-090802	0061	-	Correction of test procedure 6.4.2.7 in TS 36.508	F	8.2.1	8.3.0	R5-095093
RAN5 #44	RP-090802	0062	-	Adding new elementary files to the default USIM settings	F	8.2.1	8.3.0	R5-095100
RAN5 #44	RP-090802	0063	-	Correction to the Test procedure to check RRC_IDLE state	F	8.2.1	8.3.0	R5-095102
RAN5 #44	RP-090802	0064	-	Introduction of UE mode of operation into NAS default message contents	F	8.2.1	8.3.0	R5-095138
RAN5 #44	RP-090802	0065	-	TDD ACK/NACK feedback mode update	F	8.2.1	8.3.0	R5-095152
RAN5 #44	RP-090802	0066	-	Corrections to default signal levels	F	8.2.1	8.3.0	R5-095206
RAN5 #44	RP-090802	0067	-	Update to default messages in regard to IP address allocation	F	8.2.1	8.3.0	R5-095218
RAN5 #45	RP-091121	0068	-	Correction to 4.3.1.2.6 TDD reference test frequencies for Operating Band 38	F	8.3.0	8.4.0	R5-095486
RAN5 #45	RP-091121	0069	-	Correction CR to 36.508: Set the default parameter for offsetFreq in MeasObjectGERAN Information Element	F	8.3.0	8.4.0	R5-095514
RAN5 #45	RP-091470	0070	-	Addition of HSPA UTRA reference radio bearer parameters for E-UTRA Inter-RAT testing	F	8.3.0	8.4.0	R5-095555
RAN5 #45	RP-091122	0071	-	Introduction of RS power boosting to reduce interference	F	8.3.0	8.4.0	R5-095594
RAN5 #45	RP-091122	0072	-	Corrections to default RRC message contents	F	8.3.0	8.4.0	R5-095651
RAN5 #45	RP-091122	0073	-	Clarification for Cell Configuration Identifiers in 36.508	F	8.3.0	8.4.0	R5-096005
RAN5 #45	RP-091122	0074	-	Correction to the generic procedure for IP allocation and more	F	8.3.0	8.4.0	R5-096114
RAN5 #45	RP-091122	0075	-	Addition of new generic procedure for TAU after inter-RAT HO from UTRA	F	8.3.0	8.4.0	R5-096115
RAN5 #45	RP-091122	0076	-	Update of header chapter 5.2 in 36.508	F	8.3.0	8.4.0	R5-096202
RAN5 #45	RP-091122	0077	-	Correction to the default NAS message contents	F	8.3.0	8.4.0	R5-096403
RAN5 #45	RP-091122	0078	-	cell frequency allocation	F	8.3.0	8.4.0	R5-096440
RAN5 #45	RP-091122	0079	-	Correction for IP address allocation	F	8.3.0	8.4.0	R5-096447
RAN5 #45	RP-091122	0080	-	LAI and TMSI in ATTACH ACCEPT and TAU ACCEPT messages	F	8.3.0	8.4.0	R5-096449
RAN5 #45	RP-091122	0081	-	Addition of generic procedure for IP address allocation / configuration in U-plane	F	8.3.0	8.4.0	R5-096455
RAN5 #45	RP-091122	0082	-	Correction of test procedures in TS 36.508	F	8.3.0	8.4.0	R5-096456
RAN5 #45	RP-091122	0083	-	Update of MAC configuration for disabling PHR and BSR for L2 test cases	F	8.3.0	8.4.0	R5-096458
RAN5 #45	RP-091122	0084	-	Addition of default UTRA message contents to TS 36.508	F	8.3.0	8.4.0	R5-096461
RAN5 #45	RP-091122	0085	-	Clarification to the mapping of GERAN cells and the default parameter values	F	8.3.0	8.4.0	R5-096462
RAN5 #45	RP-091122	0086	-	Correction of TFTs for reference dedicated EPS bearer contexts	F	8.3.0	8.4.0	R5-096464
RAN5 #45	RP-091122	0087	-	Cleanup of default NAS message contents	F	8.3.0	8.4.0	R5-096465
RAN5 #45	RP-091122	0088	-	LTE-Sig: Assignment of different rootSequenceIndex for cells at the same frequency	F	8.3.0	8.4.0	R5-096641
RAN5 #46	RP-100143	0089	-	Correction of SIB19 scheduling position in the neighbouring UTRA cell	F	8.4.0	8.5.0	R5-100086

Meeting-1st-Level	Doc-1st-Level	CR	Rev	Subject	Cat	Version-Current	Version-New	Doc-2nd-Level
RAN5 #46	RP-100143	0091	-	Correction of Quantity Configuration for EUTRA	F	8.4.0	8.5.0	R5-100110
RAN5 #46	RP-100143	0092	-	Correction for the offset value of RSRP in EUTRA	F	8.4.0	8.5.0	R5-100111
RAN5 #46	RP-100143	0093	-	SIB10 and SIB11 periodicity	F	8.4.0	8.5.0	R5-100112
RAN5 #46	RP-100143	0094	-	Assignment of rootSequenceIndex for simulated NAS cells in different PLMNs	F	8.4.0	8.5.0	R5-100260
RAN5 #46	RP-100143	0095	-	Editorial correction to the default value of 'p-a'	F	8.4.0	8.5.0	R5-100261
RAN5 #46	RP-100142	0096	-	New chapter: Test environment for RRM tests	F	8.4.0	8.5.0	R5-100396
RAN5 #46	RP-100143	0097	-	Remove UM in DRB reconfiguration	F	8.4.0	8.5.0	R5-100487
RAN5 #46	RP-100143	0098	-	Addition of default power allocation for two TX antennas	F	8.4.0	8.5.0	R5-100518
RAN5 #46	RP-100143	0099	-	Correction to TFT parameters used in ACTIVATE DEDICATED EPS BEARER CONTEXT REQUEST message	F	8.4.0	8.5.0	R5-100771
RAN5 #46	RP-100143	0100	-	Update to RRC common messages for support of test cases for MIMO	F	8.4.0	8.5.0	R5-100786
RAN5 #46	RP-100152	0101	-	Adding band 20 in 36.508	F	8.4.0	8.5.0	R5-100846
RAN5 #46	RP-100154	0102	-	CR to 36.508: Update test frequencies with extended LTE1500 operating bands	F	8.4.0	8.5.0	R5-100847
RAN5 #46	RP-100143	0103	-	Defining default message contents for ATTACH/TAU REQUEST/ACCEPT messages according to UE capability	F	8.4.0	8.5.0	R5-101021
RAN5 #46	RP-100143	0104	-	Limitation of simultaneous co-existence of intra-freq cells to reduce interference	F	8.4.0	8.5.0	R5-101029
RAN5 #46	RP-100143	0105	-	An additional option for IP address allocation in test cases using UE test mode	F	8.4.0	8.5.0	R5-101045
RAN5 #46	RP-100143	0106	-	Specify default UL NAS check	F	8.4.0	8.5.0	R5-101051
RAN5 #46	RP-100143	0107	-	Correct default requirement for some mandatory information elements	F	8.4.0	8.5.0	R5-101052
RAN5 #46	RP-100142	0108	-	Addition of Tracking area updating procedure	F	8.4.0	8.5.0	R5-101136
RAN5 #46	RP-100143	0109	-	Clarification of Security Protection for NAS Messages	F	8.4.0	8.5.0	R5-101147
RAN5 #46	RP-100143	0110	-	Update to layer 2 UM test cases to increase the drx-Inactivity Timer to psf200	F	8.4.0	8.5.0	R5-101178
RAN5 #46	RP-100143	0111	-	Addition of new generic procedure for bearer establishment for MO call.	F	8.4.0	8.5.0	R5-101187
RAN5 #46	RP-100143	0112	-	update of default bandwidth configuration for signalling	F	8.4.0	8.5.0	R5-101207
RP#47	-	-	-	Moved to v9.0.0 with no change	-	8.5.0	9.0.0	-
RP#48	RP-100510	0143	-	Clarification of security protection when NAS security mode procedure has taken place outside of a TC sequence	F	9.0.0	9.1.0	R5-103085
RP#48	RP-100523	0113	-	CR to 36.508: Update of EARFCN for band 21	F	9.0.0	9.1.0	R5-103101
RP#48	RP-100510	0114	-	Correction to the default message contents of EXTENDED SERVICE REQUEST	F	9.0.0	9.1.0	R5-103128
RP#48	RP-100510	0115	-	Removal of unrealistic network behaviour from generic procedures	F	9.0.0	9.1.0	R5-103223
RP#48	RP-100510	0116	-	Correction of table numbers in clause 6.2.3.1	F	9.0.0	9.1.0	R5-103232
RP#48	RP-100510	0117	-	Correction to default values for PhysicalConfigDedicated and MIMO	F	9.0.0	9.1.0	R5-103287
RP#48	RP-100510	0118	-	Correction to SR-ConfigIndex for LTE TDD signalling test cases	F	9.0.0	9.1.0	R5-103290
RP#48	RP-100510	0119	-	Correction to MME Group ID to set MSB to 1	F	9.0.0	9.1.0	R5-103298
RP#48	RP-100500	0144	-	Connection diagram for test 8.11.2 (3 cells)	F	9.0.0	9.1.0	R5-103311
RP#48	RP-100510	0120	-	New combination of system information blocks for CSG Cell in TS 36.508	F	9.0.0	9.1.0	R5-103363
RP#48	RP-100510	0121	-	Clarification of security protection for detach request message	F	9.0.0	9.1.0	R5-103368

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RP#48	RP-100510	0122	-	Corrections to cell numbers for 3GPP2 Inter-RAT network scenarios	F	9.0.0	9.1.0	R5-103374
RP#48	RP-100510	0140	-	Clarification to default message content for Modify EPS Bearer Context Request message	F	9.0.0	9.1.0	R5-103625
RP#48	RP-100510	0141	-	Clarification to default message content for RRC Connection Reconfiguration message	F	9.0.0	9.1.0	R5-103626
RP#48	RP-100524	0123	-	Addition of WLAN test cell	F	9.0.0	9.1.0	R5-103647
RP#48	RP-100524	0124	-	Addition of default message contents for mobility management based on DSMIPv6 testing	F	9.0.0	9.1.0	R5-103648
RP#48	RP-100510	0125	-	Update default message contents for EPS attach conditions	F	9.0.0	9.1.0	R5-103673
RP#48	RP-100510	0126	-	Update default message with network support for IMS voice	F	9.0.0	9.1.0	R5-103674
RP#48	RP-100510	0127	-	Correction to Generic Test Procedure in TS 36.508	F	9.0.0	9.1.0	R5-103675
RP#48	RP-100510	0128	-	Default settings of suitable - non-suitable cells for UTRAN/GERAN	F	9.0.0	9.1.0	R5-103677
RP#48	RP-100510	0129	-	Correction to IE schedulingRequestConfig during Handover	F	9.0.0	9.1.0	R5-103678
RP#48	RP-100510	0130	-	Update generic procedures for IMS	F	9.0.0	9.1.0	R5-103679
RP#48	RP-100510	0131	-	Aligning E-UTRAN USIM parameters for multi-RAT devices	F	9.0.0	9.1.0	R5-103680
RP#48	RP-100510	0132	-	Adding Additional Update Result handling to the default messages	F	9.0.0	9.1.0	R5-103681
RP#48	RP-100509	0133	-	Connection diagram update for intra-freq measurement with phase rotator	F	9.0.0	9.1.0	R5-103770
RP#48	RP-100509	0134	-	Update of default bandwidth configuration for Signalling for Band 38	F	9.0.0	9.1.0	R5-103813
RP#48	RP-100524	0135	-	Addition of generic procedures for mobility management based on DSMIPv6 testing	F	9.0.0	9.1.0	R5-103858
RP#48	RP-100510	0136	-	Addition of new generic procedure for MO SMS over SGs and clarifications	F	9.0.0	9.1.0	R5-103869
RP#48	RP-100510	0137	-	Addition of generic procedures for HRPD and 1xRTT pre-registration	F	9.0.0	9.1.0	R5-103870
RP#48	RP-100510	0138	-	Introduction of reference information for test case postambles	F	9.0.0	9.1.0	R5-103875
RP#48	RP-100509	0139	-	Physical layer parameter correction to DCI formats used in RF tests	F	9.0.0	9.1.0	R5-103885
RP#49	RP-100812	0145	-	Update of tested channel bandwidths for Bands 13, 14 and 17	F	9.1.0	9.2.0	R5-104089
RP#49	RP-100816	0146	-	Correction to remove special configurations for UM Bearer test cases	F	9.1.0	9.2.0	R5-104106
RP#49	RP-100816	0147	-	Clarification to the procedure: UE triggered establishment of a default EPS bearer context associated with an additional PDN	F	9.1.0	9.2.0	R5-104128
RP#49	RP-100816	0148	-	Correction to Inter-frequency carrier frequency list in SIB5 and E-UTRA carrier frequency list in SIB19	F	9.1.0	9.2.0	R5-104169
RP#49	RP-100816	0149	-	Update of 6.2.3 of 36.508 - description of default frequency for the single cell signalling test	F	9.1.0	9.2.0	R5-104220
RP#49	RP-100831	0150	-	Update of default message contents for DSMIPv6 testing	F	9.1.0	9.2.0	R5-104392
RP#49	RP-100837	0151	-	Addition of UE test state model for HRPD	F	9.1.0	9.2.0	R5-104454
RP#49	RP-100812	0152	-	Correction to Qrxlevmin in SIB 1 for RF and RRM	F	9.1.0	9.2.0	R5-104503
RP#49	RP-100816	0153	-	Specification of HRPD specific values in SIB8	F	9.1.0	9.2.0	R5-104547
RP#49	RP-100816	0154	-	Update of default bandwidth configuration for signalling	F	9.1.0	9.2.0	R5-104685
RP#49	RP-100816	0155	-	Clarification to packet filter identifier and precedence in TFT	F	9.1.0	9.2.0	R5-104702
RP#49	RP-100816	0156	-	Add P-CSCF method II for IMS	F	9.1.0	9.2.0	R5-104703
RP#49	RP-100816	0157	-	Update generic procedures for IMS	F	9.1.0	9.2.0	R5-104704
RP#49	RP-100816	0158	-	Correction of clause 4.3.3.4	F	9.1.0	9.2.0	R5-104705
RP#49	RP-100816	0159	-	Correction to Downlink Frequency for N_DL 4850	F	9.1.0	9.2.0	R5-104706

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RP#49	RP-100816	0160	-	Default message contents for UTRAN and GERAN	F	9.1.0	9.2.0	R5-104707
RP#49	RP-100812	0161	-	Addition of the new connection diagram for the CSI test case	F	9.1.0	9.2.0	R5-104884
RP#49	RP-100816	0162	-	Correction to reference end states	F	9.1.0	9.2.0	R5-105003
RP#49	RP-100837	0163	-	Correction for Timer Tolerances	F	9.1.0	9.2.0	R5-105050
RP#49	RP-100885	0165	-	Introduction of default message contents for HRPD overhead messages	F	9.1.0	9.2.0	-
GP#49	GP-101743	0166	-	Update of Common parameters for simulated GERAN cells for supporting GERAN-EUTRAN Inter-RAT cell reselection	F	9.2.0	9.3.0	GP-101743
RP#50	RP-101138	0167	-	MBSFN configuration for RRM tests using E-UTRA FDD cells	F	9.2.0	9.3.0	R5-106070
RP#50	RP-101155	0169	-	CR to 36.508: Update test frequencies for EUTRA TDD LTE band 41.	F	9.2.0	9.3.0	R5-106105
RP#50	RP-101142	0168	-	CR to 36.508: Correction to HRPD Overhead messages (subclause 4.4.7.1)	F	9.2.0	9.3.0	R5-106116
RP#50	RP-101142	0170	-	Addition of test frequencies for LTE-C2k interworking test cases	F	9.2.0	9.3.0	R5-106298
RP#50	RP-101142	0172	-	Addition of UTRA reference radio parameters and combination for PS RB and Speech	F	9.2.0	9.3.0	R5-106383
RP#50	RP-101142	0175	-	Correction to EUTRA carrier frequency list in SIB19	F	9.2.0	9.3.0	R5-106421
RP#50	RP-101142	0171	-	Correction to the IDENTITY RESPONSE (with IMSI) message	F	9.2.0	9.3.0	R5-106551
RP#50	RP-101142	0178	-	Correction for DRX offset start time	F	9.2.0	9.3.0	R5-106552
RP#50	RP-101142	0177	-	Correction of specific message content for generic procedures (state 2 and state 2A)	F	9.2.0	9.3.0	R5-106596
RP#50	RP-101138	0180	-	LTE-RF state 3A	F	9.2.0	9.3.0	R5-106597
RP#50	RP-101142	0176	-	Correction to security protection header for Identity Request message	F	9.2.0	9.3.0	R5-106611
RP#50	RP-101142	0173	-	Addition of new system information combinations	F	9.2.0	9.3.0	R5-106616
RP#50	RP-101142	0174	-	Remove SS requirement for IMS in UTRA	F	9.2.0	9.3.0	R5-106690
RP#50	RP-101159	0179	-	Corrections to default settings for Elementary Files (EFs) on Test USIM	F	9.2.0	9.3.0	R5-106819
RP#50	RP-101138	0181	-	Update of the RF exceptional RRC message	F	9.2.0	9.3.0	R5-106820
RP#51	RP-110161	0182	-	Update of HRPD overhead message parameters AccessSignature, SectorSignature	F	9.3.0	9.4.0	R5-110069
RP#51	RP-110161	0183	-	Add a new eUTRA sub-end state E2_T3440	F	9.3.0	9.4.0	R5-110105
RP#51	RP-110161	0184	-	Correction for NAS message NOTE	F	9.3.0	9.4.0	R5-110229
RP#51	RP-110161	0185	-	Addition of CSIM default contents	F	9.3.0	9.4.0	R5-110331
RP#51	RP-110161	0186	-	Update of Table 4.4.2-1 with HRPD/1xRTT frequency range info	F	9.3.0	9.4.0	R5-110332
RP#51	RP-110157	0187	-	Update of the RF exceptional RRC message	F	9.3.0	9.4.0	R5-110410
RP#51	RP-110161	0188	-	Editorial correction for IMS signalling	F	9.3.0	9.4.0	R5-110433
RP#51	RP-110161	0189	-	Correction to SIB combinations related to HeNB Cells	F	9.3.0	9.4.0	R5-110471
RP#51	RP-110161	0190	-	Correction to default message content for Detach Request message	F	9.3.0	9.4.0	R5-110472

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RP#51	RP-110157	0191	-	Removal of Lower Humidity Limit in Normal Conditions	F	9.3.0	9.4.0	R5-110534
RP#51	RP-110157	0192	-	Correction of EARFCN numbers for band 41	F	9.3.0	9.4.0	R5-110542
RP#51	RP-110161	0193	-	Removal of "Modified contents of the EFs at the ISIM ADF (application DF) level"	F	9.3.0	9.4.0	R5-110593
RP#51	RP-110161	0194	-	Correction of the IEs for compressed mode in table 4.7B.1-5	F	9.3.0	9.4.0	R5-110601
RP#51	RP-110161	0195	-	Update to default message content for TRACKING AREA UPDATE REQUEST message	F	9.3.0	9.4.0	R5-110703
RP#51	RP-110161	0196	-	Add default APN for IMS	F	9.3.0	9.4.0	R5-110708
RP#51	RP-110161	0197	-	Introduction of over head messages for CDMA2000 1XRTT	F	9.3.0	9.4.0	R5-110710
RP#51	RP-110161	0198	-	Addition of default SMS over SGs message contents	F	9.3.0	9.4.0	R5-110875
RP#51	RP-110161	0199	-	Correction to "Test procedure to check that UE is camped on E-UTRAN cell upon mobility from another RAT"	F	9.3.0	9.4.0	R5-110746
RP#51	RP-110161	0200	-	Correction of frequency allocations	F	9.3.0	9.4.0	R5-110788
RP#51	RP-110161	0201	-	Update of Reference packet filters contents	F	9.3.0	9.4.0	R5-110789
RP#51	RP-110157	0202	-	Correction to FDD Reference Test Frequencies for Operating Band 12	F	9.3.0	9.4.0	R5-110846
RP#51	RP-110157	0203	-	LTE RF: state 3A-RF update	F	9.3.0	9.4.0	R5-110937
RP#51	RP-110172	0204	-	Add test frequencies for bands 42, 43 (3500MHz)	F	9.3.0	9.4.0	R5-110968
RP#52	RP-110647	0205	-	Correction to default message content of LOCATION UPDATING REQUEST message	F	9.4.0	9.5.0	R5-112114
RP#52	RP-110647	0206	-	Correction to default message content of TRACKING AREA UPDATE REQUEST message	F	9.4.0	9.5.0	R5-112120
RP#52	RP-110643	0207	-	PRACH-Config-DEFAULT for RF-tests TDD: Correction to derivation path	F	9.4.0	9.5.0	R5-112146
RP#52	RP-110643	0208	-	Correction to connection diagram for CQI with uneven interference test (A.21)	F	9.4.0	9.5.0	R5-112147
RP#52	RP-110647	0209	-	Update to Common contents of system information blocks	F	9.4.0	9.5.0	R5-112161
RP#52	RP-110647	0210	-	Addition of missing labels in Figure 4.5.1-1	F	9.4.0	9.5.0	R5-112278
RP#52	RP-110647	0211	-	Corrections to Table 4.3.7-6	F	9.4.0	9.5.0	R5-112279
RP#52	RP-110647	0212	-	Update of CSIM default contents	F	9.4.0	9.5.0	R5-112285
RP#52	RP-110660	0213	-	Add emergency bearer support	F	9.4.0	9.5.0	R5-112289
RP#52	RP-110667	0214	-	Band 24 Addition to TS 36.508	F	9.4.0	9.5.0	R5-112381
RP#52	RP-110643	0215	-	New connection diagrams to Annex A	F	9.4.0	9.5.0	R5-112458
RP#52	RP-110647	0216	-	Correction to Derivation Path for RB Setup on UTRA side (condition UTRA PS RB)	F	9.4.0	9.5.0	R5-112571
RP#52	RP-110647	0217	-	Update APN check at attach	F	9.4.0	9.5.0	R5-112598
RP#52	RP-110647	0218	-	Update of SIB7 default message contents	F	9.4.0	9.5.0	R5-112599
RP#52	RP-110647	0219	-	Clarification to conditions for IP address configuration over user plane	F	9.4.0	9.5.0	R5-112600

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RP#52	RP-110666	0220	-	Introduction of UE Test Loop Mode C for LTE MBMS testing	F	9.4.0	9.5.0	R5-112675
RP#52	RP-110647	0222	-	Update 36.508 QoS definition for InterRat test cases	F	9.4.0	9.5.0	R5-112698
RP#52	RP-110666	0221	-	Addition of some MBMS related message definitions in TS36.508	F	9.4.0	9.5.0	R5-112748
RP#52	RP-110647	0223	-	Introduction of generic CS fall back procedures for UTRAN and GERAN	F	9.4.0	9.5.0	R5-112751
RP#52	RP-110643	0224	-	Default Bandwidth Configuration for RF Testing	F	9.4.0	9.5.0	R5-112760
RP#52	RP-110643	0225	-	Update for PRACH-Config-DEFAULT for the default TDD RRM message	F	9.4.0	9.5.0	R5-112872
RP#52	RP-110647	0205	-	Correction to default message content of LOCATION UPDATING REQUEST message	F	9.4.0	9.5.0	R5-112114
RP#52	RP-110647	0206	-	Correction to default message content of TRACKING AREA UPDATE REQUEST message	F	9.4.0	9.5.0	R5-112120
RP#52	RP-110643	0207	-	PRACH-Config-DEFAULT for RF-tests TDD: Correction to derivation path	F	9.4.0	9.5.0	R5-112146
RP#52	RP-110643	0208	-	Correction to connection diagram for CQI with uneven interference test (A.21)	F	9.4.0	9.5.0	R5-112147
RP#52	RP-110647	0209	-	Update to Common contents of system information blocks	F	9.4.0	9.5.0	R5-112161
RP#52	RP-110647	0210	-	Addition of missing labels in Figure 4.5.1-1	F	9.4.0	9.5.0	R5-112278
RP#52	RP-110647	0211	-	Corrections to Table 4.3.7-6	F	9.4.0	9.5.0	R5-112279
RP#52	RP-110647	0212	-	Update of CSIM default contents	F	9.4.0	9.5.0	R5-112285
RP#52	RP-110660	0213	-	Add emergency bearer support	F	9.4.0	9.5.0	R5-112289
RP#52	RP-110667	0214	-	Band 24 Addition to TS 36.508	F	9.4.0	9.5.0	R5-112381
RP#52	RP-110643	0215	-	New connection diagrams to Annex A	F	9.4.0	9.5.0	R5-112458
RP#52	RP-110647	0216	-	Correction to Derivation Path for RB Setup on UTRA side (condition UTRA PS RB)	F	9.4.0	9.5.0	R5-112571
RP#52	RP-110647	0217	-	Update APN check at attach	F	9.4.0	9.5.0	R5-112598
RP#52	RP-110647	0218	-	Update of SIB7 default message contents	F	9.4.0	9.5.0	R5-112599
RP#52	RP-110647	0219	-	Clarification to conditions for IP address configuration over user plane	F	9.4.0	9.5.0	R5-112600
RP#52	RP-110647	0222	-	Update 36.508 QoS definition for InterRat test cases	F	9.4.0	9.5.0	R5-112698
RP#52	RP-110666	0221	-	Addition of some MBMS related message definitions in TS36.508	F	9.4.0	9.5.0	R5-112748
RP#52	RP-110647	0223	-	Introduction of generic CS fall back procedures for UTRAN and GERAN	F	9.4.0	9.5.0	R5-112751
RP#52	RP-110643	0224	-	Default Bandwidth Configuration for RF Testing	F	9.4.0	9.5.0	R5-112760
RP#52	RP-110643	0225	-	Update for PRACH-Config-DEFAULT for the default TDD RRM message	F	9.4.0	9.5.0	R5-112872
RP#53	RP-111138	0226	-	Correction for generic CS fallback procedures for UTRAN	F	9.5.0	9.6.0	R5-113033
RP#53	RP-111138	0227	-	Correction to paging test procedure	F	9.5.0	9.6.0	R5-113163
RP#53	RP-111138	0228	-	Deletion of 'EPSOnlyAttachForced' in common part	F	9.5.0	9.6.0	R5-113195

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RP#53	RP-111135	0229	-	Deletion of 'EPSOnlyAttachForced' in RF part	F	9.5.0	9.6.0	R5-113213
RP#53	RP-111135	0230	-	Correction to PhysicalConfigDedicated-DEFAULT for HO case	F	9.5.0	9.6.0	R5-113450
RP#53	RP-111138	0231	-	Addition of the 'Expanded 1900 MHz band' as operating band 25 to TS 36.508	F	9.5.0	9.6.0	R5-113500
RP#53	RP-111153	0232	-	Band 24 Details for Signalling part of 36.508	F	9.5.0	9.6.0	R5-113521
RP#53	RP-111138	0233	-	Add new SI combination	F	9.5.0	9.6.0	R5-113658
RP#53	RP-111138	0234	-	Update of HRPD/1xRTT test frequencies, pre-registration procedures and message contents	F	9.5.0	9.6.0	R5-113659
RP#53	RP-111138	0235	-	Correction to test procedures specific message contents	F	9.5.0	9.6.0	R5-113660
RP#53	RP-111138	0236	-	Correction to 'Test procedure to check that UE is camped on E-UTRAN cell upon mobility from another RAT'	F	9.5.0	9.6.0	R5-113661
RP#53	RP-111138	0237	-	Correction for the default NAS message contents	F	9.5.0	9.6.0	R5-113662
RP#53	RP-111138	0238	-	Update UTRA RRC messages	F	9.5.0	9.6.0	R5-113663
RP#53	RP-111138	0239	-	Update UTRA NAS messages	F	9.5.0	9.6.0	R5-113664
RP#53	RP-111138	0240	-	Addition of default GERAN message PS HANDOVER COMMAND	F	9.5.0	9.6.0	R5-113665
RP#53	RP-111138	0241	-	Update test procedure 6.4.3.7.6	F	9.5.0	9.6.0	R5-113666
RP#53	RP-111138	0242	-	Update test procedure 6.4.3.7.5	F	9.5.0	9.6.0	R5-113667
RP#53	RP-111155	0243	-	Update test frequencies for FDD LTE Band 23 in 36.508	F	9.5.0	9.6.0	R5-113749
RP#53	RP-111138	0244	-	Correction on the IE ReportConfigEUTRA-PERIODICAL definition	F	9.5.0	9.6.0	R5-113751
RP#53	RP-111148	0245	-	Correction to TS36.508 subclause 4.6.1	F	9.5.0	9.6.0	R5-113761
RP#53	RP-111145	0246	-	Combined parallel procedures between EUTRA/EPC and IMS emergency call	F	9.5.0	9.6.0	R5-113801
RP#53	RP-111135	0247	-	RF/RRM State 3A-RF: Editors note	F	9.5.0	9.6.0	R5-114037
RP#54	RP-111579	0248	-	Correction of the default message contents of Transaction Identifiers in Activate Default EPS Bearer Context and Activate Dedicated EPS Bearer Context messages	F	9.6.0	9.7.0	R5-115091
RP#54	RP-111596	0250	-	Adding band 22 (3500MHz FDD) to 36.508	F	9.6.0	9.7.0	R5-115185
RP#54	RP-111579	0251	-	Update of UE Registration pre-registration on 1xRTT registrationPeriod	F	9.6.0	9.7.0	R5-115264
RP#54	RP-111579	0252	-	Update UTRA RRC message for handover to UTRAN	F	9.6.0	9.7.0	R5-115533
RP#54	RP-111579	0253	-	Add reference default EPS bearer context for QCI 5	F	9.6.0	9.7.0	R5-115537
RP#54	RP-111579	0254	-	Correction of EPS Bearer Contexts	F	9.6.0	9.7.0	R5-115585
RP#54	RP-111579	0255	-	Correction to ESM default messages	F	9.6.0	9.7.0	R5-115618
RP#54	RP-111579	0256	-	Introduction of Combined Generic test procedure for IMS Speech call	F	9.6.0	9.7.0	R5-115619
RP#54	RP-111576	0257	-	default band configuration for RF testing in band 25	F	9.6.0	9.7.0	R5-115633
RP#54	RP-111579	0258	-	Complete the system configuration for dual mode network scenario	F	9.6.0	9.7.0	R5-115694

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RP#54	RP-111579	0259	-	Correction to IE PhysicalConfigDedicated-DEFAULT definition in Table 4.8.2.1.6-1	F	9.6.0	9.7.0	R5-115696
RP#54	RP-111579	0260	-	Updates for 1xRTT pre-registration scenario	F	9.6.0	9.7.0	R5-115708
RP#54	RP-111579	0261	-	Update of UE 1xRTT registrationPeriod in SystemInformationBlock type8	F	9.6.0	9.7.0	R5-115750
RP#54	RP-111579	0262	-	Correction to 1xRTT Overhead Message contents	F	9.6.0	9.7.0	R5-115791
RP#55	RP-120176	0263	-	Correction to measurement control and report in default UTRA message	F	9.7.0	9.8.0	R5-120311
RP#55	RP-120176	0264	-	Update of E-UTRAN_QRXLEVMIN in SIB19 and SI2 Quarter	F	9.7.0	9.8.0	R5-120312
RP#55	RP-120176	0265	-	Update of RF Reference system configurations	F	9.7.0	9.8.0	R5-120313
RP#55	RP-120179	0266	-	Correction of Physical Layer configurations	F	9.7.0	9.8.0	R5-120497
RP#55	RP-120179	0267	-	Correction of E2_T3440 state definition	F	9.7.0	9.8.0	R5-120566
RP#55	RP-120179	0268	-	Correction of default PCO value in some ESM messages	F	9.7.0	9.8.0	R5-120572
RP#55	RP-120179	0269	-	Correction to the default message content of GERAN carrier frequency group list for E-UTRA cells	F	9.7.0	9.8.0	R5-120604
RP#55	RP-120179	0270	-	Update of SystemInformationBlockType1	F	9.7.0	9.8.0	R5-120616
RP#55	RP-120179	0271	-	Update the default configuration of channel bandwidth for Band 39 for signalling testing	F	9.7.0	9.8.0	R5-120617
RP#55	RP-120179	0272	-	Correction for UE pre-registration on CDMA2000 system	F	9.7.0	9.8.0	R5-120618
RP#55	RP-120179	0273	-	Update to Reference default EPS bearer context #2	F	9.7.0	9.8.0	R5-120619
RP#55	RP-120179	0274	-	Correction to the default (UTRA) Physical Channel Reconfiguration message	F	9.7.0	9.8.0	R5-120620
RP#55	RP-120179	0275	-	Correction of default measurement gap offset	F	9.7.0	9.8.0	R5-120621
RP#55	RP-120179	0276	-	Correction to carrier bandwidth	F	9.7.0	9.8.0	R5-120677
RP#55	RP-120192	0277	-	Update generic procedure 4.5A.4	F	9.7.0	9.8.0	R5-120693
RP#55	RP-120192	0278	-	Update generic procedure 4.5A.5	F	9.7.0	9.8.0	R5-120694
RP#55	RP-120200	0280	-	Addition of the default value of Carrier Aggregation parameters	F	9.7.0	9.8.0	R5-120726
RP#55	RP-120179	0282	-	Correction of UE Release in UE capability	F	9.7.0	9.8.0	R5-120752
RP#55	RP-120179	0283	-	Introduction of generic test procedure for SRVCC call handover to UTRA	F	9.7.0	9.8.0	R5-120753
RP#55	RP-120179	0284	-	Correction to test procedure sequence 6.4.2.7A for check that UE is camped on E-UTRAN cell upon mobility from another RAT	F	9.7.0	9.8.0	R5-120754
RP#55	RP-120179	0285	-	Addition of Default UTRA RRC Connection Request message	F	9.7.0	9.8.0	R5-120756
RP#55	RP-120176	0286	-	TS 36.508: Band 23 test frequencies correction	F	9.7.0	9.8.0	R5-120800
RP#55	RP-120179	0287	-	Remove IPv4viaNAS_TestMode	F	9.7.0	9.8.0	R5-120908
RP#55	GP-120009	0288	-	Section 4.4.5 Common parameters for simulated GERAN cells – Correction to SI2 Quarter	F	9.7.0	9.8.0	GP-120009
RP#55	RP-120203	0279	-	Addition of two MBMS counting related messages in TS	F	9.8.0	10.0.0	R5-120723

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				36.508				
RP#55	RP-120199	0281	-	Introduction of new RRC default messages for Rel-10 and MDT	F	9.8.0	10.0.0	R5-120737
RP#56	RP-120644	0290	-	Correction of power ratio allocation on PDSCH for common logical channels	F	10.0.0	10.1.0	R5-121089
RP#56	RP-120644	0291	-	Correction to default mobilityParameters message contents	F	10.0.0	10.1.0	R5-121121
RP#56	RP-120644	0292	-	Corrections to default overhead messages for HRPD	F	10.0.0	10.1.0	R5-121122
RP#56	RP-120644	0293	-	Corrections to default overhead messages for 1xRTT	F	10.0.0	10.1.0	R5-121123
RP#56	RP-120644	0294	-	Update of CSFBParametersRequest/ResponseCDMA2000 process in Registration	F	10.0.0	10.1.0	R5-121276
RP#56	RP-120641	0295	-	RRM: Definition of parameters for simulated GSM cells	F	10.0.0	10.1.0	R5-121357
RP#56	RP-120662	0296	-	SIB Combination for CA test scenarios	F	10.0.0	10.1.0	R5-121383
RP#56	RP-120644	0297	-	Addition of default value of RSRQ Cell Reselection parameters	F	10.0.0	10.1.0	R5-121384
RP#56	RP-120641	0298	-	Test frequencies for inter-band cells in RRM tests	F	10.0.0	10.1.0	R5-121407
RP#56	RP-120644	0299	-	Update generic procedure 4.5A.6	F	10.0.0	10.1.0	R5-121413
RP#56	RP-120644	0300	-	Update generic procedure 4.5A.7	F	10.0.0	10.1.0	R5-121414
RP#56	RP-120644	0301	-	Update generic procedure 4.5A.3	F	10.0.0	10.1.0	R5-121439
RP#56	RP-120644	0302	-	Correction to RadioResourceConfigCommon-DEFAULT	F	10.0.0	10.1.0	R5-121447
RP#56	RP-120641	0304	-	Removing 5.2A.3 for State 2A	F	10.0.0	10.1.0	R5-121521
RP#56	RP-120641	0305	-	Addition of A-GNSS testing to Test frequencies clause 4.3.1	F	10.0.0	10.1.0	R5-121543
RP#56	RP-120641	0306	-	Ensuring all SS TX antennas are in use for whole test sequence	F	10.0.0	10.1.0	R5-121544
RP#56	RP-120641	0307	-	Connection diagram for RRM 3 cell TCs with static propagation	F	10.0.0	10.1.0	R5-121556
RP#56	RP-120644	0308	-	Correction of Physical Layer configurations tables	F	10.0.0	10.1.0	R5-121665
RP#56	RP-120644	0309	-	Update of default bandwidth configuration for E-UTRA FDD band 11 and 18	F	10.0.0	10.1.0	R5-121712
RP#56	RP-120644	0310	-	Correction to default SIB4 contents for CSG cells	F	10.0.0	10.1.0	R5-121733
RP#56	RP-120644	0311	-	Update of CDMA2000 Band Class data and addition of CDMA2000 Band Class 10	F	10.0.0	10.1.0	R5-121734
RP#56	RP-120644	0312	-	Update to Reference dedicated EPS bearer context #3	F	10.0.0	10.1.0	R5-121735
RP#56	RP-120644	0313	-	Add generic procedure MO video call	F	10.0.0	10.1.0	R5-121736
RP#56	RP-120644	0314	-	Add generic procedure MT video call	F	10.0.0	10.1.0	R5-121737
RP#56	RP-120644	0315	-	Clarifications to UICC requirements for LTE-C2K testing	F	10.0.0	10.1.0	R5-121809
RP#56	RP-120644	0316	-	Update UE capability information	F	10.0.0	10.1.0	R5-121847
RP#56	RP-120658	0317	-	Introduction of System information for PWS	F	10.0.0	10.1.0	R5-121854
RP#56	RP-120662	0318	-	Update of the default value of Carrier Aggregation parameters	F	10.0.0	10.1.0	R5-121856

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RP#56	RP-120644	0319	-	Correction to reference system configurations for dual mode scenarios	F	10.0.0	10.1.0	R5-121888
RP#56	RP-120667	0320	-	Adding operating band 26 to TS 36.508	F	10.0.0	10.1.0	R5-121905
RP#56	RP-120641	0321	-	Addition of State 3B-RF in 36.508	F	10.0.0	10.1.0	R5-121919
RP#56	RP-120641	0322	-	Correction to Tracking area updating procedure in 36.508	F	10.0.0	10.1.0	R5-121936
RP#56	RP-120662	0323	-	Addition of Test mode call procedure for CA test cases	F	10.0.0	10.1.0	R5-121982
RP#56	RP-120641	0303	-	Correction to Handover to UTRAN commands for UTRA RRC messages in 36.508	F	10.0.0	10.1.0	R5-122018
RP#56	RP-120662	0324	-	36.508 - Test frequencies for CA_1C and CA_40C	F	10.0.0	10.1.0	R5-122134
RP#56	RP-120649	0289	-	Removal of technical content in 36.508 v9.8.0 and substitution with pointer to the next Release	F	10.0.0	10.1.0	R5-121078
RP#56	RP-120644	0290	-	Correction of power ratio allocation on PDSCH for common logical channels	F	10.0.0	10.1.0	R5-121089
RP#56	RP-120644	0291	-	Correction to default mobilityParameters message contents	F	10.0.0	10.1.0	R5-121121
RP#56	RP-120644	0292	-	Corrections to default overhead messages for HRPD	F	10.0.0	10.1.0	R5-121122
RP#56	RP-120644	0293	-	Corrections to default overhead messages for 1xRTT	F	10.0.0	10.1.0	R5-121123
RP#56	RP-120644	0294	-	Update of CSFBParametersRequest/ResponseCDMA2000 process in Registration	F	10.0.0	10.1.0	R5-121276
RP#56	RP-120641	0295	-	RRM: Definition of parameters for simulated GSM cells	F	10.0.0	10.1.0	R5-121357
RP#56	RP-120662	0296	-	SIB Combination for CA test scenarios	F	10.0.0	10.1.0	R5-121383
RP#56	RP-120644	0297	-	Addition of default value of RSRQ Cell Reselection parameters	F	10.0.0	10.1.0	R5-121384
RP#56	RP-120641	0298	-	Test frequencies for inter-band cells in RRM tests	F	10.0.0	10.1.0	R5-121407
RP#56	RP-120644	0299	-	Update generic procedure 4.5A.6	F	10.0.0	10.1.0	R5-121413
RP#56	RP-120644	0300	-	Update generic procedure 4.5A.7	F	10.0.0	10.1.0	R5-121414
RP#56	RP-120644	0301	-	Update generic procedure 4.5A.3	F	10.0.0	10.1.0	R5-121439
RP#56	RP-120644	0302	-	Correction to RadioResourceConfigCommon-DEFAULT	F	10.0.0	10.1.0	R5-121447
RP#56	RP-120641	0304	-	Removing 5.2A.3 for State 2A	F	10.0.0	10.1.0	R5-121521
RP#56	RP-120641	0305	-	Addition of A-GNSS testing to Test frequencies clause 4.3.1	F	10.0.0	10.1.0	R5-121543
RP#56	RP-120641	0306	-	Ensuring all SS TX antennas are in use for whole test sequence	F	10.0.0	10.1.0	R5-121544
RP#56	RP-120641	0307	-	Connection diagram for RRM 3 cell TCs with static propagation	F	10.0.0	10.1.0	R5-121556
RP#56	RP-120644	0308	-	Correction of Physical Layer configurations tables	F	10.0.0	10.1.0	R5-121665
RP#56	RP-120644	0309	-	Update of default bandwidth configuration for E-UTRA FDD band 11 and 18	F	10.0.0	10.1.0	R5-121712
RP#56	RP-120644	0310	-	Correction to default SIB4 contents for CSG cells	F	10.0.0	10.1.0	R5-121733
RP#56	RP-120644	0311	-	Update of CDMA2000 Band Class data and addition of CDMA2000 Band Class 10	F	10.0.0	10.1.0	R5-121734

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RP#56	RP-120644	0312	-	Update to Reference dedicated EPS bearer context #3	F	10.0.0	10.1.0	R5-121735
RP#56	RP-120644	0313	-	Add generic procedure MO video call	F	10.0.0	10.1.0	R5-121736
RP#56	RP-120644	0314	-	Add generic procedure MT video call	F	10.0.0	10.1.0	R5-121737
RP#56	RP-120644	0315	-	Clarifications to UICC requirements for LTE-C2K testing	F	10.0.0	10.1.0	R5-121809
RP#56	RP-120644	0316	-	Update UE capability information	F	10.0.0	10.1.0	R5-121847
RP#56	RP-120658	0317	-	Introduction of System information for PWS	F	10.0.0	10.1.0	R5-121854
RP#56	RP-120662	0318	-	Update of the default value of Carrier Aggregation parameters	F	10.0.0	10.1.0	R5-121856
RP#56	RP-120644	0319	-	Correction to reference system configurations for dual mode scenarios	F	10.0.0	10.1.0	R5-121888
RP#56	RP-120667	0320	-	Adding operating band 26 to TS 36.508	F	10.0.0	10.1.0	R5-121905
RP#56	RP-120641	0321	-	Addition of State 3B-RF in 36.508	F	10.0.0	10.1.0	R5-121919
RP#56	RP-120641	0322	-	Correction to Tracking area updating procedure in 36.508	F	10.0.0	10.1.0	R5-121936
RP#56	RP-120662	0323	-	Addition of Test mode call procedure for CA test cases	F	10.0.0	10.1.0	R5-121982
RP#56	RP-120641	0303	-	Correction to Handover to UTRAN commands for UTRA RRC messages in 36.508	F	10.0.0	10.1.0	R5-122018
RP#56	RP-120662	0324	-	36.508 - Test frequencies for CA_1C and CA_40C	F	10.0.0	10.1.0	R5-122134
RP#57	RP-121098	0325	-	Correction to default message content of UTRA NAS attach accept message	F	10.1.0	10.2.0	R5-123114
RP#57	RP-121098	0326	-	Correction default message content for Tracking Area Update Request message	F	10.1.0	10.2.0	R5-123117
RP#57	RP-121095	0327	-	RF: Addition of messages and SIB combination informations for RF MBMS tests	F	10.1.0	10.2.0	R5-123211
RP#57	RP-121098	0328	-	Clarify requirements for ROHC	F	10.1.0	10.2.0	R5-123259
RP#57	RP-121098	0329	-	Updates to cl 6.x regarding use of MIMO	F	10.1.0	10.2.0	R5-123304
RP#57	RP-121113	0330	-	Update of default parameters for Carrier Aggregation	F	10.1.0	10.2.0	R5-123305
RP#57	RP-121098	0331	-	Addition of default value of Additional update parameters	F	10.1.0	10.2.0	R5-123306
RP#57	RP-121098	0332	-	Addition of default value of Explicit Signalling Indication parameters	F	10.1.0	10.2.0	R5-123307
RP#57	RP-121095	0333	-	Update of NeighCellConfig for RRM tests	F	10.1.0	10.2.0	R5-123328
RP#57	RP-121095	0334	-	Correction to HO commands for UTRAN TDD	F	10.1.0	10.2.0	R5-123329
RP#57	RP-121116	0335	-	Addition of new connection diagrams for UL-MIMO Testing	F	10.1.0	10.2.0	R5-123390
RP#57	RP-121098	0336	-	Correction to generic test procedure CS fallback to GERAN with redirection or CCO / MT call(DTM not supported)	F	10.1.0	10.2.0	R5-123629
RP#57	RP-121098	0337	-	Correction to RRC Connection Reconfiguration message during Handover from UTRA to EUTRA	F	10.1.0	10.2.0	R5-123630
RP#57	RP-121098	0338	-	Update to Reference dedicated EPS bearer context #3	F	10.1.0	10.2.0	R5-123632
RP#57	RP-121098	0339	-	Update generic procedure 4.5A.6	F	10.1.0	10.2.0	R5-123633
RP#57	RP-121098	0340	-	Update generic procedure 4.5A.7	F	10.1.0	10.2.0	R5-123634

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RP#57	RP-121098	0341	-	Update generic procedure 4.5A.8	F	10.1.0	10.2.0	R5-123635
RP#57	RP-121098	0342	-	Update generic procedure 4.5A.9	F	10.1.0	10.2.0	R5-123636
RP#57	RP-121098	0343	-	Update the default value of IE RadioResourceConfigCommon and IE additionalSpectrumEmission	F	10.1.0	10.2.0	R5-123712
RP#57	RP-121098	0344	-	Correction to test procedure 6.4.2.10	F	10.1.0	10.2.0	R5-123720
RP#57	RP-121098	0345	-	Corrections to CDMA2000 message sequences	F	10.1.0	10.2.0	R5-123728
RP#57	RP-121098	0346	-	Update of UE Capability Information	F	10.1.0	10.2.0	R5-123729
RP#57	RP-121098	0347	-	Update of Paging test procedure (for NAS test cases)	F	10.1.0	10.2.0	R5-123730
RP#57	RP-121098	0348	-	Addition of guard timer to the procedure for IMS signalling	F	10.1.0	10.2.0	R5-123731
RP#57	RP-121098	0349	-	Update to cl. 6.4.2.7A and 7.2B.1	F	10.1.0	10.2.0	R5-123734
RP#57	RP-121113	0351	-	Extension of cell configurations for Carrier Aggregation	F	10.1.0	10.2.0	R5-123751
RP#57	RP-121113	0352	-	Maximum number of cells simultaneously used in Carrier Aggregation test cases	F	10.1.0	10.2.0	R5-123752
RP#57	RP-121098	0353	-	Update of default MSPL and MLPL contents in Test UICC	F	10.1.0	10.2.0	R5-123767
RP#57	RP-121113	0354	-	Correction to the CA test state references	F	10.1.0	10.2.0	R5-123949
RP#58	RP-121681	0356	-	Addition of new connection diagram for UL-MIMO testing	F	10.2.0	10.3.0	R5-125107
RP#58	RP-121659	0357	-	Update to test procedure sequence 6.4.2.7A for check that UE is camped on E-UTRAN cell upon mobility from another RAT	F	10.2.0	10.3.0	R5-125116
RP#58	RP-121677	0358	-	Introduction of connection diagrams for CA tests	F	10.2.0	10.3.0	R5-125187
RP#58	RP-121685	0359	-	Addition of default message contents for ESM NOTIFICATION message	F	10.2.0	10.3.0	R5-125219
RP#58	RP-121659	0360	-	Modification of measurement configuration for UTRAN FDD SIG	F	10.2.0	10.3.0	R5-125283
RP#58	RP-121659	0361	-	Clarification of table 6.6.2-1	F	10.2.0	10.3.0	R5-125287
RP#58	RP-121656	0362	-	Addition of channel bandwidth tested for E-UTRA FDD band 19	F	10.2.0	10.3.0	R5-125303
RP#58	RP-121656	0363	-	Correction of circulator in connection diagrams	F	10.2.0	10.3.0	R5-125370
RP#58	RP-121656	0364	-	Correction to test channel numbers for Band 26	F	10.2.0	10.3.0	R5-125372
RP#58	RP-121656	0365	-	Update of Chw Bw Parameters for 1.4MHz and 3MHz	F	10.2.0	10.3.0	R5-125373
RP#58	RP-121659	0366	-	Update generic procedure 4.5A.7	F	10.2.0	10.3.0	R5-125530
RP#58	RP-121659	0367	-	Update of default ROUTING AREA UPDATE REQUEST message	F	10.2.0	10.3.0	R5-125545
RP#58	RP-121690	0368	-	CA_38: Addition of new test frequency for CA band 38	F	10.2.0	10.3.0	R5-125573
RP#58	RP-121689	0369	-	Addition of Band 28 definition	F	10.2.0	10.3.0	R5-125778
RP#58	RP-121685	0370	-	Add generic procedure for IMS MO speech and aSRVCC	F	10.2.0	10.3.0	R5-125792
RP#58	RP-121677	0371	-	Modification to state 3A-RF-CA initial conditions of clause 5.2A.4	F	10.2.0	10.3.0	R5-125800

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RP#58	RP-121688	0372	-	Introduction of Band 27 to TS 36.508	F	10.2.0	10.3.0	R5-125832
RP#58	RP-121677	0373	-	Update of RF Reference system configurations in 36.508	F	10.2.0	10.3.0	R5-125933
RP#58	RP-121659	0374	-	Using not null integrity protection and ciphering algorithms by default	F	10.2.0	10.3.0	R5-126020
RP#58	RP-121677	0375	-	Introducing default channel bandwidth for CA signalling testing	F	10.2.0	10.3.0	R5-126053
RP#59	RP-130156	0377	-	Addition of new connection diagram for UL-MIMO testing	F	10.3.0	10.4.0	R5-130136
RP#59	RP-130145	0378	-	AWGN Level uncertainty for Signalling test cases	F	10.3.0	10.4.0	R5-130201
RP#59	RP-130144	0379	-	Correction to CDMA2000Parameters message contents	F	10.3.0	10.4.0	R5-130202
RP#59	RP-130167	0380	-	Addition of SCell configuration type	F	10.3.0	10.4.0	R5-130311
RP#59	RP-130145	0382	-	Addition of default message contents of measurement information elements for event A4 and A5 measurement test cases	F	10.3.0	10.4.0	R5-130363
RP#59	RP-130144	0383	-	Correction to ncc-Permitted value to TS 36.508	F	10.3.0	10.4.0	R5-130453
RP#59	RP-130167	0384	-	Correction to EARFCN definition for CA_40C	F	10.3.0	10.4.0	R5-130477
RP#59	RP-130144	0385	-	Addition of combination A2+A11 and condition "UTRA Speech + Packet RAB Setup after Speech RAB Setup in CELL_DCH in Table 4.7B.1-1: HANDOVER TO UTRAN COMMAND	F	10.3.0	10.4.0	R5-130561
RP#59	RP-130144	0386	-	Update of Band 18 configuration	F	10.3.0	10.4.0	R5-130619
RP#59	RP-130144	0387	-	Update generic procedure 4.5.2	F	10.3.0	10.4.0	R5-130620
RP#59	RP-130144	0388	-	Update generic procedure 4.5.2A	F	10.3.0	10.4.0	R5-130621
RP#59	RP-130144	0389	-	Add generic procedure MO add video	F	10.3.0	10.4.0	R5-130622
RP#59	RP-130144	0390	-	Add generic procedure MT add video	F	10.3.0	10.4.0	R5-130623
RP#59	RP-130167	0391	-	Correction of test frequencies for CA signalling tests	F	10.3.0	10.4.0	R5-130692
RP#59	RP-130146	0395	-	Addition of simulated cell for E-UTRA dual mode multi cell network scenarios	F	10.3.0	10.4.0	R5-130709
RP#59	RP-130167	0397	-	Corrections to Annex A general considerations on connections for CA testing	F	10.3.0	10.4.0	R5-130900
RP#59	RP-130165	0376	-	Addition of test frequencies of CA_1A-19A and CA_1A-21A for CA signalling testing	F	10.4.0	11.0.0	R5-130087
RP#59	RP-130165	0381	-	Addition of test frequencies for CA_7C and CA_41C signalling test	F	10.4.0	11.0.0	R5-130343
RP#59	RP-130165	0392	-	Addition of test frequencies of CA_38, CA_3-7 and CA_7-20 for CA signalling test	F	10.4.0	11.0.0	R5-130694
RP#59	RP-130165	0393	-	Addition of test frequencies of CA_4A-5A and CA_4A-13A for CA signalling testing	F	10.4.0	11.0.0	R5-130695
RP#59	RP-130165	0394	-	Updates of 6.2.3.2 Test frequency for CA_1A-18A and 11A-18A	F	10.4.0	11.0.0	R5-130696
RP#59	RP-130164	0396	-	Adding operating band 44 to TS36.508	F	10.4.0	11.0.0	R5-130710
RP#59	RP-130165	0398	-	Addition of new test frequencies for CA band 7 and band 41	F	10.4.0	11.0.0	R5-130955
RP#60	RP-130609	0399	-	Update of CDMA2000 specification references: TS	F	10.4.0	11.1.0	R5-131067

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				36.508				
RP#60	RP-130609	0401	-	Editorial Fix Hysteris values for event B1&B2 ReportConfigInterRAT for GERAN	F	10.4.0	11.1.0	R5-131090
RP#60	RP-130622	0402	-	eICIC: Connection diagram for 2x2 antenna configuration scenarios	F	10.4.0	11.1.0	R5-131116
RP#60	RP-130636	0403	-	CA: Connection diagrams for RRM tests	F	10.4.0	11.1.0	R5-131117
RP#60	RP-130609	0404	-	Clarification to ncc-Permitted value interpretation in TS 36.508	F	10.4.0	11.1.0	R5-131322
RP#60	RP-130626	0405	-	Maintenance of Band 23 Requirements in TS 36.508	F	10.4.0	11.1.0	R5-131462
RP#60	RP-130626	0406	-	Adding IE T3412 extended value	F	10.4.0	11.1.0	R5-131474
RP#60	RP-130611	0408	-	Addition of exception for p-MaxGERAN of SIB7	F	10.4.0	11.1.0	R5-131583
RP#60	RP-130627	0409	-	Correction of test bandwidth for band 44	F	10.4.0	11.1.0	R5-131611
RP#60	RP-130631	0410	-	Addition of default parameters for ePDCCH	F	10.4.0	11.1.0	R5-131638
RP#60	RP-130630	0411	-	Addition of default parameters for CoMP	F	10.4.0	11.1.0	R5-131667
RP#60	RP-130628	0412	-	Addition of test frequencies for CA_2A-17A and CA_4A-17A for signalling testing	F	10.4.0	11.1.0	R5-131704
RP#60	RP-130611	0413	-	Editorial update of generic procedure 4.5.2	F	10.4.0	11.1.0	R5-131804
RP#60	RP-130611	0414	-	Editorial update of generic procedure 4.5.2A	F	10.4.0	11.1.0	R5-131805
RP#60	RP-130609	0415	-	Correction of DRB Logical Channel configuration	F	10.4.0	11.1.0	R5-131806
RP#60	RP-130611	0416	-	Add generic procedure for XCAP establishment	F	10.4.0	11.1.0	R5-131807
RP#60	RP-130611	0417	-	Corrections to default messages for eMBMS testing	F	10.4.0	11.1.0	R5-131809
RP#60	RP-130611	0418	-	Complete the default MEASUREMENT CONTROL MESSAGE for LCR_TDD_UTRAN	F	10.4.0	11.1.0	R5-131872
RP#60	RP-130636	0419	-	Carrier Aggregation: PCC and SCC Configuration Update	F	10.4.0	11.1.0	R5-131885
RP#60	RP-130609	0420	-	Update of UE Capability Information for Rel-11 UEs	F	10.4.0	11.1.0	R5-131888
RP#60	RP-130636	0421	-	Modifications to Common Section CA settings	F	10.4.0	11.1.0	R5-132002
RP#60	RP-130636	0422	-	Correction to test frequencies for CA signalling test	F	10.4.0	11.1.0	R5-132027
RP#60	RP-130629	0423	-	Modification of default contents for UEInformationRequest message	F	10.4.0	11.1.0	R5-132029
RP#60	RP-130628	0424	-	Addition of test frequencies of CA_4-12, CA_5-12 for CA signalling test	F	10.4.0	11.1.0	R5-132041
RP#60	RP-130611	0426	-	Addition of generic procedure for IMS call release	F	10.4.0	11.1.0	R5-132066
RP#60	RP-130609	0425	-	Update of CSIM and USIM EFs	F	10.4.0	11.1.0	R5-132082
RP#60	RP-130609	0427	-	Corrections to setup of dedicated EPS bearer contexts in IMS generic procedures	F	10.4.0	11.1.0	R5-132085
RP#60	RP-130636	0428	-	Modifications to RF Section CA settings	F	10.4.0	11.1.0	R5-132106
RP#60	RP-130610	0429	-	Correction to generic MO CSFB procedures	F	10.4.0	11.1.0	R5-131496
RP#60	-	-	-	Correction in history table from v11.0.0 to v11.1.0	-	11.0.0	11.1.1	
RP#61	RP-131115	0460	-	Addition of frequency f2 to band combinations CA_2A-17A and CA_4A-17A	-	11.1.1	11.2.0	R5-133094

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RP#61	RP-131115	0430	-	Addition of test frequencies of CA_3-8 for CA signaling test	-	11.1.1	11.2.0	R5-133113
RP#61	RP-131103	0431	-	Addition of option to use IP addresses from PCO IE in ESM INFORMATION RESPONSE	-	11.1.1	11.2.0	R5-133116
RP#61	RP-131101	0432	-	Update of CSIM Elementary File for EPRL	-	11.1.1	11.2.0	R5-133118
RP#61	RP-131103	0433	-	Correction to SystemInformationBlockType13 message (eMBMS testing)	-	11.1.1	11.2.0	R5-133159
RP#61	RP-131114	0434	-	Correction to default MBMS Counting messages	-	11.1.1	11.2.0	R5-133160
RP#61	RP-131111	0435	-	CA RRM: Phase rotator for intra-frequency static scenarios	-	11.1.1	11.2.0	R5-133224
RP#61	RP-131125	0436	-	Addition of Band 31 to 36.508	-	11.1.1	11.2.0	R5-133246
RP#61	RP-131111	0437	-	Test frequencies for RF intra-band contiguous CA tests	-	11.1.1	11.2.0	R5-133270
RP#61	RP-131115	0438	-	Update of PUCCH-ConfigDedicated-v1020-DEFAULT for TDD	-	11.1.1	11.2.0	R5-133275
RP#61	RP-131101	0439	-	Default Bandwidth Configuration for E-UTRA Band 2 RF Testing	-	11.1.1	11.2.0	R5-133306
RP#61	RP-131116	0440	-	Modification of default contents for UEInformationRequest message	-	11.1.1	11.2.0	R5-133321
RP#61	RP-131115	0441	-	Correction of reference to cell frequencies for CA signalling test cases	-	11.1.1	11.2.0	R5-133348
RP#61	RP-131101	0442	-	Correction to SID value	-	11.1.1	11.2.0	R5-133365
RP#61	RP-131101	0443	-	Update of generic procedure 4.5A.7	-	11.1.1	11.2.0	R5-133366
RP#61	RP-131101	0444	-	Update of generic procedure 4.5A.14	-	11.1.1	11.2.0	R5-133367
RP#61	RP-131111	0445	-	Update of Generic RRM procedures for CA	-	11.1.1	11.2.0	R5-133451
RP#61	RP-131113	0446	-	Default Message Contents for eCIC PCell Pattern	-	11.1.1	11.2.0	R5-133453
RP#61	RP-131103	0447	-	Corrections to the reference dedicated EPS bearer contexts	-	11.1.1	11.2.0	R5-133509
RP#61	RP-131101	0448	-	Extension of default contents of ACTIVATE DEFAULT EPS BEARER CONTEXT REQUESTS message	-	11.1.1	11.2.0	R5-133554
RP#61	RP-131101	0449	-	Corrections to allow ISIM or USIM to be used in test cases using IMS	-	11.1.1	11.2.0	R5-133582
RP#61	RP-131101	0450	-	Correction of Feature Group Indicators in Table 4.6.1-23	-	11.1.1	11.2.0	R5-133583
RP#61	RP-131101	0451	-	Correction to ROUTING AREA UPDATE ACCEPT default message contents	-	11.1.1	11.2.0	R5-133584
RP#61	RP-131115	0452	-	Addition of test frequencies of CA_3A-5A for CA signalling test	-	11.1.1	11.2.0	R5-133614
RP#61	RP-131115	0453	-	Extension of EUTRA CA test frequency configurations	-	11.1.1	11.2.0	R5-133615
RP#61	RP-131113	0454	-	Update of Measurement information element	-	11.1.1	11.2.0	R5-133645
RP#61	RP-131117	0455	-	Introduction of new default messages for eMBMS service continuity testing	-	11.1.1	11.2.0	R5-133661
RP#61	RP-131117	0456	-	Introduction of system information combinations for eMBMS service continuity testing	-	11.1.1	11.2.0	R5-133662
RP#61	RP-131118	0457	-	Addition of specific message formats for eDDA test cases.	-	11.1.1	11.2.0	R5-133674

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RP#61	RP-131101	0458	-	Missing agreed change in 36.508	-	11.1.1	11.2.0	R5-133704
RP#61	RP-131101	0459	-	Clean up of 36.508	-	11.1.1	11.2.0	R5-133714