

# I Test Suite Overview

#### **Test Suite Structure**

Suite Name : MACv520

Standards Ref :
PICS Ref :
PIXIT Ref :
Test Method(s) :
Comments :

Test Group Reference	Selection Ref	Test Group Objective	Page Nr
MAC/			535
MAC/MappingBetweenLoChAndTr Ch/			535
MAC/CorrectSelectionOfRACH_P arameters/			547
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Test Group Reference	Test Case Id	Selection Ref	Description	Page Nr
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Detailed Comments :				

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Detailed Comments :				

# II Declarations Part

Simple Type Definitions				
Type Name	Type Definition	Type Encoding	Comments	
CT_Field	BITSTRING[ 4 ]		The C/T field within a MAC PDU.  When a MAC PDU is transmitted, the TTCN constraint will determine if this field is present. The Direct Encoding encoder shall use the number of bits provided by the TTCN, even if the current SS logical channel to transport channel mapping indicates that the field should not be present.  When a MAC PDU is received, the Direct Encoding decoder shall determine if the field is present based on the current SS logical channel to	
RLC_Padding  TCTF	BITSTRING [032768]  BITSTRING[ 28 ]		transport channel mapping, and shall always use 4 bits for this field. Padding for RLC UM or AM PDU. Ref 3G TS 25.322 clause 9.2.2.10 Note that this type should ideally be an OCTETSTRING[14096], but to accomodate the failure cases where padding need not be Octet bound. The TCTF field may be either	
	BITSTRING[ 28 ]		2 or 8 bits for FDD, or 3 or 5 bits for TDD. Bitstrings of length 4, 6, or 7 are invalid for this type.  When a MAC PDU is transmitted, the TTCN constraint will determine if this field is present, and how many bits are used. The Direct Encoding encoder shall use the number of bits provided by the TTCN, even if the current SS logical channel to transport channel mapping indicates that the TCTF length should be different.  For example, the constraint may specify a 2 bit TCTF value for CCCH mapped to FACH, even though the	

	Simple Type Definitions				
Type Name	Type Definition	Type Encoding	Comments		
UE_Id	BITSTRING[ 1632 ]	Type Littouing	er shall use the given 2 bits for the TCTF field, followed directly by the next field in the PDU.  When a MAC PDU is received, the Direct Encoding decoder shall determine if the field is present, and the appropriate number of bits to use for the TCTF based on the current SS logical channel to transport channel mapping.  For example, for a MAC PDU received on a DCCH mapped to FACH in FDD, 2 bits will be used for the TCTF field.  Reference 3G TS 25.321 tables 9.2.1.1 to 9.2.1.5  The UE Id used within a MAC PDU. This field will be either 16 or 32 bits (if present), depending on the UE Id Type field in the same MAC PDU. Bit strings of length 17 to 31 are invalid for this field.  When a MAC PDU is transmitted, the TTCN constraint will determine if this field is present, and how many bits are used. The Direct Encoding encoder shall use the number of bits provided by the TTCN, even if the UE Id type field and / or current SS logical channel to transport channel mapping indicates otherwise.  When a MAC PDU is received, The Direct Encoding decoder shall determine the number of bits to be used for the UE Id field based on the current SS logical channel to transport channel mapping, and by inspecting the UE Id Type field within the same MAC PDU.		

Simple Type Definitions				
Type Name	Type Definition	Type Encoding	Comments	
UE_ldType	BITSTRING[2]		The type of UE Id used within a MAC PDU.	
			When a MAC PDU is transmitted, the TTCN constraint will determine if this field is present. The Direct Encoding encoder shall use the number of bits provided by the TTCN, even if the current SS logical channel to transport channel mapping indicates that the field	
			should not be present.  When a MAC PDU is received, the Direct Encoding decoder shall determine if the field is present based on the current SS logical channel to transport channel mapping, and shall always use 2 bits for this field.	
			Ref 3G TS 25.321 table 9.2.1.6	
MAC_UM_Data	BITSTRING[032767]		Data content for a RLC UM PDU with 7 or 15 bit length indicators. Ref 3G TS 25.322 clause 9.2.2.9, Even though the UM Data will be octet bound this is definied as BitString so as to accomadate the Failure test cases, with non statndard MAC header.	
AccessPtN	OCTETSTRING[1100]		This is the DNS name. This can take values as per 24.008, 10.5.6.1	
AddressInfo	OCTETSTRING[016]		Address information, this is the DNS server name. this will be converted into	
AM_Data	OCTETSTRING[04095]		Data content for a RLC AM PDU with 7 or 15 bit length indicators. Ref 3G TS 25.322 clause 9.2.2.9	
AM_SeqNum	BITSTRING[12]		Sequence number for an AM RLC PDU. Ref 3G TS 25.322 clause 9.2.2.3	
AuthRsp	BITSTRING [32]		Authentication Response Prarameter 3G TS 24.008 cl. 10.5.3.2	
B1	BITSTRING [1]		Generic type for 1 bit value	

Simple Type Definitions			
Type Name	Type Definition	Type Encoding	Comments
B128	BITSTRING [128]		Generic type for 128 bit value
B16	BITSTRING [16]		Generic type for 16 bits value
B18	BITSTRING [18]		Generic type for 18 bits value
B2	BITSTRING [2]		Generic type for 2 bits value
B20	BITSTRING [20]		Generic type for 20 bits value
B3	BITSTRING [3]		Generic type for 3 bits value
B4	BITSTRING [4]		Generic type for 4 bits value
B48	BITSTRING [48]		Generic type for 48 bit value
B5	BITSTRING [5]		Generic type for 5 bits value
B6	BITSTRING [6]		Generic type for 6 bits value
B7	BITSTRING [7]		Generic type for 7 bits value
B8	BITSTRING [8]		Generic type for 8 bits value
B80	BITSTRING [80]		Generic type for 80 bit value
Bitmap	OCTETSTRING[116]		The bitmap within a Bitmap super–field. Ref 3G TS 25.322 clause 9.2.2.11.5
BitmapLen	BITSTRING[ 4 ]		The length of a bitmap super field within a STATUS PDU. Ref 3G TS 25.322 clause 9.2.2.11.5
BitRate	OCTETSTRING[1]		Maximum bit rates supported
CauseValue	OCTETSTRING[1]		SM Cause Value
CLIR_Invocation	BITSTRING('10100010'B)		CLIR invocation 3G TS 24.008 cl. 10.5.4.11b
CLIR_Suppression	BITSTRING('10100001'B)		CLIR suppression 3G TS 24.008 cl. 10.5.4.11a
CtrlPDU_Type	BITSTRING[3]		PDU type for AM STATUS PDUs. Ref 3G TS 25.322 clause 9.2.2.2
CTSPerm	IEI8		CTSPerm 3G TS 24.008 cl. 10.5.3.10 value "10100010"B
CW_NumberPart	BITSTRING[ 3 ]		The number part (X1X2X3) of a codeword in an RLIST SUFI. Ref 3G TS 25.322 clause 9.2.2.11.6
DC_Field	BITSTRING[1]		Control / Data type indicator for AM RLC PDU. Ref 3G TS 25.322 clause 9.2.2.1
ExtBit	BITSTRING[1]		Used to indicate if the next octet will be data, or a length indicator and E bit. Ref 3G TS 25.322 clause 9.2.2.5
FollowOnProceed	IEI8		Follow On Proceed 3G TS 24.008 cl. 10.5.3.7 value "10100001"B
Fresh	BITSTRING[32]		

Simple Type Definitions			
Type Name	Type Definition	Type Encoding	Comments
GSM_CipheringKey	BITSTRING [64]		
HeaderExt	BITSTRING[2]		Used to indicate if the next octet will be data, or a length indicator and E bit. Ref 3G TS 25.322 clause 9.2.2.7
IEI4	B4		information element identifier, type 1
IEI8	B8		information element identifier,type 2-4
IntegrityKey	BITSTRING[128]		
KeySeq	B3		ciphering key sequence 3G TS 24008 cl. 10.5.1.2
Length	OCTETSTRING [1]		IE length
LenInd15	BITSTRING[15]		15 bit length indicator for AM or UM RLC PDU. Ref 3G TS 25.322 9.2.2.8
LenInd7	BITSTRING[7]		7 bit length indicator for AM or UM RLC PDU. Ref 3G TS 25.322 9.2.2.8
LIST_Len	BITSTRING[ 4 ]		The length of a LIST super field within a STATUS PDU. Ref 3G TS 25.322 clause 9.2.2.11.4
LogicChGERAN	IA5String		Logical channel (used for Interworking with GERAN)
MaxBitRate	OCTETSTRING[1]		Gaurented Bit rate
MaxSDU_Size	OCTETSTRING[1]		Maximum SDU size
MM_RAND	BITSTRING [128]		Authentication parameter RAND 3G TS 24.008 cl. 10.5.3.1
MRW_Len	BITSTRING[ 4 ]		The length of a MRW super field within a STATUS PDU. Ref 3G TS 25.322 clause 9.2.2.11.8
MsgType	B8		Message Type 3G TS 24.008 cl. 10.4. This type is also used by the BMC protocol.
N_Length	BITSTRING[ 4 ]		The N_Length field within an MRW superfield. Ref 3G TS 25.322 clause 9.2.2.11.8
O0_8	OCTETSTRING[08]		Generic type for 0 to 8 byte value
O3	OCTETSTRING [3]		Generic type for 3 byte value
Padding	HEXSTRING[28192]		Padding for RLC UM or AM PDU. Ref 3G TS 25.322 clause 9.2.2.10  Note that this type should ideally be an OCTETSTRING[14096], but since TTCN does not have a predefined operator for INT_TO_OCT, a HEXSTRING is used instead.

	Simple Type Definitions			
Type Name	Type Definition	Type Encoding	Comments	
PDP_TypeNo	OCTETSTRING[1]		PDP Type number, this will take values 00000001: PDP Type PPP 00000010: PDP Type IHOSS 01000001: IPv5 010101111: IPv6	
			This can take values as per 24.008, clause 10.5.6.4	
PollingBit	BITSTRING[1]		Polling bit used to request a status report from the receiveing RLC AM entitiy. Ref 3G TS 25.322 clause 9.2.2.4	
ProtocolDiscriminator	B4		Protocol Discriminator 3G TS 24.008 cl. 10.2	
ProtoIdContents	OCTETSTRING[1251]		3G TS 24.008 cl. 10.5.6.3	
RejCau	OCTETSTRING[1]		Reject Cause 3G TS 24.008 cl. 10.5.3.6	
RLIST_Len	BITSTRING[ 4 ]		The length of a RLIST super field within a STATUS PDU. Ref 3G TS 25.322 clause 9.2.2.11.6	
SapId	OCTETSTRING [1]		SAP Identifier ??? defined in several places	
			GERAN 04.06 and 3G TS 24.008 as bitstring[2] ?	
SkipIndicator	B4		Skip Indicator 3G TS 24.008 cl. 10.3.1	
SS_CN_DomainIdentity	INTEGER (01)		CN domain identity type in TTCN tabular format	
SS_RB_Identity	INTEGER (-3132)		RB identity type in TTCN tabular format	
SUFI_ListLi	BITSTRING[4]		Number of consecutive PDUs not correctly received following PDU with sequence number SNi. Used in List super field. Ref 3G TS 25.322 clause 9.2.2.11.4	
SUFI_SN_MRWi	BITSTRING[12]		SN_MRWi field to be used within move receiving window super fields. Ref 3G TS 25.322 clause 9.2.2.11.7	
SUFI_Type	BITSTRING[4]		The type of a super field within a STATUS PDU. Ref 3G TS 25.322 clause 9.2.2.11	
UE_TestLoopMode	OCTETSTRING[1]		UETestLoopMode 3G TS 34.109 cl. 6.2	
UM_SeqNum	BITSTRING[7]		Sequence number for an UM RLC PDU. Ref 3G TS 25.322 clause 9.2.2.3	

# Continued from previous page

Simple Type Definitions			
Type Name	Type Definition	Type Encoding	Comments
UTRAN_GERAN	IA5String ("UTRAN and GERAN", "UTRAN only")		
Detailed Comments :			

Type Name : CellInfoCfg

**Encoding Variation:** 

**Comments**: This structure contains relevant information describing a cell configuration as needed for basic test

Steps like ts\_CreateCell and ts\_IdleUpdated.

NOTE: this information is not related to any PDUs, IEs or ASPs

Element Name	Type Definition	Field Encoding	Comments
cellId	INTEGER		Cell Id
frequencyInfo	FrequencyInfo		Frequency information for current cell
attenuationLevel	INTEGER		Value of RF attenuator
priScrmCode	PrimaryScramblingCode		Primary Scrambling Code
powerpCPICH	DL_TxPower_PCPICH		Absolute Tx Power of (primary) CPICH
powerpSCH	DL_TxPower		Tx power level of primary SCH relative to CPICH
powersSCH	DL_TxPower		Tx power level of secondary SCH relative to CPICH
powerpCCPCH	DL_TxPower		Tx power level of primary CCPCH relative to CPICH
powersCCPCH	DL_TxPower		Tx power level of secondary CCPCH relative to CPICH
powersCCPCH1	DL_TxPower		Tx power level of secondary CCPCH1 relative to CPICH
timingsCCPCH1	INTEGER		Timing offset for secondary CCPCH1
powerAICH	AICH_PowerOffset		Tx power level of AICH relative to CPICH
powerPICH	PICH_PowerOffset		Tx power level of PICH relative to CPICH
cellTxPowerLevel	CellTxPowerLevel		Total cell power level (>= sum of all configured physical channels)
tCell	Tcell		Cell timing offset (in chips)
sfnOffset	INTEGER		SFN offset (in frames)
puncLimit	PuncturingLimit		Puncturing limit for PRACH
sf_PRACH	SF_PRACH		Spreading factor for PRACH
slotFormatsCCPCH1	SCCPCHSlotFormat		Slot format for secondary CCPCH1
mcc	HEXSTRING		MCC
mnc	HEXSTRING		MNC
lac	OCTETSTRING		LAC
rac	OCTETSTRING		RAC
attFlag	INTEGER		Attach flag (as broadcasted in BCCH)
nmo	OCTETSTRING		Network mode of operation
ura_Identity	BITSTRING		URA Identity (3GPP 25.331 clause 10.3.2.6)
t3212	OCTETSTRING		T3212 value

Structured Type Definition			
Element Name	Type Definition	Field Encoding	Comments
CRNTI	C_RNTI		cell radio network temporary identity assigned to the UE under test, this initial value is for ts_SS_CreateCellFACH. (from 34.123–1)
uRNTI	U_RNTI		srnc_Identity and s_RNTI
cellConfig	RB_ConfigType		Current configuration of the cell
dRX_CycleLength	DRX_CycleLengthStructure		To hold the 3 dRX_CycleLength
uL_ScramblingCode	UL_ScramblingCode		To hold the UL scrambling to be used in the cell
DL_DPCH_SHO	BOOLEAN		To be used in SHO (Active set update) test cases to indicate whether a DL DPCH is configured
UL_DPCH_SHO	BOOLEAN		To be used in SHO (Active set update) test cases to indicate whether a DL DPCH is configured
dl_DPCH_2ndScrCode	SecondaryScramblingCode		Secondary scrambling code for the DL DPCH

Structured	Туре	Definition

Type Name : DRX\_CycleLengthStructure

**Encoding Variation:** 

Comments : Structure taht contains CN DRX cycle length (CS and PS) and the UTRAN DRX Cycle length. This

type is to be used in the CellInfoCfg in order to keep all DRX values.

Element Name	Type Definition	Field Encoding	Comments
cN_CS_DRX_CycleLength	CN_DRX_CycleLengthCoef ficient		
cN_PS_DRX_CycleLength	CN_DRX_CycleLengthCoef ficient		
uTRAN_DRX_CycleLength	UTRAN_DRX_CycleLength Coefficient		
Detailed Comments :			

**Type Name**: AuthenticationFailureParameter

**Encoding Variation:** 

**Comments** : Authentication Failure Parameter (TLV)

3G TS 24.008 cl. 10.5.3.2.2

Element Nar	ne Type Definition	Field Encoding	Comments
iei	IEI8		'00100010'B for MM (22 hex) '00110000'B for GMM (30 hex)
iel	Length		M 1 octet
auts	BITSTRING[112]		AUTS, 14 octets

**Detailed Comments:** 

**Structured Type Definition** 

**Type Name**: AC\_ReferenceNumber

**Encoding Variation:** 

Comments : Cipher Algorithm

3GPP 24.008 / 10.5.5.19

Element Name	Type Definition	Field Encoding	Comments
value	B4		

**Detailed Comments:** 

**Structured Type Definition** 

Type Name : AUTN

**Encoding Variation:** 

**Comments**: Authentication Parameter AUTN

3G TS 24.008 cl. 10.5.3.1.1

Element Name	Type Definition	Field Encoding	Comments
iei	IEI8		'00100000'B
iel	Length		'10'O
aUTN	BITSTRING[128]		Authentication Parameter AUTN
Detailed Comments :			

Type Name : AccessPtName

**Encoding Variation:** 

**Comments** : 24.007, section 10.5.6.1

Element Name	Type Definition	Field Encoding	Comments
iei	IEI8		'00101000'B (28hex)
length	Length		
accessPtName	AccessPtN		Access point name value
			3–102 octets
Detailed Comments :			

Detailed Comments:

# **Structured Type Definition**

Type Name : AttachResult

**Encoding Variation:** 

**Comments** : Attach result

3GPP 24.008 / 10.5.5.1

Element Name	Type Definition	Field Encoding	Comments	
spare	B1			
result	B3		Attach result	

**Detailed Comments:** 

# **Structured Type Definition**

**Type Name** : AttachType

**Encoding Variation:** 

Comments : Attach type

3GPP 24.008 / 10.5.5.2

Element Name	Type Definition	Field Encoding	Comments
for	B1		Follow-on request
type	B3		Type of attach

Type Name : AuthRspExt

**Encoding Variation:** 

**Comments**: Authentication Response parameter (extension)

3G TS 24.008 cl. 10.5.3.2.1

Element Name	Type Definition	Field Encoding	Comments
iei	IEI8		'00100001'B for MM (21 hex) '00101001'B for GMM (29 hex)
iel	Length		
rES	BITSTRING[196]		Authentication Parameter RES
Data la LO			

Detailed Comments :

**Structured Type Definition** 

Type Name : AuthRsp\_tv

**Encoding Variation:** 

**Comments** : Authentication Response parameter (TV, 5 octets)

3G TS 24.008 cl. 10.5.3.2

Element Name	Type Definition	Field Encoding	Comments
iei	IEI8		'00100010'B (22 hex)
value	BITSTRING[32]		Authentication Parameter RES
Detailed Comments :			

**Structured Type Definition** 

Type Name : AuthenticationParamterRAND

**Encoding Variation:** 

Comments : Authentication Parameter RAND (TV, 17 octets)

3G TS 24.008 cl. 10.5.3.1

Element Name	Type Definition	Field Encoding	Comments
iei	IEI8		'00100001'B (21 hex)
randValue	BITSTRING[128]		Authentication Parameter RAND value

Type Name : Bcap **Encoding Variation:** 

: Bearer capability (CC information element) 3G TS 24.008 cl. 10.5.4.5 Comments

	Type Definition	Field Encoding	Comments
Element Name	Type Definition	Field Encoding	
iei	IEI8		information element identifier '00000100'B
iel	Length		length
extBit3	B1		extension bit
radioChRequi	B2		radio channel requirements ue->n, GSM, octet 3
codingStd	B1		coding standard, '0'B, octet 3
transferMode	B1		transfer mode octet 3
itc	В3		information transfer capability, octet 3
bcap3aEtc1	Bcap3aEtc		octet 3a etc no.1
bcap3aEtc2	Bcap3aEtc		octet 3a etc no.2
bcap3aEtc3	Bcap3aEtc		octet 3a etc no.3
bcap3aEtc4	Bcap3aEtc		octet 3a etc no.4
bcap3aEtc5	Bcap3aEtc		octet 3a etc no.5
bcap3aEtc6	Bcap3aEtc		octet 3a etc no.6
extBit4	B1		extension bit, octet 4
compress	B1		compression, ue->network, octet 4
structure	B2		structure, '0, 3', octet 4
duplexMode	B1		duplex mode, '1'B, octet 4
cfg	B1		configuration, '0'B, octet 4
nirr	B1		negotiation of intermediate rate requested, GSM, octet 4
establish	B1		establishment, '0'B, octet 4
extBit5	B1		extension bit, octet 5
accessId	B2		access identify, '00'B, octet 5
rateAdapt	B2		rate adaption, octet 5
sacp	B3		signalling access protocol, '1 – 6', octet 5
extBit5a	B1		extension bit, octet 5a
OherItc	B2		Other ITC, octet 5a
OtherRateAdapt	B2		Other Rate adaptation, octet5a
spare3	B3		spare bits – 3 bits
extBit5b	B1		extension bit, '1'B, octet 5b
rateAdaptHeader	B1		rate adaptation header, octet 5b
multiFrame	B1		Multi frame, octet 5b
mode	B1		Mode of operation, octet 5b
logLinkId	B1		logical link identifier negotiation, octet 5b

Structured Type Definition				
Element Name	Type Definition	Field Encoding	Comments	
assignorAssignee	B1		assignor/assignee, octet 5b	
inBandOutBand	B1		in band/out band negotiation, octet 5b	
spare1	B1		sapre bit – 1 bit	
extBit6	B1		extension bit, octet 6	
layer1ld	B2		Layter 1 identity, '01'B, octet 6	
userInfoLayer1	B4		user information Layer 1 protocol, '0000'B, octet 6	
syncAsync	B1		synchronous bit, octet 6	
extBit6a	B1		extension bit, octet 6a	
numStopBits	B1		number of stop bits, octet	
·			6a	
nego	B1		negotiation bit, '0'B, octet 6a	
numDataBits	B1		number of data bits, octet 6a	
userRate	B4		user rate, GSM, octet 6a	
extBit6b	B1		extension bit, octet 6b	
intermRate	B2		intermediate rate, octet 6b	
nicTx	B1		network independent clock on transmission, GSM, octet 6b	
nicRx	B1		network independent clock on reception, GSM, octet 6b	
parity	B3		parity information, octet 6b	
extBit6c	B1		extension bit, octet 6c	
connectElem	B2		connection element, octet 6c	
modemType	B5		modem type, octet 6c	
extBit6d	B1		extension bit, octet 6d	
OtherModemType	B2		Other Modem type, octet 6d	
FixedNtwUserRate	B5		Fixed Network user rate, octet 6d	
extBit6e	B1		extension bit, octet 6e	
acceptChCoding	B4		acceptable channel coding, octet 6e	
maxNumTrafficCh	В3		maximum number of traffic channel, octet 6e	
extBit6f	B1		extension bit, octet 6f	
ulMI	В3		User initiated modification indication, octet 6f	
wAIUR	B4		wanted air interface user rate, octet 6f	
extBit6g	B1		extension bit, octet 6g	
acceptChCodingExt	В3		acceptable channel coding extended, octet 6g	
asymInd	B2		asymmetry indication, octet	
spare2	B2		spare 2 bits , octet 6g	

#### Continued from previous page

Structured Type Definition					
Element Name	Type Definition	Field Encoding	Comments		
extBit7	B1		extension bit, octet 7		
layer2id	B2		L2 identity, octet 7		
userInfoLayer2	B5		user information L2 protocol, octet 7		
Detailed Comments :					

# **Structured Type Definition**

: Bcap3aEtc Type Name

**Encoding Variation:** 

Comments : Speech Versions preferences as supported by the EFR mobile – see 3G TS 24.008 cl.

10.5.4.5/octet 3a etc/"speech version indication"

Element Name	Type Definition	Field Encoding	Comments
extBit	B1		extension bit ('0'B)
coding	B1		Octet a1, Coding ('0'B)
spare2	B2		Octet a1, Spare bits ('00'B)
speechVersion	B4		Octet a1, Speech version indication
Detailed Comments:	•	•	•

**Detailed Comments:** 

#### **Structured Type Definition**

Type Name : CC\_Capabilities

**Encoding Variation:** 

Comments : Call Control Capabilities

3G TS 24.008 cl. 10.5.4.5a

Type Definition	Field Encoding	Comments
IEI8		information element identifier '00010101'B
Length		length
B4		maximum number o fudpported bearer
B2		spare bits
B1		PCP
B1		indication of supporting DTMF
B4		spare bits
B4		maximum number of speech bearers
	IEI8  Length B4  B2 B1 B1 B4	IEI8  Length B4  B2 B1 B1 B1

Type Name : CDPN

**Encoding Variation:** 

Comments : Called party BCD number (CC information element)

3G TS 24.008 cl. 10.5.4.7

Type Definition	Field Encoding	Comments
IEI8		information element identifier '01011110'B
Length		length
TypeOfNumPlan		type of number and numbering plan identification
OCTETSTRING[040]		BCD numbers
	IEI8  Length TypeOfNumPlan	IEI8  Length TypeOfNumPlan

# **Structured Type Definition**

Type Name : CDPS

**Encoding Variation:** 

Comments : Called party subaddress (CC information element)

3G TS cl. 10.5.4.8

information element
identifier '01101101'B
length
Subaddress

# **Structured Type Definition**

Type Name : CGPS

**Encoding Variation:** 

Comments : Calling party subaddress (CC information element)

3G TS 24.008 cl. 10.5.4.10

Element Name	Type Definition	Field Encoding	Comments
iei	IEI8		information element identifier '01011101'B
iel	Length		length
subadrs	Subadrs		Subaddress

Type Name : CellIndependantInfo

**Encoding Variation:** 

**Comments**: This structure contains relevant information independant from the cell

Element Name	Type Definition	Field Encoding	Comments
cs_cipheringStarted	BOOLEAN		Set to TRUE when ciphering is started, to be initiated in Security Steps and used in RAB establishment Steps
ps_cipheringStarted	BOOLEAN		Set to TRUE when ciphering is started, to be initiated in Security Steps and used in RAB establishment Steps
recentSecureDomain	CN_DomainIdentity		the domain on which security was recently started, and hence the SRB are ciphered and Integrit protected with this domain.
dL_CipherMode	CipheringModeCommand		To hold the DL cipher mode to be used in RAB Steps.
uL_CipherMode	RB_ActivationTimeInfoList		To hold the UL cipher mode to be used in RAB Steps.
cipheringAlgorithmCapability	BITSTRING		BITSTRING thats hold the ciphering algorithm capability supported by UE
integrityStarted	BOOLEAN		Set to TRUE when integrity is started
dL_Integrity	IntegrityProtectionModeInfo		To hold the DL integrity protection active during a test case
uL_Integrity	IntegrityProtActivationInfo		To hold the UL integrity protection active during a test case
dl_IntegrityCheckInfo	IntegrityCheckInfo		To hold the integrity information to be sent
start_CS	START_Value		To hold the START value for CS Domain
start_PS	START_Value		To hold the START value for PS Domain

# **Structured Type Definition**

Type Name : CellNotification

**Encoding Variation:** 

**Comments** : Cell notification

3GPP 24.008 / 10.5.5.21

Element Name	Type Definition	Field Encoding	Comments	
iei	IEI8		'10001100'B (8C hex)	
Data to annual				

Type Name : CiphAlgorithm

**Encoding Variation:** 

**Comments**: Cipher Algorithm

3GPP 24.008 / 10.5.5.3

Element Name	Type Definition	Field Encoding	Comments
spare1	B1		
algorithm	B3		

**Detailed Comments:** 

**Structured Type Definition** 

Type Name : CiphKeySeqNum

**Encoding Variation:** 

Comments : Ciphering Key Sequence Number

3G TS 24.008 cl. 10.5.1.2

Element Name	Type Definition	Field Encoding	Comments
spare1	B1		
keySeq	KeySeq		
Part 11 - 1 Occurrents			

**Detailed Comments:** 

# **Structured Type Definition**

Type Name : CiphKeySeqNum\_tv

**Encoding Variation:** 

**Comments**: Ciphering Key Sequence Number

3G TS 24.008 cl. 10.5.1.2

Element Name	Type Definition	Field Encoding	Comments	
iei	IEI4		'1000'B	
spare1	B1			
keySeq	KeySeq			

**Detailed Comments:** 

# **Structured Type Definition**

Type Name : Codec

**Encoding Variation:** 

Comments : Codec

3G TS 24.008 cl. 10.5.4.32

Element Name	Type Definition	Field Encoding	Comments
sysld	OCTETSTRING[1]		system identification
len	Length		length
bitMap1to8	BITSTRING[8]		codec bitmap bits 1-8
bitMap9to16	BITSTRING[8]		codec bitmap bits 9-16
Detailed Comments :			

Type Name : CodecList

**Encoding Variation:** 

Comments : Supported Codec List

3G TS 24.008 cl. 10.5.3.32

Element Name	Type Definition	Field Encoding	Comments
iei	IEI8		'01000000'B (40 hex)
iel	Length		length
codec1	Codec		Codec
codec2	Codec		Codec
codec3	Codec		Codec
codec4	Codec		Codec
codec5	Codec		Codec
Detailed Comments .			

**Detailed Comments:** 

**Structured Type Definition** 

Type Name : CodeWord

**Encoding Variation:** 

Comments : Code word within an RList super field. Ref 3G TS 25.322 clause 9.2.2.11.6

Element Name	Type Definition	Field Encoding	Comments
numberPart	CW_NumberPart		
statusInd	BITSTRING[ 1 ]		

**Detailed Comments:** 

**Structured Type Definition** 

Type Name : DRXparamter

**Encoding Variation:** 

**Comments** : DRX paramter

3GPP 24.008 / 10.5.5.6

Element Name	Type Definition	Field Encoding	Comments
splitPGcycleCode	B8		Split PG cycle code
cnDRXcoef	B4		CN specific DRX cycle length coefficient
splitOnCCCH	B1		Split on CCCCH
nonDRXtimer	B3		non-DRX timer

Type Name : DRXparamter\_tv

**Encoding Variation:** 

Comments : DRX paramter

3GPP 24.008 / 10.5.5.6

Element Name	Type Definition	Field Encoding	Comments
iei	IEI8		'00100111'B (hex 27)
splitPGcycleCode	B8		Split PG cycle code
cnDRXcoef	B4		CN specific DRX cycle length coefficient
splitOnCCCH	B1		Split on CCCCH
nonDRXtimer	В3		non-DRX timer
Detailed Comments :			

**Structured Type Definition** 

Type Name : DetachType

**Encoding Variation:** 

Comments : Detach type

3GPP 24.008 / 10.5.5.5

Element Name	Type Definition	Field Encoding	Comments
powOff	B1		
type	B3		

**Detailed Comments:** 

**Structured Type Definition** 

Type Name : EmergNum

**Encoding Variation:** 

Comments : Emergency Number

3G TS 24.008 cl. 10.5.3.13

Element Name	Type Definition	Field Encoding	Comments
len	Length		length
emergServCat	EmergServCat		Emergency Service Category
digits	OCTETSTRING[010]		BCD numbers
Detailed Comments :			

Type Name : EmergNumList

**Encoding Variation:** 

Comments : Emergency Number List

3G TS 24.008 cl. 10.5.3.13

Element Name	Type Definition	Field Encoding	Comments
iei	IEI8		'00110100'B (34 hex)
iel	Length		length
emergNum1	EmergNum		Emergency Number
emergNum2	EmergNum		Emergency Number
emergNum3	EmergNum		Emergency Number
emergNum4	EmergNum		Emergency Number
emergNum5	EmergNum		Emergency Number
Poteiled Comments	Emerginum		

**Detailed Comments:** 

**Structured Type Definition** 

Type Name : EmergServCat

**Encoding Variation:** 

: Emergency Service Category 3GPP 24.008 / 10.5.4.33 Comments

Element Name	Type Definition	Field Encoding	Comments	
spare	B3			
value	B5		Emergency Service Category value	
Detailed Comments :				

**Structured Type Definition** 

Type Name : Facility

**Encoding Variation:** 

: Facility information element 3G TS 24.008 cl. 10.5.4.15 Comments

Element Name	Type Definition	Field Encoding	Comments	
iei	IEI8		information element identifier '00011100'B	
iel	Length		length	
comps	OCTETSTRING		Component	
Detailed Comments :				

Type Name : ForceToStandby

**Encoding Variation:** 

**Comments** : Force to standby

3GPP 24.008 / 10.5.5.7

Element Name	Type Definition	Field Encoding	Comments
spare	B1		
value	B3		Force to standby value

**Detailed Comments:** 

**Structured Type Definition** 

Type Name : GMM\_AUTN

**Encoding Variation:** 

**Comments**: Authentication Parameter AUTN- to be used in GMM constraints

3G TS 24.008 cl. 10.5.3.1.1

Element Name	Type Definition	Field Encoding	Comments
iei	IEI8		'00101000'B
iel	Length		'10'O
aUTN	BITSTRING[128]		Authentication Parameter AUTN

**Detailed Comments:** 

**Structured Type Definition** 

Type Name : GMM\_Cause

**Encoding Variation:** 

Comments : GMM cause

3GPP 24.008 / 10.5.5.14

Element Name	Type Definition	Field Encoding	Comments
iei	IEI8		'00100101'B (25 hex)
value	B8		Cause value

Type Name : GMM\_MS\_Identity

**Encoding Variation:** 

Comments : Mobile Identity

3G TS 24.008 cl. 10.5.1.4

Element Name	Type Definition	Field Encoding	Comments
iei	IEI8		'00100011'B
iel	Length		
iDigit1	B4		1st identitity digit
oddEvenInd	B1		Odd/even indicator
typeOfld	В3		Type of identity
otherDigits	OCTETSTRING[08]		Other identity digits

**Detailed Comments**: Maximum number of digits is 16 (IMEISV). Filler may be used.

# **Structured Type Definition**

Type Name : GMM\_MS\_IdentityPTMSI

**Encoding Variation:** 

Comments : Mobile Identity

3G TS 24.008 cl. 10.5.1.4

Element Name	Type Definition	Field Encoding	Comments
iei	IEI8		'00011000'B
iel	Length		
iDigit1	B4		1st identitity digit
oddEvenInd	B1		Odd/even indicator
typeOfId	B3		Type of identity
otherDigits	OCTETSTRING[08]		Other identity digits

Detailed Comments: Maximum number of digits is 16 (IMEISV). Filler may be used.

**Structured Type Definition** 

Type Name : GPRS\_Timer

**Encoding Variation:** 

Comments : GPRS timer

3GPP 24.008 / 10.5.7.3

Element Name	Type Definition	Field Encoding	Comments
iei	IEI8		00010111'B (17 hex)
unit	B3		Unit
value	B5		Timer value

Type Name : GPRS\_Timer2

**Encoding Variation:** 

Comments : GPRS timer

3GPP 24.008 / 10.5.7.4

Element Name	Type Definition	Field Encoding	Comments
iei	IEI8		'00101010'B (2A hex)
iel	Length		length
unit	B3		Unit
value	B5		Timer value
Detailed Comments :			

#### **Structured Type Definition**

**Type Name**: GPRS\_Timer\_v

**Encoding Variation:** 

Comments : GPRS timer

3GPP 24.008 / 10.5.7.3

Element Name	Type Definition	Field Encoding	Comments	
unit	B3		Unit	
value	B5		Timer value	
Datailed Comments :				

Detailed Comments:

# **Structured Type Definition**

Type Name : HLC Encoding Variation :

Comments : High layer compatibility (CC information element)

3G TS 24.008 cl. 10.5.4.16, ITU Q.931

<b>Element Name</b>	Type Definition	Field Encoding	Comments
iei	IEI8		information element identifier '01111101'B
iel	Length		length
extBit3	B1		extension bit ('1'B)
codingStd	B2		coding standard
interpretation	B3		interpretation
presentModeProtocolProfile	B2		presentation method of protocol profile
extBit4	B1		extension bit, octet 4
hlcld	B7		high layer characteristics identification
extBit4a	B1		extension bit, '1'B, octet 4a
exteHlcld	B7		extended high layer characteristics identification
Detailed Comments :	•	•	•

Type Name : IMEISVRequest

**Encoding Variation:** 

Comments : IMEISV Request

3GPP 24.008 / 10.5.5.10

Element Name	Type Definition	Field Encoding	Comments
spare1	B1		
value	B3		

**Detailed Comments:** 

**Structured Type Definition** 

Type Name : LB\_SetupRB\_IE

**Encoding Variation:** 

Comments : LB Setup RAB Subflow

3G TS 34.109 cl. 6.2

Element Name	Type Definition	Field Encoding	Comments
rLC_SDU_Size	BITSTRING [16]		RLC SDU size
spare_2	BITSTRING [3]		
rB_Identity	BITSTRING[5]		
	_	_	•

Type Name : LLC **Encoding Variation:** 

Comments

: Low layer compatibility (CC information element) 3G TS 24.008 cl. 10.5.4.18 and ETS DE/SPS-5034-1 (update of ETS 300 102-1)

Element Name	Type Definition	Field Encoding	Comments
iei	IEI8		information element identifier '01111100'B
iel	Length		length
extBit3	B1		extension bit
codingStd	B2		coding standard, octet 3
itc	B5		information transfer capability, octet 3
extBit3a	B1		extension bit, octet 3a
negoInd	B1		negotiation indicator, octet 3a
spare6	B6		6 spare bits
extBit4	B1		extension bit, octet 4
transferMode	B2		transfer mode
infoTransferRate	B5		information transfer rate, octet 4
extBit4_1	B1		extension bit, octet 4.1
rateMultiplier	B7		rate multiplier, octet 4.1
extBit5	B1		extension bit, octet 5
layer1ld	B2		Layter 1 identity, '01'B, octet 5
userInfoLayer1	B5		user information Layer 1 protocol, '0000'B, octet 5
extBit5a	B1		extension bit, octet 5a
syncAsync	B1		synchronous bit, octet 5a
nego	B1		negotiation bit, octet 5a
userRate	B5		user rate, octet 5a
extBit5b1	B1		extension bit, octet 5b1
intermRate	B2		intermediate rate, octet 5b1
nicTx	B1		network independent clock on transmission, octet 5b1
nicRx	B1		network independent clock on reception, octet 5b1
flowCtrlTx	B1		flow control on transmission, octet 5b1
flowCtrlRx	B1		flow control on reception, octet 5b1
spare1	B1		1 spare bit, '0'B, octet 5b1
extBit5b2	B1		extension bit, octet 5b2
rateAdaptHeader	B1		rate adaptation header, octet 5b2
multiFrame	B1		Multi frame, octet 5b2
mode	B1		Mode of operation, octet 5b2
logLinkld	B1		logical link identifier negotiation, octet 5b2
assignorAssignee	B1		assignor/assignee, octet 5b2

	Structured Type Definition				
Element Name	Type Definition	Field Encoding	Comments		
inBandOutBand	B1		in band/out band negotiation, octet 5b2		
spare1_5b2	B1		sapre bit – 1 bit, octet 5b2		
extBit5c	B1		extension bit, octet 5c		
numStopBits	B2		number of stop bits, octet 5c		
numDataBits	B2		number of data bits, octet 5c		
parity	B3		parity, octet 5c		
extBit5d	B1		extension bit, octet 5d		
duplexMode	B1		duplex mode, octet 5d		
modemType	B6		modem type, octet 5d		
extBit6	B1		extension bit, octet 6		
layer2id	B2		L2 identity, octet 6		
userInfoLayer2	B5		user information L2 protocol, octet 6		
extBit6a1	B1		extension bit, octet 6a1		
modeLayer2	B2		mode, octet 6a1		
spare3	B3		spare bits , '000'B, octet 6a1		
q933	B2		Q.933 use, octet 6a1		
extBit6a2	B1		extension bit, octet 6a2		
userSpecifLayer2	B7		user specified layer 2 protocol information, octet 6a2		
extBit6b	B1		extension bit, octet 6b		
windowSize	B7		window size, octet 6b		
extBit7	B1		extension bit, octet 7		
layer3id	B2		L3 identity, octet 7		
userInfoLayer3	B5		user information L3 protocol, octet 7		
extBit7a1	B1		extension bit, octet 7a2		
OptionUserSpecifLayer3	B7		user specified layer 3 protocol information, octet 7a2		
extBit7a2	B1		extension bit, '1'B, octet 7a2		
modeLayer3	B2		mode, octet 7a2		
spare5	B5		spare bits , '00000'B, octet 7a2		
extb7b	B1		extension bit, octet 7b		
spare3_7b	B3		spare bits , '000'B, octet 7b		
defaultPacketSize	B4		default packet size, octet 7b		
extBit7c	B1		extension bit, '1'B, octet 7c		
packetWindowSize	В7		packet window size, octet 7bc		
extBit7a3	B1		extension bit, octet 7a3		
spare3_7a3	В3		3 spare bits		

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Structured Type Definition			
Element Name	Type Definition	Field Encoding	Comments
addLayer3ProtocolInfo	B4		additional layer 3 protocol information (most significant bits), octet 7a3
extBit7a4	B1		extension bit, octet 7a4
spare3_7a4	B3		3 spare bits
addLayer3ProtocolInfoL	B4		additional layer 3 protocol information (least significant bits), octet 7a4
Detailed Comments :			

**Structured Type Definition** 

Type Name : LLC\_SAPI\_v

**Encoding Variation:** 

**Comments** : 24.007, clause 10.5.6.9

Element Name	Type Definition	Field Encoding	Comments
spare	B4		
ILC_SAPI_Value	B4		LLC SAPI Value

**Detailed Comments:** 

# **Structured Type Definition**

Type Name : LenInd15AndE\_Bit

**Encoding Variation:** 

**Comments**: This type is used to represent a 15 bit length indicator and an extension bit, used in both AMD and

UMD PDUs. Ref 3G TS 25.322 clauses 9.2.1.3 and 9.2.1.4.

Element Name	Type Definition	Field Encoding	Comments
lenInd	LenInd15		
extBit	ExtBit		
Day in LO			

**Detailed Comments:** 

# **Structured Type Definition**

Type Name : LenInd7AndE\_Bit

**Encoding Variation:** 

**Comments**: This type is used to represent a 7 bit length indicator and an extension bit, used in both AMD and

UMD PDUs. Ref 3G TS 25.322 clauses 9.2.1.3 and 9.2.1.4.

Element Name	Type Definition	Field Encoding	Comments
lenInd	LenInd7		
extBit	ExtBit		
Datailed Comments :			

Type Name : LenInds

**Encoding Variation:** 

**Comments**: This type is used to represent a Length Indicator group.

Note that this type definitions supports up to 5 seven bit length indicators, or up to 3 fifteen bit length indicators. If any test cases require more LIs than this, the test suite will need to be updated.

LI groups using this type definition shall never contain both 15 and 7 bit length indicators.

When transmitting an AMD PDU, the TTCN author is responsible for ensuring that the PDU either:

- 1. Contains no length indicators, by using c\_LIsEmpty, and setting the headerExt field in the AMD\_PDU constraint to tsc\_HE\_Data.
- 2. Contains 1 to 5 seven bit length indicators, by using one of the constraints c\_Lls1\_7BitLl, c\_Lls2\_7BitLls, c\_Lls3\_7BitLls, or c\_Lls5\_7BitLls and setting the headerExt field in the AMD\_PDU to tsc\_HE\_Ll\_AndE\_Bit.Note that use of these constraints ensures that that the fields lenInd15\_1, lenInd15\_2, and lenInd15\_3 are omitted.
- 3. Contains 1 to 3 fifteen bit length indicators, by using one of the constraints c\_Lls1\_15BitLl, c\_Lls2\_15BitLls, or c\_Lls3\_15BitLls, and setting the headerExt field in the AMD\_PDU to tsc\_HE\_Ll\_AndE\_Bit. Note that use of these constraints ensures that that the fields lenInd7\_1, lenInd7\_2, and lenInd7\_3 are omitted.

When receiving an AMD PDU, the SS is responsible for the following:

- 1. Examining the headerExt field in the AMD PDU header to decide if any length indicators are present.
- 2. Deciding whether 7 or 15 bit length indicators are being used for received PDUs based on the currently configured RLC PDU size.
- 3. Examining the E-bit following each LI that is present to determine if any further LIs are present. If more than 3 resp. 5 LIs are present, a test case error shall be reported, and the test suite will need to be updated to support more than 3 resp. 5 length indicators.
- 4. Passing the received LI group back to the TTCN in such a way that it will match one of the following constraints:
- c\_LIsEmpty
- c\_LIs1\_7BitLI
- c\_Lls2\_7BitLls
- c\_Lls3\_7BitLls
- c\_LIs5\_7BitLIs
- c\_LIs1\_15BitLI c\_LIs2\_15BitLIs
- c\_Lls3\_15BitLls

Reference 3G TS 25.322 clause 9.2.2.8

Element Name	Type Definition	Field Encoding	Comments
lenInd7_1	LenInd7AndE_Bit		
lenInd7_2	LenInd7AndE_Bit		
lenInd7_3	LenInd7AndE_Bit		
lenInd7_4	LenInd7AndE_Bit		
lenInd7_5	LenInd7AndE_Bit		
lenInd15_1	LenInd15AndE_Bit		

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Structured Type Definition			
Element Name	Type Definition	Field Encoding	Comments
lenInd15_2	LenInd15AndE_Bit		
lenInd15_3	LenInd15AndE_Bit		
Detailed Comments :			

**Structured Type Definition** 

Type Name : LocAreald\_v

**Encoding Variation:** 

Comments : Location Area Identification Value

3G TS 24.008 cl. 10.5.1.3

Element Name	Type Definition	Field Encoding	Comments
plmn	OCTETSTRING[3]		MCC + MNC 3 digits each
lac	OCTETSTRING[2]		LAC

**Detailed Comments:** 

**Structured Type Definition** 

Type Name : LocUpdType

**Encoding Variation:** 

Comments : Location Updating Type

3G TS 24.008 cl. 10.5.3.5

Element Name	Type Definition	Field Encoding	Comments	
fOR	B1		Follow-On Request	
spare1	B1			
IUT	B2		Location Updating Type	
Detailed Comments :				

**Structured Type Definition** 

Type Name : MM\_MS\_Identity

**Encoding Variation:** 

Comments : Mobile Identity

3G TS 24.008 cl. 10.5.1.4

Element Name	Type Definition	Field Encoding	Comments
iei	IEI8		'00010111'B
iel	Length		
iDigit1	B4		1st identitity digit
oddEvenInd	B1		Odd/even indicator
typeOfld	B3		Type of identity
otherDigits	OCTETSTRING[08]		Other identity digits

Detailed Comments: Maximum number of digits is 16 (IMEISV). Filler may be used.

Type Name : MSRadioAccessCap\_lv

**Encoding Variation:** 

Comments : MS radio access capability

3GPP 24.008 / 10.5.5.12a

Element Name	Type Definition	Field Encoding	Comments
iel value	Length OCTETSTRING[050]		MC radio aggrega conshility
value	OCTETSTRING[050]		MS radio access capability value (CSN.1 coding)
Detailed Comments :			

**Structured Type Definition** 

Type Name : MS\_Clsmk1

**Encoding Variation:** 

Comments : Mobile Station Classmark 1

3G TS 24.008 cl. 10.5.1.5

Element Name	Type Definition	Field Encoding	Comments
spare1	B1		Spare bit
revLvl	B2		Revision Level
eSIND	B1		Early Sending Indication
a5_1	B1		Algorithm A5/1 supported
rFPwrCap	B3		RF Power Capability
Detailed Comments .			

Type Name : MS\_Clsmk2

**Encoding Variation:** 

: Mobile Station Classmark 2 3G TS 24.008 cl. 10.5.1.6 Comments

Element Name	Type Definition	Field Encoding	Comments
iei	IEI8		
iel	Length		
spare1_1	B1		Spare bit
revLvI	B2		Revision Level
eSIND	B1		Early Sending Indication
a5_1	B1		Algorithm A5/1 Support
rFPwrCap	B3		RF Power Capability
spare1_2	B1		Spare bit
pSCap	B1		Pseudo Synchronisation Capability
sSSI	B2		SS Screen Indicator
sMCap	B1		Short Message Capability
vBS	B1		VBS Capability
vGCS	B1		VGCS Capability
fC	B1		Frequency Capability
cM3	B1		Classmark 3 Indicator
spare1_3	B1		Spare bit
ICSVA	B1		LCS VA Capability
uCS2	B1		UCS2 Encoding Support
soLSA	B1		SoLSA Support
cMSP	B1		CM Service Prompt Support
a5_3	B1		Algorithm A5/3 Support
a5_2	B1		Algorithm A5/2 Support

Type Name : MS\_Clsmk2\_lv

**Encoding Variation:** 

Comments : Mobile Station Classmark 2

3G TS 24.008 cl. 10.5.1.6

Element Name	Type Definition	Field Encoding	Comments
iel	Length		
spare1_1	B1		Spare bit
revLvl	B2		Revision Level
eSIND	B1		Early Sending Indication
a5_1	B1		Algorithm A5/1 Support
rFPwrCap	B3		RF Power Capability
spare1_2	B1		Spare bit
pSCap	B1		Pseudo Synchronisation Capability
sSSI	B2		SS Screen Indicator
sMCap	B1		Short Message Capability
vBS	B1		VBS Capability
vGCS	B1		VGCS Capability
fC	B1		Frequency Capability
cM3	B1		Classmark 3 Indicator
spare1_3	B1		Spare bit
ICSVA	B1		LCS VA Capability
uCS2	B1		UCS2 Encoding Support
soLSA	B1		SoLSA Support
cMSP	B1		CM Service Prompt Support
a5_3	B1		Algorithm A5/3 Support
a5_2	B1		Algorithm A5/2 Support
Data'lla I O			

Detailed Comments :

# **Structured Type Definition**

Type Name : MS\_Identity\_lv

**Encoding Variation:** 

Comments : Mobile Identity LV

3G TS 24.008 cl. 10.5.1.4

Element Name	Type Definition	Field Encoding	Comments	
iel	Length			
iDigit1	B4		1st identitity digit	
oddEvenInd	B1		Odd/even indicator	
typeOfld	B3		Type of identity	
otherDigits	OCTETSTRING[08]		Other identity digits	
Detailed Comments : Maximum number of digits is 16 (IMEISV). Filler may be used				

**Detailed Comments**: Maximum number of digits is 16 (IMEISV). Filler may be used.

Type Name : MS\_NetworkCap\_lv

**Encoding Variation:** 

Comments : MS network capabilityt LV

3GPP 24.008 / 10.5.5.12

Element Name	Type Definition	Field Encoding	Comments
iel value	Length OCTETSTRING[08]		MS network capability value (CSN.1 coding)

**Detailed Comments:** 

**Structured Type Definition** 

Type Name : MS\_NetworkCap\_tlv

**Encoding Variation:** 

Comments : MS network capabilityt T LV

3GPP 24.008 / 10.5.5.12

Element Name	Type Definition	Field Encoding	Comments
iei	IEI8		'00110001'B (hex 31)
iel	Length		
value	OCTETSTRING[08]		MS network capability value (CSN.1 coding)
Detailed Comments:			

**Structured Type Definition** 

Type Name : NSAPI\_v

**Encoding Variation:** 

Comments : 24.007, clause 10.5.6.2

Element Name	Type Definition	Field Encoding	Comments	
spare	B4			
nSAPI_Value	B4		NSAPI value	
Detailed Comments :				

Type Name : NtwFeatureSupport\_tv

**Encoding Variation:** 

**Comments**: Network Feature Support

3G TS 24.008 cl. 10.5.5.23

Element Name	Type Definition	Field Encoding	Comments
iei	IEI4		'1011'B (B- hex)
ICS_MOLR	B1		
spare3	B3		

**Detailed Comments:** 

# **Structured Type Definition**

Type Name : PDP\_ContextStatus

**Encoding Variation:** 

Comments : PDP\_ContextStatus

3G TS 24.008 cl. 10.5.7.1

Element Name	Type Definition	Field Encoding	Comments
iei	IEI8		'00110010'B
iel	Length		
nSAPI	BITSTRING[16]		

**Detailed Comments:** 

# **Structured Type Definition**

Type Name : PLMN\_List

**Encoding Variation:** 

Comments : PLMN list

3G TS 24.008 cl. 10.5.1.13

Element Name	Type Definition	Field Encoding	Comments
iei	IEI8		'01001010"B
iel	Length		
plmn1	OCTETSTRING[3]		PLMN 1
plmn2	OCTETSTRING[3]		PLMN 2
plmn3	OCTETSTRING[3]		PLMN 3
plmn4	OCTETSTRING[3]		PLMN 4
plmn5	OCTETSTRING[3]		PLMN 5

Type Name : PS\_LCS\_Capability

**Encoding Variation:** 

Comments : PS LCS Capability

3GPP 24.008 / 10.5.5.22

Element Name	Type Definition	Field Encoding	Comments	
iei	IEI8		'00110011'B (33 hex)	
iel	Length		'01'O	
spare	B3			
oTD_A	B1			
oTD_B	B1			
gPS_A	B1			
gPS_B	B1			
gPS_C	B1			
Detailed Comments :				

**Structured Type Definition** 

Type Name : PTMSI\_Signature

**Encoding Variation:** 

Comments : P-TMSI signature

3GPP 24.008 / 10.5.5.8

Element Name	Type Definition	Field Encoding	Comments
iei	IEI8		'00011001'B (19 hex)
value	OCTETSTRING[3]		P-TMSI signature value

**Detailed Comments:** 

**Structured Type Definition** 

Type Name : PTMSI\_Signature\_tlv

**Encoding Variation:** 

**Comments** : P-TMSI signature

3GPP 24.008 / 10.5.5.8

Element Name	Type Definition	Field Encoding	Comments
iei	IEI8		'00011001'B (19 hex)
iel	Length		
value	OCTETSTRING[3]		P-TMSI signature value

Type Name : PktDataProtoAddr\_lv

**Encoding Variation:** 

**Comments** : 24.007, clause 10.5.6.4

Element Name	Type Definition	Field Encoding	Comments
length	Length		
spare	B4		
pDP_TypeOrg	B4		PDP type organisation
pDP_TypeNo	PDP_TypeNo		PDP type number
addrInfo	AddressInfo		Address Information

**Structured Type Definition** 

Type Name : ProtoCfgOpt

**Encoding Variation:** 

**Comments** : 24.007, clause 10.5.6.3

Element Name	Type Definition	Field Encoding	Comments
iei	IEI8		'00101000'B (27hex)
length	Length		
ext	B1		extension bit
spare	B4		
configprotocol	B3		configuration protocol
protocolldContents	ProtoldContents		information related to additional external protocols

: QualityOfService\_lv Type Name

**Encoding Variation:** 

Comments : 24.008, clause 10.5.6.5

Element Name	Type Definition	Field Encoding	Comments
ength	Length		
spare	B2		
dlyClass	B3		Delay Class
relabilityClass	В3		Reliability Class
peakThroughput	B4		Peak Throughput
spare1	B1		
orecedenceClass	В3		Precedence Class
spare2	B3		
meanThroughput	B5		Mean Throughput
trafficClass	В3		Traffic Class
deliveryOrder	B2		Delivery Order
deliveryErrorSDU	B3		Delivery of erroneous SDU
maxSDUSize	MaxSDU_Size		Maximum SDU Size
maxBitRateUplink	MaxBitRate		Maximum Bit Rate for Uplink
maxBitRateDnlink	MaxBitRate		Maximum Bit Rate for Downlink
residualBER	B4		Residual BER
sduErrRatio	B4		SDU Error Ratio
transDly	B6		Transfer Delay
trafficHandpro	B2		Traffic Handling Priority
bitRateUplink	BitRate		Guaranteed bit rate for uplink
bitRateDnlink	BitRate		Guaranteed bit rate for downlink
spare3	В3		
signallingInd	B1		Signalling Indication
srcStatsDescr	B4		Source Statistics Descriptor
maxBitRateDnlinkExt	BitRate		Maximum bit rate for downlink (extended)
bitRateDnlinkExt	BitRate		Guaranteed bit rate for downlink (extended)

Structured	Type	Defin	ition
• • . • • • • •	- ,		

Type Name : RAI\_v

**Encoding Variation:** 

: Routing Area Identification 3GPP 24.008 / 10.5.5.15 Comments

Element Name	Type Definition	Field Encoding	Comments	
plmn	OCTETSTRING[3]		MCC + MNC 3 digits each	
lac	OCTETSTRING[2]		LAC	
rac	OCTETSTRING[1]		RAC	
Detailed Comments :				

Type Name : RadioPriority\_v

**Encoding Variation:** 

Comments : Radio priority

3GPP 24.008 / 10.5.7.2

Element Name	Type Definition	Field Encoding	Comments
spare	B1		
value	B3		Radio priority value
	L		· · · · · · · · · · · · · · · · · · ·

**Detailed Comments:** 

# **Structured Type Definition**

**Type Name** : RadioPriority2\_v

**Encoding Variation:** 

Comments : Radio priority 2

3GPP 24.008 / 10.5.7.5

Element Name	Type Definition	Field Encoding	Comments
spare	B1		
value	B3		Radio priority value

**Detailed Comments:** 

# **Structured Type Definition**

Type Name : RepeatInd

**Encoding Variation:** 

Comments : Repeat indicator

3G TS 24.008 cl. 10.5.4.22

Element Name	Type Definition	Field Encoding	Comments
iei	IEI4		
repeatInd	B4		

**Detailed Comments:** 

## **Structured Type Definition**

Type Name : ResAndSUFIs

**Encoding Variation:** 

**Comments**: This type is used as type of the RETURN value of TSO o\_SUFI\_Handler which provides:

- a BOOLEAN result

- a SUFI List of type SuperFields

Element Name	Type Definition	Field Encoding	Comments
result	BOOLEAN		1
sUFI_ListRec	SuperFields		2

**Detailed Comments**: 1. overall result of the operation of TSO o\_SUFI\_Handler

2. Super Fields received and transferred into the SuperFields structure according to the rules

specified in TSO o\_SUFI\_Handler

Type Name : SM\_Cause\_v

**Encoding Variation:** 

**Comments** : Ref 24.008, 10.5.6.6

Element Name	Type Definition	Field Encoding	Comments
causeValue	CauseValue		

**Detailed Comments:** 

# **Structured Type Definition**

Type Name : SNiLiPair

Encoding Variation:
Comments:

Element Name	Type Definition	Field Encoding	Comments
sNi	AM_SeqNum		
li	SUFI_ListLi		

**Detailed Comments:** 

# **Structured Type Definition**

Type Name : SS\_VersionInd

**Encoding Variation:** 

**Comments** : SS version indicator

3G TS 24.008 cl. 10.5.4.24

Element Name	Type Definition	Field Encoding	Comments
iei	IEI8		information element identifier '011111111'B
iel sS_VersionInfo	Length OCTETSTRING [1]		length ss version information 1.

**Detailed Comments**: 1. Usually this IE has only one octet of content.

Exact definition see TS 24.080

# **Structured Type Definition**

Type Name : SUFI\_Ack

**Encoding Variation:** 

Comments : Acknowledgement super field. Ref 3G TS 25.322 clause 9.2.2.11.2. The ACK SUFI shall always be

placed as the last SUFI if it is included in a STATUS PDU.

Element Name	Type Definition	Field Encoding	Comments
type	SUFI_Type		Always tsc_SUFI_Ack
Isn	AM_SeqNum		1.

Detailed Comments: 1. Acknowledges the reception of all PDUs with sequence numbers < LSN that are not indicated

to be erroneous in earlier parts of the STATUS PDU.

Type Name : SUFI\_Bitmap

**Encoding Variation:** 

Comments : Bitmap super field. Ref 3G TS 25.322 clause 9.2.2.11.5

Element Name	Type Definition	Field Encoding	Comments
type	SUFI_Type		Always tsc_SUFI_Bitmap
len	BitmapLen		1.
fsn	AM_SeqNum		2.
bitmap	Bitmap		3.

Detailed Comments: 1. The size of the bitmap in octets = len+1. len='0000'B means that the bitmap is one octet, and

len='1111'B means that the bitmap is the maximum size of 16 octets

2. The sequence number for the first bit in the bitmap.

3. Status of the SNs in the interval [ FSN, FSN + ( len + 1 ) \* 8 –1 ] where each bit\_position can

take on the following values:-

\* '1'B indicates that FSN + bit\_position has been correctly received \* '0'B indicates that FSN + bit\_position has not been correctly received

# **Structured Type Definition**

Type Name : SUFI\_List

**Encoding Variation:** 

Comments : List super field. Ref 3G TS 25.322 clause 9.2.2.11.4

This type definition assumes that a maximum of 3 (SNi, Li) pairs will be required for RLC test

purposes.

Element Name	Type Definition	Field Encoding	Comments
type	SUFI_Type		Always tsc_SUFI_List
len	LIST_Len		1.
sN1L1	SNiLiPair		2.
sN2L2	SNiLiPair		2.
sN3L3	SNiLiPair		2.

**Detailed Comments**: 1. The number of (SNi, Li) pairs in the super field.

2. SNi: Sequence number of PDU which was not correctly received; Li: The number of consecutive PDUs not correctly received following PDU with sequence number SNi.

Type Name : SUFI\_MRW

**Encoding Variation:** 

Comments : Move receiving window super field. Ref 3G TS 25.322 clause 9.2.2.11.8

This type definition assumes that a maximum of three SN\_MRWi will be required for RLC testing.

Element Name	Type Definition	Field Encoding	Comments
type	SUFI_Type		Always tsc_SUFI_MRW
len	MRW_Len		1.
sN_MRW1	SUFI_SN_MRWi		2.
sN_MRW2	SUFI_SN_MRWi		2.
sN_MRW3	SUFI_SN_MRWi		2.
nLength	N_Length		3.

**Detailed Comments**: 1. The number of SN\_MRWi fields in the super-field.

2. Each SN\_MRWi is used to indicate the end of each discarded SDU. SN\_MRWi is the sequenec

number of the PDU that contains the LI of the i:th discarded SDU.

3. nLength is used together with SN\_MRW\_Length to indicate the end of the last discarded SDU

## **Structured Type Definition**

Type Name : SUFI\_MRW\_ACK

**Encoding Variation:** 

Comments : Move receiving window acknowledgement super field. Ref 3G TS 25.322 clause 9.2.2.11.7

Element Name	Type Definition	Field Encoding	Comments
type	SUFI_Type		Always tsc_SUFI_MRW_ACK
n	N_Length		1.
sN_ACK	AM_SeqNum		2.

Detailed Comments: 1. The N field shall be set equal to the N\_Length field in the received MRW SUFI if the SN\_ACK

field is equal to the SN\_MRW\_Length field. Otherwise N shall be set to 0.

2. The SN\_ACK field indicates the updated value of VR(R) after the reception of the MRW SUFI.

# **Structured Type Definition**

Type Name : SUFI\_NoMore

**Encoding Variation:** 

Comments : No more data super field. Ref 3G TS 25.322 clause 9.2.2.11.1

Element Name	Type Definition	Field Encoding	Comments
type	SUFI_Type		Always tsc_SUFI_NoMore

Type Name : SUFI\_Params

**Encoding Variation:** 

Comments : This type is a list of parameters to be used as input for TSO o\_SUFI\_Handler which treats a

HEXSTRING containing received SUFIs.

Refer to this TSO and the description of the test methodolgy.

Element Name	Type Definition	Field Encoding	Comments
LB	AM_SeqNum		1
UB	AM_SeqNum		1
WSN_presence	BOOLEAN		1
MRW_presence	BOOLEAN		1
Nack1	AM_SeqNum		1
Nack2	AM_SeqNum		1
Nack3	AM_SeqNum		1

Detailed Comments: 1....

# **Structured Type Definition**

Type Name : SUFI\_RList

**Encoding Variation:** 

Comments : Relative list super field. Ref 3G TS 25.322 clause 9.2.2.11.6

This type definition assumes that a maximum of three codewords will be required for RLC testing

Element Name	Type Definition	Field Encoding	Comments
type	SUFI_Type		Always tsc_SUFI_RList
len	RLIST_Len		1.
fsn	AM_SeqNum		2.
CW1	CodeWord		3.
CW2	CodeWord		3.
CW3	CodeWord		3.

**Detailed Comments**: 1. The number of codewords in the super-field

2. The sequence number of the first erroneous PDU in the RLIST. Note that len = '0000'B means

that only FSN is present in the SUFI.

3. Each CW consists of 4 bits where the first three bits are part of a number, and the last bit is a

status indicator. see 3G TS 25.25.322 clause 9.2.2.11.6 for a detailed description.

## Structured Type Definition

Type Name : SUFI\_WindowSize

**Encoding Variation:** 

Comments: Window size super field. Ref 3G TS 25.322 clause 9.2.2.11.3

Element Name	Type Definition	Field Encoding	Comments	
type	SUFI_Type		Always tsc_SUFI_WindowSize	
wsn	BITSTRING[12]		1.	
Partial Comments of The Revolution III is the standard of the Comments of the				

**Detailed Comments**: 1. The allowed Tx window size to be used by the transmitter.

Type Name : ServiceType\_v

**Encoding Variation:** 

Comments : Service type

3GPP 24.008 / 10.5.5.20

 Element Name
 Type Definition
 Field Encoding
 Comments

 spare1
 B1
 type
 type

**Detailed Comments:** 

**Structured Type Definition** 

Type Name : Streamld

**Encoding Variation:** 

**Comments**: stream identifier

3G TS 24.008 cl. 10.5.4.28

Element Name	Type Definition	Field Encoding	Comments	
iei	IEI8		information element identifier '00101101'B	
iel	Length		length	
val	B8		stream identifier value	
Potailed Comments :				

Structured Type Definition

Type Name : Subadrs

**Encoding Variation:** 

Comments : Subaddress

3G TS 24.008 cl. 10.5.4.8, 10.5.4.10, 10.5.4.14

Element Name	Type Definition	Field Encoding	Comments	
extBit	B1		extension bit	
typrOfSubadrs	B3		Type of subaddress	
oddEven	B1		odd/even indicator	
spare3	B3		3 spare bits	
subadrsInfo	OCTETSTRING [020]		subaddress information	

Type Name : SuperFields

**Encoding Variation:** 

Comments : This type is used to represent the set of super–fields within a STATUS PDU. Ref 3G TS 25.322

clause 9.2.1.5.

Element Name	Type Definition	Field Encoding	Comments
windowSize	SUFI_WindowSize		1
list	SUFI_List		1
rList	SUFI_RList		1
bitmap	SUFI_Bitmap		1
mRW	SUFI_MRW		1
mRW_Ack	SUFI_MRW_ACK		1
noMore	SUFI_NoMore		2
ack	SUFI_Ack		2, 3

**Detailed Comments**: 1. These super fields may arrive in any order, and may or may not be present. This type definition

only supports a single super–field, followed by either a NO\_MORE SUFI, or an ACK SUFI.

2. The NO\_MORE SUFI, and the ACK SUFI are mutually exclusive, and should never both be

present in the same STATUS PDU.

3. The ACK SUFI is used to acknowledge reception of all PDUs up to LSN, EXCEPT for any

PDUs indicated as incorrectly received in the previous SUFIs.

# **Structured Type Definition**

Type Name : TI Encoding Variation :

Comments : Transaction identifier

3G TS 24.007 cl. 11.2.3.1.3

Element Name	Type Definition	Field Encoding	Comments
tiFlag	B1		Flag
tiVal	В3		TIO

**Detailed Comments:** 

# **Structured Type Definition**

Type Name : TMSI\_Status

**Encoding Variation:** 

Comments : TMSI status

3GPP 24.008 cl. 10.5.5.4

Element Name	Type Definition	Field Encoding	Comments
iei	IEI4		'1001'B
spare3	В3		
flag	B1		Flag
Detailed Comments :			

Type Name : TearDwnInd\_tv

**Encoding Variation:** 

**Comments** : Ref 24.008, clause 10.5.6.10

Element Name	Type Definition	Field Encoding	Comments
iei	IEI4		'1001'B (9 hex)
spare	B3		
tdiflag	B1		TDI Flag

**Detailed Comments:** 

# **Structured Type Definition**

**Type Name**: TypeOfNumPlan

**Encoding Variation:** 

**Comments**: Type of number and numbering plan

3G TS 24.008 cl.10.5.4.7, 10.5.4.9, 10.5.4.13

Element Name	Type Definition	Field Encoding	Comments
extBit	B1		extension bit
typeOfNum	B3		Type of number
numbPlanId	B4		Numbering plan id.

**Detailed Comments:** 

# **Structured Type Definition**

Type Name : UE\_TestLoopMode1LB\_Setup

**Encoding Variation:** 

Comments : UE Test Loop Mode 1 LB Setup 3G TS 34.109 cl. 6.2

Element Name	Type Definition	Field Encoding	Comments
iel	Length		length
IB_SetupRB_IE1	LB_SetupRB_IE		LB Setup RB IE #1
IB_SetupRB_IE2	LB_SetupRB_IE		LB Setup RB IE #2
IB_SetupRB_IE3	LB_SetupRB_IE		LB Setup RB IE #3
IB_SetupRB_IE4	LB_SetupRB_IE		LB Setup RB IE #4
IB_SetupRB_IE5	LB_SetupRB_IE		LB Setup RB IE #5

**Detailed Comments**: The maximum number of LB entities in the LB setup list is less than or equal to 5.

Type Name : UpdateType\_v

**Encoding Variation:** 

Comments : Update result

3GPP 24.008 / 10.5.5.18

Element Name	Type Definition	Field Encoding	Comments
for	B1		Follow-on request
value	B3		Update type value

**Detailed Comments:** 

**Structured Type Definition** 

Type Name : UserUser

**Encoding Variation:** 

Comments : User-user

3G TS 24.008 cl. 10.5.4.25

Element Name	Type Definition	Field Encoding	Comments
iei	IEI8		information element identifier 01111110'B
iel	Length		length
userUserProtocolDiscr	B8		user-user protocol discriminator
userUserInfo	OCTETSTRING [1128]		user user information

**Detailed Comments :** In SETUP, ALERTING, CONNECT, DISCONNECT, RELEASE and RELEASE COMPLETE

messages the userUserInfo length is of 0 – 32 bytes.

In USER INFORMATION messages the userUserInfo length is of 1 – 128.

Type Name : RB\_ConfigType

**Encoding Variation:** Comments

#### **Type Definition**

```
ENUMERATED {
cell_NotConfigured (0),
  - Configurations on DPCH
 cell_DCH_StandAloneSRB_NoConn (1),
 cell_NoDPCH (2),
 cell_DCH_StandAloneSRB (3),
 cell_DCH_Speech (4),
 cell_DCH_64kCS_RAB_SRB (5)
cell_DCH_57_6kCS_RAB_SRB (6),
cell_DCH_64kPS_RAB_SRB (7),
 cell_RLC_DCH_AM_RAB_15Lis (8),
 cell_RLC_DCH_AM_RAB_7Lis (9),
 cell_RLC_DCH_UM_RAB_15Lis (10),
 cell_RLC_DCH_UM_RAB_7Lis (11),
 cell_PDCP_AM_RAB (12),
 cell_PDCP_UM_RAB (13),
 cell_PDCP_AM_UM_RAB (14),
 cell_DCH_MAC_SRB_NoConn (15),
 cell_DCH_MAC_SRB (16),
cell_DCH_2AM_PS (17),
 -- Configurations on FACH
 cell_FACH_NoConn (18),
 cell_FACH (19),
 cell_FACH_NoDedicated (20),
 cell_FACH_PS (21),
 cell FACH BMC (22),
 cell_FACH_BMC_NoConn (23),
 cell_FACH_2_PRACH_NoConn (24), --no RAB
 cell_FACH_2_PRACH (25), -- no RAB
 cell_FACH_2_SCCPCH_NoConn (26), --used in BMC
 cell_FACH_2_SCCPCH (27), --Used in BMC
 cell_FACH_MAC_SRB_NoConn (28),
 cell_FACH_MAC_SRB (29),
cell_FACH_MAC_SRB0_NoConn (30), cell_FACH_MAC_SRB0 (31),
 -- Configurations for RAB test cases
 -- for these configuarations Security step does not handle RAB eastablished situation, as in RAB test procedure
 -- Security procedure is called before RAB establishment
 cell_FACH_2SCCPCH_StandAlonePCH_NoConn (32),
cell_FACH_2SCCPCH_StandAlonePCH (33),
 cell FACH 2SCCPCH StandAlonePCH PS (34),
 cell_Two_DTCH (35),
 cell_Four_DTCH_CS (36),
 cell_Two_DTCH_CS_PS (37),
 cell_Four_DTCH_CS_PS (38),
 cell_FACH_3_SCCPCH_4_FACH_Cnfg1_NoConn (39),
 cell_FACH_3_SCCPCH_4_FACH_Cnfg1 (40),
 cell_FACH_3_SCCPCH_3_FACH_CTCH_NoConn (41),
 cell_FACH_3_SCCPCH_3_FACH_CTCH (42),
 cell_Two_DTCH_PS_CS (43),
cell_Four_DTCH_PS_CS (44)
 cell_FACH_3_SCCPCH_4_FACH_Cnfg2_NoConn (45),
 cell_FACH_3_SCCPCH_4_FACH_Cnfg2 (46),
 cell_DCH_2_PS_Call(47)

    Configurations for DSCH RAB test cases

cell_DCH_DSCH_PS (48)
 cell_DCH_DSCH_CS_PS (49),
 cell_FACH_2SCCPCH_StandAlonePCH_PS_2a(50),
```

Continued on next page

```
ASN.1 Type Definition
                                             Type Definition
cell_FACH_3_SCCPCH_4_FACH_2a_Cnfg1_NoConn (51),
 cell_FACH_3_SCCPCH_4_FACH_2a_Cnfg1 (52),
cell_FACH_3_SCCPCH_4_FACH_2a_Cnfg2_NoConn (53),
 cell_FACH_3_SCCPCH_4_FACH_2a_Cnfg2 (54),
cell_FACH_3_SCCPCH_3_FACH_2a_CTCH_NoConn (55),
 cell_FACH_3_SCCPCH_3_FACH_2a_CTCH (56),
 cell_Two_DTCH_CS_PS_Init (57),
cell_Four_DTCH_CS_PS_Init (58),
cell_FACH_2SCCPCH_StandAlonePCH_2a_NoConn (59),
cell_FACH_2SCCPCH_StandAlonePCH_2a (60),
cell_Two_DTCH_PS_CS_Init (61),
 cell_Four_DTCH_PS_CS_Init (62),
 cell_DCH_HS_DSCH(63),
 cell_FACH_HS(64),
cell_DCH_64kPS_RAB_SRB_HS(65),
cell_One_DTCH_HS_DSCH_MAC(66),
 cell_5_UM_DCH_HS_DSCH (67),
cell_DCH_Speech_WAMR (68),
cell_Four_DTCH_HS_CS_Init (69),
cell_Four_DTCH_HS_CS (70),
cell_Two_DTCH_HS_CS_Init (71),
 cell_Two_DTCH_HS_CS (72),
cell_Four_DTCH_CS_HS_Init (73),
 cell_DCH_2AM_HS_DSCH (74)
Detailed Comments:
```

```
ASN.1 Type Definition

Type Name : AICHInfo
Encoding Variation :
Comments :

Type Definition

SEQUENCE {
    aichinfo AICH_Info,
    dl_TxPower AICH_PowerOffset
}

Detailed Comments :
```

Type Name : AICH\_Mode

**Encoding Variation:** 

Comments : Normal operation: The AICH will operate as normal, and will acknowledge or negatively acknowledge

on all UE RACH transmission attempts, appropriately.No Acknowledge: The AICH shall not transmit acknowledge or Negative Acknowledge on all UE RACH transmission attempts.Negative Acknowledge: The AICH shall transmit Negative Acknowledge on all UE RACH transmission

attempts

**Type Definition** 

ENUMERATED {
normal (0),
noAck (1),
negACK (2)

**Detailed Comments:** 

**ASN.1 Type Definition** 

Type Name : AmConfirmationRequest

**Encoding Variation:** 

Comments : If the noConfirmationRequested option is used, then an RLC\_AM\_DATA\_CNF is not expected

from the RLC AM entity.

If the confirmationRequested option is used, then the RLC AM entity is being requested to provide

an RLC\_DATA\_CNF primitive containing the same mui value.

**Type Definition** 

CHOICE {

noConfirmationRequest NULL, confirmationRequested Mui

}

**Detailed Comments:** 

**ASN.1 Type Definition** 

Type Name : COUNT\_I\_MSB

**Encoding Variation:** 

Comments : 28 bits long

**Type Definition** 

INTEGER (0..268435455)

**Detailed Comments:** 

**ASN.1 Type Definition** 

Type Name : CellToBeCreated

Encoding Variation:
Comments:

**Type Definition** 

ENUMERATED { cell\_DCH (0), cell\_FACH (10) }

Type Name : CellTxPowerLevel

**Encoding Variation:** 

Comments : The defaultCellTxPowerLvl is a default setting and is used for the most signalling tests. The real total

cell DL Tx power level equals to the sum of the DL Tx power of the individual physical channels

configured.

The totalCellTxPowerLvl applies to e.g. the idle mode tests in a non-default multi-cell radio

environment.

#### **Type Definition**

CHOICE {

defaultCellTxPowerLvl NULL, totalCellTxPowerLvl DL\_TxPower

}

**Detailed Comments:** 

# **ASN.1 Type Definition**

Type Name : CiphActivationInfo

**Encoding Variation:** 

Comments : DL or UL ciphering activation infolf RB is omitted in rB\_UL\_CiphActivationTimeInfo the SS takes

no action on this RB and the ciphering configuration keeps unchanged on this RB.

CipheringModeCommand = dummy NULL means no ciphering.

#### **Type Definition**

CHOICE {

cipheringModeInfo CipheringModeInfo,

rb\_UL\_CipheringActivationTimeInfo RB\_ActivationTimeInfoList

}

**Detailed Comments:** 

## **ASN.1 Type Definition**

Type Name : CmacConfigReq

**Encoding Variation:** 

**Comments**: To request to configure MAC

#### Type Definition

SEQUENCE {

activationTime SS\_ActivationTime,

uE\_Info UE\_Info, trCHInfo TrCHInfo,

trCH\_LogCHMapping TrCH\_LogCHMappingList1

-- RACHTransmissionCtrolElements

-- CPCHTransmissionControlElements

}

```
ASN.1 Type Definition
Type Name
                  : CmacPagingConfigReq
Encoding Variation:
Comments
                                                Type Definition
SEQUENCE {
 pl_BitMapInfo CHOICE {
  e18 BIT STRING (SIZE (18)),
  e36 BIT STRING (SIZE (36)),
  e72 BIT STRING (SIZE (72)),
  e144 BIT STRING (SIZE (144))},
 dRX_CycleLength INTEGER (3..9),
 iMSI IMSI_GSM_MAP,
 t_pich_T_sccpch BOOLEAN -- T_pich > T_sccpch then FALSE
Detailed Comments:
```

```
ASN.1 Type Definition

Type Name : CmacSysinfoConfigReq
Encoding Variation :
Comments : if bcch_ModificationTime = OMIT SS shall modify the Sysinfo immediately

Type Definition

SEQUENCE {
    sg_REP INTEGER (2..12),
    -- Repetition period is the sg_REP-th power of 2.
    sg_POS INTEGER (0..2047),
    -- The position of each segment is 2 * sg_POS.
    bcch_ModificationTime BCCH_ModificationTime OPTIONAL
}

Detailed Comments :
```

```
ASN.1 Type Definition
Type Name
                  : CommonOrDedicatedTFS
Encoding Variation:
Comments
                  : Transport Format Set
                                                Type Definition
SEQUENCE {
 tti CHOICE {
  tti10 CommonOrDedicatedTF_InfoList,
  tti20 CommonOrDedicatedTF_InfoList,
  tti40 CommonOrDedicatedTF_InfoList,
  tti80 CommonOrDedicatedTF_InfoList,
  dynamic CommonOrDedicatedTF_InfoList_DynamicTTI
 semistaticTF_Information SemistaticTF_Information
Detailed Comments:
```

Type Name : CommonOrDedicatedTF\_Info

**Encoding Variation:** 

Comments : Transport Format Set

**Type Definition** 

SEQUENCE {

tb\_Size INTEGER (0..5035),

numberOfTbSizeList SEQUENCE (SIZE (1..maxTF)) OF NumberOfTransportBlocks,

logicalChannelList LogicalChannelList

**Detailed Comments:** 

**ASN.1 Type Definition** 

Type Name : CommonOrDedicatedTF\_InfoList

**Encoding Variation:** 

Comments : Transport Format Set

**Type Definition** 

SEQUENCE (SIZE (1..maxTF)) OF CommonOrDedicatedTF\_Info

**Detailed Comments:** 

**ASN.1 Type Definition** 

Type Name : CommonOrDedicatedTF\_InfoList\_DynamicTTI

Encoding Variation:
Comments:

**Type Definition** 

SEQUENCE

tb\_Size INTEGER (0..5035),

 $number Of Tb Size List \ SEQUENCE \ (SIZE \ (1..maxTF)) \ OF \ Number Of Transport Blocks,$ 

 $logical Channel List\ Logical Channel List$ 

# **ASN.1 Type Definition Type Name** : CphyRlModifyReq **Encoding Variation:** Comments **Type Definition** SEQUENCE { activationTime SS\_ActivationTime, physicalChannelInfo CHOICE { dpch\_CompressedModeStatusInfo DPCH\_CompressedModeStatusInfo, secondaryCCPCHInfo, SecondaryCCPCHInfo, pRACHInfo PRACHInfo, dPCHInfo DPCHInfo, dPCHInfo\_r5 DPCHInfo\_r5, -- Rel-5 or later hS\_PDSCHInfo HS\_PDSCHInfo -- Rel-5 or later trchConfigToFollow BOOLEAN DEFAULT TRUE

**Detailed Comments:** 

# **ASN.1 Type Definition**

Type Name : CphyRISetupReq

**Encoding Variation:** 

**Comments**: To request to setup the Radio Link

# **Type Definition**

```
SEQUENCE {
physicalChannelInfo CHOICE {
  primaryCPICHInfo PrimaryCPICHInfo,
  secondaryCPICHInfo SecondaryCPICHInfo,
  primarySCHInfo PrimarySCHInfo,
  secondarySCHInfo SecondarySCHInfo,
  primaryCCPCHInfo PrimaryCCPCHInfo,
  secondaryCCPCHInfo SecondaryCCPCHInfo,
  pRACHInfo PRACHInfo,
  pICHInfo PICHInfo,
  alCHInfo AlCHInfo,
  dPCHInfo DPCHInfo,
  pDSCHInfo PDSCHInfo,
  dPCHInfo_r5 DPCHInfo_r5, -- Rel-5 or later
  hS_PDSCHInfo HS_PDSCHInfo -- Rel-5 or later
}
```

Type Name : CphyTrchConfigReq

**Encoding Variation:** 

Comments : To request to configure the transport channel. The same TFCS information should be provided to

the PHY and MAC layers at all times. When a CPHY\_TrCH\_Config\_REQ is used to configure the PHY layer, a corresponding CMAC\_Config\_REQ should be sent to the MAC layer to ensure that

the configuration is consistent.

For configuring HS-DSCH transport channel, the ulconnectedTrCHList, ulTFCS,

dlconnectedTrCHList and dlTFCS shall be omitted.

#### **Type Definition**

```
SEQUENCE {
    activationTime SS_ActivationTime,
    ulconnectedTrCHList SEQUENCE (SIZE (0..maxTrCH)) OF SEQUENCE {
        trchid TransportChannelIdentity,
        ul_TransportChannelType SS_UL_TransportChannelType,
        transportChannelInfo CommonOrDedicatedTFS
} OPTIONAL,
    ulTFCS TFCS OPTIONAL,
    dlconnectedTrCHList SEQUENCE (SIZE (0..maxTrCH)) OF SEQUENCE {
        trchid TransportChannelIdentity,
        dl_TransportChannelType SS_DL_TransportChannelType,
        transportChannelInfo CommonOrDedicatedTFS
} OPTIONAL,
    dlTFCS TFCS OPTIONAL,
    hsDSCHMacdFlows HS_DSCHMACdFlows OPTIONAL -- Rel-5 or later
}
```

# **Detailed Comments:**

#### **ASN.1 Type Definition**

Type Name : CrlcConfigReq

**Encoding Variation:** 

**Comments**: To request to setup, re\_configure or release RLC entityThe Stop parameter indicates that the RLC

entity shall not transmit or receive RLC PDUs. The Continue parameter indicates that the RLC entity shall continue transmission and reception of RLC PDUs. When the RLC entity is stopped, the RLC timers are not affected. Triggered polls and status transmissions are delayed until the RLC

entity is continued.

## **Type Definition**

CHOICE {
 setup RBInfo,
 reconfigure RBInfo,
 release NULL,
 sS\_stop NULL,
 sS\_continue NULL

# Type Name : DL\_DPCHInfo

**Encoding Variation:** 

Comments : The range for powerOffsetOfTPC\_PO2 and powerOffsetOfTFCI\_PO1 and

powerOffsetOfPILOT\_PO3 is 0-6 dB, 0.25 dB per step.

## **Type Definition**

```
SEQUENCE {
    dl_CommonInformation DL_CommonInformation,
    dl_DPCH_InfoPerRL DL_DPCH_InfoPerRL,
    powerOffsetOfTFCI_PO1 INTEGER (0..24),
    powerOffsetOfTPC_PO2 INTEGER (0..24),
    powerOffsetOfPILOT_PO3 INTEGER (0..24),
    dl_TxPower DL_TxPower,
    dl_TxPowerMax DL_TxPower,
    dl_TxPowerMin DL_TxPower
```

**Detailed Comments:** 

# **ASN.1 Type Definition**

Type Name : DL\_DPCHInfo\_r5

**Encoding Variation:** 

**Comments** : Applicable Rel–5 or later

#### **Type Definition**

```
SEQUENCE {
```

dl\_CommonInformation DL\_CommonInformation\_r5, dl\_DPCH\_InfoPerRL DL\_DPCH\_InfoPerRL\_r5, powerOffsetOfTFCI\_PO1 INTEGER (0..24), powerOffsetOfTPC\_PO2 INTEGER (0..24), powerOffsetOfPILOT\_PO3 INTEGER (0..24), dl\_TxPower DL\_TxPower, dl\_TxPowerMax DL\_TxPower,

dl\_TxPowerMax DL\_TxPower
dl\_TxPowerMin DL\_TxPower

**Detailed Comments:** 

# **ASN.1 Type Definition**

Type Name : DL\_TxPower

**Encoding Variation:** 

**Comments**: Downlink Tx Power relative to PCPICH

**Type Definition** 

INTEGER (-35..15)

Type Name : DL\_TxPower\_PCPICH

**Encoding Variation:** 

**Comments**: Absolute Tx Power of PCPICH

Type Definition

INTEGER (-60..-30)

**Detailed Comments:** 

**ASN.1 Type Definition** 

Type Name : DPCHInfo

**Encoding Variation:** 

Comments : The range for powerOffsetOfTPC\_PO2 and powerOffsetOfTFCI\_PO1 and

powerOffsetOfPILOT\_PO3 is 0 dB to 6 dB, 0,25 dB per step.

**Type Definition** 

SEQUENCE {

ul\_DPCHInfo UL\_DPCH\_Info OPTIONAL, dl\_DPCHInfo DL\_DPCHInfo OPTIONAL

}

**Detailed Comments:** 

**ASN.1 Type Definition** 

Type Name : DPCHInfo\_r5

**Encoding Variation:** 

**Comments** : Applicable Rel–5 or later

At least one of the first two fields shall be present.

Presence of hs\_DPCCHInd (value = truevalue) means that the HS-DPCCH shall be configured in the uplink DPCH. If hs\_DPCCHInd is absent no HS-DPCCH shall be configured in the uplink DPCH, or the configured HS-DPCCH shall be removed in the modify ASP. In the active set which has radio links from more than one cell the HS-DPCCH is configured only in the HS-DSCH

serving cell.

Three combinations are valid: ul\_DPCH\_Info only, dl\_DPCHInfo only and ul\_DPCH\_Info +

hs\_DPCCHInd.

**Type Definition** 

SEQUENCE {

ul\_DPCHInfo UL\_DPCH\_Info\_r5 OPTIONAL, dl\_DPCHInfo DL\_DPCHInfo\_r5 OPTIONAL, hs\_DPCCHInd HS\_DPCCHInfo OPTIONAL

...

Type Name : HS\_DPCCHInfo

Encoding Variation:
Comments:

#### **Type Definition**

SEQUENCE {

cqi\_RepetitionFactor CQI\_RepetitionFactor,

ackNackRepetitionFactor ACK\_NACK\_repetitionFactor

}

**Detailed Comments:** 

## **ASN.1 Type Definition**

Type Name : HS\_DSCHMACdFlows

**Encoding Variation:** 

**Comments**: Applicable Rel–5 or later.

Within the ACK/NACK repetition period indicated by ackNackRepetitionFactor the SS shall not

transmit MAC-hs PDU's on HS-PDSCH.

#### **Type Definition**

SEQUENCE {

harqinfo HARQ\_info OPTIONAL,

 $addOrReconf MACdFlow\ SS\_AddOrReconf MAC\_dFlow\ OPTIONAL, \\ ackNackRepetitionFactor\ ACK\_NACK\_repetitionFactor\ OPTIONAL$ 

}

**Detailed Comments:** 

# **ASN.1 Type Definition**

Type Name : HS\_PDSCHInfo

**Encoding Variation:** 

**Comments** : Applicable Rel–5 or later

When CHY\_RL\_Setup\_REQ is called with CHOICE of hS\_PDSCHInfo the SS shall not only

configure the HS\_PDSCH but also the HS-SCCH;

The following  $\ensuremath{\mathsf{HS-DSCH}}$  related parameters are passed to the  $\ensuremath{\mathsf{SS}}$  implicitly by

HSDSCH\_physical\_layer\_category: "Maximum number of HS-DSCH codes can be received by UE", "Minimum inter-TTI interval", "Maximum number of bits of an HS-DSCH transport block

within an HS-DSCH TTI" and "Total number of soft channel bits".

The HSDSCH\_physical\_Layer\_category is also used for interpret the meaning of CQI value.

## **Type Definition**

SEQUENCE{

hSDSCHPhysicalLayerCategory HSDSCH\_physical\_layer\_category,

h\_RNTI H\_RNTI,

dlHSPDSCHInformation DL\_HSPDSCH\_Information,

sttd\_Indicator BOOLEAN,

hs\_SCCH\_TxPower DL\_TxPower -- offset related to pilot bits on DL-DPCCH

-- (TS 25.433 subcluse 9.2.2.18I)

}

**Type Name**: HyperFrameNumber

Encoding Variation:
Comments:

**Type Definition** 

BIT STRING (SIZE (20))

**Detailed Comments:** 

**ASN.1 Type Definition** 

Type Name : Increment\_Mode

Encoding Variation:
Comments:

**Type Definition** 

ENUMERATED {incPerCFN\_Cycle(0), notlnc(1), incByOne\_IncPerCFN\_Cycle(2)}

**Detailed Comments:** 

**ASN.1 Type Definition** 

Type Name : IntegrityActivationInfo

**Encoding Variation:** 

Comments : Comment DL or UL integrity activation info.At the RRC message sequence numbers specified in the

ul\_IntegProtActivationInfo the SS shall initialise COUNT-I for the SRB's indicated in the ul\_IntegProtActivationInfo and start using the new configuration on uplink for the indicated SRB's.If the START value is omitted in the CRLC\_SecurityMode\_Config\_REQ above COUNT-I

initialisation shall not be performed.

Type Definition

**Type Definition** 

CHOICE {

 $integrity Protection Modeln fo\ Integrity Protection Modeln fo, ul\_IntegProtActivation Info\ Integrity ProtActivation Info\ List$ 

**Detailed Comments:** 

**ASN.1 Type Definition** 

Type Name : IntegrityProtActivationInfoList

**Encoding Variation:** 

**Comments**: List of SS IntegrityProtActivationInfo

**Type Definition** 

SEQUENCE (SIZE (1..maxRB)) OF SS\_IntegrityProtActivationTimeInfo

```
ASN.1 Type Definition

Type Name : IntegrityResult
Encoding Variation :
Comments :

Type Definition

CHOICE {
    integrityNotUsed NULL,
    integrityUsed IntegrityStatus
}

Detailed Comments :
```

```
ASN.1 Type Definition

Type Name : IntegrityStatus
Encoding Variation :
Comments :

Type Definition

ENUMERATED {
    i_pass(0),
    i_fail(1)
}
Detailed Comments :
```

```
ASN.1 Type Definition

Type Name : Invalid_ActiveSetUpdate
Encoding Variation :

Comments : This invalid type should cause an undefined critical extension error

Type Definition

CHOICE {
    r3 SEQUENCE {
        activeSetUpdate_r3 ActiveSetUpdate_r3_IEs,
        nonCriticalExtensions SEQUENCE {} OPTIONAL
    },
    later_than_r3 SEQUENCE {
        rrc_TransactionIdentifier RRC_TransactionIdentifier,
        criticalExtensions BIT STRING (SIZE(8)) -- INSTEAD OF SEQUENCE {}
}

Detailed Comments :
```

ASN.1 Type Definition

Type Name : Invalid\_CCCH\_MsgShort
Encoding Variation :
Comments :

Type Definition

NULL

Detailed Comments :

```
ASN.1 Type Definition
Type Name
                  : Invalid_CellUpdateConfirm
Encoding Variation:
Comments
                  : This invalid type should cause an undefined critical extension error
                                               Type Definition
CHOICE
 r3 SEQUENCE
  cellUpdateConfirm_r3_IEs,
  v3a0NonCriticalExtensions SEQUENCE
   cellUpdateConfirm_v3a0ext CellUpdateConfirm_v3a0ext,
   nonCriticalExtensions SEQUENCE {} OPTIONAL
 } OPTIONAL
 later_than_r3 SEQUENCE
  rrc_TransactionIdentifier RRC_TransactionIdentifier,
  criticalExtensions BIT STRING (SIZE(8)) -- INSTEAD OF SEQUENCE {}
Detailed Comments:
```

```
ASN.1 Type Definition

Type Name : Invalid_DCCH_MsgShort
Encoding Variation :
Comments :

Type Definition

NULL

Detailed Comments :
```

Type Name : Invalid\_DL\_CCCH\_MsgType

Encoding Variation:
Comments:

#### **Type Definition**

#### CHOICE {

invalid\_cellUpdateConfirm [0] Invalid\_CCCH\_MsgShort, invalid\_rrcConnectionReject [1] Invalid\_CCCH\_MsgShort, invalid\_rrcConnectionRelease [2] Invalid\_CCCH\_MsgShort, invalid\_rrcConnectionSetup [3] Invalid\_RRCConnectionSetup, -- Specific invalid message invalid\_uraUpdateConfirm [4] Invalid\_UraUpdateConfirm, invalid\_extension [5] NULL,

unkown\_Type\_CCCH\_message [6] Invalid\_CCCH\_MsgShort

**Detailed Comments:** 

## **ASN.1 Type Definition**

Type Name : Invalid\_DL\_DCCH\_MsgType

Encoding Variation:
Comments:

#### Type Definition

#### CHOICE {

invalid\_activeSetUpdate [0] Invalid\_ActiveSetUpdate,

invalid\_assistanceDataDelivery [1] Invalid\_DCCH\_MsgShort,

invalid\_cellChangeOrderFromUTRAN [2] Invalid\_DCCH\_MsgShort,

 $invalid\_cellUpdateConfirm~[3]~Invalid\_CellUpdateConfirm~,$ 

invalid\_counterCheck [4] Invalid\_DCCH\_MsgShort,

invalid\_downlinkDirectTransfer [5] Invalid\_DownlinkDirectTransfer,

 $invalid\_handover From UTRAN Command\_GSM~[6]~Invalid\_Handover From UTRAN Command\_GSM,$ 

invalid\_handoverFromUTRANCommand\_CDMA2000 [7] Invalid\_DCCH\_MsgShort,

invalid\_measurementControl [8] Invalid\_MeasurementControl,

invalid\_pagingType2 [9] Invalid\_DCCH\_MsgShort,

 $invalid\_physical Channel Reconfiguration~[10]~Invalid\_Physical Channel Reconfiguration,$ 

invalid\_physicalSharedChannelAllocation [11] Invalid\_DCCH\_MsgShort,

invalid\_radioBearerReconfiguration [12] Invalid\_RadioBearerReconfiguration,

invalid\_radioBearerRelease [13] Invalid\_RadioBearerRelease,

invalid\_radioBearerSetup [14] Invalid\_RadioBearerSetup,

invalid\_rrcConnectionRelease [15] Invalid\_RRC\_ConnectionRelease,

invalid\_securityModeCommand [16] Invalid\_SecurityModeCommand,

 $invalid\_signallingConnectionRelease~[17]~Invalid\_DCCH\_MsgShort,$ 

invalid\_transportChannelReconfiguration [18] Invalid\_TransportChannelReconfiguration,

invalid\_transportFormatCombinationControl [19] Invalid\_DCCH\_MsgShort,

invalid\_ueCapabilityEnquiry [20] Invalid\_UECapabilityEnquiry, -- Specific invalid message

invalid\_ueCapabilityInformationConfirm [21] Invalid\_UECapabilityInformationConfirm, -- Specific invalid message

invalid uplinkPhysicalChannelControl [22] Invalid DCCH MsgShort,

invalid\_uraUpdateConfirm [23] Invalid\_UraUpdateConfirm,

invalid\_utranMobilityInformation [24] Invalid\_UtranMobilityInformation,

invalid\_extension [25] NULL,

unkown\_Type\_DCCH\_message [26] Invalid\_DCCH\_MsgShort

```
ASN.1 Type Definition

Type Name : Invalid_DL_SHCCH_MsgType
Encoding Variation :
Comments :

Type Definition

CHOICE {
    invalid_physicalSharedChannelAllocation [0] Invalid_SHCCH_Message_short,
    extension [1] NULL,
    unkown_Type_SHCCH_message [2] Invalid_SHCCH_Message_short
}

Detailed Comments :
```

```
ASN.1 Type Definition

Type Name : Invalid_DownlinkDirectTransfer
Encoding Variation :

Comments : This invalid type should cause an undefined critical extension error

Type Definition

CHOICE
{
    r3 SEQUENCE
    {
        downlinkDirectTransfer_r3 DownlinkDirectTransfer_r3_IEs,
        nonCriticalExtensions SEQUENCE {} OPTIONAL
    }
    later_than_r3 SEQUENCE
    {
        rrc_TransactionIdentifier RRC_TransactionIdentifier,
        criticalExtensions BIT STRING (SIZE(8)) -- INSTEAD OF SEQUENCE {}
    }
}

Detailed Comments :
```

Type Name : Invalid\_HandoverFromUTRANCommand\_GSM

**Encoding Variation:** 

**Comments**: This invalid type should cause an undefined critical extension error

### Type Definition

```
CHOICE
{
    r3 SEQUENCE
    {
        handoverFromUTRANCommand_GSM_r3 HandoverFromUTRANCommand_GSM_r3_IEs,
        laterNonCriticalExtensions SEQUENCE
    {
            handoverFromUTRANCommand_GSM_r3_add_ext BIT STRING OPTIONAL,
            nonCriticalExtensions SEQUENCE {} OPTIONAL
        } OPTIONAL
    },
    later_than_r3 SEQUENCE
    {
            rrc_TransactionIdentifier RRC_TransactionIdentifier,
            criticalExtensions BIT STRING (SIZE(8)) -- INSTEAD OF SEQUENCE {}
    }
}
```

### **Detailed Comments:**

### **ASN.1 Type Definition**

Type Name : Invalid\_MeasurementControl

**Encoding Variation:** 

**Comments**: This invalid type should cause an undefined critical extension error

### **Type Definition**

Type Name : Invalid\_PhysicalChannelReconfiguration

**Encoding Variation:** 

**Comments**: This invalid type should cause an undefined critical extension error

### **Type Definition**

```
CHOICE
{
    r3 SEQUENCE
    {
        physicalChannelReconfiguration_r3 PhysicalChannelReconfiguration_r3_IEs,
        v3a0NonCriticalExtensions SEQUENCE
    {
            physicalChannelReconfiguration_v3a0ext PhysicalChannelReconfiguration_v3a0ext,
            nonCriticalExtensions SEQUENCE {} OPTIONAL
        } OPTIONAL
    }
        } OPTIONAL
    },
    later_than_r3 SEQUENCE
    {
        rrc_TransactionIdentifier RRC_TransactionIdentifier,
        criticalExtensions BIT STRING (SIZE(8)) — INSTEAD OF SEQUENCE {}
    }
}
```

### **Detailed Comments:**

### **ASN.1 Type Definition**

Type Name : Invalid\_RRCConnectionSetup

**Encoding Variation:** 

**Comments**: This invalid type should cause an undefined critical extension error

### **Type Definition**

```
CHOICE
{
    r3 SEQUENCE
    {
        rrcConnectionSetup_r3 RRCConnectionSetup_r3_IEs,
        nonCriticalExtensions SEQUENCE {} OPTIONAL
    },
    later_than_r3 SEQUENCE
    {
        rrc_TransactionIdentifier RRC_TransactionIdentifier,
        criticalExtensions BIT STRING (SIZE(8)) --- INSTEAD OF SEQUENCE {}
    }
}
```

**Type Name**: Invalid\_RRC\_ConnectionRelease

**Encoding Variation:** 

**Comments**: This invalid type should cause an undefined critical extension error

### **Type Definition**

```
CHOICE
{
    r3 SEQUENCE
    {
        rrcConnectionRelease_r3 RRCConnectionRelease_r3_IEs,
        laterNonCriticalExtensions SEQUENCE
    {
            rrcConnectionRelease_r3_add_ext BIT STRING OPTIONAL,
            nonCriticalExtensions SEQUENCE {} OPTIONAL
        } OPTIONAL
    }
    JOPTIONAL
},
    later_than_r3 SEQUENCE
{
        rrc_TransactionIdentifier RRC_TransactionIdentifier,
        criticalExtensions BIT STRING (SIZE(8)) — instead of SEQUENCE {}
}
}
```

### **Detailed Comments:**

### **ASN.1 Type Definition**

Type Name : Invalid\_RadioBearerReconfiguration

**Encoding Variation:** 

**Comments**: This invalid type should cause an undefined critical extension error

### **Type Definition**

```
CHOICE
{
    radioBearerReconfiguration_r3 RadioBearerReconfiguration_r3_IEs,
    v3aoNonCriticalExtensions SEQUENCE
    {
        radioBearerReconfiguration_v3a0ext RadioBearerReconfiguration_v3a0ext,
        nonCriticalExtensions SEQUENCE {} OPTIONAL
    } OPTIONAL
    } OPTIONAL
},
later_than_r3 SEQUENCE
{
    rrc_TransactionIdentifier RRC_TransactionIdentifier,
        criticalExtensions BIT STRING (SIZE(8)) — INSTEAD OF SEQUENCE {}
}
}
```

Type Name : Invalid\_RadioBearerRelease

**Encoding Variation:** 

**Comments**: This invalid type should cause an undefined critical extension error

### **Type Definition**

```
CHOICE
{
    r3 SEQUENCE
    {
        radioBearerRelease_r3 RadioBearerRelease_r3_IEs,
        v3a0NonCriticalExtensions SEQUENCE
    {
            radioBearerRelease_v3a0ext RadioBearerRelease_v3a0ext,
            nonCriticalExtensions SEQUENCE {} OPTIONAL
        } OPTIONAL
    }
    } OPTIONAL
},
later_than_r3 SEQUENCE
{
    rrc_TransactionIdentifier RRC_TransactionIdentifier,
        criticalExtensions BIT STRING (SIZE(8)) — INSTEAD OF SEQUENCE {}
}
}
```

### **Detailed Comments:**

### **ASN.1 Type Definition**

Type Name : Invalid\_RadioBearerSetup

**Encoding Variation:** 

**Comments**: This invalid type should cause an undefined critical extension error

### **Type Definition**

### ASN.1 Type Definition Type Name : Invalid\_SHCCH\_Message\_short Encoding Variation : Comments : Type Definition CounterCheckResponse

**Detailed Comments:** 

**Detailed Comments:** 

**Detailed Comments:** 

ASN.1 Type Definition

Type Name : Invalid\_SecurityModeCommand
Encoding Variation :

Comments : This invalid type should cause an undefined critical extension error

Type Definition

CHOICE
{
 r3 SEQUENCE
 {
 securityModeCommand\_r3 SecurityModeCommand\_r3\_IEs,
 nonCriticalExtensions SEQUENCE {} OPTIONAL
 },
 later\_than\_r3 SEQUENCE
 {
 rrc\_TransactionIdentifier RRC\_TransactionIdentifier,
 criticalExtensions BIT STRING (SIZE(8)) --- INSTEAD OF SEQUENCE {}
}

```
ASN.1 Type Definition
Type Name
                  : Invalid_TransportChannelReconfiguration
Encoding Variation:
Comments
                  : This invalid type should cause an undefined critical extension error
                                               Type Definition
CHOICE
 r3 SEQUENCE
  transportChannelReconfiguration_r3_IEs,
  v3a0NonCriticalExtensions SEQUENCE
   transportChannelReconfiguration_v3a0ext TransportChannelReconfiguration_v3a0ext,
   nonCriticalExtensions SEQUENCE {} OPTIONAL
  } OPTIONAL
 later_than_r3 SEQUENCE
  rrc_TransactionIdentifier RRC_TransactionIdentifier,
  criticalExtensions BIT STRING (SIZE(8)) -- INSTEAD OF SEQUENCE {}
```

Type Name : Invalid\_UECapabilityEnquiry

**Encoding Variation:** 

Comments : This invalid type should cause an undefined critical extension error

### **Type Definition**

```
CHOICE
{
    r3 SEQUENCE
    {
        ueCapabilityEnquiry_r3 UECapabilityEnquiry_r3_IEs,
        nonCriticalExtensions SEQUENCE {} OPTIONAL
    },
    later_than_r3 SEQUENCE
    {
        rrc_TransactionIdentifier RRC_TransactionIdentifier,
        criticalExtensions BIT STRING (SIZE(8)) -- INSTEAD OF SEQUENCE {}
    }
}
```

**Detailed Comments:** 

### **ASN.1 Type Definition**

Type Name : Invalid\_UECapabilityInformationConfirm

**Encoding Variation:** 

Comments : This invalid type should cause an undefined critical extension error

### **Type Definition**

```
CHOICE
{
    r3 SEQUENCE
    {
        ueCapabilityInformationConfirm_r3 UECapabilityInformationConfirm_r3_IEs,
        nonCriticalExtensions SEQUENCE {} OPTIONAL
    },
    later_than_r3 SEQUENCE
    {
        rrc_TransactionIdentifier RRC_TransactionIdentifier,
        criticalExtensions BIT STRING (SIZE(8)) --- INSTEAD OF SEQUENCE {}
    }
}
```

# ASN.1 Type Definition Type Name : Invalid\_UraUpdateConfirm Encoding Variation : Comments : This invalid type should cause an undefined critical extension error Type Definition CHOICE { r3 SEQUENCE { uraUpdateConfirm\_r3 URAUpdateConfirm\_r3\_IEs, nonCriticalExtensions SEQUENCE {} OPTIONAL }, later\_than\_r3 SEQUENCE { rrc\_TransactionIdentifier RRC\_TransactionIdentifier, criticalExtensions BIT STRING (SIZE(8)) — INSTEAD OF SEQUENCE {} }

**Detailed Comments:** 

### **ASN.1 Type Definition**

Type Name : Invalid\_UtranMobilityInformation

**Encoding Variation:** 

**Comments**: This invalid type should cause an undefined critical extension error

### **Type Definition**

```
CHOICE
{
    r3 SEQUENCE
    {
        utranMobilityInformation_r3 UTRANMobilityInformation_r3_IEs,
        v3a0NonCriticalExtensions SEQUENCE
    {
            utranMobilityInformation_v3a0ext UTRANMobilityInformation_v3a0ext_IEs,
            nonCriticalExtensions SEQUENCE {} OPTIONAL
    } OPTIONAL
},
later_than_r3 SEQUENCE
{
    rrc_TransactionIdentifier RRC_TransactionIdentifier,
    criticalExtensions BIT STRING (SIZE(8)) -- INSTEAD OF SEQUENCE {}
}
```

**Detailed Comments:** 

### **ASN.1 Type Definition**

Type Name : KeyCiphering

Encoding Variation:
Comments:

### **Type Definition**

BIT STRING (SIZE (128))

```
ASN.1 Type Definition

Type Name : LogicalChannelType
Encoding Variation :
Comments :

Type Definition

ENUMERATED
{
    bCCH (0),
    pCCH (1),
    cCCH (2),
    cTCH (3),
    dCCH (4),
    dTCH (5),
    sHCCH (6)
}

Detailed Comments :
```

ASN.1 Type Definition

Type Name : MAC\_HeaderManipulation
Encoding Variation :

Comments :

Type Definition

ENUMERATED
{
normalMacHeader (0),
omitMacHeader (1)
}
Detailed Comments :

ASN.1 Type Definition

Type Name : Mui
Encoding Variation :
Comments :

Type Definition

INTEGER (0..4095)

Detailed Comments :

```
ASN.1 Type Definition
Type Name
                 : PDSCHInfo
Encoding Variation:
Comments
                                              Type Definition
SEQUENCE {
fdd_tdd CHOICE {
 fdd SEQUENCE {
  pdsch_CodeMapping PDSCH_CodeMapping
 tdd SEQUENCE {
  -- pdsch-Identity PDSCH-Identity,
   -- pdsch-Info PDSCH-Info,
   -- pdsch-PowerControlInfo PDSCH-PowerControlInfo OPTIONAL
dl_TxPower DL_TxPower
Detailed Comments:
```

```
ASN.1 Type Definition

Type Name : PICHInfo
Encoding Variation :
Comments :

Type Definition

SEQUENCE {
pichinfo PICH_Info,
dl_TxPower PICH_PowerOffset,
sccpchId_associated INTEGER (0..31)
}

Detailed Comments :
```

```
ASN.1 Type Definition
Type Name
                  : PRACHInfo
Encoding Variation:
Comments
                                                Type Definition
SEQUENCE {
 fdd_tdd CHOICE {
  fdd SEQUENCE {
   preambleSignature AvailableSignatures,
   spreadingFactorForDataPart SF_PRACH,
   preambleScramblingCode PreambleScramblingCodeWordNumber,
   puncturingLimit PuncturingLimit,
   accessSlot AvailableSubChannelNumbers
  tdd SEQUENCE {
   -- timeSlot TimeSlot,
   -- spreadingCode SpreadingCode,
   -- midambleCode MidambleCode,
Detailed Comments:
```

### **ASN.1 Type Definition** Type Name : PRACH\_MeasurementInd **Encoding Variation:** Comments : 1. StartMeas: The SS shall start the sending PRACH parameters Measurement report on CPHY PCO, for each PRACH Preamble/Message received from the UE by primitive CPHY\_PRACH\_Measurement\_Report\_IND on CPHY PCO 2. StopMeas: The SS shall stop sending of PRACH parameters Measurement report on CPHY PCO, for each PRACH Preamble received from the UE by primitive CPHY\_PRACH\_Measurement\_Report\_IND on CPHY PCO. **Type Definition** ENUMERATED { startMeas (0), stopMeas (1) **Detailed Comments:**

```
ASN.1 Type Definition

Type Name : PRACH_MeasurementReport
Encoding Variation :
Comments :

Type Definition

SEQUENCE {
    usedPRACH_AcessSlot INTEGER (0..14),
    usedPRACH_Signature INTEGER (0..15) OPTIONAL
}

Detailed Comments :
```

ASN.1 Type Definition

Type Name : PayloadSize
Encoding Variation :
Comments :

Type Definition

INTEGER (0..4992)

Detailed Comments :

ASN.1 Type Definition

Type Name : PhysicalChannelIdentity
Encoding Variation :
Comments :

Type Definition

INTEGER (0..31)
Detailed Comments :

ASN.1 Type Definition

Type Name : PrimaryCCPCHInfo
Encoding Variation :
Comments :

Type Definition

SEQUENCE {
 sttd\_Indicator BOOLEAN,
 dl\_TxPower DL\_TxPower
 -- timeSlot TimeSlot OPTIONAL,
 -- burstType BurstType OPTIONAL,
 -- offset Offset OPTIONAL,
 -- repetitionPeriod RepetitionPeriod OPTIONAL,
 -- repetitionLength RepetitionLength OPTIONAL,
}

Detailed Comments :

ASN.1 Type Definition

Type Name : PrimaryCPICHInfo
Encoding Variation :
Comments :

Type Definition

SEQUENCE {
dI\_TxPower\_PCPICH DL\_TxPower\_PCPICH,
txdiversityIndicator BOOLEAN
}

Detailed Comments :

ASN.1 Type Definition

Type Name : PrimarySCHInfo
Encoding Variation :
Comments :

Type Definition

SEQUENCE {
tstdIndicator BOOLEAN,
dI\_TxPower DL\_TxPower
}

Detailed Comments :

ASN.1 Type Definition

Type Name : RBInfo
Encoding Variation :
Comments :

Type Definition

SEQUENCE {
 sS\_rlc\_Info SS\_RLC\_Info OPTIONAL,
 rB\_LogCH\_Mapping RB\_LogCH\_Mapping
}

Detailed Comments :

ASN.1 Type Definition

Type Name : RB\_LogCH\_Mapping
Encoding Variation :

Comments :

Type Definition

SEQUENCE {
 uLlogicalChannelIdentity LogicalChannelIdentity OPTIONAL,
 dLlogicalChannelIdentity LogicalChannelIdentity OPTIONAL,
 logicalChannelType LogicalChannelType OPTIONAL,
 cn\_DomainIdentity CN\_DomainIdentity OPTIONAL
}

Detailed Comments :

ASN.1 Type Definition

Type Name : RLC\_IncMode 
Encoding Variation : 
Comments : 

Type Definition

ENUMERATED {notInc(0), inc(1)}

Detailed Comments :

```
ASN.1 Type Definition

Type Name : RRC_Rel_Status
Encoding Variation :
Comments :

Type Definition

ENUMERATED {
cell_Dch(0),
cell_Fach_Dcch(1),
cell_Fach_Ccch(2)
}

Detailed Comments :
```

ASN.1 Type Definition

Type Name : RRC\_SequenceNumber
Encoding Variation :
Comments : 4 bits long

Type Definition

INTEGER (0..15)

Detailed Comments :

ASN.1 Type Definition

Type Name : RRC\_ServTested 
Encoding Variation : 
Comments : 

Type Definition

ENUMERATED { 
 speech (0), 
 conversational\_64k (1), 
 streaming\_57\_6k (2), 
 ps\_Interactive (3), 
 ps\_Background (4) 
}

Detailed Comments :

```
ASN.1 Type Definition

Type Name : RatType
Encoding Variation :
Comments : To select route between each channels

Type Definition

ENUMERATED {
fdd(0),
tdd(1)
}
Detailed Comments :
```

ASN.1 Type Definition

Type Name : RegOr\_MO
Encoding Variation :

Comments :

Type Definition

ENUMERATED {
 est\_Reg(0),
 est\_MO(1),
 est\_MT(2)
}

Detailed Comments :

ASN.1 Type Definition

Type Name : RoutingInfo
Encoding Variation :
Comments :

Type Definition

CHOICE {
 physicalChannelIdentity INTEGER (0..31),
 transportChannelIdentity TransportChannelIdentity,
 logicalChannelIdentity LogicalChannelIdentity,
 rB\_Identity INTEGER (-31..32),
 cn\_DomainIdentity CN\_DomainIdentity
}

Detailed Comments :

ASN.1 Type Definition

Type Name : SCCPCHSlotFormat

**Encoding Variation:** 

Comments : Reference to TS25.211

Type Definition

INTEGER (0..17)

```
ASN.1 Type Definition
Type Name
                   : SIB
Encoding Variation:
Comments
                   : Union of all system information blocks
                                                  Type Definition
CHOICE {
 sIB1 SysInfoType1,
 sIB2 SysInfoType2,
 sIB3 SysInfoType3,
 sIB4 SysInfoType4,
 sIB5 SysInfoType5,
 sIB6 SysInfoType6,
 sIB7 SysInfoType7,
 sIB8 SysInfoType8,
 sIB9 SysInfoType9,
 sIB10 SysInfoType10,
 sIB11 SysInfoType11,
 sIB12 SysInfoType12,
 sIB13 SysInfoType13,
 sIB13_1 SysInfoType13_1,
 sIB13_2 SysInfoType13_2,
 sIB13_3 SysInfoType13_3,
 sIB13_4 SysInfoType13_4,
 sIB14 SysInfoType14,
 sIB15 SysInfoType15,
 sIB15_1 SysInfoType15_1,
 sIB15_2 SysInfoType15_2,
 sIB15_3 SysInfoType15_3,
 sIB16 SysInfoType16,
 sIB17 SysInfoType17,
 sIB18 SysInfoType18,
 mIB MasterInformationBlock,
 sB1 SysInfoTypeSB1,
 sB2 SysInfoTypeSB2
Detailed Comments:
```

```
ASN.1 Type Definition

Type Name : SS_ActivationTime 
Encoding Variation : 
Comments : 

Type Definition

CHOICE { activationCFN ActivationTime, activateNow NULL }

Detailed Comments :
```

Type Name : SS\_AddOrReconfMAC\_dFlow

**Encoding Variation:** 

**Comments** : Applicable Rel–5 or later.

### **Type Definition**

```
SEQUENCE {
mac_hs_AddReconfQueue_List SEQUENCE (SIZE(1..maxQueueIDs)) OF SEQUENCE {
mac_hs_AddReconfQueue SS_MAC_hs_AddReconfQueue } OPTIONAL,
mac_hs_DelQueue_List SEQUENCE (SIZE(1..maxQueueIDs)) OF SEQUENCE {
mac_hsQueueId INTEGER(0..7)
} OPTIONAL
}
```

### **Detailed Comments:**

### **ASN.1 Type Definition**

Type Name : SS\_DL\_LogicalChannelMapping

**Encoding Variation:** 

**Comments**: If the macHeaderManipulation field is 'normalMacHeader', then data transmitted on this logical

channel shall have an appropriate MAC header added before it is sent to lower layers for

transmission.

If the macHeaderManipulation field is 'OmitMacHeader', then data transmitted on this logical channel shall not have any MAC header information added, even if the logical channel type and mapping indicates that there should be a MAC header present. This allows the entire MAC PDU to

be specified in the TTCN, so individual fields in the MAC header can be modified. When used for logical channel to MAC\_d flow mapping rlc\_SizeList should choose

RLC\_SizeExplicitList.

### **Type Definition**

```
SEQUENCE {
    macHeaderManipulation MAC_HeaderManipulation,
    dl_TransportChannelType SS_DL_TransportChannelType,
    logicalChannelIdentity LogicalChannelIdentity,
    logicalChannelType LogicalChannelType ,
    rlc_SizeList CHOICE {
        allSizes NULL,
        configured NULL,
        explicitList RLC_SizeExplicitList
    },
    mac_LogicalChannelPriority MAC_LogicalChannelPriority OPTIONAL
}
```

```
ASN.1 Type Definition

Type Name : SS_DL_RLC_Mode
Encoding Variation :
Comments :

Type Definition

SEQUENCE {
dl_PayloadSize PayloadSize OPTIONAL,
dl_RLCModeInfo UL_RLC_Mode
}

Detailed Comments :
```

```
ASN.1 Type Definition

Type Name : SS_DL_TransportChannelType
Encoding Variation :
Comments :

Type Definition

ENUMERATED {
    dch(0),
    fach(1),
    bch(2),
    pch(3),
    dsch(4),
    hsdsch(5) --- Rel-5 or later
}

Detailed Comments :
```

```
ASN.1 Type Definition

Type Name : SS_IntegrityProtActivationTimeInfo
Encoding Variation :
Comments : Omitting rrc_MessageSequenceNumber means activation time set to "now".

Type Definition

SEQUENCE
{
rb_Identity INTEGER (-31..32),
rrc_MessageSequenceNumber RRC_MessageSequenceNumber OPTIONAL
}

Detailed Comments :
```

Type Name : SS\_MAC\_hs\_AddReconfQueue

**Encoding Variation:** 

**Comments** : Applicable Rel–5 or later.

When writing TTCN constraints the TTCN writer shall set the priority of PriorityQueue in this object correctly according to the priority of logical channels which is mapped on to this priority queue. And please note that : the range of priority of PriorityQueue is from 0 to 7 and 0 is the lowest

priority.

### **Type Definition**

```
SEQUENCE {
    mAChsAddReconfQueue MAC_hs_AddReconfQueue,
    logicalChannelList SEQUENCE OF LogicalChannelIdentity,
    --- logical channels mapping onto the priority queue
    --- which is specified in maChsAddReconfQueue
    priority INTEGER(0..7),
    discardTimer ENUMERATED { v20(0),v40(1),v60(2),v80(3),v100(4),
        v120(5),v140(6),v160(7),v180(8),v200(9),
        v250(10),v300(11),v400(12),v500(13),
        v750(14),v1000(15),v1250(16),v1500(17),
        v1750(18),v2000(19),v2500(20),v3000(21),
        v3500(22),v4000(23),v4500(24),v5000(25),
        v7500(26)
    } OPTIONAL
}
```

### **Detailed Comments:**

### **ASN.1 Type Definition**

Type Name : SS\_RLC\_Info

Encoding Variation:
Comments:

### **Type Definition**

```
SEQUENCE {
    sS_ul_RLC_Mode DL_RLC_Mode OPTIONAL,
    sS_dl_RLC_Mode SS_DL_RLC_Mode OPTIONAL,
    sS_ul_RLC_Mode_r5 DL_RLC_Mode_r5 OPTIONAL -- Rel-5 or later
```

Type Name : SS\_UL\_LogicalChannelMapping

**Encoding Variation:** 

Comments

: If the macHeaderManipulation field is 'normalMacHeader', then data received on the transport channel supporting this logical channel shall have it's MAC header inspected to determine the appropriate routing, and removed as normal. The MAC SDU shall be passed to the appropriate logical channel.

If the macHeaderManipulation field field is 'OmitMacHeader', then data received on the transport channel supporting this logical channel shall have it's MAC header inspected to determine the appropriate routing, but the MAC layer shall not remove the MAC header. Thus the entire MAC PDU shall be passed to the appropriate logical channel, and the MAC header can be checked by the

TTCN.

### **Type Definition**

### SEQUENCE {

macHeaderManipulation MAC\_HeaderManipulation, ul\_TransportChannelType SS\_UL\_TransportChannelType, logicalChannelIdentity LogicalChannelIdentity, logicalChannelType LogicalChannelType

**Detailed Comments:** 

### **ASN.1 Type Definition**

Type Name : SS\_UL\_TransportChannelType

Encoding Variation:
Comments:

### **Type Definition**

ENUMERATED {
dch(0),
rach(1),
cpch(2),

usch(3)

Type Name : SecondaryCCPCHInfo

**Encoding Variation:** 

**Comments**: The range for powerOffsetOfTFCI\_PO1 and powerOffsetOfPILOT\_PO3 is 0–6 dB, 0.25 dB per

step.

### **Type Definition**

```
SEQUENCE {
scramblingCode INTEGER(0..15),
{\sf dl\_ChannelizationCode\ SF256\_AndCodeNumber,}
 sCCPCHSlotFormat SCCPCHSlotFormat,
timingOffset INTEGER (0..149),
positionFixedOrFlexible PositionFixedOrFlexible,
 sttd_Indicator BOOLEAN,
 dl_TxPower DL_TxPower,
powerOffsetOfTFCI_PO1 INTEGER (0..24),
powerOffsetOfPILOT_PO3 INTEGER (0..24)
 -- timeSlot TimeSlot OPTIONAL,
 -- burstType BurstType OPTIONAL,
 -- midambleShift MidambleShift OPTIONAL,
 -- offset Offset OPTIONAL,
 -- repetitionPeriod RepetitionPeriod OPTIONAL,
 -- repetitionLength RepetitionLength OPTIONAL,
 -- tFCIPresence TFCIPresence OPTIONAL,
```

**Detailed Comments:** 

## ASN.1 Type Definition Type Name : SecondaryCPICHInfo Encoding Variation : Comments : Type Definition SEQUENCE { scramblingCode INTEGER(0..63), dl\_ChannelizationCode SF512\_AndCodeNumber, dl\_TxPower DL\_TxPower }

```
ASN.1 Type Definition
```

Type Name : SecondarySCHInfo

Encoding Variation:
Comments:

**Detailed Comments:** 

**Type Definition** 

SEQUENCE {
 tstdIndicator BOOLEAN,
 dl\_TxPower DL\_TxPower

**Type Name** : SecurityInfo

**Encoding Variation:** 

Comments : The integrityKey is not applicable to MAC

### **Type Definition**

```
SEQUENCE {
```

cn\_DomainIdentity CN\_DomainIdentity, startValue START\_Value OPTIONAL,

cipheringKey BIT STRING (SIZE (128)) OPTIONAL, integrityKey BIT STRING (SIZE (128)) OPTIONAL. gsmCipheringKey BIT STRING (SIZE (64)) OPTIONAL

Detailed Comments: When the SS receives SecurityInfo, the SS first stores the contents. The SecurityInfo contents is not activated ion of the contents follows until receiving the subsequent ASP,

CRLC\_Ciphering\_Activate\_REQ, CMAC\_Ciphering\_Activate\_REQ or

CRLC\_Integrity\_Activate\_REQ. Omitted fields of SecurityInfo shall not be affected by the subsequent ASP at the activation time.EXAMPLE: Omitting of startValue indicates not to re-initialize the relevant COUNT?C or COUNT-I, omitting of cipheringKey indicates that the

current ciphering key is valid..

### **ASN.1 Type Definition**

Type Name : SegmentsOfSysInfoBlock

**Encoding Variation:** 

Comments : The structure holding the segments of a MIB/SIB/SB, maximum number of segments is 16.

### **Type Definition**

```
SEQUENCE
```

segCount INTEGER (1..16), seg1 BIT STRING (SIZE (1..226)),

seg2 BIT STRING (SIZE (1..222)) OPTIONAL, seg3 BIT STRING (SIZE (1..222)) OPTIONAL,

seg4 BIT STRING (SIZE (1..222)) OPTIONAL,

seg5 BIT STRING (SIZE (1..222)) OPTIONAL, seg6 BIT STRING (SIZE (1..222)) OPTIONAL,

seg7 BIT STRING (SIZE (1..222)) OPTIONAL,

seg8 BIT STRING (SIZE (1..222)) OPTIONAL, seg9 BIT STRING (SIZE (1..222)) OPTIONAL,

seg10 BIT STRING (SIZE (1..222)) OPTIONAL,

seg11 BIT STRING (SIZE (1..222)) OPTIONAL, seg12 BIT STRING (SIZE (1..222)) OPTIONAL,

seg13 BIT STRING (SIZE (1..222)) OPTIONAL,

seg14 BIT STRING (SIZE (1..222)) OPTIONAL, seg15 BIT STRING (SIZE (1..222)) OPTIONAL,

seg16 BIT STRING (SIZE (1..222)) OPTIONAL

Type Name : Tcell Encoding Variation :

Comments : Timing offset between reference channel and this channel ( unit : 256 chips )

**Type Definition** 

INTEGER (0..38399)

**Detailed Comments:** 

### **ASN.1 Type Definition**

Type Name : TrCHInfo

**Encoding Variation:** 

**Comments**: The same TFCS information should be provided to the PHY and MAC layers at all times. When a

CMAC\_Config\_REQ is used to configure the MAC layer, a corresponding

CPHY\_TrCH\_Config\_REQ should be sent to the PHY layer to ensure that the configuration is

consistent.

For MAC-hs configuration:

When ulconnectedTrCHList, ulTFCS, dlconnectedTrCHList and dlTFCS are omitted this ASP

configures an MAC-hs entity.

### **Type Definition**

```
SEQUENCE
```

{

ulconnectedTrCHList SEQUENCE (SIZE (1..maxulTrCH)) OF SEQUENCE {

trchid TransportChannelIdentity,

 $transport Channel Info\ Common Or Dedicated TFS$ 

} OPTIONAL,

ultfcs tfcs optional,

dlconnectedTrCHList SEQUENCE (SIZE (1..maxdlTrCH)) OF SEQUENCE {

trchid TransportChannelIdentity,

 $transport Channel Info\ Common Or Dedicated TFS$ 

} OPTIONAL,

dITFCS TFCS OPTIONAL,

 $hs DSCHMacdFlows\ HS\_DSCHMACdFlows\ OPTIONAL\ --\ Rel-5\ or\ later$ 

**Detailed Comments:** 

### **ASN.1 Type Definition**

Type Name : TrCH\_LogCHMappingList

**Encoding Variation:** 

**Comments** : maxLogCHperTrCH = 8

Type Definition

SEQUENCE (SIZE (1..maxLogCHperTrCH)) OF TrCH\_LogicalChannelMapping

```
ASN.1 Type Definition
Type Name
                  : TrCH_LogCHMappingList1
Encoding Variation:
Comments
                  : maxulTrCH = maxdlTrCH = 16
                                               Type Definition
SEQUENCE
 ulconnectedTrCHList SEQUENCE (SIZE (1..maxulTrCH)) OF SEQUENCE {
  trchid TransportChannelldentity,
  trCH_LogCHMappingList TrCH_LogCHMappingList} OPTIONAL,
 dlconnectedTrCHList SEQUENCE (SIZE (1..maxdlTrCH)) OF SEQUENCE {
  trchid TransportChannelldentity,
  trCH\_LogCHMappingList\ TrCH\_LogCHMappingList\}\ OPTIONAL,
 dlconnectedMACdFlows SEQUENCE (SIZE (1..8)) OF SEQUENCE {
  mac_dFlowId MAC_d_FlowIdentity,
  trCH_LogCHMappingList TrCH_LogCHMappingList
 } OPTIONAL -- Rel-5 or later
Detailed Comments:
```

```
ASN.1 Type Definition

Type Name : TrCH_LogicalChannelMapping
Encoding Variation :

Comments : When used for logical channel to MAC_d flow mapping dl_LogicalChannelMapping shall be chosen,

Type Definition

SEQUENCE {
    logicalChannel_Mapping CHOICE {
        ul_LogicalChannelMapping SS_UL_LogicalChannelMapping,
        dl_LogicalChannelMapping SS_DL_LogicalChannelMapping
    },
    rB_Identity INTEGER (-31..32) OPTIONAL,
    cn_DomainIdentity CN_DomainIdentity OPTIONAL
}

Detailed Comments :
```

```
ASN.1 Type Definition

Type Name : TrChConfigType
Encoding Variation :
Comments :

Type Definition

CHOICE {
    nonDch NULL,
    dch ENUMERATED {normal(0), softHO(1)}}

Detailed Comments :
```

Type Name : UE\_Info

**Encoding Variation:** 

Comments : The value of c\_RNTI\_DSCH\_RNTI is 16 bits, used either for C-RNTI or DSCH-RNTI. DSCH is

configured if the physical channel in CMAC\_config\_REQ is a PDSCH. Otherwise, C-RNTI is applied. For MAC-hs configuration both u\_RNTI and c\_RNTI\_DSCH\_RNTI are omitted.

### **Type Definition**

SEQUENCE {

u\_RNTI U\_RNTI OPTIONAL, c\_RNTI C\_RNTI OPTIONAL

}

**Detailed Comments:** 

**ASN.1 Type Definition** 

Type Name : UE\_OperationMode

Encoding Variation:
Comments:

**Type Definition** 

ENUMERATED { opModeA (0), opModeC (1) }

	ASN.1 Type Definitions By Reference				
Type Name	Type Reference	Module Identifier	Encoding Variation	Comments	
DL_DCCH_MessageT	DL-DCCH-MessageT	Class-definitions			
ype	ype				
UL_DCCH_MessageT ype	UL-DCCH-MessageT ype	Class-definitions			
DL_CCCH_MessageT ype	DL-CCCH-MessageT ype	Class-definitions			
UL_CCCH_MessageT ype	UL-CCCH-MessageT ype	Class-definitions			
PCCH_MessageType	PCCH-MessageType	Class-definitions			
DL_SHCCH_Message Type	DL-SHCCH-Messag eType	Class-definitions			
UL_SHCCH_Message Type	UL-SHCCH-Messag eType	Class-definitions			
BCCH_FACH_Messa geType	BCCH-FACH-Messa geType	Class-definitions			
ActiveSetUpdate	ActiveSetUpdate	Class-definitions			
ActiveSetUpdate_r3_I Es	ActiveSetUpdate-r3- IEs	Class-definitions			
ActiveSetUpdate_v4b 0ext_IEs	ActiveSetUpdate-v4b 0ext-IEs	Class-definitions			
ActiveSetUpdate_v59 0ext_IEs	ActiveSetUpdate-v59 0ext-IEs	Class-definitions			
ActiveSetUpdateCom plete	ActiveSetUpdateCom plete	Class-definitions			
ActiveSetUpdateFailur e	ActiveSetUpdateFailur e	Class-definitions			
AssistanceDataDeliver y	AssistanceDataDeliver y	Class-definitions			
AssistanceDataDeliver y_r3_IEs	AssistanceDataDeliver y-r3-IEs	Class-definitions			
AssistanceDataDeliver y_v3a0ext	AssistanceDataDeliver y-v3a0ext	Class-definitions			
AssistanceDataDeliver y_v4b0ext_IEs	AssistanceDataDeliver y-v4b0ext-IEs	Class-definitions			
CellChangeOrderFrom UTRAN	CellChangeOrderFrom UTRAN	Class-definitions			
CellChangeOrderFrom UTRAN_r3_IEs	CellChangeOrderFrom UTRAN-r3-IEs	Class-definitions			
CellChangeOrderFrom UTRAN_v590ext_IEs	CellChangeOrderFrom UTRAN-v590ext-IEs	Class-definitions			
CellChangeOrderFrom UTRANFailure	CellChangeOrderFrom UTRANFailure	Class-definitions			
CellChangeOrderFrom UTRANFailure_r3_IEs	CellChangeOrderFrom UTRANFailure-r3-IEs	Class-definitions			
CellUpdate	CellUpdate	Class-definitions			
CellUpdate_v590ext	CellUpdate-v590ext	Class-definitions			
CellUpdateConfirm	CellUpdateConfirm	Class-definitions			
CellUpdateConfirm_r3 _IEs	CellUpdateConfirm-r 3-IEs	Class-definitions			
CellUpdateConfirm_v 3a0ext	CellUpdateConfirm-v 3a0ext	Class-definitions			
CellUpdateConfirm_v 4b0ext_IEs	CellUpdateConfirm-v 4b0ext-IEs	Class-definitions			

ASN.1 Type Definitions By Reference				
Type Name	Type Reference	Module Identifier	Encoding Variation	Comments
CellUpdateConfirm_v 590ext_IEs	CellUpdateConfirm-v 590ext-IEs	Class-definitions		
CellUpdateConfirm_r4 _IEs	CellUpdateConfirm-r 4-IEs	Class-definitions		
CellUpdateConfirm_r5 _IEs	CellUpdateConfirm-r 5-IEs	Class-definitions		
CellUpdateConfirm_CCCH	CellUpdateConfirm-C CCH	Class-definitions		
CounterCheck	CounterCheck	Class-definitions		
CounterCheck_r3_IEs	CounterCheck-r3-IE s	Class-definitions		
CounterCheckRespon se	CounterCheckRespon se	Class-definitions		
DownlinkDirectTransfe r	DownlinkDirectTransfe r	Class-definitions		
DownlinkDirectTransfe r_r3_IEs	DownlinkDirectTransfe r-r3-IEs	Class-definitions		
HandoverToUTRANC omplete	HandoverToUTRANC omplete	Class-definitions		
InitialDirectTransfer	InitialDirectTransfer	Class-definitions		
InitialDirectTransfer_v 3a0ext	InitialDirectTransfer-v 3a0ext	Class-definitions		
InitialDirectTransfer_v 590ext	InitialDirectTransfer-v 590ext	Class-definitions		
HandoverFromUTRAN Command_GSM	HandoverFromUTRAN Command-GSM	Class-definitions		
HandoverFromUTRAN Command_GSM_r3_I Es	HandoverFromUTRAN Command-GSM-r3-I Es	Class-definitions		
HandoverFromUTRAN Command_GERANIu	HandoverFromUTRAN Command-GERANIu	Class-definitions		
HandoverFromUTRAN Command_GERANIu_ r5_IEs	HandoverFromUTRAN Command-GERANIu -r5-IEs	Class-definitions		
HandoverFromUTRAN Command_CDMA200 0	HandoverFromUTRAN Command-CDMA200 0	Class-definitions		
HandoverFromUTRAN Command_CDMA200 0_r3_IEs	HandoverFromUTRAN Command-CDMA200 0-r3-IEs	Class-definitions		
HandoverFromUTRAN Failure	HandoverFromUTRAN Failure	Class-definitions		
HandoverFromUtranF ailure_v590ext_IEs	HandoverFromUtranF ailure-v590ext-IEs	Class-definitions		
MeasurementControl	MeasurementControl	Class-definitions		
MeasurementControl_ r3_IEs	MeasurementControl- r3-IEs	Class-definitions		
MeasurementControl_ v390ext	MeasurementControl- v390ext	Class-definitions		
MeasurementControl_ v3a0ext	MeasurementControl- v3a0ext	Class-definitions		
MeasurementControl_ r4_IEs	MeasurementControl- r4-IEs	Class-definitions		

ASN.1 Type Definitions By Reference				
Type Name	Type Reference	Module Identifier	Encoding Variation	Comments
MeasurementControl_ v590ext_IEs	MeasurementControl- v590ext-IEs	Class-definitions		
MeasurementControl_ v5b0ext_IEs	MeasurementControl- v5b0ext-IEs	Class-definitions		
MeasurementControlF ailure	MeasurementControlF ailure	Class-definitions		
MeasurementControlF ailure_v590ext_IEs	MeasurementControlF ailure-v590ext-IEs	Class-definitions		
MeasurementReport	MeasurementReport	Class-definitions		
MeasurementReport_v 390ext	MeasurementReport- v390ext	Class-definitions		
MeasurementReport_v 4b0ext_IEs	MeasurementReport- v4b0ext-IEs	Class-definitions		
MeasurementReport_v 590ext_IEs	MeasurementReport- v590ext-IEs	Class-definitions		
MeasurementReport_v 5b0ext_IEs	MeasurementReport- v5b0ext-IEs	Class-definitions		
PagingType1	PagingType1	Class-definitions		
PagingType1_v590ext _IEs	PagingType1-v590ext -IEs	Class-definitions		
PagingType2	PagingType2	Class-definitions		
PhysicalChannelRecon figuration	PhysicalChannelRecon figuration	Class-definitions		
PhysicalChannelRecon figuration_r3_IEs	PhysicalChannelRecon figuration-r3-lEs	Class-definitions		
PhysicalChannelRecon figuration_v3a0ext	PhysicalChannelRecon figuration-v3a0ext	Class-definitions		
PhysicalChannelRecon figuration_v4b0ext_IE s	PhysicalChannelRecon figuration-v4b0ext-l Es	Class-definitions		
PhysicalChannelRecon figuration_v590ext_IE s	PhysicalChannelRecon figuration-v590ext-l Es	Class-definitions		
PhysicalChannelRecon figuration_r4_IEs	PhysicalChannelRecon figuration-r4-IEs	Class-definitions		
PhysicalChannelRecon figuration_r5_IEs	PhysicalChannelRecon figuration-r5-IEs	Class-definitions		
PhysicalChannelRecon figurationComplete	PhysicalChannelRecon figurationComplete	Class-definitions		
PhysicalChannelRecon figurationFailure	PhysicalChannelRecon figurationFailure	Class-definitions		
PhysicalSharedChann elAllocation	PhysicalSharedChann elAllocation	Class-definitions		
PhysicalSharedChann elAllocation_r3_IEs	PhysicalSharedChann elAllocation-r3-IEs	Class-definitions		
PhysicalSharedChann elAllocation_r4_IEs	PhysicalSharedChann elAllocation-r4-IEs	Class-definitions		
PUSCHCapacityRequ est	PUSCHCapacityRequ est	Class-definitions		
PUSCHCapacityRequ est_v590ext	PUSCHCapacityRequ est-v590ext	Class-definitions		
RadioBearerReconfigu ration	RadioBearerReconfigu ration	Class-definitions		

ASN.1 Type Definitions By Reference				
Type Name	Type Reference	Module Identifier	Encoding Variation	Comments
RadioBearerReconfigu ration_r3_IEs	RadioBearerReconfigu ration-r3-IEs	Class-definitions		
RadioBearerReconfigu ration_v3a0ext	RadioBearerReconfigu ration–v3a0ext	Class-definitions		
RadioBearerReconfigu ration_v4b0ext_IEs	RadioBearerReconfigu ration-v4b0ext-IEs	Class-definitions		
RadioBearerReconfigu ration_v590ext_IEs	RadioBearerReconfigu ration-v590ext-IEs	Class-definitions		
RadioBearerReconfigu ration_r4_IEs	RadioBearerReconfigu ration-r4-IEs	Class-definitions		
RadioBearerReconfigu ration_r5_IEs	RadioBearerReconfigu ration-r5-IEs	Class-definitions		
RadioBearerReconfigu rationComplete	RadioBearerReconfigu rationComplete	Class-definitions		
RadioBearerReconfigu rationFailure	RadioBearerReconfigu rationFailure	Class-definitions		
RadioBearerRelease	RadioBearerRelease	Class-definitions		
RadioBearerRelease_r 3_IEs	RadioBearerRelease-r 3-IEs	Class-definitions		
RadioBearerRelease_v 3a0ext	RadioBearerRelease-v 3a0ext	Class-definitions		
RadioBearerRelease_v 4b0ext_IEs	RadioBearerRelease-v 4b0ext-IEs	Class-definitions		
RadioBearerRelease_v 590ext_IEs	RadioBearerRelease-v 590ext-IEs	Class-definitions		
RadioBearerRelease_r 4_IEs	RadioBearerRelease-r 4-IEs	Class-definitions		
RadioBearerRelease_r 5_IEs	RadioBearerRelease-r 5-IEs	Class-definitions		
RadioBearerReleaseCo mplete	RadioBearerReleaseCo mplete	Class-definitions		
RadioBearerReleaseFail ure	RadioBearerReleaseFail ure	Class-definitions		
RadioBearerSetup	RadioBearerSetup	Class-definitions		
RadioBearerSetup_r3_ IEs	RadioBearerSetup-r3 -IEs	Class-definitions		
RadioBearerSetup_v3 a0ext	RadioBearerSetup-v3 a0ext	Class-definitions		
RadioBearerSetup_v4 b0ext_IEs	RadioBearerSetup-v4 b0ext-IEs	Class-definitions		
RadioBearerSetup_v5 90ext_IEs	RadioBearerSetup-v5 90ext-IEs	Class-definitions		
RadioBearerSetup_r4_ IEs	RadioBearerSetup-r4 -IEs	Class-definitions		
RadioBearerSetup_r5_ IEs	RadioBearerSetup-r5 -IEs	Class-definitions		
RadioBearerSetupCom plete	RadioBearerSetupCom plete	Class-definitions		
RadioBearerSetupFailu re	RadioBearerSetupFailu re	Class-definitions		
RRCConnectionReject	RRCConnectionReject	Class-definitions		
RRCConnectionReject _r3_IEs	RRCConnectionReject -r3-IEs	Class-definitions		

ASN.1 Type Definitions By Reference				
Type Name	Type Reference	Module Identifier	Encoding Variation	Comments
RRCConnectionReleas e	RRCConnectionReleas e	Class-definitions		
RRCConnectionReleas e_r3_IEs	RRCConnectionReleas e-r3-IEs	Class-definitions		
RRCConnectionReleas e_r4_IEs	RRCConnectionReleas e-r4-IEs	Class-definitions		
RRCConnectionReleas e_CCCH	RRCConnectionReleas e–CCCH	Class-definitions		
RRCConnectionReleas e_CCCH_r3_IEs	RRCConnectionReleas e-CCCH-r3-IEs	Class-definitions		
RRCConnectionReleas e_CCCH_r4_IEs	RRCConnectionReleas e-CCCH-r4-IEs	Class-definitions		
RRCConnectionReleas e_CCCH_r5_IEs	RRCConnectionReleas e-CCCH-r5-IEs	Class-definitions		
RRCConnectionReleas eComplete	RRCConnectionReleas eComplete	Class-definitions		
RRCConnectionReque st	RRCConnectionReque st	Class-definitions		
RRCConnectionReque st_v3d0ext_IEs	RRCConnectionReque st–v3d0ext–IEs	Class-definitions		
RRCConnectionReque st_v4b0ext_IEs	RRCConnectionReque st–v4b0ext–IEs	Class-definitions		
RRCConnectionReque st_v590ext_IEs	RRCConnectionReque st-v590ext-IEs	Class-definitions		
RRCConnectionSetup	RRCConnectionSetup	Class-definitions		
RRCConnectionSetup _r3_IEs	RRCConnectionSetup -r3-IEs	Class-definitions		
RRCConnectionSetup _v4b0ext_IEs	RRCConnectionSetup -v4b0ext-IEs	Class-definitions		
RRCConnectionSetup _v590ext_IEs	RRCConnectionSetup -v590ext-IEs	Class-definitions		
RRCConnectionSetup _r4_IEs	RRCConnectionSetup -r4-IEs	Class-definitions		
RRCConnectionSetup _r5_IEs	RRCConnectionSetup -r5-IEs	Class-definitions		
RRCConnectionSetup Complete	RRCConnectionSetup Complete	Class-definitions		
RRCConnectionSetup Complete_v370ext	RRCConnectionSetup Complete-v370ext	Class-definitions		
RRCConnectionSetup Complete_v380ext_IE s	RRCConnectionSetup Complete-v380ext-I Es	Class-definitions		
RRCConnectionSetup Complete_v3a0ext_IE s	RRCConnectionSetup Complete-v3a0ext-I Es	Class-definitions		
RRCConnectionSetup Complete_v3g0ext_IE s	RRCConnectionSetup Complete-v3g0ext-I Es	Class-definitions		
RRCConnectionSetup Complete_v4b0ext_IE s	RRCConnectionSetup Complete-v4b0ext-I Es	Class-definitions		
RRCConnectionSetup Complete_v590ext_IE s	RRCConnectionSetup Complete-v590ext-I Es	Class-definitions		

	ASN.1 Type Definitions By Reference				
Type Name	Type Reference	Module Identifier	Encoding Variation	Comments	
RRCStatus	RRCStatus	Class-definitions			
SecurityModeComman d	SecurityModeComman d	Class-definitions			
SecurityModeComman d_r3_IEs	SecurityModeComman d-r3-IEs	Class-definitions			
SecurityModeComplet e	SecurityModeComplet e	Class-definitions			
SecurityModeFailure	SecurityModeFailure	Class-definitions			
SignallingConnectionR elease	SignallingConnectionR elease	Class-definitions			
SignallingConnectionR elease_r3_IEs	SignallingConnectionR elease-r3-IEs	Class-definitions			
SignallingConnectionR eleaseIndication	SignallingConnectionR eleaseIndication	Class-definitions			
SystemInformation_B CH	SystemInformation-B CH	Class-definitions			
SystemInformation_F ACH	SystemInformation-F ACH	Class-definitions			
FirstSegment	FirstSegment	Class-definitions			
FirstSegmentShort	FirstSegmentShort	Class-definitions			
SubsequentSegment	SubsequentSegment	Class-definitions			
LastSegment	LastSegment	Class-definitions			
LastSegmentShort	LastSegmentShort	Class-definitions			
CompleteSIB_List	CompleteSIB-List	Class-definitions			
CompleteSIB	CompleteSIB	Class-definitions			
CompleteSIBshort	CompleteSIBshort	Class-definitions			
SystemInformationCh angeIndication	SystemInformationCh angeIndication	Class-definitions			
TransportChannelRec onfiguration	TransportChannelRec onfiguration	Class-definitions			
TransportChannelRec onfiguration_r3_IEs	TransportChannelRec onfiguration-r3-IEs	Class-definitions			
TransportChannelRec onfiguration_v3a0ext	TransportChannelRec onfiguration-v3a0ext	Class-definitions			
TransportChannelRec onfiguration_v4b0ext _IEs	TransportChannelRec onfiguration-v4b0ext -IEs	Class-definitions			
TransportChannelRec onfiguration_v590ext _IEs	TransportChannelRec onfiguration-v590ext -IEs	Class-definitions			
TransportChannelRec onfiguration_r4_IEs	TransportChannelRec onfiguration-r4-IEs	Class-definitions			
TransportChannelRec onfiguration_r5_IEs	TransportChannelRec onfiguration-r5-IEs	Class-definitions			
TransportChannelRec onfigurationComplete	TransportChannelRec onfigurationComplete	Class-definitions			
TransportChannelRec onfigurationFailure	TransportChannelRec onfigurationFailure	Class-definitions			
TransportFormatCom binationControl	TransportFormatCom binationControl	Class-definitions			
TransportFormatCom binationControlFailure	TransportFormatCom binationControlFailure	Class-definitions			

	ASN.1 Type Definitions By Reference				
Type Name	Type Reference	Module Identifier	Encoding Variation	Comments	
UECapabilityEnquiry	UECapabilityEnquiry	Class-definitions			
UECapabilityEnquiry_r 3_IEs	UECapabilityEnquiry– r3–IEs	Class-definitions			
UECapabilityEnquiry_ v4b0ext_IEs	UECapabilityEnquiry– v4b0ext–IEs	Class-definitions			
UECapabilityEnquiry_ v590ext_IEs	UECapabilityEnquiry– v590ext–IEs	Class-definitions			
UECapabilityInformati on	UECapabilityInformati on	Class-definitions			
UECapabilityInformati on_v370ext	UECapabilityInformati on–v370ext	Class-definitions			
UECapabilityInformati on_v380ext_IEs	UECapabilityInformati on-v380ext-IEs	Class-definitions			
UECapabilityInformati on_v3a0ext_IEs	UECapabilityInformati on-v3a0ext-IEs	Class-definitions			
UECapabilityInformati on_v4b0ext	UECapabilityInformati on-v4b0ext	Class-definitions			
UECapabilityInformati on_v590ext	UECapabilityInformati on-v590ext	Class-definitions			
UECapabilityInformati onConfirm	UECapabilityInformati onConfirm	Class-definitions			
UECapabilityInformati onConfirm_r3_IEs	UECapabilityInformati onConfirm-r3-IEs	Class-definitions			
UplinkDirectTransfer	UplinkDirectTransfer	Class-definitions			
UplinkPhysicalChannel Control	UplinkPhysicalChannel Control	Class-definitions			
UplinkPhysicalChannel Control_r3_IEs	UplinkPhysicalChannel Control-r3-IEs	Class-definitions			
UplinkPhysicalChannel Control_v4b0ext_IEs	UplinkPhysicalChannel Control-v4b0ext-IEs	Class-definitions			
UplinkPhysicalChannel Control_r4_IEs	UplinkPhysicalChannel Control-r4-IEs	Class-definitions			
UplinkPhysicalChannel Control_r5_IEs	UplinkPhysicalChannel Control-r5-IEs	Class-definitions			
URAUpdate	URAUpdate	Class-definitions			
URAUpdateConfirm	URAUpdateConfirm	Class-definitions			
URAUpdateConfirm_r 3_IEs	URAUpdateConfirm-r 3-IEs	Class-definitions			
URAUpdateConfirm_r 5_IEs	URAUpdateConfirm-r 5-IEs	Class-definitions			
URAUpdateConfirm_ CCCH	URAUpdateConfirm- CCCH	Class-definitions			
URAUpdateConfirm_ CCCH_r3_IEs	URAUpdateConfirm- CCCH-r3-IEs	Class-definitions			
UTRANMobilityInform ation	UTRANMobilityInform ation	Class-definitions			
UTRANMobilityInform ation_r3_IEs	UTRANMobilityInform ation-r3-IEs	Class-definitions			
UTRANMobilityInform ation_v3a0ext_IEs	UTRANMobilityInform ation-v3a0ext-IEs	Class-definitions			
UTRANMobilityInform ation_r5_IEs	UTRANMobilityInform ation-r5-IEs	Class-definitions			

	ASN.1 Type Definitions By Reference				
Type Name	Type Reference	Module Identifier	Encoding Variation	Comments	
UTRANMobilityInform ationConfirm	UTRANMobilityInform ationConfirm	Class-definitions			
UTRANMobilityInform ationFailure	UTRANMobilityInform ationFailure	Class-definitions			
Ansi_41_IDNNS	Ansi-41-IDNNS	Class-definitions			
CN_DomainIdentity	CN-DomainIdentity	Class-definitions			
CN_DomainInformation	CN-DomainInformati on	Class-definitions			
CN_DomainInformatio nFull	CN-DomainInformati onFull	Class-definitions			
CN_DomainInformatio nList	CN-DomainInformati onList	Class-definitions			
CN_DomainInformatio nListFull	CN–DomainInformati onListFull	Class-definitions			
CN_DomainSysInfo	CN-DomainSysInfo	Class-definitions			
CN_DomainSysInfoLi st	CN-DomainSysInfoLi st	Class-definitions			
CN_InformationInfo	CN-InformationInfo	Class-definitions			
CN_InformationInfoF ull	CN-InformationInfoF ull	Class-definitions			
Digit	Digit	Class-definitions			
Gsm_map_IDNNS	Gsm-map-IDNNS	Class-definitions			
IMEI	IMEI	Class-definitions			
IMEI_Digit	IMEI-Digit	Class-definitions			
IMSI_GSM_MAP	IMSI-GSM-MAP	Class-definitions			
IntraDomainNasNode Selector	IntraDomainNasNode Selector	Class-definitions			
LAI	LAI	Class-definitions			
MCC	MCC	Class-definitions			
MNC	MNC	Class-definitions			
NAS_Message	NAS-Message	Class-definitions			
NAS_Synchronisation _Indicator	NAS-Synchronisation –Indicator	Class-definitions			
NAS_SystemInformati onGSM_MAP	NAS-SystemInformati onGSM-MAP	Class-definitions			
P_TMSI_GSM_MAP	P-TMSI-GSM-MAP	Class-definitions			
PagingRecordTypeID	PagingRecordTypeID	Class-definitions			
PLMN_Identity	PLMN-Identity	Class-definitions			
PLMN_Type	PLMN-Type	Class-definitions			
RAB_Identity	RAB-Identity	Class-definitions			
RAI	RAI	Class-definitions			
RoutingAreaCode	RoutingAreaCode	Class-definitions			
RoutingParameter	RoutingParameter	Class-definitions			
TMSI_GSM_MAP	TMSI-GSM-MAP	Class-definitions			
AccessClassBarred	AccessClassBarred	Class-definitions			
AccessClassBarredList	AccessClassBarredList	Class-definitions			
AllowedIndicator	AllowedIndicator	Class-definitions			
CellAccessRestriction	CellAccessRestriction	Class-definitions			
CellBarred	CellBarred	Class-definitions			

	ASN.1 Type Definitions By Reference				
Type Name	Type Reference	Module Identifier	Encoding Variation	Comments	
CellIdentity	CellIdentity	Class-definitions			
CellIdentity_PerRL_Li st	CellIdentity-PerRL-Li st	Class-definitions			
CellSelectReselectInfo SIB_3_4	CellSelectReselectInfo SIB-3-4	Class-definitions			
MapParameter	MapParameter	Class-definitions			
Mapping	Mapping	Class-definitions			
Mapping_LCR_r4	Mapping-LCR-r4	Class-definitions			
MappingFunctionPara meter	MappingFunctionPara meter	Class-definitions			
MappingFunctionPara meterList	MappingFunctionPara meterList	Class-definitions			
MappingFunctionType	MappingFunctionType	Class-definitions			
MappingInfo	MappingInfo	Class-definitions			
Q_Hyst_S	Q-Hyst-S	Class-definitions			
Q_Hyst_S_Fine	Q-Hyst-S-Fine	Class-definitions			
RAT	RAT	Class-definitions			
RAT_FDD_Info	RAT-FDD-Info	Class-definitions			
RAT_FDD_InfoList	RAT-FDD-InfoList	Class-definitions			
RAT_Identifier	RAT-Identifier	Class-definitions			
RAT_TDD_Info	RAT-TDD-Info	Class-definitions			
RAT_TDD_InfoList	RAT-TDD-InfoList	Class-definitions			
ReservedIndicator	ReservedIndicator	Class-definitions			
S_SearchQual	S-SearchQual	Class-definitions			
S_SearchRXLEV	S-SearchRXLEV	Class-definitions			
T_Barred	T-Barred	Class-definitions			
T_Reselection_S	T-Reselection-S	Class-definitions			
T_Reselection_S_Fine	T-Reselection-S-Fine	Class-definitions			
UpperLimit	UpperLimit	Class-definitions			
URA_Identity	URA-Identity	Class-definitions			
URA_IdentityList	URA-IdentityList	Class-definitions			
AccessStratumRelease Indicator	AccessStratumRelease Indicator	Class-definitions			
ActivationTime	ActivationTime	Class-definitions			
BackoffControlParam	BackoffControlParam	Class-definitions			
S	S				
C_RNTI	C-RNTI	Class-definitions			
CapabilityUpdateRequi rement	CapabilityUpdateRequi rement	Class-definitions			
CapabilityUpdateRequi rement_r4_ext	CapabilityUpdateRequi rement-r4-ext	Class-definitions			
CapabilityUpdateRequi rement_r4	CapabilityUpdateRequi rement-r4	Class-definitions			
CellUpdateCause	CellUpdateCause	Class-definitions			
ChipRateCapability	ChipRateCapability	Class-definitions			
CipheringAlgorithm	CipheringAlgorithm	Class-definitions			
CipheringModeComm and	CipheringModeComm and	Class-definitions			
CipheringModeInfo	CipheringModeInfo	Class-definitions			

Continued from previous pag	ASN.1 Type Definitions By Reference				
Type Name	Type Reference	Module Identifier	Encoding Variation	Comments	
CN_DRX_CycleLengt hCoefficient	CN-DRX-CycleLengt hCoefficient	Class-definitions			
CN_PagedUE_Identit y	CN-PagedUE-Identit y	Class-definitions			
CompressedModeMea sCapability	CompressedModeMea sCapability	Class-definitions			
CompressedModeMea sCapability_LCR_r4	CompressedModeMea sCapability-LCR-r4	Class-definitions			
CompressedModeMea sCapabFDDList	CompressedModeMea sCapabFDDList	Class-definitions			
CompressedModeMea sCapabFDD	CompressedModeMea sCapabFDD	Class-definitions			
CompressedModeMea sCapabTDDList	CompressedModeMea sCapabTDDList	Class-definitions			
CompressedModeMea sCapabTDD	CompressedModeMea sCapabTDD	Class-definitions			
CompressedModeMea sCapabGSMList	CompressedModeMea sCapabGSMList	Class-definitions			
CompressedModeMea sCapabGSM	CompressedModeMea sCapabGSM	Class-definitions			
CompressedModeMea sCapabMC	CompressedModeMea sCapabMC	Class-definitions			
CPCH_Parameters	CPCH-Parameters	Class-definitions			
DL_CapabilityWithSim ultaneousHS_DSCHC onfig	DL-CapabilityWithSim ultaneousHS-DSCHC onfig	Class-definitions			
DL_DPCCH_BER	DL-DPCCH-BER	Class-definitions			
DL_PhysChCapability FDD	DL-PhysChCapability FDD	Class-definitions			
DL_PhysChCapability FDD_v380ext	DL-PhysChCapability FDD-v380ext	Class-definitions			
SupportOfDedicatedPi lotsForChEstimation	SupportOfDedicatedPi lotsForChEstimation	Class-definitions			
DL_PhysChCapability TDD	DL-PhysChCapability TDD	Class-definitions			
DL_PhysChCapability TDD_LCR_r4	DL-PhysChCapability TDD-LCR-r4	Class-definitions			
DL_TransChCapability	DL-TransChCapability	Class-definitions			
DRAC_SysInfo	DRAC-SysInfo	Class-definitions			
DRAC_SysInfoList	DRAC-SysInfoList	Class-definitions			
DSCH_RNTI	DSCH-RNTI	Class-definitions			
ESN_DS_41	ESN-DS-41	Class-definitions			
EstablishmentCause	EstablishmentCause	Class-definitions			
FailureCauseWithProt Err	FailureCauseWithProt Err	Class-definitions			
FailureCauseWithProt ErrTrld	FailureCauseWithProt ErrTrld	Class-definitions			
GroupIdentityWithRele aseInformation	GroupIdentityWithRele aseInformation	Class-definitions			
GroupReleaseInformati on	GroupReleaseInformati on	Class-definitions			
GSM_Measurements	GSM-Measurements	Class-definitions			

ASN.1 Type Definitions By Reference				
Type Name	Type Reference	Module Identifier	Encoding Variation	Comments
H_RNTI	H-RNTI	Class-definitions		
HSDSCH_physical_la yer_category	HSDSCH-physical-la yer-category	Class-definitions		
UESpecificBehaviourI nformation1idle	UESpecificBehaviourl nformation1idle	Class-definitions		
IMSI_and_ESN_DS_ 41	IMSI-and-ESN-DS- 41	Class-definitions		
IMSI_DS_41	IMSI-DS-41	Class-definitions		
InitialPriorityDelayList	InitialPriorityDelayList	Class-definitions		
InitialUE_Identity	InitialUE-Identity	Class-definitions		
IntegrityCheckInfo	IntegrityCheckInfo	Class-definitions		
IntegrityProtActivatio nInfo	IntegrityProtActivatio nInfo	Class-definitions		
IntegrityProtectionAlg orithm	IntegrityProtectionAlg orithm	Class-definitions		
IntegrityProtectionMo deCommand	IntegrityProtectionMo deCommand	Class-definitions		
IntegrityProtectionMo deInfo	IntegrityProtectionMo deInfo	Class-definitions		
IntegrityProtInitNumb er	IntegrityProtInitNumb er	Class-definitions		
MaxHcContextSpace	MaxHcContextSpace	Class-definitions		
MaxHcContextSpace _r5_ext	MaxHcContextSpace -r5-ext	Class-definitions		
MaxROHC_ContextS essions_r4	MaxROHC-ContextS essions-r4	Class-definitions		
MaximumAM_EntityN umberRLC_Cap	MaximumAM-EntityN umberRLC-Cap	Class-definitions		
MaximumBitRate	MaximumBitRate	Class-definitions		
MaximumRLC_Windo wSize	MaximumRLC-Windo wSize	Class-definitions		
MaxNoDPDCH_BitsT ransmitted	MaxNoDPDCH-BitsT ransmitted	Class-definitions		
MaxNoBits	MaxNoBits	Class-definitions		
MaxNoPhysChBitsRe ceived	MaxNoPhysChBitsRe ceived	Class-definitions		
MaxNoSCCPCH_RL	MaxNoSCCPCH-RL	Class-definitions		
MaxNumberOfTF	MaxNumberOfTF	Class-definitions		
MaxNumberOfTFC_D L	MaxNumberOfTFC-D L	Class-definitions		
MaxNumberOfTFC_U L	MaxNumberOfTFC-U L	Class-definitions		
MaxPhysChPerFrame	MaxPhysChPerFrame	Class-definitions		
MaxPhysChPerSubFr ame_r4	MaxPhysChPerSubFr ame-r4	Class-definitions		
MaxPhysChPerTimesl ot	MaxPhysChPerTimesl ot	Class-definitions		
MaxPhysChPerTS	MaxPhysChPerTS	Class-definitions		
MaxSimultaneousCCTr CH_Count	MaxSimultaneousCCTr CH-Count	Class-definitions		
MaxSimultaneousTrans ChsDL	MaxSimultaneousTrans ChsDL	Class-definitions		

ASN.1 Type Definitions By Reference				
Type Name	Type Reference	Module Identifier	Encoding Variation	Comments
MaxSimultaneousTrans ChsUL	MaxSimultaneousTrans ChsUL	Class-definitions		
MaxTransportBlocksD L	MaxTransportBlocksD L	Class-definitions		
MaxTransportBlocksU L	MaxTransportBlocksU	Class-definitions		
MaxTS_PerFrame	MaxTS-PerFrame	Class-definitions		
MaxTS_PerSubFrame _r4	MaxTS-PerSubFrame -r4	Class-definitions		
MeasurementCapabilit y	MeasurementCapabilit y	Class-definitions		
MeasurementCapabilit yExt	MeasurementCapabilit yExt	Class-definitions		
MeasurementCapabilit y_r4_ext	MeasurementCapabilit y-r4-ext	Class-definitions		
MessageAuthenticatio nCode	MessageAuthenticatio nCode	Class-definitions		
MinimumSF_DL	MinimumSF-DL	Class-definitions		
MinimumSF_UL	MinimumSF-UL	Class-definitions		
MultiModeCapability	MultiModeCapability	Class-definitions		
MultiRAT_Capability	MultiRAT-Capability	Class-definitions		
MultiModeRAT_Capabi lity_v590ext	MultiModeRAT-Capab ility-v590ext	Class-definitions		
N_300	N-300	Class-definitions		
N_301	N-301	Class-definitions		
N_302	N-302	Class-definitions		
N_304	N-304	Class-definitions		
N_308	N-308	Class-definitions		
N_310	N-310	Class-definitions		
N_312	N-312	Class-definitions		
N_312ext	N-312ext	Class-definitions		
N_312_r5	N-312-r5	Class-definitions		
N_313	N-313	Class-definitions		
N_315	N-315	Class-definitions		
N_315ext	N-315ext	Class-definitions		
N_315_r5	N-315-r5	Class-definitions		
N_AccessFails	N-AccessFails	Class-definitions		
N_AP_RetransMax	N-AP-RetransMax	Class-definitions		
NetworkAssistedGPS _Supported	NetworkAssistedGPS –Supported	Class-definitions		
NF_BO_AllBusy	NF-BO-AllBusy	Class-definitions		
NF_BO_NoAICH	NF-BO-NoAICH	Class-definitions		
NF_BO_Mismatch	NF-BO-Mismatch	Class-definitions		
NS_BO_Busy	NS-BO-Busy	Class-definitions		
NS_IP	NS-IP	Class-definitions		
P_TMSI_and_RAI_GS M_MAP	P-TMSI-and-RAI-G SM-MAP	Class-definitions		
- PagingCause	PagingCause	Class-definitions		
PagingRecord	PagingRecord	Class-definitions		

	ASN.1 Type Definitions By Reference			
Type Name	Type Reference	Module Identifier	Encoding Variation	Comments
PagingRecord2_r5	PagingRecord2-r5	Class-definitions		
PagingRecordList	PagingRecordList	Class-definitions		
PagingRecord2List_r5	PagingRecord2List-r5	Class-definitions		
PDCP_Capability	PDCP-Capability	Class-definitions		
PDCP_Capability_r4_ ext	PDCP-Capability-r4 -ext	Class-definitions		
PDCP_Capability_r5_ ext	PDCP-Capability-r5 -ext	Class-definitions		
PhysicalChannelCapab ility	PhysicalChannelCapab ility	Class-definitions		
PhysicalChannelCapab ility_LCR_r4	PhysicalChannelCapab ility–LCR–r4	Class-definitions		
PhysicalChannelCapab ility_hspdsch_r5	PhysicalChannelCapab ility-hspdsch-r5	Class-definitions		
PNBSCH_Allocation_ r4	PNBSCH-Allocation- r4	Class-definitions		
ProtocolErrorCause	ProtocolErrorCause	Class-definitions		
ProtocolErrorIndicato r	ProtocolErrorIndicato r	Class-definitions		
ProtocolErrorIndicato rWithMoreInfo	ProtocolErrorIndicato rWithMoreInfo	Class-definitions		
ProtocolErrorMoreInf ormation	ProtocolErrorMoreInf ormation	Class-definitions		
RadioFrequencyBandF DD	RadioFrequencyBandF DD	Class-definitions		
RadioFrequencyBandT DDList	RadioFrequencyBandT DDList	Class-definitions		
RadioFrequencyBandT DD	RadioFrequencyBandT DD	Class-definitions		
RadioFrequencyBandG SM	RadioFrequencyBandG SM	Class-definitions		
Rb_timer_indicator	Rb-timer-indicator	Class-definitions		
Re_EstablishmentTime r	Re–EstablishmentTime r	Class-definitions		
RedirectionInfo	RedirectionInfo	Class-definitions		
RejectionCause	RejectionCause	Class-definitions		
ReleaseCause	ReleaseCause	Class-definitions		
RF_Capability	RF-Capability	Class-definitions		
RF_Capability_r4_ext	RF-Capability-r4-ext	Class-definitions		
RLC_Capability	RLC-Capability	Class-definitions		
RLC_Capability_r5_ex t	RLC-Capability-r5-e xt	Class-definitions		
RRC_ConnectionRele aseInformation	RRC–ConnectionRele aseInformation	Class-definitions		
RRC_MessageSequen ceNumber	RRC-MessageSequen ceNumber	Class-definitions		
RRC_MessageSequen ceNumberList	RRC-MessageSequen ceNumberList	Class-definitions		
RRC_StateIndicator	RRC-StateIndicator	Class-definitions		
RRC_TransactionIdent ifier	RRC-TransactionIden tifier	Class-definitions		

Continued from previous pa	ASN.1 Type Definitions By Reference				
Type Name	Type Reference	Module Identifier	Encoding Variation	Comments	
S_RNTI	S-RNTI	Class-definitions			
SecurityCapability	SecurityCapability	Class-definitions			
SimultaneousSCCPC H_DPCH_Reception	SimultaneousSCCPC H-DPCH-Reception	Class-definitions			
SRNC_Identity	SRNC-Identity	Class-definitions			
START_Value	START-Value	Class-definitions			
STARTList	STARTList	Class-definitions			
STARTSingle	STARTSingle	Class-definitions			
CapabilityUpdateRequi rement_r5	CapabilityUpdateRequi rement-r5	Class-definitions			
SystemSpecificCapUp dateReq	SystemSpecificCapUp dateReq	Class-definitions			
SystemSpecificCapUp dateReq_v590ext	SystemSpecificCapUp dateReq-v590ext	Class-definitions			
SystemSpecificCapUp dateReq_r5	SystemSpecificCapUp dateReq-r5	Class-definitions			
SystemSpecificCapUp dateReqList	SystemSpecificCapUp dateReqList	Class-definitions			
SystemSpecificCapUp dateReqList_r5	SystemSpecificCapUp dateReqList-r5	Class-definitions			
T_300	T-300	Class-definitions			
T_301	T-301	Class-definitions			
T_302	T-302	Class-definitions			
T_304	T-304	Class-definitions			
T_305	T-305	Class-definitions			
T_307	T-307	Class-definitions			
T_308	T-308	Class-definitions			
T_309	T-309	Class-definitions			
T_310	T-310	Class-definitions			
T_311	T-311	Class-definitions			
T_312	T-312	Class-definitions			
T_313	T-313	Class-definitions			
T_314	T-314	Class-definitions			
T_315	T-315	Class-definitions			
T_316	T-316	Class-definitions			
T_317	T-317	Class-definitions			
T_CPCH	T-CPCH	Class-definitions			
TMSI_and_LAI_GSM_ MAP	TMSI-and-LAI-GSM -MAP	Class-definitions			
TMSI_DS_41	TMSI-DS-41	Class-definitions			
TotalRLC_AM_Buffer Size	TotalRLC-AM-Buffer Size	Class-definitions			
TotalRLC_AM_Buffer Size_r5_ext	TotalRLC-AM-Buffer Size-r5-ext	Class-definitions			
TransmissionProbabilit y	TransmissionProbabilit y	Class-definitions			
TransportChannelCap ability	TransportChannelCap ability	Class-definitions			
TurboSupport	TurboSupport	Class-definitions			

	ASN.1 Type Definitions By Reference				
Type Name	Type Reference	Module Identifier	Encoding Variation	Comments	
TxRxFrequencySepara	TxRxFrequencySepara	Class-definitions			
tion	tion U-RNTI	Class-definitions			
U_RNTI LL PNTL Group	U-RNTI-Group	Class-definitions			
U_RNTI_Group UE_ConnTimersAndC	UE-ConnTimersAndC	Class-definitions  Class-definitions			
onstants	onstants				
UE_ConnTimersAndC onstants_v3a0ext	UE-ConnTimersAndC onstants-v3a0ext	Class-definitions			
UE_ConnTimersAndC onstants_r5	UE-ConnTimersAndC onstants-r5	Class-definitions			
UE_IdleTimersAndCon stants	UE-IdleTimersAndCo nstants	Class-definitions			
UE_IdleTimersAndCon stants_v3a0ext	UE-IdleTimersAndCo nstants-v3a0ext	Class-definitions			
UE_MultiModeRAT_C apability	UE-MultiModeRAT-C apability	Class-definitions			
UE_PowerClass	UE-PowerClass	Class-definitions			
UE_PowerClassExt	UE-PowerClassExt	Class-definitions			
UE_RadioAccessCapa bility	UE-RadioAccessCapa bility	Class-definitions			
UE_RadioAccessCapa bility_v370ext	UE-RadioAccessCapa bility-v370ext	Class-definitions			
UE_RadioAccessCapa bility_v380ext	UE-RadioAccessCapa bility-v380ext	Class-definitions			
UE_RadioAccessCapa bility_v3a0ext	UE-RadioAccessCapa bility-v3a0ext	Class-definitions			
UE_RadioAccessCapa bility_v3g0ext	UE-RadioAccessCapa bility-v3g0ext	Class-definitions			
UE_PositioningCapabi lityExt_v380	UE-PositioningCapab ilityExt-v380	Class-definitions			
UE_PositioningCapabi lityExt_v3a0	UE-PositioningCapab ilityExt-v3a0	Class-definitions			
UE_PositioningCapabi lityExt_v3g0	UE-PositioningCapab ilityExt-v3g0	Class-definitions			
UE_RadioAccessCapa bBandFDDList	UE-RadioAccessCapa bBandFDDList	Class-definitions			
UE_RadioAccessCapa bBandFDD	UE-RadioAccessCapa bBandFDD	Class-definitions			
UE_RadioAccessCapa bility_v4b0ext	UE-RadioAccessCapa bility-v4b0ext	Class-definitions			
UE_RadioAccessCapa bility_v590ext	UE-RadioAccessCapa bility-v590ext	Class-definitions			
UL_PhysChCapability FDD	UL-PhysChCapability FDD	Class-definitions			
UL_PhysChCapability TDD	UL-PhysChCapability TDD	Class-definitions			
UL_PhysChCapability TDD_LCR_r4	UL-PhysChCapability TDD-LCR-r4	Class-definitions			
UL_TransChCapability	UL-TransChCapability	Class-definitions			
UE_Positioning_Capa bility	UE-Positioning-Capa bility	Class-definitions			
URA_UpdateCause	URA-UpdateCause	Class-definitions			

	ASN.1 Type Definitions By Reference				
Type Name	Type Reference	Module Identifier	Encoding Variation	Comments	
UTRAN_DRX_CycleLe ngthCoefficient	UTRAN-DRX-CycleL engthCoefficient	Class-definitions			
WaitTime	WaitTime	Class-definitions			
AlgorithmSpecificInfo	AlgorithmSpecificInfo	Class-definitions			
AlgorithmSpecificInfo _r4	AlgorithmSpecificInfo -r4	Class-definitions			
CID_InclusionInfo_r4	CID-InclusionInfo-r4	Class-definitions			
COUNT_C	COUNT-C	Class-definitions			
COUNT_C_MSB	COUNT-C-MSB	Class-definitions			
DefaultConfigIdentity _r5	DefaultConfigldentity -r5	Class-definitions			
DefaultConfigMode	DefaultConfigMode	Class-definitions			
DL_AM_RLC_Mode	DL-AM-RLC-Mode	Class-definitions			
DL_AM_RLC_Mode_r 5	DL-AM-RLC-Mode- r5	Class-definitions			
DL_CounterSynchroni sationInfo	DL-CounterSynchron isationInfo	Class-definitions			
DL_CounterSynchroni sationInfo_r5	DL-CounterSynchron isationInfo-r5	Class-definitions			
DL_LogicalChannelMa pping	DL-LogicalChannelMa pping	Class-definitions			
DL_LogicalChannelMa pping_r5	DL-LogicalChannelMa pping-r5	Class-definitions			
DL_LogicalChannelMa ppingList	DL-LogicalChannelMa ppingList	Class-definitions			
DL_LogicalChannelMa ppingList_r5	DL-LogicalChannelMa ppingList-r5	Class-definitions			
DL_RFC3095_r4	DL-RFC3095-r4	Class-definitions			
DL_RLC_Mode	DL-RLC-Mode	Class-definitions			
DL_RLC_Mode_r5	DL-RLC-Mode-r5	Class-definitions			
DL_RLC_StatusInfo	DL-RLC-StatusInfo	Class-definitions			
DL_TM_RLC_Mode	DL-TM-RLC-Mode	Class-definitions			
DL_TransportChannel Type	DL-TransportChannel Type	Class-definitions			
DL_TransportChannel Type_r5	DL-TransportChannel Type-r5	Class-definitions			
DL_UM_RLC_LI_size	DL-UM-RLC-LI-siz e	Class-definitions			
DL_UM_RLC_Mode_ r5	DL-UM-RLC-Mode -r5	Class-definitions			
ExpectReordering	ExpectReordering	Class-definitions			
ExplicitDiscard	ExplicitDiscard	Class-definitions			
HeaderCompressionIn fo	HeaderCompressionIn fo	Class-definitions			
HeaderCompressionIn foList	HeaderCompressionIn foList	Class-definitions			
HeaderCompressionIn fo_r4	HeaderCompressionIn fo-r4	Class-definitions			
HeaderCompressionIn foList_r4	HeaderCompressionIn foList-r4	Class-definitions			
LogicalChannelIdentity	LogicalChannelIdentity	Class-definitions			

	ASN.1 Type Definitions By Reference				
Type Name	Type Reference	Module Identifier	Encoding Variation	Comments	
LosslessSRNS_Reloc Support	LosslessSRNS-Reloc Support	Class-definitions			
MAC_d_HFN_initial_v alue	MAC-d-HFN-initial- value	Class-definitions			
MAC_LogicalChannel Priority	MAC-LogicalChannel Priority	Class-definitions			
MaxDAT	MaxDAT	Class-definitions			
MaxDAT_Retransmissi ons	MaxDAT-Retransmissi ons	Class-definitions			
MaxMRW	MaxMRW	Class-definitions			
MaxPDCP_SN_Wind owSize	MaxPDCP-SN-Wind owSize	Class-definitions			
MaxRST	MaxRST	Class-definitions			
NoExplicitDiscard	NoExplicitDiscard	Class-definitions			
PDCP_Info	PDCP-Info	Class-definitions			
PDCP_Info_r4	PDCP-Info-r4	Class-definitions			
PDCP_InfoReconfig	PDCP-InfoReconfig	Class-definitions			
PDCP_InfoReconfig_ r4	PDCP-InfoReconfig- r4	Class-definitions			
PDCP_PDU_Header	PDCP-PDU-Header	Class-definitions			
PDCP_SN_Info	PDCP-SN-Info	Class-definitions			
Poll_PDU	Poll-PDU	Class-definitions			
Poll_SDU	Poll-SDU	Class-definitions			
PollingInfo	PollingInfo	Class-definitions			
PollWindow	PollWindow	Class-definitions			
PredefinedConfiglden tity	PredefinedConfiglden tity	Class-definitions			
PredefinedConfigValu eTag	PredefinedConfigValu eTag	Class-definitions			
PredefinedRB_Config uration	PredefinedRB–Config uration	Class-definitions			
PreDefRadioConfigura tion	PreDefRadioConfigura tion	Class-definitions			
RAB_Info	RAB-Info	Class-definitions			
RAB_InformationList	RAB-InformationList	Class-definitions			
RAB_InformationReconfigList	RAB–InformationReconfigList	Class-definitions			
RAB_InformationReconfig	RAB-InformationReconfig	Class-definitions			
RAB_InformationSetu p	RAB-InformationSetu p	Class-definitions			
RAB_InformationSetu p_r4	RAB–InformationSetu p–r4	Class-definitions			
RAB_InformationSetu p_r5	RAB-InformationSetu p-r5	Class-definitions			
RAB_InformationSetu pList	RAB-InformationSetu pList	Class-definitions			
RAB_InformationSetu pList_r4	RAB–InformationSetu pList–r4	Class-definitions			
RAB_InformationSetu pList_r5	RAB-InformationSetu pList-r5	Class-definitions			

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Type Name	Type Reference	Module Identifier	Encoding Variation	Comments	
RB_ActivationTimeInf	RB-ActivationTimeInf	Class-definitions			
o RB_ActivationTimeInf	RB–ActivationTimeInf	Class-definitions			
oList  RB_COUNT_C_Information	RB-COUNT-C-Information	Class-definitions			
RB_COUNT_C_InformationList	RB-COUNT-C-Infor	Class-definitions			
RB_COUNT_C_MSB _Information	RB-COUNT-C-MSB	Class-definitions			
RB_COUNT_C_MSB _InformationList	RB-COUNT-C-MSB -InformationList	Class-definitions			
RB_Identity	RB-Identity	Class-definitions			
RB_IdentityList	RB-IdentityList	Class-definitions			
RB_InformationAffect ed	RB–InformationAffect ed	Class-definitions			
RB_InformationAffect ed_r5	RB–InformationAffect ed–r5	Class-definitions			
RB_InformationAffect edList	RB–InformationAffect edList	Class-definitions			
RB_InformationAffect edList_r5	RB–InformationAffect edList–r5	Class-definitions			
RB_InformationRecon fig	RB-InformationRecon fig	Class-definitions			
RB_InformationRecon fig_r4	RB-InformationRecon fig-r4	Class-definitions			
RB_InformationRecon fig_r5	RB-InformationRecon fig-r5	Class-definitions			
RB_InformationRecon figList	RB-InformationRecon figList	Class-definitions			
RB_InformationRecon figList_r4	RB-InformationRecon figList-r4	Class-definitions			
RB_InformationRecon figList_r5	RB-InformationRecon figList-r5	Class-definitions			
RB_InformationReleas eList	RB-InformationReleas eList	Class-definitions			
RB_InformationSetup	RB-InformationSetup	Class-definitions			
RB_InformationSetup _r4	RB-InformationSetup -r4	Class-definitions			
RB_InformationSetup _r5	RB-InformationSetup -r5	Class-definitions			
RB_InformationSetup List	RB-InformationSetup List	Class-definitions			
RB_InformationSetup List_r4	RB-InformationSetup List-r4	Class-definitions			
RB_InformationSetup List_r5	RB-InformationSetup List-r5	Class-definitions			
RB_MappingInfo	RB-MappingInfo	Class-definitions			
RB_MappingInfo_r5	RB-MappingInfo-r5	Class-definitions			
RB_MappingOption	RB-MappingOption	Class-definitions			
RB_MappingOption_r 5	RB-MappingOption-r 5	Class-definitions			

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Type Name	Type Reference	Module Identifier	Encoding Variation	Comments	
RB_PDCPContextRel ocation	RB-PDCPContextRel ocation	Class-definitions			
RB_PDCPContextRel ocationList	RB-PDCPContextRel ocationList	Class-definitions			
RB_StopContinue	RB-StopContinue	Class-definitions			
RB_WithPDCP_Info	RB-WithPDCP-Info	Class-definitions			
RB_WithPDCP_InfoLi st	RB-WithPDCP-InfoL ist	Class-definitions			
ReceivingWindowSize	ReceivingWindowSize	Class-definitions			
RFC2507_Info	RFC2507-Info	Class-definitions			
RFC3095_Info_r4	RFC3095-Info-r4	Class-definitions			
RLC_Info	RLC-Info	Class-definitions			
RLC_Info_r5	RLC-Info-r5	Class-definitions			
RLC_InfoChoice	RLC-InfoChoice	Class-definitions			
RLC_InfoChoice_r5	RLC-InfoChoice-r5	Class-definitions			
RLC_SequenceNumbe r	RLC-SequenceNumbe r	Class-definitions			
RLC_SizeInfo	RLC-SizeInfo	Class-definitions			
RLC_SizeExplicitList	RLC-SizeExplicitList	Class-definitions			
ROHC_Profile_r4	ROHC-Profile-r4	Class-definitions			
ROHC_ProfileList_r4	ROHC-ProfileList-r4	Class-definitions			
ROHC_PacketSize_r4	ROHC-PacketSize-r4	Class-definitions			
ROHC_PacketSizeList _r4	ROHC-PacketSizeList -r4	Class-definitions			
SRB_InformationSetu p	SRB-InformationSetu	Class-definitions			
SRB_InformationSetu p_r5	SRB-InformationSetu p-r5	Class-definitions			
SRB_InformationSetu pList	SRB-InformationSetu pList	Class-definitions			
SRB_InformationSetu pList_r5	SRB-InformationSetu pList-r5	Class-definitions			
SRB_InformationSetu pList2	SRB-InformationSetu pList2	Class-definitions			
TimerDiscard	TimerDiscard	Class-definitions			
TimerEPC	TimerEPC	Class-definitions			
TimerMRW	TimerMRW	Class-definitions			
TimerPoll	TimerPoll	Class-definitions			
TimerPollPeriodic	TimerPollPeriodic	Class-definitions			
TimerPollProhibit	TimerPollProhibit	Class-definitions			
TimerRST	TimerRST	Class-definitions			
TimerStatusPeriodic	TimerStatusPeriodic	Class-definitions			
TimerStatusProhibit	TimerStatusProhibit	Class-definitions			
TransmissionRLC_Dis card	TransmissionRLC-Dis card	Class-definitions			
TransmissionWindowSi ze	TransmissionWindowSi ze	Class-definitions			
UL_AM_RLC_Mode	UL-AM-RLC-Mode	Class-definitions			
UL_CounterSynchroni sationInfo	UL-CounterSynchron isationInfo	Class-definitions			

	ASN.1 Type Definitions By Reference				
Type Name	Type Reference	Module Identifier	Encoding Variation	Comments	
UL_LogicalChannelMa	UL-LogicalChannelMa	Class-definitions			
pping	pping	Olana dafinikiana			
UL_LogicalChannelMa ppingList	UL-LogicalChannelMa ppingList	Class-definitions			
UL_LogicalChannelMa ppings	UL-LogicalChannelMa ppings	Class-definitions			
UL_RFC3095_r4	UL-RFC3095-r4	Class-definitions			
UL_RLC_Mode	UL-RLC-Mode	Class-definitions			
UL_TM_RLC_Mode	UL-TM-RLC-Mode	Class-definitions			
UL_UM_RLC_Mode	UL-UM-RLC-Mode	Class-definitions			
UL_TransportChannel Type	UL-TransportChannel Type	Class-definitions			
AddOrReconfMAC_d Flow	AddOrReconfMAC-d Flow	Class-definitions			
AllowedTFC_List	AllowedTFC-List	Class-definitions			
AllowedTFI_List	AllowedTFI-List	Class-definitions			
BitModeRLC_SizeInfo	BitModeRLC-SizeInfo	Class-definitions			
BLER_QualityValue	BLER-QualityValue	Class-definitions			
ChannelCodingType	ChannelCodingType	Class-definitions			
CodingRate	CodingRate	Class-definitions			
CommonDynamicTF_I nfo	CommonDynamicTF-I nfo	Class-definitions			
CommonDynamicTF_I nfo_DynamicTTI	CommonDynamicTF-I nfo-DynamicTTI	Class-definitions			
CommonDynamicTF_I nfoList	CommonDynamicTF-I nfoList	Class-definitions			
CommonDynamicTF_I nfoList_DynamicTTI	CommonDynamicTF-I nfoList-DynamicTTI	Class-definitions			
CommonTransChTFS	CommonTransChTFS	Class-definitions			
CommonTransChTFS_ LCR	CommonTransChTFS -LCR	Class-definitions			
CPCH_SetID	CPCH-SetID	Class-definitions			
CRC_Size	CRC-Size	Class-definitions			
DedicatedDynamicTF_I nfo	DedicatedDynamicTF- Info	Class-definitions			
DedicatedDynamicTF_Info_DynamicTTI	DedicatedDynamicTF- Info-DynamicTTI	Class-definitions			
DedicatedDynamicTF_I nfoList	DedicatedDynamicTF- InfoList	Class-definitions			
DedicatedDynamicTF_I nfoList_DynamicTTI	DedicatedDynamicTF- InfoList-DynamicTTI	Class-definitions			
DedicatedTransChTFS	DedicatedTransChTFS	Class-definitions			
DL_AddReconfTransC hInfo2List	DL-AddReconfTrans ChInfo2List	Class-definitions			
DL_AddReconfTransC hInfoList	DL-AddReconfTrans ChInfoList	Class-definitions			
DL_AddReconfTransC hInfoList_r4	DL-AddReconfTrans ChInfoList-r4	Class-definitions			
DL_AddReconfTransC hInfoList_r5	DL-AddReconfTrans ChInfoList-r5	Class-definitions			

	ASN.1 Type Definitions By Reference				
Type Name	Type Reference	Module Identifier	Encoding Variation	Comments	
DL_AddReconfTransC hInformation	DL-AddReconfTrans ChInformation	Class-definitions			
DL_AddReconfTransC hInformation_r4	DL-AddReconfTrans ChInformation-r4	Class-definitions			
DL_AddReconfTransC hInformation_r5	DL-AddReconfTrans ChInformation-r5	Class-definitions			
DL_AddReconfTransC hInformation2	DL-AddReconfTrans ChInformation2	Class-definitions			
DL_CommonTransChI nfo	DL-CommonTransChI nfo	Class-definitions			
DL_CommonTransChI nfo_r4	DL-CommonTransChI nfo-r4	Class-definitions			
DL_DeletedTransChIn foList	DL-DeletedTransChIn foList	Class-definitions			
DL_DeletedTransChIn foList_r5	DL-DeletedTransChIn foList-r5	Class-definitions			
DL_TransportChannel Identity	DL-TransportChannel Identity	Class-definitions			
DL_TransportChannel Identity_r5	DL-TransportChannel Identity-r5	Class-definitions			
DL_TrCH_Type	DL-TrCH-Type	Class-definitions			
DL_TrCH_TypeId1_r5	DL-TrCH-TypeId1-r 5	Class-definitions			
DL_TrCH_TypeId2_r5	DL-TrCH-Typeld2-r 5	Class-definitions			
DRAC_ClassIdentity	DRAC-ClassIdentity	Class-definitions			
DRAC_StaticInformati on	DRAC-StaticInformat ion	Class-definitions			
DRAC_StaticInformati onList	DRAC-StaticInformat ionList	Class-definitions			
ExplicitTFCS_Configu ration	ExplicitTFCS–Configu ration	Class-definitions			
GainFactor	GainFactor	Class-definitions			
GainFactorInformation	GainFactorInformation	Class-definitions			
HSDSCH_Info	HSDSCH-Info	Class-definitions			
HARQ_Info	HARQ-Info	Class-definitions			
HARQMemorySize	HARQMemorySize	Class-definitions			
IndividualDL_CCTrCH _Info	IndividualDL-CCTrCH -Info	Class-definitions			
IndividualDL_CCTrCH _InfoList	IndividualDL-CCTrCH -InfoList	Class-definitions			
IndividualUL_CCTrCH _Info	IndividualUL-CCTrCH -Info	Class-definitions			
IndividualUL_CCTrCH _InfoList	IndividualUL-CCTrCH -InfoList	Class-definitions			
LogicalChannelByRB	LogicalChannelByRB	Class-definitions			
LogicalChannelList	LogicalChannelList	Class-definitions			
MAC_d_FlowIdentity DCHandHSDSCH	MAC-d-FlowIdentity DCHandHSDSCH	Class-definitions			
MAC_d_FlowIdentity	MAC-d-FlowIdentity	Class-definitions			
MAC_d_PDU_SizeInf o_List	MAC-d-PDU-SizeIn fo-List	Class-definitions			

ASN.1 Type Definitions By Reference				
Type Name	Type Reference	Module Identifier	Encoding Variation	Comments
MAC_d_PDUsizeInfo	MAC-d-PDUsizeInfo	Class-definitions		
MAC_hs_AddReconf Queue_List	MAC-hs-AddReconf Queue-List	Class-definitions		
MAC_hs_AddReconf Queue	MAC-hs-AddReconf Queue	Class-definitions		
MAC_hs_DelQueue_Li st	MAC-hs-DelQueue-L ist	Class-definitions		
MAC_hs_DelQueue	MAC-hs-DelQueue	Class-definitions		
MAC_hs_WindowSize	MAC-hs-WindowSize	Class-definitions		
NumberOfTbSizeAndT TIList	NumberOfTbSizeAndT TIList	Class-definitions		
MessType	MessType	Class-definitions		
Non_allowedTFC_List	Non-allowedTFC-List	Class-definitions		
NumberOfTransportBl ocks	NumberOfTransportBl ocks	Class-definitions		
OctetModeRLC_SizeI nfoType1	OctetModeRLC-Sizel nfoType1	Class-definitions		
OctetModeRLC_SizeI nfoType2	OctetModeRLC-SizeI nfoType2	Class-definitions		
PowerOffsetInformati on	PowerOffsetInformati on	Class-definitions		
PowerOffsetPp_m	PowerOffsetPp-m	Class-definitions		
PreDefTransChConfig uration	PreDefTransChConfig uration	Class-definitions		
QualityTarget	QualityTarget	Class-definitions		
RateMatchingAttribute	RateMatchingAttribute	Class-definitions		
ReferenceTFC_ID	ReferenceTFC-ID	Class-definitions		
RestrictedTrChInfo	RestrictedTrChInfo	Class-definitions		
RestrictedTrChInfoLis t	RestrictedTrChInfoLis t	Class-definitions		
SemistaticTF_Informat ion	SemistaticTF-Informat ion	Class-definitions		
SignalledGainFactors	SignalledGainFactors	Class-definitions		
SplitTFCI_Signalling	SplitTFCI-Signalling	Class-definitions		
SplitType	SplitType	Class-definitions		
T1_ReleaseTimer	T1-ReleaseTimer	Class-definitions		
TFC_Subset	TFC-Subset	Class-definitions		
TFC_SubsetList	TFC-SubsetList	Class-definitions		
TFC_Value	TFC-Value	Class-definitions		
TFCI_Field2_Informati on	TFCI-Field2-Informati on	Class-definitions		
TFCI_Range	TFCI-Range	Class-definitions		
TFCI_RangeList	TFCI-RangeList	Class-definitions		
TFCS	TFCS	Class-definitions		
TFCS_Identity	TFCS-Identity	Class-definitions		
TFCS_IdentityPlain	TFCS-IdentityPlain	Class-definitions		
TFCS_InfoForDSCH	TFCS-InfoForDSCH	Class-definitions		
TFCS_ReconfAdd	TFCS-ReconfAdd	Class-definitions		
TFCS_Removal	TFCS-Removal	Class-definitions		
TFCS_RemovalList	TFCS-RemovalList	Class-definitions		

	ASN.1 Type Definitions By Reference			
Type Name	Type Reference	Module Identifier	Encoding Variation	Comments
TimeDurationBeforeRe	TimeDurationBeforeRe	Class-definitions		
try	try			
TM_SignallingInfo	TM-SignallingInfo	Class-definitions		
TransmissionTimeInter val	TransmissionTimeInter val	Class-definitions		
TransmissionTimeValidi ty	TransmissionTimeValidi ty	Class-definitions		
TransportChannellden tity	TransportChannellden tity	Class-definitions		
TransportChannellden tityDCHandDSCH	TransportChannellden tityDCHandDSCH	Class-definitions		
TransportFormatSet	TransportFormatSet	Class-definitions		
TransportFormatSet_ LCR	TransportFormatSet- LCR	Class-definitions		
UL_AddReconfTransC hInfoList	UL-AddReconfTrans ChInfoList	Class-definitions		
UL_AddReconfTransC hInformation	UL-AddReconfTrans ChInformation	Class-definitions		
UL_CommonTransChI nfo	UL-CommonTransChI nfo	Class-definitions		
UL_CommonTransChl nfo_r4	UL-CommonTransChl nfo-r4	Class-definitions		
UL_ControlledTrChLis t	UL-ControlledTrChLi st	Class-definitions		
UL_DeletedTransChIn foList	UL-DeletedTransChIn foList	Class-definitions		
UL_TransportChannel Identity	UL-TransportChannel Identity	Class-definitions		
UL_TrCH_Type	UL-TrCH-Type	Class-definitions		
USCH_TransportCha nnelsInfo	USCH-TransportCha nnelsInfo	Class-definitions		
ACK_NACK_repetitio nFactor	ACK-NACK-repetitionFactor	Class-definitions		
AC_To_ASC_Mappin g	AC-To-ASC-Mappin g	Class-definitions		
AC_To_ASC_Mappin gTable	AC-To-ASC-Mappin gTable	Class-definitions		
AccessServiceClass_F DD	AccessServiceClass-F DD	Class-definitions		
AccessServiceClass_T DD	AccessServiceClass-T DD	Class-definitions		
AccessServiceClass_T DD_LCR_r4	AccessServiceClass-T DD-LCR-r4	Class-definitions		
AICH_Info	AICH-Info	Class-definitions		
AICH_PowerOffset	AICH-PowerOffset	Class-definitions		
AICH_TransmissionTi ming	AICH-TransmissionTi ming	Class-definitions		
AllocationPeriodInfo	AllocationPeriodInfo	Class-definitions		
Alpha	Alpha	Class-definitions		
AP_AICH_Channelisa tionCode	AP-AICH-Channelisa tionCode	Class-definitions		

	ASN.1 Type Definitions By Reference				
Type Name	Type Reference	Module Identifier	Encoding Variation	Comments	
AP_PreambleScrambli	AP-PreambleScrambli	Class-definitions			
ngCode	ngCode	Olassa da Carria			
AP_Signature	AP-Signature	Class-definitions			
AP_Signature_VCAM	AP-Signature-VCAM	Class-definitions			
AP_Subchannel	AP-Subchannel	Class-definitions			
ASCSetting_FDD	ASCSetting-FDD	Class-definitions			
ASCSetting_TDD	ASCSetting-TDD	Class-definitions			
ASCSetting_TDD_LC R_r4	ASCSetting-TDD-LC R-r4	Class-definitions			
AvailableAP_Signature _VCAMList	AvailableAP-Signature –VCAMList	Class-definitions			
AvailableAP_Signature List	AvailableAP–Signature List	Class-definitions			
AvailableAP_Subchan nelList	AvailableAP-Subchan nelList	Class-definitions			
AvailableMinimumSF_L istVCAM	AvailableMinimumSF– ListVCAM	Class-definitions			
AvailableMinimumSF_ VCAM	AvailableMinimumSF- VCAM	Class-definitions			
AvailableSignatures	AvailableSignatures	Class-definitions			
AvailableSubChannelN umbers	AvailableSubChannelN umbers	Class-definitions			
BurstType	BurstType	Class-definitions			
Bler_Target	Bler-Target	Class-definitions			
CCTrCH_PowerContr olInfo	CCTrCH-PowerCont rollnfo	Class-definitions			
CCTrCH_PowerContr olInfo_r4	CCTrCH-PowerCont rollnfo-r4	Class-definitions			
CCTrCH_PowerContr olInfo_r5	CCTrCH-PowerCont rollnfo-r5	Class-definitions			
CD_AccessSlotSubch annel	CD-AccessSlotSubch annel	Class-definitions			
CD_AccessSlotSubch annelList	CD-AccessSlotSubch annelList	Class-definitions			
CD_CA_ICH_Channe lisationCode	CD-CA-ICH-Chann elisationCode	Class-definitions			
CD_PreambleScrambli ngCode	CD-PreambleScrambli ngCode	Class-definitions			
CD_SignatureCode	CD-SignatureCode	Class-definitions			
CD_SignatureCodeLis t	CD-SignatureCodeLis t	Class-definitions			
CellAndChannelIdentit y	CellAndChannelldentit y	Class-definitions			
CellParametersID	CellParametersID	Class-definitions			
Cfntargetsfnframeoff set	Cfntargetsfnframeoff set	Class-definitions			
ChannelAssignmentAc tive	ChannelAssignmentAc tive	Class-definitions			
ChannelisationCode25	ChannelisationCode25 6	Class-definitions			
ChannelReqParamsFo rUCSM	ChannelReqParamsFo rUCSM	Class-definitions			

	ASN.1 Type Definitions By Reference				
Type Name	Type Reference	Module Identifier	Encoding Variation	Comments	
ClosedLoopTimingAdj Mode	ClosedLoopTimingAdj Mode	Class-definitions			
CodeNumberDSCH	CodeNumberDSCH	Class-definitions			
CodeRange	CodeRange	Class-definitions			
CodeWordSet	CodeWordSet	Class-definitions			
CommonTimeslotInfo	CommonTimeslotInfo	Class-definitions			
CommonTimeslotInfoS CCPCH	CommonTimeslotInfoS CCPCH	Class-definitions			
ConstantValue	ConstantValue	Class-definitions			
ConstantValueTdd	ConstantValueTdd	Class-definitions			
CPCH_PersistenceLe vels	CPCH–PersistenceLe vels	Class-definitions			
CPCH_PersistenceLe velsList	CPCH-PersistenceLe velsList	Class-definitions			
CPCH_SetInfo	CPCH-SetInfo	Class-definitions			
CPCH_SetInfoList	CPCH-SetInfoList	Class-definitions			
CPCH_StatusIndicati onMode	CPCH-StatusIndicati onMode	Class-definitions			
CQI_RepetitionFactor	CQI-RepetitionFactor	Class-definitions			
CSICH_PowerOffset	CSICH-PowerOffset	Class-definitions			
DefaultDPCH_Offset ValueFDD	DefaultDPCH-Offset ValueFDD	Class-definitions			
DefaultDPCH_Offset ValueTDD	DefaultDPCH-Offset ValueTDD	Class-definitions			
DeltaPp_m	DeltaPp-m	Class-definitions			
DeltaCQI	DeltaCQI	Class-definitions			
DeltaNACK	DeltaNACK	Class-definitions			
DeltaACK	DeltaACK	Class-definitions			
DeltaSIR	DeltaSIR	Class-definitions			
DL_CCTrCh	DL-CCTrCh	Class-definitions			
DL_CCTrCh_r4	DL-CCTrCh-r4	Class-definitions			
DL_CCTrChList	DL-CCTrChList	Class-definitions			
DL_CCTrChList_r4	DL-CCTrChList-r4	Class-definitions			
DL_CCTrChListToRe move	DL-CCTrChListToRe move	Class-definitions			
DL_ChannelisationCo de	DL-ChannelisationCo de	Class-definitions			
DL_ChannelisationCo deList	DL-ChannelisationCo deList	Class-definitions			
DL_CommonInformati on	DL–CommonInformati on	Class-definitions			
DL_CommonInformati on_r4	DL-CommonInformati on-r4	Class-definitions			
DL_CommonInformati on_r5	DL-CommonInformati on-r5	Class-definitions			
DL_CommonInformati onPredef	DL-CommonInformati onPredef	Class-definitions			
DL_CompressedMode Method	DL-CompressedMode Method	Class-definitions			
DL_DPCH_InfoCom mon	DL-DPCH-InfoCom mon	Class-definitions			

Continued from previous pa	ASN.1 Type Definitions By Reference					
Type Name	Type Reference	Module Identifier	Encoding Variation	Comments		
DL_DPCH_InfoCom mon_r4	DL-DPCH-InfoCom mon-r4	Class-definitions				
DL_DPCH_InfoCom monPredef	DL-DPCH-InfoCom monPredef	Class-definitions				
DL_DPCH_InfoPerRL	DL-DPCH-InfoPerR L	Class-definitions				
DL_DPCH_InfoPerRL _r4	DL-DPCH-InfoPerR L-r4	Class-definitions				
DL_DPCH_InfoPerRL _r5	DL-DPCH-InfoPerR L-r5	Class-definitions				
DL_DPCH_PowerCo ntrolInfo	DL-DPCH-PowerCo ntrolInfo	Class-definitions				
DL_FrameType	DL-FrameType	Class-definitions				
DL_HSPDSCH_Infor mation	DL-HSPDSCH-Infor mation	Class-definitions				
DL_HSPDSCH_TS_C onfiguration	DL-HSPDSCH-TS- Configuration	Class-definitions				
DL_InformationPerRL	DL-InformationPerRL	Class-definitions				
DL_InformationPerRL _r4	DL-InformationPerRL -r4	Class-definitions				
DL_InformationPerRL _r5	DL-InformationPerRL -r5	Class-definitions				
DL_InformationPerRL _r5bis	DL-InformationPerRL -r5bis	Class-definitions				
DL_InformationPerRL _List	DL-InformationPerRL -List	Class-definitions				
DL_InformationPerRL _List_r4	DL-InformationPerRL -List-r4	Class-definitions				
DL_InformationPerRL _List_r5	DL-InformationPerRL -List-r5	Class-definitions				
DL_InformationPerRL _List_r5bis	DL-InformationPerRL -List-r5bis	Class-definitions				
DL_PDSCH_Informat ion	DL-PDSCH-Informa tion	Class-definitions				
DI_rate_matching_res triction	DI-rate-matching-res triction	Class-definitions				
DL_TPC_PowerOffse tPerRL	DL-TPC-PowerOffse tPerRL	Class-definitions				
DL_TPC_PowerOffse tPerRL_List	DL-TPC-PowerOffse tPerRL-List	Class-definitions				
DL_TS_Channelisatio nCode	DL-TS-Channelisatio nCode	Class-definitions				
DL_TS_Channelisatio nCodesShort	DL-TS-Channelisatio nCodesShort	Class-definitions				
DownlinkAdditionalTim eslots	DownlinkAdditionalTim eslots	Class-definitions				
DownlinkAdditionalTim eslots_LCR_r4	DownlinkAdditionalTim eslots–LCR–r4	Class-definitions				
DownlinkTimeslotsCod es	DownlinkTimeslotsCod es	Class-definitions				
DownlinkTimeslotsCod es_LCR_r4	DownlinkTimeslotsCod es-LCR-r4	Class-definitions				
DPC_Mode	DPC-Mode	Class-definitions				

	ASN.1 Type Definitions By Reference				
Type Name	Type Reference	Module Identifier	Encoding Variation	Comments	
DPCCH_PowerOffset	DPCCH-PowerOffse	Class-definitions			
DPCH_CompressedM odeInfo	t DPCH-CompressedM odeInfo	Class-definitions			
DPCH_CompressedM odeStatusInfo	DPCH–CompressedM odeStatusInfo	Class-definitions			
DPCH_FrameOffset	DPCH-FrameOffset	Class-definitions			
DSCH_Mapping	DSCH-Mapping	Class-definitions			
DSCH_MappingList	DSCH-MappingList	Class-definitions			
DSCH_RadioLinkIden tifier	DSCH-RadioLinkIden tifier	Class-definitions			
DSCH_TransportCha nnelsInfo	DSCH-TransportCha nnelsInfo	Class-definitions			
DurationTimeInfo	DurationTimeInfo	Class-definitions			
DynamicPersistenceLe vel	DynamicPersistenceLe vel	Class-definitions			
DynamicPersistenceLe velList	DynamicPersistenceLe velList	Class-definitions			
DynamicPersistenceLe velTF_List	DynamicPersistenceLe velTF-List	Class-definitions			
FACH_PCH_Informat ion	FACH-PCH-Informa tion	Class-definitions			
FACH_PCH_Informat ionList	FACH-PCH-Informa tionList	Class-definitions			
Feedback_cycle	Feedback-cycle	Class-definitions			
FPACH_Info_r4	FPACH-Info-r4	Class-definitions			
FrequencyInfo	FrequencyInfo	Class-definitions			
FrequencyInfoFDD	FrequencyInfoFDD	Class-definitions			
FrequencyInfoTDD	FrequencyInfoTDD	Class-definitions			
HS_ChannelisationCo de_LCR	HS-ChannelisationCo de-LCR	Class-definitions			
HS_PDSCH_Midambl e_Configuration_TDD 128	HS-PDSCH-Midambl e-Configuration-TDD 128	Class-definitions			
HS_SCCH_Info	HS-SCCH-Info	Class-definitions			
HS_SCCH_Codes	HS-SCCH-Codes	Class-definitions			
HS_SCCH_TDD128	HS-SCCH-TDD128	Class-definitions			
HS_SICH_Configurati on_TDD128	HS-SICH-Configurat ion-TDD128	Class-definitions			
HS_SCCH_TDD384	HS-SCCH-TDD384	Class-definitions			
HS_SICH_Configurati on_TDD384	HS-SICH-Configurat ion-TDD384	Class-definitions			
HS_SICH_Power_Co ntrol_Info_TDD384	HS-SICH-Power-C ontrol-Info-TDD384	Class-definitions			
IndividualTimeslotInfo	IndividualTimeslotInfo	Class-definitions			
IndividualTimeslotInfo_ LCR_r4	IndividualTimeslotInfo –LCR–r4	Class-definitions			
IndividualTimeslotInfo_ LCR_r4_ext	IndividualTimeslotInfo -LCR-r4-ext	Class-definitions			
IndividualTS_Interfere nce	IndividualTS-Interfere nce	Class-definitions			

	ASN.1 Type Definitions By Reference				
Type Name	Type Reference	Module Identifier	Encoding Variation	Comments	
IndividualTS_Interfere nceList	IndividualTS-Interfere nceList	Class-definitions			
ITP	ITP	Class-definitions			
NidentifyAbort	NidentifyAbort	Class-definitions			
MaxAllowedUL_TX_P ower	MaxAllowedUL-TX-P ower	Class-definitions			
MaxAvailablePCPCH_ Number	MaxAvailablePCPCH- Number	Class-definitions			
MaxPowerIncrease_r4	MaxPowerIncrease-r4	Class-definitions			
MaxTFCI_Field2Value	MaxTFCI-Field2Value	Class-definitions			
Measurement_Feedbac k_Info	Measurement-Feedba ck-Info	Class-definitions			
MidambleConfiguratio nBurstType1and3	MidambleConfiguratio nBurstType1and3	Class-definitions			
MidambleConfiguratio nBurstType2	MidambleConfiguratio nBurstType2	Class-definitions			
MidambleShiftAndBur stType	MidambleShiftAndBur stType	Class-definitions			
MidambleShiftAndBur stType_LCR_r4	MidambleShiftAndBur stType-LCR-r4	Class-definitions			
MidambleShiftAndBur stType_DL	MidambleShiftAndBur stType-DL	Class-definitions			
MidambleShiftLong	MidambleShiftLong	Class-definitions			
MidambleShiftShort	MidambleShiftShort	Class-definitions			
MinimumSpreadingFac tor	MinimumSpreadingFac tor	Class-definitions			
MultiCodeInfo	MultiCodeInfo	Class-definitions			
N_EOT	N-EOT	Class-definitions			
N_GAP	N-GAP	Class-definitions			
N_PCH	N-PCH	Class-definitions			
N_StartMessage	N-StartMessage	Class-definitions			
NB01	NB01	Class-definitions			
NF_Max	NF-Max	Class-definitions			
NumberOfDPDCH	NumberOfDPDCH	Class-definitions			
NumberOfFBI_Bits	NumberOfFBI-Bits	Class-definitions			
OpenLoopPowerCont rol_TDD	OpenLoopPowerCont rol-TDD	Class-definitions			
OpenLoopPowerCont rol_IPDL_TDD_r4	OpenLoopPowerCont rol-IPDL-TDD-r4	Class-definitions			
PagingIndicatorLengt h	PagingIndicatorLengt h	Class-definitions			
PC_Preamble	PC-Preamble	Class-definitions			
PCP_Length	PCP-Length	Class-definitions			
PCPCH_ChannelInfo	PCPCH-ChannelInfo	Class-definitions			
PCPCH_ChannelInfo List	PCPCH-ChannelInfo List	Class-definitions			
PCPICH_UsageForC hannelEst	PCPICH-UsageForC hannelEst	Class-definitions			
PDSCH_CapacityAllo cationInfo	PDSCH–CapacityAllo cationInfo	Class-definitions			

Type Name		ASN.1 T	ype Definitions By R	Reference	
cationInfo_r4         cationInfo_r4         PDSCH_CodeInfo           PDSCH_CodeInfoList PDSCH_CodeInfoList TSCH_CodeInfoList TSCH_CodeInfo_Info_Info_Info_Info_Info_Info_Info_	Type Name	Type Reference	Module Identifier	Encoding Variation	Comments
PDSCH_CodeInfo   PDSCH-CodeInfo   PDSCH-CodeInfo   PDSCH-CodeInfo   PDSCH-CodeInfo   PDSCH-CodeMap   PDSCH-Info   PDSCH-CodeMap   PDSCH-Info   PD			Class-definitions		
PDSCH_CodeInfoList   PDSCH-CodeInfoList   Class-definitions   PDSCH_Info_LCR_r   PDSCH_Info_LCR_r   A	_		Class definitions		
DPSCH_CodeMapLis					
PDSCH_CodeMappin g PDSCH_CodeMappin g PDSCH_CodeMappin g PDSCH_Info PDSCH_Inf	PDSCH_CodeInfoList		Class-definitions		
PDSCH_CodeMappin	PDSCH_CodeMap	PDSCH-CodeMap	Class-definitions		
PDSCH_Info	· ·	· '	Class-definitions		
PDSCH_Info			Class-definitions		
PDSCH_Info_t4 PDSCH_Info_LCR_r 4 PDSCH_PowerContr ollnfo PDSCH_PowerContr ollnfo PDSCH_SHO_DCH_ Info PDSCH_SysInfo R-r6 PDSCH_SysInfo PDSCH_SysInfo PDSCH_SysInfo PDSCH_SysInfo PDSCH_SysInfo PDSCH_SysInfo PDSCH_SysInfo R-r6 PDSCH_SysInfoList PDSCH_SysInfoList PDSCH_SysInfoList PDSCH_SysInfoList PDSCH_SysInfoList PDSCH_SysInfoList PDSCH_SysInfoList PDSCH_SysInfoList LCR_r4 PDSCH_SysInfoList PDSCH_	PDSCH_Identity	PDSCH-Identity	Class-definitions		
PDSCH_Info_LCR_r 4 PDSCH_PowerContr ollnfo PDSCH_Syplanfo PDSCH_SysInfo R_r5 PDSCH_SysInfo PDSCH_SysInfo Class_definitions Class_definitions Class_definitions Class_definitions Class_definitions Class_definitions PDSCH_SysInfo R_r4 PDSCH_SysInfoList PDSCH_SysInf	PDSCH_Info	PDSCH-Info	Class-definitions		
4 PDSCH_PowerControllrollrollrollrollrollrollrollrollrol	PDSCH_Info_r4	PDSCH-Info-r4	Class-definitions		
PDSCH_PowerControllnfo ollnfo PDSCH_SYSInfo	PDSCH_Info_LCR_r	PDSCH-Info-LCR-r	Class-definitions		
ollinfo DDSCH_SHO_DCH_ Info DDSCH_SysInfo DDSCH_SysInfo DDSCH_SysInfo_HC R_r5 PDSCH_SysInfo_LC R_r4 PDSCH_SysInfoList DDSCH_SysInfoList DCIass_definitions DDSCH_SysInfoList DCIass_definitions DDSCH_SysInfoList DCIass_definitions DDSCH_SysInfoList DDSCH_SysInfoList DDSCH_SysInfoList DDSCH_SysInfoList DDSCH_SysInfoList DDSCH_SysInfoList DDSCH_SysInfoList DCIass_definitions DDSCH_SysInfoList DCIass_definitions DDSCH_SysInfoList DCIass_definitions DDSCH_SysInfoList DDSCH_SysInfoL	4				
Info PDSCH_SysInfo PDSCH_SysInfo_HC R_f5 PDSCH_SysInfo_HC R_r4 PDSCH_SysInfo_LC R_r4 PDSCH_SysInfoList			Class-definitions		
PDSCH_SysInfo_HC R_rf6 PDSCH_SysInfo_LC R_rf4 PDSCH_SysInfoList LCR_rf4 PDSCH_SysInfoList PDSCH_SysInfoList LCR_rf4 PDSCH_SysInfoList PDSCH_SysInfoList SFN PDSCH_SysInfoList SFN_HCR_rf5 PDSCH_SysInfoList SFN_HCR_rf5 PDSCH_SysInfoList SFN_HCR_rf5 PDSCH_SysInfoList SFN_HCR_rf5 PDSCH_SysInfoList SFN_HCR_rf6 PDSCH_SysInfoList SFN_HCR_rf6 PDSCH_SysInfoList SFN_HCR_rf7 PDSCH_SysInfoList SFN_HCR_rf8 PDSCH_SysInfoList SFN_HCR_rf9 PDSCH_SysInfoList Class_definitions Class_definitions PCIAss_definitions PICH_Info_LCR_rf4 PICH_Info_LCR_rf4 PICH_Info_LCR_rf4 PICH_PowerOffset PICH_PowerOffset PICH_PowerOffset PICH_PowerOffset PICH_Info_LCR_rf4 PICH_PowerOffset PICH_Info_LCR_rf4 PICH_Info_			Class-definitions		
R_r5 PDSCH_SysInfo_LC R_r4 PDSCH_SysInfoList SFN PDSCH_SysInfoList SFN PDSCH_SysInfoList SFN PDSCH_SysInfoList SFN PDSCH_SysInfoList SFN PDSCH_SysInfoList SFN_HCR_r5 PDSCH_SysInfoList SFN_HCR_r5 PDSCH_SysInfoList SFN_LCR_r4 PersistenceScalingFac tor tor PersistenceScalingFac tor United Pich CountPerFrame PichChannelisationCo deList_LCR_r4 PICH_Info PICH_Info PICH_Info PICH_Info PICH_Info PICH_Info PICH_Info PICH_PowerOffset PICH_PowerOffset PilotBits128 PilotBits128 PilotBits256 MeasurementPowerOf fiset PositionFixedOrFlexibl PositionFixedOrFlexibl PositionFixedOrFlexibl PositionFixedOrFlexibl POSCH_SysInfoList Class_definitions Class	PDSCH_SysInfo	PDSCH-SysInfo	Class-definitions		
R_r4 PDSCH_SysInfoList PDSCH_SysInfoList PDSCH_SysInfoList PDSCH_SysInfoList PDSCH_SysInfoList PDSCH_SysInfoList PDSCH_SysInfoList PDSCH_SysInfoList PDSCH_SysInfoList LCR_r4 PDSCH_SysInfoList PDSCH_SysInfoList SFN PDSCH_SysInfoList SFN PDSCH_SysInfoList SFN_HCR_r5 PDSCH_SysInfoList SFN_HCR_r5 PDSCH_SysInfoList SFN_HCR_r5 PDSCH_SysInfoList SFN_HCR_r4 PersistenceScalingFac tor PersistenceScalingFac tor PI_CountPerFrame PichChannelisationCo deList_LCR_r4 PICH_Info PICH_Info PICH_Info PICH_Info PICH_Info PICH_PowerOffset PICH_PowerOffset PilotBits128 PilotBits256 MeasurementPowerOffset PositionFixedOrFlexibl PositionFixedOrFlexibl PDSCH—SysInfoList Class—definitions Class—d	-	· · · · · · · · · · · · · · · · · · ·	Class-definitions		
PDSCH_SysInfoList_HCR_r5 PDSCH_SysInfoList_LCR_r4 PDSCH_SysInfoList_LCR_r4 PDSCH_SysInfoList_SFN PDSCH_SysInfoList_SFN PDSCH_SysInfoList_SFN PDSCH_SysInfoList_SFN_HCR_r5 PDSCH_SysInfoList_SFN_HCR_r5 PDSCH_SysInfoList_SFN_HCR_r5 PDSCH_SysInfoList_SFN_LCR_r4 PersistenceScalingFac tor PersistenceScalingFac tor/List PI_CountPerFrame PichChannelisationCo deList_LCR_r4 PICH_Info PICH_Info PICH_Info PICH_Info PICH_Info PICH_PowerOffset PiotBits128 PilotBits256 MeasurementPowerOf fset PDSCH—SysInfoList_SFN_HCR_r5 PDSCH—SysInfoList_SFN_HCR_r5 PDSCH—SysInfoList_SFN_HCR_r5 Class—definitions	-	_	Class-definitions		
HCR_r5 PDSCH_SysInfoList_LCR_r4 PDSCH_SysInfoList_SFN PDSCH_SysInfoList_SFN PDSCH_SysInfoList_SFN PDSCH_SysInfoList_SFN_HCR_r5 PDSCH_SysInfoList_SFN_HCR_r5 PDSCH_SysInfoList_SFN_HCR_r5 PDSCH_SysInfoList_SFN_HCR_r5 PDSCH_SysInfoList_SFN_HCR_r5 PDSCH_SysInfoList_SFN_HCR_r6 PDSCH_SysInfoList_SFN_HCR_r7 PDSCH_SysInfoList_SFN_HCR_r9 PDSCH	PDSCH_SysInfoList	PDSCH-SysInfoList	Class-definitions		
LCR_r4  PDSCH_SysInfoList_SFN  PDSCH_SysInfoList_SFN_HCR_r5  POSCH_SysInfoList_SFN_HCR_r5  PDSCH_SysInfoList_SFN_HCR_r5  POSCH_SysInfoList_SFN_HCR_r5  PDSCH_SysInfoList_SFN_HCR_r5  POSCH_SysInfoList_SFN_HCR_r5  PDSCH_SysInfoList_SFN_HCR_r5  POSCH_SysInfoList_SFN_HCR_r5  PDSCH_SysInfoList_SFN_HCR_r5  POSCH_SysInfoList_SFN_HCR_r5  Class_definitions  Class_definitions  Class_definitions  PICH_Info_LCR_r4  PICH_PowerOffset  PICH_PowerOffset  PICH_PowerOffset  PICH_PowerOffset  PICH_PowerOffset  PICH_PowerOffset  PICH_PowerOffset  PICH_PowerOffset  PICH_PowerOffset  Class_definitions  PIOTELITED TO CLASS_DEFINITIONS  Class_definitions  Class_definitions  Class_definitions  Class_definitions  Class_definitions  POSCH_SysInfoList_SFN_HCR_r5  Class_definitions			Class-definitions		
SFN			Class-definitions		
SFN_HCR_r5  PDSCH_SysInfoList_SFN_LCR_r4  PersistenceScalingFac tor  PersistenceScalingFac torList  PI_CountPerFrame  PichChannelisationCo deList_LCR_r4  PICH_Info  PICH_Info  PICH_Info_LCR_r4  PICH_PowerOffset  PIOtB its 128  PilotBits 128  PilotBits 256  MeasurementPowerOf fset  PDSCH—SysInfoList—SFN_LCR_r5  PDSCH—SysInfoList—SFN_LCR_r6  PDSCH—SysInfoList—Class—definitions  Class—definitions			Class-definitions		
SFN_LCR_r4 PersistenceScalingFac tor PersistenceScalingFac torList Pl_CountPerFrame PichChannelisationCo deList_LCR_r4 PICH_Info PICH_Info PICH_Info PICH_PowerOffset PilotBits128 PilotBits256 MeasurementPowerOf fset PersistenceScalingFac torList Class-definitions	-		Class-definitions		
tor tor  PersistenceScalingFac torList PI_CountPerFrame PI_CountPerFrame PichChannelisationCo deList_LCR_r4 PICH_Info PICH_Info Class_definitions  PICH_Info_LCR_r4 PICH_PowerOffset PICH_PowerOffset PilotBits128 PilotBits256 PilotBits256 PilotBits256 PositionFixedOrFlexibl PositionFixedOrFlexibl PositionFixedOrFlexibl PositionFixedOrFlexibl Pich_Info Class_definitions Plass_definitions PlotAllist PositionFixedOrFlexibl PositionFixedOrFlexibl Class_definitions PlotAllist			Class-definitions		
torList torList   PI_CountPerFrame   PI_CountPerFrame   PichChannelisationCo deList_LCR_r4   PICH_Info   PICH_Info   PICH_Info_LCR_r4   PICH_PowerOffset   PICH_PowerOffset   PilotBits128   PilotBits256   PilotBits256   PilotBits256   MeasurementPowerOf fset   PositionFixedOrFlexibl   PositionFixedOrFlexibl   PositionFixedOrFlexibl   PICH_Info   PICH_Info   Class_definitions   Class_d	_		Class-definitions		
PichChannelisationCo deList_LCR_r4 PICH_Info PICH_Info PICH_Info PICH_Info_LCR_r4 PICH_PowerOffset PICH_PowerOffset PilotBits128 PilotBits256 PilotBits256 MeasurementPowerOffset PositionFixedOrFlexibl PositionFixedOrFlexibl PichChannelisationCo deList_LCR_r4 PICH_Info_LCR_r4 PICH_Info Class_definitions Class_definitions Class_definitions Class_definitions Class_definitions Class_definitions Class_definitions Class_definitions Class_definitions			Class-definitions		
deList_LCR_r4       deList_LCR_r4       Class-definitions         PICH_Info       PICH-Info       Class-definitions         PICH_Info_LCR_r4       PICH-Info-LCR-r4       Class-definitions         PICH_PowerOffset       PICH-PowerOffset       Class-definitions         PilotBits128       PilotBits28       Class-definitions         PilotBits256       PilotBits256       Class-definitions         MeasurementPowerOffset       MeasurementPowerOffset       Class-definitions         PositionFixedOrFlexibl       PositionFixedOrFlexibl       Class-definitions	PI_CountPerFrame	PI-CountPerFrame	Class-definitions		
PICH_Info PICH_Info PICH_Info_LCR_r4 PICH_Info_LCR_r4 PICH_PowerOffset PICH_PowerOffset PilotBits128 PilotBits256 PilotBits256 MeasurementPowerOffset PositionFixedOrFlexibl PositionFixedOrFlexibl PICH_PowerOffset Class_definitions Class_definitions Class_definitions Class_definitions Class_definitions Class_definitions Class_definitions			Class-definitions		
PICH_PowerOffset PICH-PowerOffset Class-definitions PilotBits128 PilotBits256 PilotBits256 Class-definitions MeasurementPowerOf fset PositionFixedOrFlexibl PositionFixedOrFlexibl Class-definitions	PICH_Info	PICH-Info	Class-definitions		
PICH_PowerOffset PICH-PowerOffset Class-definitions PilotBits128 PilotBits256 PilotBits256 Class-definitions MeasurementPowerOf fset PositionFixedOrFlexibl PositionFixedOrFlexibl Class-definitions	PICH_Info_LCR_r4	PICH-Info-LCR-r4	Class-definitions		
PilotBits128 PilotBits128 Class-definitions PilotBits256 PilotBits256 Class-definitions MeasurementPowerOf fset PositionFixedOrFlexibl PositionFixedOrFlexibl Class-definitions		PICH-PowerOffset	Class-definitions		
PilotBits256       PilotBits256       Class-definitions         MeasurementPowerOf fset       MeasurementPowerOf fset       Class-definitions         PositionFixedOrFlexibl       PositionFixedOrFlexibl       Class-definitions		PilotBits128	Class-definitions		
MeasurementPowerOf fset       MeasurementPowerOf fset       Class-definitions         PositionFixedOrFlexibl       PositionFixedOrFlexibl       Class-definitions					
PositionFixedOrFlexibl PositionFixedOrFlexibl Class-definitions			Class-definitions		
	PositionFixedOrFlexibl	PositionFixedOrFlexibl	Class-definitions		

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Type Name	Type Reference	Module Identifier	Encoding Variation	Comments		
PowerControlAlgorith	PowerControlAlgorith	Class-definitions				
M DowerOffeetBilet and	M DownerOffeetDilet and	Class-definitions				
PowerOffsetPilot_pdp dch	PowerOffsetPilot-pd pdch	Class-definitions				
PowerOffsetTPC_pdp dch	PowerOffsetTPC-pdp dch	Class-definitions				
PowerRampStep	PowerRampStep	Class-definitions				
PRACH_ChanCodes_ LCR_r4	PRACH-ChanCodes -LCR-r4	Class-definitions				
PRACH_Definition_L CR_r4	PRACH-Definition-L CR-r4	Class-definitions				
PRACH_Midamble	PRACH-Midamble	Class-definitions				
PRACH_Partitioning	PRACH-Partitioning	Class-definitions				
PRACH_Partitioning_ LCR_r4	PRACH-Partitioning- LCR-r4	Class-definitions				
PRACH_PowerOffset	PRACH-PowerOffset	Class-definitions				
PRACH_RACH_Info	PRACH-RACH-Info	Class-definitions				
PRACH_RACH_Info_ LCR_r4	PRACH-RACH-Info -LCR-r4	Class-definitions				
PRACH_SystemInfor mation	PRACH–SystemInfor mation	Class-definitions				
PRACH_SystemInfor mation_LCR_r4	PRACH–SystemInfor mation–LCR–r4	Class-definitions				
PRACH_SystemInfor mationList	PRACH–SystemInfor mationList	Class-definitions				
PRACH_SystemInfor mationList_LCR_r4	PRACH–SystemInfor mationList–LCR–r4	Class-definitions				
PreambleRetransMax	PreambleRetransMax	Class-definitions				
PreambleScramblingC odeWordNumber	PreambleScramblingC odeWordNumber	Class-definitions				
PreDefPhyChConfigu ration	PreDefPhyChConfigu ration	Class-definitions				
PrimaryCCPCH_Info	PrimaryCCPCH-Info	Class-definitions				
PrimaryCCPCH_Info_ r4	PrimaryCCPCH-Info -r4	Class-definitions				
PrimaryCCPCH_Info_ LCR_r4	PrimaryCCPCH-Info -LCR-r4	Class-definitions				
PrimaryCCPCH_Info_ LCR_r4_ext	PrimaryCCPCH-Info -LCR-r4-ext	Class-definitions				
PrimaryCCPCH_TX_P ower	PrimaryCCPCH-TX- Power	Class-definitions				
PrimaryCPICH_Info	PrimaryCPICH-Info	Class-definitions				
PrimaryCPICH_TX_P ower	PrimaryCPICH-TX-P ower	Class-definitions				
PrimaryScramblingCo de	PrimaryScramblingCo de	Class-definitions				
PuncturingLimit	PuncturingLimit	Class-definitions				
PUSCH_CapacityAllo cationInfo	PUSCH–CapacityAllo cationInfo	Class-definitions				
PUSCH_CapacityAllo cationInfo_r4	PUSCH–CapacityAllo cationInfo–r4	Class-definitions				
PUSCH_Identity	PUSCH-Identity	Class-definitions				

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Type Name	Type Reference	Module Identifier	Encoding Variation	Comments	
PUSCH_Info	PUSCH-Info	Class-definitions			
PUSCH_Info_r4	PUSCH-Info-r4	Class-definitions			
PUSCH_Info_LCR_r 4	PUSCH-Info-LCR-r 4	Class-definitions			
PUSCH_PowerContr ollnfo_r4	PUSCH-PowerContr ollnfo-r4	Class-definitions			
PUSCH_SysInfo	PUSCH-SysInfo	Class-definitions			
PUSCH_SysInfo_HC R_r5	PUSCH-SysInfo-HC R-r5	Class-definitions			
PUSCH_SysInfo_LC R_r4	PUSCH-SysInfo-LC R-r4	Class-definitions			
PUSCH_SysInfoList	PUSCH-SysInfoList	Class-definitions			
PUSCH_SysInfoList_ HCR_r5	PUSCH-SysInfoList- HCR-r5	Class-definitions			
PUSCH_SysInfoList_ LCR_r4	PUSCH-SysInfoList- LCR-r4	Class-definitions			
PUSCH_SysInfoList_ SFN	PUSCH-SysInfoList- SFN	Class-definitions			
PUSCH_SysInfoList_ SFN_HCR_r5	PUSCH-SysInfoList- SFN-HCR-r5	Class-definitions			
PUSCH_SysInfoList_ SFN_LCR_r4	PUSCH-SysInfoList- SFN-LCR-r4	Class-definitions			
RACH_TransmissionP arameters	RACH-TransmissionP arameters	Class-definitions			
RepetitionPeriodAndL ength	RepetitionPeriodAndL ength	Class-definitions			
RepetitionPeriodLengt hAndOffset	RepetitionPeriodLengt hAndOffset	Class-definitions			
ReplacedPDSCH_Cod eInfo	ReplacedPDSCH-Co deInfo	Class-definitions			
ReplacedPDSCH_Cod eInfoList	ReplacedPDSCH–Co deInfoList	Class-definitions			
RepPerLengthOffset_ PICH	RepPerLengthOffset- PICH	Class-definitions			
RestrictedTrCH	RestrictedTrCH	Class-definitions			
RestrictedTrCH_InfoLi st	RestrictedTrCH-InfoL ist	Class-definitions			
RL_AdditionInformati on	RL-AdditionInformati on	Class-definitions			
RL_AdditionInformati onList	RL-AdditionInformati onList	Class-definitions			
RL_IdentifierList	RL-IdentifierList	Class-definitions			
RL_RemovalInformati onList	RL–RemovalInformati onList	Class-definitions			
RPP	RPP	Class-definitions			
S_Field	S-Field	Class-definitions			
SCCPCH_Channelisa tionCode	SCCPCH-Channelisa tionCode	Class-definitions			
SCCPCH_Channelisa tionCodeList	SCCPCH-Channelisa tionCodeList	Class-definitions			
SCCPCH_InfoForFA CH	SCCPCH-InfoForFA CH	Class-definitions			

Continuea from previous pa	ASN.1 Type Definitions By Reference				
Type Name	Type Reference	Module Identifier	Encoding Variation	Comments	
SCCPCH_InfoForFA CH_r4	SCCPCH-InfoForFA CH-r4	Class-definitions			
SCCPCH_SystemInfo rmation	SCCPCH–SystemInf ormation	Class-definitions			
SCCPCH_SystemInfo rmation_LCR_r4_ext	SCCPCH-SystemInf ormation-LCR-r4-ex t	Class-definitions			
SCCPCH_SystemInfo rmationList	SCCPCH–SystemInf ormationList	Class-definitions			
SCCPCH_SystemInfo rmationList_LCR_r4_ ext	SCCPCH-SystemInf ormationList-LCR-r4 -ext	Class-definitions			
ScramblingCodeChan ge	ScramblingCodeChan ge	Class-definitions			
ScramblingCodeType	ScramblingCodeType	Class-definitions			
SecondaryCCPCH_In fo	SecondaryCCPCH-In fo	Class-definitions			
SecondaryCCPCH_In fo_r4	SecondaryCCPCH-In fo-r4	Class-definitions			
SecondaryCCPCH_In fo_LCR_r4_ext	SecondaryCCPCH-In fo-LCR-r4-ext	Class-definitions			
SecondaryCPICH_Inf o	SecondaryCPICH-Inf o	Class-definitions			
SecondaryScrambling Code	SecondaryScrambling Code	Class-definitions			
SecondInterleavingMo de	SecondInterleavingMo de	Class-definitions			
SF256_AndCodeNum ber	SF256-AndCodeNum ber	Class-definitions			
SF512_AndCodeNum ber	SF512-AndCodeNum ber	Class-definitions			
SF512_AndPilot	SF512-AndPilot	Class-definitions			
SF_PDSCH	SF-PDSCH	Class-definitions			
SF_PRACH	SF-PRACH	Class-definitions			
SFN_TimeInfo	SFN-TimeInfo	Class-definitions			
SpecialBurstSchedulin g	SpecialBurstSchedulin g	Class-definitions			
SpreadingFactor	SpreadingFactor	Class-definitions			
SRB_delay	SRB-delay	Class-definitions			
SSDT_CellIdentity	SSDT-CellIdentity	Class-definitions			
SSDT_Information	SSDT-Information	Class-definitions			
SSDT_Information_r4	SSDT-Information-r4	Class-definitions			
SSDT_UL	SSDT-UL	Class-definitions			
SynchronisationParam eters_r4	SynchronisationParam eters-r4	Class-definitions			
SYNC_UL_Procedure _r4	SYNC-UL-Procedure -r4	Class-definitions			
SYNC_UL_Info_r4	SYNC-UL-Info-r4	Class-definitions			
TDD_FPACH_CCode 16_r4	TDD-FPACH-CCode 16-r4	Class-definitions			
TDD_UL_Interference	TDD-UL-Interference	Class-definitions			
TDD_PICH_CCode	TDD-PICH-CCode	Class-definitions			

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Type Name	Type Reference	Module Identifier	Encoding Variation	Comments	
TDD_PRACH_CCode	TDD-PRACH-CCode	Class-definitions			
8	8				
TDD_PRACH_CCode 16	TDD-PRACH-CCode	Class-definitions			
TDD_PRACH_CCode _LCR_r4	TDD-PRACH-CCode -LCR-r4	Class-definitions			
TDD_PRACH_CCode List	TDD-PRACH-CCode List	Class-definitions			
TFC_ControlDuration	TFC-ControlDuration	Class-definitions			
TFCI_Coding	TFCI-Coding	Class-definitions			
TGCFN	TGCFN	Class-definitions			
TGD	TGD	Class-definitions			
TGL	TGL	Class-definitions			
TGMP	TGMP	Class-definitions			
TGP_Sequence	TGP-Sequence	Class-definitions			
TGPS_Reconfiguration_CFN	TGPS-Reconfiguratio	Class-definitions			
TGP_SequenceList	TGP-SequenceList	Class-definitions			
TGP_SequenceShort	TGP-SequenceShort	Class-definitions			
TGPL	TGPL	Class-definitions			
TGPRC	TGPRC	Class-definitions			
TGPS_ConfigurationP arams	TGPS–ConfigurationP arams	Class-definitions			
TGPSI	TGPSI	Class-definitions			
TGSN	TGSN	Class-definitions			
TimeInfo	TimeInfo	Class-definitions			
TimeslotList	TimeslotList	Class-definitions			
TimeslotList_r4	TimeslotList-r4	Class-definitions			
TimeslotNumber	TimeslotNumber	Class-definitions			
TimeslotNumber_LCR _r4	TimeslotNumber–LCR –r4	Class-definitions			
TimeslotNumber_PRA CH_LCR_r4	TimeslotNumber-PRA CH-LCR-r4	Class-definitions			
TimeslotSync2	TimeslotSync2	Class-definitions			
TimingOffset	TimingOffset	Class-definitions			
TPC_CombinationInde x	TPC-CombinationInd ex	Class-definitions			
TPC_StepSizeFDD	TPC-StepSizeFDD	Class-definitions			
TPC_StepSizeTDD	TPC-StepSizeTDD	Class-definitions			
TreconfirmAbort	TreconfirmAbort	Class-definitions			
TX_DiversityMode	TX-DiversityMode	Class-definitions			
UARFCN	UARFCN	Class-definitions			
UCSM_Info	UCSM-Info	Class-definitions			
UL_CCTrCH	UL-CCTrCH	Class-definitions			
UL_CCTrCH_r4	UL-CCTrCH-r4	Class-definitions			
UL_CCTrCHList	UL-CCTrCHList	Class-definitions			
UL_CCTrCHList_r4	UL-CCTrCHList-r4	Class-definitions			
UL_CCTrCHListToRe	UL-CCTrCHListToRe	Class-definitions			
move	move				

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Type Name	Type Reference	Module Identifier	Encoding Variation	Comments
UL_CCTrChTPCList	UL-CCTrChTPCList	Class-definitions		
UL_ChannelRequireme nt	UL-ChannelRequirem ent	Class-definitions		
UL_ChannelRequireme nt_r4	UL-ChannelRequirem ent-r4	Class-definitions		
UL_ChannelRequireme nt_r5	UL-ChannelRequirem ent-r5	Class-definitions		
UL_ChannelRequireme ntWithCPCH_SetID	UL-ChannelRequirem entWithCPCH-SetID	Class-definitions		
UL_ChannelRequireme ntWithCPCH_SetID_r 4	UL-ChannelRequirem entWithCPCH-SetID -r4	Class-definitions		
UL_ChannelRequireme ntWithCPCH_SetID_r 5	UL-ChannelRequirem entWithCPCH-SetID -r5	Class-definitions		
UL_CompressedMode Method	UL-CompressedMode Method	Class-definitions		
UL_DL_Mode	UL-DL-Mode	Class-definitions		
UL_DPCCH_SlotFor mat	UL-DPCCH-SlotFor mat	Class-definitions		
UL_DPCH_Info	UL-DPCH-Info	Class-definitions		
UL_DPCH_Info_r4	UL-DPCH-Info-r4	Class-definitions		
UL_DPCH_Info_r5	UL-DPCH-Info-r5	Class-definitions		
UL_DPCH_InfoPrede f	UL-DPCH-InfoPrede f	Class-definitions		
UL_DPCH_PowerCo ntrolInfo	UL-DPCH-PowerCo ntrolInfo	Class-definitions		
UL_DPCH_PowerCo ntrolInfo_r4	UL-DPCH-PowerCo ntrolInfo-r4	Class-definitions		
UL_DPCH_PowerCo ntrolInfo_r5	UL-DPCH-PowerCo ntrolInfo-r5	Class-definitions		
UL_DPCH_PowerCo ntrolInfoPredef	UL-DPCH-PowerCo ntrolInfoPredef	Class-definitions		
UL_Interference	UL-Interference	Class-definitions		
UL_ScramblingCode	UL-ScramblingCode	Class-definitions		
UL_SynchronisationP arameters_r4	UL-SynchronisationP arameters-r4	Class-definitions		
UL_TargetSIR	UL-TargetSIR	Class-definitions		
UL_TimingAdvance	UL-TimingAdvance	Class-definitions		
UL_TimingAdvanceCo	UL-TimingAdvanceControl	Class-definitions		
UL_TimingAdvanceCo ntrol_r4	UL-TimingAdvanceCo ntrol-r4	Class-definitions		
UL_TS_ChannelisationCode	UL-TS-Channelisatio nCode	Class-definitions		
UL_TS_Channelisatio nCodeList	UL-TS-Channelisatio nCodeList	Class-definitions		
UplinkAdditionalTimesl ots	UplinkAdditionalTimesl ots	Class-definitions		
UplinkAdditionalTimesl ots_LCR_r4	UplinkAdditionalTimesl ots-LCR-r4	Class-definitions		
UplinkTimeslotsCodes	UplinkTimeslotsCodes	Class-definitions		

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Type Name	Type Reference	Module Identifier	Encoding Variation	Comments	
UplinkTimeslotsCodes _LCR_r4	UplinkTimeslotsCodes -LCR-r4	Class-definitions			
Wi_LCR	Wi-LCR	Class-definitions			
AcquisitionSatInfo	AcquisitionSatInfo	Class-definitions			
AcquisitionSatInfoList	AcquisitionSatInfoList	Class-definitions			
AdditionalMeasuremen tID_List	AdditionalMeasuremen tID-List	Class-definitions			
AlmanacSatInfo	AlmanacSatInfo	Class-definitions			
AlmanacSatInfoList	AlmanacSatInfoList	Class-definitions			
AverageRLC_BufferP ayload	AverageRLC-BufferP ayload	Class-definitions			
AzimuthAndElevation	AzimuthAndElevation	Class-definitions			
BadSatList	BadSatList	Class-definitions			
Frequency_Band	Frequency-Band	Class-definitions			
BCCH_ARFCN	BCCH-ARFCN	Class-definitions			
BLER_MeasurementR esults	BLER-MeasurementR esults	Class-definitions			
BLER_MeasurementR esultsList	BLER-MeasurementR esultsList	Class-definitions			
BLER_TransChldList	BLER-TransChldList	Class-definitions			
BSIC_VerificationReq uired	BSIC-VerificationReq uired	Class-definitions			
BSICReported	BSICReported	Class-definitions			
BurstModeParameters	BurstModeParameters	Class-definitions			
CellDCH_ReportCrite ria	CellDCH-ReportCrite ria	Class-definitions			
CellDCH_ReportCrite ria_LCR_r4	CellDCH-ReportCrite ria-LCR-r4	Class-definitions			
CellIndividualOffset	CellIndividualOffset	Class-definitions			
CellInfo	CellInfo	Class-definitions			
CellInfo_r4	CellInfo-r4	Class-definitions			
CellInfoSI_RSCP	CellInfoSI-RSCP	Class-definitions			
CellInfoSI_RSCP_LC R_r4	CellInfoSI-RSCP-LC R-r4	Class-definitions			
CellInfoSI_ECN0	CellInfoSI-ECN0	Class-definitions			
CellInfoSI_ECN0_LC R_r4	CellInfoSI-ECN0-LC R-r4	Class-definitions			
CellInfoSI_HCS_RSC P	CellInfoSI-HCS-RSC P	Class-definitions			
CellInfoSI_HCS_RSC P_LCR_r4	CellInfoSI-HCS-RSC P-LCR-r4	Class-definitions			
CellInfoSI_HCS_ECN 0	CellInfoSI-HCS-EC N0	Class-definitions			
CellInfoSI_HCS_ECN 0_LCR_r4	CellInfoSI-HCS-EC N0-LCR-r4	Class-definitions			
CellMeasuredResults	CellMeasuredResults	Class-definitions			
CellMeasurementEven tResults	CellMeasurementEven tResults	Class-definitions			
CellMeasurementEven tResults_LCR_r4	CellMeasurementEven tResults-LCR-r4	Class-definitions			

	ASN.1 Type Definitions By Reference				
Type Name	Type Reference	Module Identifier	Encoding Variation	Comments	
CellReportingQuantitie	CellReportingQuantitie	Class-definitions			
S	S				
CellSelectReselectInfo SIB_11_12	CellSelectReselectInfo SIB-11-12	Class-definitions			
CellSelectReselectInfo SIB_11_12_RSCP	CellSelectReselectInfo SIB-11-12-RSCP	Class-definitions			
CellSelectReselectInfo SIB_11_12_ECN0	CellSelectReselectInfo SIB-11-12-ECN0	Class-definitions			
CellSelectReselectInfo SIB_11_12_HCS_RS CP	CellSelectReselectInfo SIB-11-12-HCS-R SCP	Class-definitions			
CellSelectReselectInfo SIB_11_12_HCS_EC N0	CellSelectReselectInfo SIB-11-12-HCS-E CN0	Class-definitions			
CellSelectReselectInfo _v590ext	CellSelectReselectInfo –v590ext	Class-definitions			
CellSelectReselectInfo PCHFACH_v5b0ext	CellSelectReselectInfo PCHFACH-v5b0ext	Class-definitions			
CellsForInterFreqMeas List	CellsForInterFreqMeas List	Class-definitions			
CellsForInterRATMeas List	CellsForInterRATMeas List	Class-definitions			
CellsForIntraFreqMeas List	CellsForIntraFreqMeas List	Class-definitions			
CellSynchronisationInf o	CellSynchronisationInf o	Class-definitions			
CellToReport	CellToReport	Class-definitions			
CellToReportList	CellToReportList	Class-definitions			
CodePhaseSearchWin dow	CodePhaseSearchWin dow	Class-definitions			
CountC_SFN_Frame_ difference	CountC-SFN-Frame -difference	Class-definitions			
CPICH_Ec_N0	CPICH-Ec-N0	Class-definitions			
CPICH_RSCP	CPICH-RSCP	Class-definitions			
DeltaPRC	DeltaPRC	Class-definitions			
DeltaQrxlevmin	DeltaQrxlevmin	Class-definitions			
DeltaRSCP	DeltaRSCP	Class-definitions			
DeltaRSCPPerCell	DeltaRSCPPerCell	Class-definitions			
DeltaRRC	DeltaRRC	Class-definitions			
DGPS_CorrectionSatInfo	DGPS-CorrectionSat Info	Class-definitions			
DGPS_CorrectionSatI nfoList	DGPS–CorrectionSat InfoList	Class-definitions			
DiffCorrectionStatus	DiffCorrectionStatus	Class-definitions			
DL_TransportChannel BLER	DL-TransportChannel BLER	Class-definitions			
DopplerUncertainty	DopplerUncertainty	Class-definitions			
EllipsoidPoint	EllipsoidPoint	Class-definitions			
EllipsoidPointAltitude	EllipsoidPointAltitude	Class-definitions			
EllipsoidPointAltitudeE Ilipsoide	EllipsoidPointAltitudeE Ilipsoide	Class-definitions			

Continued from previous pa	ASN.1 Type Definitions By Reference				
Type Name	Type Reference	Module Identifier	Encoding Variation	Comments	
EllipsoidPointUncertCi rcle	EllipsoidPointUncertCi rcle	Class-definitions			
EllipsoidPointUncertEl lipse	EllipsoidPointUncertEl lipse	Class-definitions			
EnvironmentCharacte risation	EnvironmentCharacte risation	Class-definitions			
Event1a	Event1a	Class-definitions			
Event1a_r4	Event1a-r4	Class-definitions			
Event1a_LCR_r4	Event1a-LCR-r4	Class-definitions			
Event1b	Event1b	Class-definitions			
Event1b_r4	Event1b-r4	Class-definitions			
Event1b_LCR_r4	Event1b-LCR-r4	Class-definitions			
Event1c	Event1c	Class-definitions			
Event1e	Event1e	Class-definitions			
Event1f	Event1f	Class-definitions			
Event2a	Event2a	Class-definitions			
Event2b	Event2b	Class-definitions			
Event2c	Event2c	Class-definitions			
Event2d	Event2d	Class-definitions			
Event2e	Event2e	Class-definitions			
Event2f	Event2f	Class-definitions			
Event3a	Event3a	Class-definitions			
Event3b	Event3b	Class-definitions			
Event3c	Event3c	Class-definitions			
Event3d	Event3d	Class-definitions			
EventlDInterFreq	EventIDInterFreq	Class-definitions			
EventIDInterRAT	EventIDInterRAT	Class-definitions			
EventlDIntraFreq	   EventIDIntraFreq	Class-definitions			
EventResults	EventResults	Class-definitions			
ExtraDopplerInfo	ExtraDopplerInfo	Class-definitions			
FACH_MeasurementO ccasionInfo	FACH–MeasurementO	Class-definitions			
FACH_MeasurementO ccasionInfo_LCR_r4_ ext	FACH–MeasurementO ccasionInfo–LCR–r4– ext	Class-definitions			
FilterCoefficient	FilterCoefficient	Class-definitions			
FineSFN_SFN	FineSFN-SFN	Class-definitions			
ForbiddenAffectCell	ForbiddenAffectCell	Class-definitions			
ForbiddenAffectCell_r 4	ForbiddenAffectCell-r 4	Class-definitions			
ForbiddenAffectCell_L CR_r4	ForbiddenAffectCell– LCR-r4	Class-definitions			
ForbiddenAffectCellLi st	ForbiddenAffectCellLi st	Class-definitions			
ForbiddenAffectCellLi st_r4	ForbiddenAffectCellLi st-r4	Class-definitions			
ForbiddenAffectCellLi st_LCR_r4	ForbiddenAffectCellLi st-LCR-r4	Class-definitions			
FreqQualityEstimateQu antity_FDD	FreqQualityEstimateQu antity–FDD	Class-definitions			

	ASN.1 Type Definitions By Reference				
Type Name	Type Reference	Module Identifier	Encoding Variation	Comments	
FreqQualityEstimateQu antity_TDD	FreqQualityEstimateQu antity=TDD	Class-definitions			
GPS_MeasurementPar am	GPS-MeasurementPa ram	Class-definitions			
GPS_MeasurementPar amList	GPS-MeasurementPa ramList	Class-definitions			
GSM_CarrierRSSI	GSM-CarrierRSSI	Class-definitions			
GSM_MeasuredResult s	GSM-MeasuredResult s	Class-definitions			
GSM_MeasuredResult sList	GSM-MeasuredResult sList	Class-definitions			
GPS_TOW_1msec	GPS-TOW-1msec	Class-definitions			
GPS_TOW_Assist	GPS-TOW-Assist	Class-definitions			
GPS_TOW_AssistList	GPS-TOW-AssistList	Class-definitions			
HCS_CellReselectInfo rmation_RSCP	HCS-CellReselectInfo rmation-RSCP	Class-definitions			
HCS_CellReselectInfo rmation_ECN0	HCS-CellReselectInfo rmation-ECN0	Class-definitions			
HCS_NeighbouringCe IlInformation_RSCP	HCS-NeighbouringCe IlInformation-RSCP	Class-definitions			
HCS_NeighbouringCe IlInformation_ECN0	HCS-NeighbouringCe IlInformation-ECN0	Class-definitions			
HCS_PRIO	HCS-PRIO	Class-definitions			
HCS_ServingCellInfor mation	HCS-ServingCellInfo rmation	Class-definitions			
Hysteresis	Hysteresis	Class-definitions			
HysteresisInterFreq	HysteresisInterFreq	Class-definitions			
InterFreqCell	InterFreqCell	Class-definitions			
InterFreqCell_LCR_r4	InterFreqCell-LCR-r4	Class-definitions			
InterFreqCellID	InterFreqCellID	Class-definitions			
InterFreqCellInfoList	InterFreqCellInfoList	Class-definitions			
InterFreqCellInfoList_ r4	InterFreqCellInfoList- r4	Class-definitions			
InterFreqCellInfoSI_Li st_RSCP	InterFreqCellInfoSI-Li st-RSCP	Class-definitions			
InterFreqCellInfoSI_Li st_ECN0	InterFreqCellInfoSI-Li st-ECN0	Class-definitions			
InterFreqCellInfoSI_Li st_HCS_RSCP	InterFreqCellInfoSI-Li st-HCS-RSCP	Class-definitions			
InterFreqCellInfoSI_Li st_HCS_ECN0	InterFreqCellInfoSI-Li st-HCS-ECN0	Class-definitions			
InterFreqCellInfoSI_Li st_RSCP_LCR	InterFreqCellInfoSI-Li st-RSCP-LCR	Class-definitions			
InterFreqCellInfoSI_Li st_ECN0_LCR	InterFreqCellInfoSI-Li st-ECN0-LCR	Class-definitions			
InterFreqCellInfoSI_Li st_HCS_RSCP_LCR	InterFreqCellInfoSI-Li st-HCS-RSCP-LCR	Class-definitions			
InterFreqCellInfoSI_Li st_HCS_ECN0_LCR	InterFreqCellInfoSI-Li st-HCS-ECN0-LCR	Class-definitions			
InterFreqCellList	InterFreqCellList	Class-definitions			
InterFreqCellList_LCR _r4_ext	InterFreqCellList-LCR -r4-ext	Class-definitions			

	ASN.1 Type Definitions By Reference				
Type Name	Type Reference	Module Identifier	Encoding Variation	Comments	
InterFreqCellMeasured ResultsList	InterFreqCellMeasured ResultsList	Class-definitions			
InterFreqEvent	InterFreqEvent	Class-definitions			
InterFreqEventList	InterFreqEventList	Class-definitions			
InterFrequencyMeasur edResultsList_v590ex t	InterFrequencyMeasur edResultsList-v590ex t	Class-definitions			
Inter_FreqEventCriter ia_v590ext	Inter–FreqEventCriter ia–v590ext	Class-definitions			
Inter_FreqEventCriter iaList_v590ext	Inter-FreqEventCriter iaList-v590ext	Class-definitions			
Intra_FreqEventCriter iaList_v590ext	Intra-FreqEventCriter iaList-v590ext	Class-definitions			
IntraFrequencyMeasur edResultsList_v590ex t	IntraFrequencyMeasur edResultsList-v590ex t	Class-definitions			
IntraFreqReportingCri teria_1b_r5	IntraFreqReportingCri teria-1b-r5	Class-definitions			
PeriodicReportingInfo _1b	PeriodicReportingInfo –1b	Class-definitions			
InterFreqEventResults	InterFreqEventResults	Class-definitions			
InterFreqEventResults _LCR_r4_ext	InterFreqEventResults -LCR-r4-ext	Class-definitions			
InterFreqMeasQuantit y	InterFreqMeasQuantit y	Class-definitions			
InterFreqMeasuredRes ults	InterFreqMeasuredRes ults	Class-definitions			
InterFreqMeasuredRes ultsList	InterFreqMeasuredRes ultsList	Class-definitions			
InterFreqMeasurement SysInfo_RSCP	InterFreqMeasurement SysInfo-RSCP	Class-definitions			
InterFreqMeasurement SysInfo_ECN0	InterFreqMeasurement SysInfo-ECN0	Class-definitions			
InterFreqMeasurement SysInfo_HCS_RSCP	InterFreqMeasurement SysInfo-HCS-RSCP	Class-definitions			
InterFreqMeasurement SysInfo_HCS_ECN0	InterFreqMeasurement SysInfo-HCS-ECN0	Class-definitions			
InterFreqMeasurement SysInfo_RSCP_LCR_ r4	InterFreqMeasurement SysInfo-RSCP-LCR -r4	Class-definitions			
InterFreqMeasurement SysInfo_ECN0_LCR_ r4	InterFreqMeasurement SysInfo-ECN0-LCR -r4	Class-definitions			
InterFreqMeasurement SysInfo_HCS_RSCP _LCR_r4	InterFreqMeasurement SysInfo-HCS-RSCP -LCR-r4	Class-definitions			
InterFreqMeasurement SysInfo_HCS_ECN0 _LCR_r4	InterFreqMeasurement SysInfo-HCS-ECN0 -LCR-r4	Class-definitions			
InterFreqReportCriteri a	InterFreqReportCriteri a	Class-definitions			
InterFreqReportCriteri a_r4	InterFreqReportCriteri a-r4	Class-definitions			

	ASN.1 Type Definitions By Reference				
Type Name	Type Reference	Module Identifier	Encoding Variation	Comments	
InterFreqReportingCri teria	InterFreqReportingCri teria	Class-definitions			
InterFreqReportingQu antity	InterFreqReportingQu antity	Class-definitions			
InterFrequencyMeasur ement	InterFrequencyMeasur ement	Class-definitions			
InterFrequencyMeasur ement_r4	InterFrequencyMeasur ement-r4	Class-definitions			
InterRAT_TargetCellD escription	InterRAT-TargetCellD escription	Class-definitions			
InterRATCellID	InterRATCellID	Class-definitions			
InterRATCellInfoIndica tion	InterRATCellInfoIndica tion	Class-definitions			
InterRATCellInfoList	InterRATCellInfoList	Class-definitions			
InterRATCellInfoList_ B	InterRATCellInfoList- B	Class-definitions			
InterRATCellInfoList_r 4	InterRATCellInfoList-r 4	Class-definitions			
InterRATCellIndividual Offset	InterRATCellIndividual Offset	Class-definitions			
InterRATEvent	InterRATEvent	Class-definitions			
InterRATEventList	InterRATEventList	Class-definitions			
InterRATEventResults	InterRATEventResults	Class-definitions			
InterRATInfo	InterRATInfo	Class-definitions			
InterRATMeasQuantity	InterRATMeasQuantity	Class-definitions			
InterRATMeasuredRes ults	InterRATMeasuredRes ults	Class-definitions			
InterRATMeasuredRes ultsList	InterRATMeasuredRes ultsList	Class-definitions			
InterRATMeasurement	InterRATMeasurement	Class-definitions			
InterRATMeasurement _r4	InterRATMeasurement –r4	Class-definitions			
InterRATMeasurement SysInfo	InterRATMeasurement SysInfo	Class-definitions			
InterRATMeasurement SysInfo_B	InterRATMeasurement SysInfo-B	Class-definitions			
InterRATReportCriteri a	InterRATReportCriteri a	Class-definitions			
InterRATReportingCrit eria	InterRATReportingCrit eria	Class-definitions			
InterRATReportingQua ntity	InterRATReportingQua ntity	Class-definitions			
IntraFreqCellID	IntraFreqCellID	Class-definitions			
IntraFreqCellInfoList	IntraFreqCellInfoList	Class-definitions			
IntraFreqCellInfoList_ r4	IntraFreqCellInfoList- r4	Class-definitions			
IntraFreqCellInfoSI_Li st_RSCP	IntraFreqCellInfoSI-Li st-RSCP	Class-definitions			
IntraFreqCellInfoSI_Li st_ECN0	IntraFreqCellInfoSI-Li st-ECN0	Class-definitions			
IntraFreqCellInfoSI_Li st_HCS_RSCP	IntraFreqCellInfoSI-Li st-HCS-RSCP	Class-definitions			

ASN.1 Type Definitions By Reference				
Type Name	Type Reference	Module Identifier	Encoding Variation	Comments
IntraFreqCellInfoSI_Li st_HCS_ECN0	IntraFreqCellInfoSI-Li st-HCS-ECN0	Class-definitions		
IntraFreqCellInfoSI_Li st_RSCP_LCR_r4	IntraFreqCellInfoSI–Li st–RSCP–LCR–r4	Class-definitions		
IntraFreqCellInfoSI_Li st_ECN0_LCR_r4	IntraFreqCellInfoSI-Li st-ECN0-LCR-r4	Class-definitions		
IntraFreqCellInfoSI_Li st_HCS_RSCP_LCR _r4	IntraFreqCellInfoSI-Li st-HCS-RSCP-LCR -r4	Class-definitions		
IntraFreqCellInfoSI_Li st_HCS_ECN0_LCR _r4	IntraFreqCellInfoSI-Li st-HCS-ECN0-LCR -r4	Class-definitions		
IntraFreqEvent	IntraFreqEvent	Class-definitions		
IntraFreqEvent_r4	IntraFreqEvent-r4	Class-definitions		
IntraFreqEvent_LCR_ r4	IntraFreqEvent-LCR -r4	Class-definitions		
IntraFreqEvent_1d_r5	IntraFreqEvent-1d-r 5	Class-definitions		
IntraFreqEventCriteria	IntraFreqEventCriteria	Class-definitions		
IntraFreqEventCriteria _r4	IntraFreqEventCriteria -r4	Class-definitions		
IntraFreqEventCriteria _LCR_r4	IntraFreqEventCriteria -LCR-r4	Class-definitions		
IntraFreqEventCriteria List	IntraFreqEventCriteria List	Class-definitions		
IntraFreqEventCriteria List_r4	IntraFreqEventCriteria List-r4	Class-definitions		
IntraFreqEventCriteria List_LCR_r4	IntraFreqEventCriteria List-LCR-r4	Class-definitions		
IntraFreqEventResults	IntraFreqEventResults	Class-definitions		
IntraFreqMeasQuantit y	IntraFreqMeasQuantit y	Class-definitions		
IntraFreqMeasQuantit y_FDD	IntraFreqMeasQuantit y–FDD	Class-definitions		
IntraFreqMeasQuantit y_TDD	IntraFreqMeasQuantit y-TDD	Class-definitions		
IntraFreqMeasQuantit y_TDDList	IntraFreqMeasQuantit y-TDDList	Class-definitions		
IntraFreqMeasuredRes ultsList	IntraFreqMeasuredRes ultsList	Class-definitions		
IntraFreqMeasurement SysInfo_RSCP	IntraFreqMeasurement SysInfo-RSCP	Class-definitions		
IntraFreqMeasurement SysInfo_ECN0	IntraFreqMeasurement SysInfo-ECN0	Class-definitions		
IntraFreqMeasurement SysInfo_HCS_RSCP	IntraFreqMeasurement SysInfo-HCS-RSCP	Class-definitions		
IntraFreqMeasurement SysInfo_HCS_ECN0	IntraFreqMeasurement SysInfo-HCS-ECN0	Class-definitions		
IntraFreqMeasurement SysInfo_RSCP_LCR_ r4	IntraFreqMeasurement SysInfo-RSCP-LCR -r4	Class-definitions		

Continued from previous pag	ASN.1 Type Definitions By Reference				
Type Name	Type Reference	Module Identifier	Encoding Variation	Comments	
IntraFreqMeasurement SysInfo_ECN0_LCR_ r4	IntraFreqMeasurement SysInfo-ECN0-LCR -r4	Class-definitions			
IntraFreqMeasurement SysInfo_HCS_RSCP _LCR_r4	IntraFreqMeasurement SysInfo-HCS-RSCP -LCR-r4	Class-definitions			
IntraFreqMeasurement SysInfo_HCS_ECN0 _LCR_r4	IntraFreqMeasurement SysInfo-HCS-ECN0 -LCR-r4	Class-definitions			
IntraFreqReportCriteri a	IntraFreqReportCriteri a	Class-definitions			
IntraFreqReportCriteri a_r4	IntraFreqReportCriteri a-r4	Class-definitions			
IntraFreqReportingCri teria	IntraFreqReportingCri teria	Class-definitions			
IntraFreqReportingCri teria_r4	IntraFreqReportingCri teria-r4	Class-definitions			
IntraFreqReportingCri teria_LCR_r4	IntraFreqReportingCri teria-LCR-r4	Class-definitions			
IntraFreqReportingQu antity	IntraFreqReportingQu antity	Class-definitions			
IntraFreqReportingQu antityForRACH	IntraFreqReportingQu antityForRACH	Class-definitions			
IntraFreqRepQuantity RACH_FDD	IntraFreqRepQuantity RACH-FDD	Class-definitions			
IntraFreqRepQuantity RACH_TDD	IntraFreqRepQuantity RACH-TDD	Class-definitions			
IntraFreqRepQuantity RACH_TDDList	IntraFreqRepQuantity RACH-TDDList	Class-definitions			
IntraFrequencyMeasur ement	IntraFrequencyMeasur ement	Class-definitions			
IntraFrequencyMeasur ement_r4	IntraFrequencyMeasur ement-r4	Class-definitions			
IODE	IODE	Class-definitions			
IP_Length	IP-Length	Class-definitions			
IP_PCCPCH_r4	IP-PCCPCH-r4	Class-definitions			
IP_Spacing	IP-Spacing	Class-definitions			
IP_Spacing_TDD	IP-Spacing-TDD	Class-definitions			
IS_2000SpecificMeasI nfo	IS-2000SpecificMeasI nfo	Class-definitions			
MaxNumberOfReporti ngCellsType1	MaxNumberOfReporti ngCellsType1	Class-definitions			
MaxNumberOfReporti ngCellsType2	MaxNumberOfReporti ngCellsType2	Class-definitions			
MaxNumberOfReporti ngCellsType3	MaxNumberOfReporti ngCellsType3	Class-definitions			
MaxReportedCellsOn RACH	MaxReportedCellsOn RACH	Class-definitions			
MeasuredResults	MeasuredResults	Class-definitions			
MeasuredResults_v39 0ext	MeasuredResults-v39 0ext	Class-definitions			
MeasuredResults_v59 0ext	MeasuredResults-v59 0ext	Class-definitions			

	ASN.1 Type Definitions By Reference				
Type Name	Type Reference	Module Identifier	Encoding Variation	Comments	
MeasuredResults_LCR _r4	MeasuredResults-LCR -r4	Class-definitions			
MeasuredResultsList	MeasuredResultsList	Class-definitions			
MeasuredResultsList_ LCR_r4_ext	MeasuredResultsList- LCR-r4-ext	Class-definitions			
MeasuredResultsOnRA CH	MeasuredResultsOnRA CH	Class-definitions			
MeasurementComman d	MeasurementComman d	Class-definitions			
MeasurementComman d_r4	MeasurementComman d-r4	Class-definitions			
MeasurementControlS ysInfo	MeasurementControlS ysInfo	Class-definitions			
MeasurementControlS ysInfo_LCR_r4_ext	MeasurementControlS ysInfo-LCR-r4-ext	Class-definitions			
MeasurementIdentity	MeasurementIdentity	Class-definitions			
MeasurementQuantity GSM	MeasurementQuantity GSM	Class-definitions			
MeasurementReportin gMode	MeasurementReportin gMode	Class-definitions			
MeasurementType	MeasurementType	Class-definitions			
MeasurementType_r4	MeasurementType-r4	Class-definitions			
MeasurementValidity	MeasurementValidity	Class-definitions			
MonitoredCellRACH_ List	MonitoredCellRACH- List	Class-definitions			
MonitoredCellRACH_ Result	MonitoredCellRACH- Result	Class-definitions			
MultipathIndicator	MultipathIndicator	Class-definitions			
N_CR_T_CRMaxHyst	N-CR-T-CRMaxHys t	Class-definitions			
NavigationModelSatIn fo	NavigationModelSatIn fo	Class-definitions			
NavigationModelSatIn foList	NavigationModelSatIn foList	Class-definitions			
EphemerisParameter	EphemerisParameter	Class-definitions			
NC_Mode	NC-Mode	Class-definitions			
Neighbour	Neighbour	Class-definitions			
Neighbour_v390ext	Neighbour-v390ext	Class-definitions			
NeighbourList	NeighbourList	Class-definitions			
NeighbourList_v390e xt	NeighbourList-v390e xt	Class-definitions			
NeighbourQuality	NeighbourQuality	Class-definitions			
NewInterFreqCell	NewInterFreqCell	Class-definitions			
NewInterFreqCell_r4	NewInterFreqCell-r4	Class-definitions			
NewInterFreqCellList	NewInterFreqCellList	Class-definitions			
NewInterFreqCellList_ r4	NewInterFreqCellList- r4	Class-definitions			
NewInterFreqCellSI_R SCP	NewInterFreqCellSI-R SCP	Class-definitions			
NewInterFreqCellSI_E CN0	NewInterFreqCellSI-E CN0	Class-definitions			

	ASN.1 Type Definitions By Reference				
Type Name	Type Reference	Module Identifier	Encoding Variation	Comments	
NewInterFreqCellSI_H CS_RSCP	NewInterFreqCellSI- HCS-RSCP	Class-definitions			
NewInterFreqCellSI_H CS_ECN0	NewInterFreqCellSI- HCS-ECN0	Class-definitions			
NewInterFreqCellSI_R SCP_LCR_r4	NewInterFreqCellSI-R SCP-LCR-r4	Class-definitions			
NewInterFreqCellSI_E CN0_LCR_r4	NewInterFreqCellSI-E CN0-LCR-r4	Class-definitions			
NewInterFreqCellSI_H CS_RSCP_LCR_r4	NewInterFreqCellSI- HCS-RSCP-LCR-r4	Class-definitions			
NewInterFreqCellSI_H CS_ECN0_LCR_r4	NewInterFreqCellSI- HCS-ECN0-LCR-r4	Class-definitions			
NewInterFreqCellSI_Li st_ECN0	NewInterFreqCellSI-L ist-ECN0	Class-definitions			
NewInterFreqCellSI_Li st_HCS_RSCP	NewInterFreqCellSI-L ist-HCS-RSCP	Class-definitions			
NewInterFreqCellSI_Li st_HCS_ECN0	NewInterFreqCellSI-L ist-HCS-ECN0	Class-definitions			
NewInterFreqCellSI_Li st_RSCP	NewInterFreqCellSI-L ist-RSCP	Class-definitions			
NewInterFreqCellSI_Li st_ECN0_LCR_r4	NewInterFreqCellSI-L ist-ECN0-LCR-r4	Class-definitions			
NewInterFreqCellSI_Li st_HCS_RSCP_LCR _r4	NewInterFreqCellSI-L ist-HCS-RSCP-LCR -r4	Class-definitions			
NewInterFreqCellSI_Li st_HCS_ECN0_LCR _r4	NewInterFreqCellSI-L ist-HCS-ECN0-LCR -r4	Class-definitions			
NewInterFreqCellSI_Li st_RSCP_LCR_r4	NewInterFreqCellSI-L ist-RSCP-LCR-r4	Class-definitions			
NewInterRATCell	NewInterRATCell	Class-definitions			
NewInterRATCell_B	NewInterRATCell-B	Class-definitions			
NewInterRATCellList	NewInterRATCellList	Class-definitions			
NewInterRATCellList_ B	NewInterRATCellList- B	Class-definitions			
NewIntraFreqCell	NewIntraFreqCell	Class-definitions			
NewIntraFreqCell_r4	NewIntraFreqCell-r4	Class-definitions			
NewIntraFreqCellList	NewIntraFreqCellList	Class-definitions			
NewIntraFreqCellList_ r4	NewIntraFreqCellList- r4	Class-definitions			
NewIntraFreqCellSI_R SCP	NewIntraFreqCellSI-R SCP	Class-definitions			
NewIntraFreqCellSI_E CN0	NewIntraFreqCellSI-E CN0	Class-definitions			
NewIntraFreqCellSI_H CS_RSCP	NewIntraFreqCellSI- HCS-RSCP	Class-definitions			
NewIntraFreqCellSI_H CS_ECN0	NewIntraFreqCellSI- HCS-ECN0	Class-definitions			
NewIntraFreqCellSI_R SCP_LCR_r4	NewIntraFreqCellSI-R SCP-LCR-r4	Class-definitions			
NewIntraFreqCellSI_E CN0_LCR_r4	NewIntraFreqCellSI-E CN0-LCR-r4	Class-definitions			

	ASN.1 Type Definitions By Reference				
Type Name	Type Reference	Module Identifier	Encoding Variation	Comments	
NewIntraFreqCellSI_H	NewIntraFreqCellSI-	Class-definitions			
CS_RSCP_LCR_r4	HCS-RSCP-LCR-r4	Class definitions			
NewIntraFreqCellSI_H CS_ECN0_LCR_r4	NewIntraFreqCellSI- HCS-ECN0-LCR-r4	Class-definitions			
NewIntraFreqCellSI_Li st_RSCP	NewIntraFreqCellSI-L ist-RSCP	Class-definitions			
NewIntraFreqCellSI_Li st_ECN0	NewIntraFreqCellSI-L ist-ECN0	Class-definitions			
NewIntraFreqCellSI_Li st_HCS_RSCP	NewIntraFreqCellSI-L ist-HCS-RSCP	Class-definitions			
NewIntraFreqCellSI_Li st_HCS_ECN0	NewIntraFreqCellSI-L ist-HCS-ECN0	Class-definitions			
NewIntraFreqCellSI_Li st_RSCP_LCR_r4	NewIntraFreqCellSI-L ist-RSCP-LCR-r4	Class-definitions			
NewIntraFreqCellSI_Li st_ECN0_LCR_r4	NewIntraFreqCellSI-L ist-ECN0-LCR-r4	Class-definitions			
NewIntraFreqCellSI_Li st_HCS_RSCP_LCR _r4	NewIntraFreqCellSI-L ist-HCS-RSCP-LCR -r4	Class-definitions			
NewIntraFreqCellSI_Li st_HCS_ECN0_LCR _r4	NewIntraFreqCellSI-L ist-HCS-ECN0-LCR -r4	Class-definitions			
NonUsedFreqParamet er	NonUsedFreqParamet er	Class-definitions			
NonUsedFreqParamet erList	NonUsedFreqParamet erList	Class-definitions			
ObservedTimeDifferen ceToGSM	ObservedTimeDifferen ceToGSM	Class-definitions			
OTDOA_SearchWindo wSize	OTDOA-SearchWindo wSize	Class-definitions			
Pathloss	Pathloss	Class-definitions			
PenaltyTime_RSCP	PenaltyTime-RSCP	Class-definitions			
PenaltyTime_ECN0	PenaltyTime-ECN0	Class-definitions			
PendingTimeAfterTrigg er	PendingTimeAfterTrigg er	Class-definitions			
PeriodicalOrEventTrig ger	PeriodicalOrEventTrig ger	Class-definitions			
PeriodicalReportingCri teria	PeriodicalReportingCri teria	Class-definitions			
PeriodicalWithReportin gCellStatus	PeriodicalWithReportin gCellStatus	Class-definitions			
PLMNIdentitiesOfNeig hbourCells	PLMNIdentitiesOfNeig hbourCells	Class-definitions			
PLMNsOfInterFreqCel IsList	PLMNsOfInterFreqCel IsList	Class-definitions			
PLMNsOfIntraFreqCel IsList	PLMNsOfIntraFreqCel IsList	Class-definitions			
PLMNsOfInterRATCell sList	PLMNsOfInterRATCell sList	Class-definitions			
PositionEstimate	PositionEstimate	Class-definitions			
PositioningMethod	PositioningMethod	Class-definitions			
PRC	PRC	Class-definitions			

	ASN.1 Type Definitions By Reference				
Type Name	Type Reference	Module Identifier	Encoding Variation	Comments	
PrimaryCCPCH_RSC	PrimaryCCPCH-RSC	Class-definitions			
P	P				
Q_HCS	Q-HCS	Class-definitions			
Q_OffsetS_N	Q-OffsetS-N	Class-definitions			
Q_QualMin	Q–QualMin	Class-definitions			
Q_RxlevMin	Q-RxlevMin	Class-definitions			
QualityEventResults	QualityEventResults	Class-definitions			
QualityMeasuredResult s	QualityMeasuredResult s	Class-definitions			
QualityMeasurement	QualityMeasurement	Class-definitions			
QualityReportCriteria	QualityReportCriteria	Class-definitions			
QualityReportingCriter ia	QualityReportingCriter ia	Class-definitions			
QualityReportingCriter iaSingle	QualityReportingCriter iaSingle	Class-definitions			
QualityReportingQuant ity	QualityReportingQuant ity	Class-definitions			
RAT_Type	RAT-Type	Class-definitions			
ReferenceCellPosition	ReferenceCellPosition	Class-definitions			
ReferenceLocation	ReferenceLocation	Class-definitions			
ReferenceTimeDifferen ceToCell	ReferenceTimeDifferen ceToCell	Class-definitions			
RemovedInterFreqCell List	RemovedInterFreqCell List	Class-definitions			
RemovedInterRATCell List	RemovedInterRATCell List	Class-definitions			
RemovedIntraFreqCell List	RemovedIntraFreqCell List	Class-definitions			
ReplacementActivation Threshold	ReplacementActivation Threshold	Class-definitions			
ReportDeactivationThr eshold	ReportDeactivationThr eshold	Class-definitions			
ReportingAmount	ReportingAmount	Class-definitions			
ReportingCellStatus	ReportingCellStatus	Class-definitions			
ReportingCellStatusO pt	ReportingCellStatusO pt	Class-definitions			
ReportingInfoForCell DCH	ReportingInfoForCell DCH	Class-definitions			
ReportingInfoForCell DCH_LCR_r4	ReportingInfoForCell DCH-LCR-r4	Class-definitions			
ReportingInterval	ReportingInterval	Class-definitions			
ReportingIntervalLong	ReportingIntervalLong	Class-definitions			
ReportingRange	ReportingRange	Class-definitions			
RL_AdditionInfoList	RL-AdditionInfoList	Class-definitions			
RL_InformationLists	RL-InformationLists	Class-definitions			
RLC_BuffersPayload	RLC-BuffersPayload	Class-definitions			
RRC	RRC	Class-definitions			
SatData	SatData	Class-definitions			
SatDataList	SatDataList	Class-definitions			
SatelliteStatus	SatelliteStatus	Class-definitions			

Continued from previous pa	ASN.1 Type Definitions By Reference				
Type Name	Type Reference	Module Identifier	Encoding Variation	Comments	
SatID	SatID	Class-definitions			
SFN_Offset_Validity	SFN-Offset-Validity	Class-definitions			
SFN_SFN_Drift	SFN-SFN-Drift	Class-definitions			
SFN_SFN_ObsTimeDi fference	SFN-SFN-ObsTimeDi fference	Class-definitions			
SFN_SFN_ObsTimeDi fference1	SFN-SFN-ObsTimeDi fference1	Class-definitions			
SFN_SFN_ObsTimeDi fference2	SFN-SFN-ObsTimeDi fference2	Class-definitions			
SFN_SFN_OTD_Type	SFN-SFN-OTD-Type	Class-definitions			
SFN_SFN_RelTimeDif ference1	SFN-SFN-RelTimeDif ference1	Class-definitions			
SFN_TOW_Uncertaint y	SFN-TOW-Uncertain ty	Class-definitions			
SIR	SIR	Class-definitions			
SIR_MeasurementList	SIR-MeasurementList	Class-definitions			
SIR_MeasurementRes ults	SIR-MeasurementRes ults	Class-definitions			
SIR_TFCS	SIR-TFCS	Class-definitions			
SIR_TFCS_List	SIR-TFCS-List	Class-definitions			
SIR_TimeslotList	SIR-TimeslotList	Class-definitions			
SubFrame1Reserved	SubFrame1Reserved	Class-definitions			
T_ADVinfo	T-ADVinfo	Class-definitions			
T_CRMax	T-CRMax	Class-definitions			
T_CRMaxHyst	T-CRMaxHyst	Class-definitions			
TemporaryOffset1	TemporaryOffset1	Class-definitions			
TemporaryOffset2	TemporaryOffset2	Class-definitions			
TemporaryOffsetList	TemporaryOffsetList	Class-definitions			
Threshold	Threshold	Class-definitions			
ThreholdNonUsedFreq uency_deltaList	ThreholdNonUsedFreq uency-deltaList	Class-definitions			
ThresholdPositionCha nge	ThresholdPositionCha nge	Class-definitions			
ThresholdSFN_GPS_T OW	ThresholdSFN-GPS- TOW	Class-definitions			
ThresholdSFN_SFN_ Change	ThresholdSFN-SFN- Change	Class-definitions			
ThresholdUsedFreque ncy	ThresholdUsedFreque ncy	Class-definitions			
TimeInterval	TimeInterval	Class-definitions			
TimeslotInfo	TimeslotInfo	Class-definitions			
TimeslotInfo_LCR_r4	TimeslotInfo-LCR-r4	Class-definitions			
TimeslotInfoList	TimeslotInfoList	Class-definitions			
TimeslotInfoList_LCR _r4	TimeslotInfoList–LCR –r4	Class-definitions			
TimeslotInfoList_r4	TimeslotInfoList-r4	Class-definitions			
TimeslotISCP	TimeslotISCP	Class-definitions			
TimeslotISCP_List	TimeslotISCP-List	Class-definitions			
TimeslotListWithISCP	TimeslotListWithISCP	Class-definitions			
TimeslotWithISCP	TimeslotWithISCP	Class-definitions			

Continued from previous pa	ASN.1 Type Definitions By Reference			
Type Name	Type Reference	Module Identifier	Encoding Variation	Comments
TimeToTrigger	TimeToTrigger	Class-definitions		
TrafficVolumeEventPa ram	TrafficVolumeEventPa ram	Class-definitions		
TrafficVolumeEventRe sults	TrafficVolumeEventRe sults	Class-definitions		
TrafficVolumeEventTy pe	TrafficVolumeEventTy pe	Class-definitions		
TrafficVolumeMeasQua ntity	TrafficVolumeMeasQua ntity	Class-definitions		
TrafficVolumeMeasSys Info	TrafficVolumeMeasSys Info	Class-definitions		
TrafficVolumeMeasure dResults	TrafficVolumeMeasure dResults	Class-definitions		
TrafficVolumeMeasure dResultsList	TrafficVolumeMeasure dResultsList	Class-definitions		
TrafficVolumeMeasure ment	TrafficVolumeMeasure ment	Class-definitions		
TrafficVolumeMeasure mentObjectList	TrafficVolumeMeasure mentObjectList	Class-definitions		
TrafficVolumeReportC riteria	TrafficVolumeReportC riteria	Class-definitions		
TrafficVolumeReportC riteriaSysInfo	TrafficVolumeReportC riteriaSysInfo	Class-definitions		
TrafficVolumeReportin gCriteria	TrafficVolumeReportin gCriteria	Class-definitions		
TrafficVolumeReportin gQuantity	TrafficVolumeReportin gQuantity	Class-definitions		
TrafficVolumeThreshol d	TrafficVolumeThreshol d	Class-definitions		
TransChCriteria	TransChCriteria	Class-definitions		
TransChCriteriaList	TransChCriteriaList	Class-definitions		
TransferMode	TransferMode	Class-definitions		
TransmittedPowerThre shold	TransmittedPowerThre shold	Class-definitions		
TriggeringCondition1	TriggeringCondition1	Class-definitions		
TriggeringCondition2	TriggeringCondition2	Class-definitions		
TX_InterruptionAfterT rigger	TX-InterruptionAfterT rigger	Class-definitions		
UDRE	UDRE	Class-definitions		
UE_6AB_Event	UE-6AB-Event	Class-definitions		
UE_6FG_Event	UE-6FG-Event	Class-definitions		
UE_AutonomousUpda teMode	UE-AutonomousUpda teMode	Class-definitions		
UE_InternalEventPara m	UE-InternalEventPar am	Class-definitions		
UE_InternalEventPara mList	UE-InternalEventPar amList	Class-definitions		
UE_InternalEventRes ults	UE-InternalEventRes ults	Class-definitions		
UE_InternalMeasQuan tity	UE-InternalMeasQuan tity	Class-definitions		

	ASN.1 Type Definitions By Reference				
Type Name	Type Reference	Module Identifier	Encoding Variation	Comments	
UE_InternalMeasured Results	UE-InternalMeasured Results	Class-definitions			
UE_InternalMeasured Results_LCR_r4	UE-InternalMeasured Results-LCR-r4	Class-definitions			
UE_InternalMeasurem ent	UE-InternalMeasurem ent	Class-definitions			
UE_InternalMeasurem ent_r4	UE-InternalMeasurem ent-r4	Class-definitions			
UE_InternalMeasurem entSysInfo	UE-InternalMeasurem entSysInfo	Class-definitions			
UE_InternalReportCri teria	UE-InternalReportCri teria	Class-definitions			
UE_InternalReporting Criteria	UE-InternalReporting Criteria	Class-definitions			
UE_InternalReporting Quantity	UE-InternalReporting Quantity	Class-definitions			
UE_InternalReporting Quantity_r4	UE-InternalReporting Quantity-r4	Class-definitions			
UE_MeasurementQua ntity	UE-MeasurementQua ntity	Class-definitions			
UE_RX_TX_ReportEn try	UE-RX-TX-ReportE	Class-definitions			
UE_RX_TX_ReportEn tryList	UE-RX-TX-ReportE ntryList	Class-definitions			
UE_RX_TX_TimeDiffe renceType1	UE-RX-TX-TimeDiffe renceType1	Class-definitions			
UE_RX_TX_TimeDiffe renceType2	UE-RX-TX-TimeDiffe renceType2	Class-definitions			
UE_RX_TX_TimeDiffe renceType2Info	UE-RX-TX-TimeDiffe renceType2Info	Class-definitions			
UE_RX_TX_TimeDiffe renceThreshold	UE-RX-TX-TimeDiffe renceThreshold	Class-definitions			
UE_TransmittedPower	UE-TransmittedPowe r	Class-definitions			
UE_TransmittedPower TDD_List	UE-TransmittedPowe rTDD-List	Class-definitions			
UL_TrCH_Identity	UL-TrCH-Identity	Class-definitions			
UE_Positioning_Accur acy	UE-Positioning-Accuracy	Class-definitions			
UE_Positioning_Ciph erParameters	UE-Positioning-Ciph erParameters	Class-definitions			
UE_Positioning_Error	UE-Positioning-Erro	Class-definitions			
UE_Positioning_Error Cause	UE-Positioning-Erro rCause	Class-definitions			
UE_Positioning_Even tParam	UE-Positioning-Even tParam	Class-definitions			
UE_Positioning_Even tParamList	UE-Positioning-Even tParamList	Class-definitions			
UE_Positioning_Even tSpecificInfo	UE-Positioning-Even tSpecificInfo	Class-definitions			

	ASN.1 Type Definitions By Reference				
Type Name	Type Reference	Module Identifier	Encoding Variation	Comments	
UE_Positioning_GPS _AcquisitionAssistance	UE-Positioning-GPS -AcquisitionAssistanc e	Class-definitions			
UE_Positioning_GPS _AdditionalAssistance DataRequest	UE-Positioning-GPS -AdditionalAssistance DataRequest	Class-definitions			
UE_Positioning_GPS _Almanac	UE-Positioning-GPS -Almanac	Class-definitions			
UE_Positioning_GPS _AssistanceData	UE-Positioning-GPS -AssistanceData	Class-definitions			
UE_Positioning_GPS _DGPS_Corrections	UE-Positioning-GPS -DGPS-Corrections	Class-definitions			
UE_Positioning_GPS _lonosphericModel	UE-Positioning-GPS -lonosphericModel	Class-definitions			
UE_Positioning_GPS _MeasurementResults	UE-Positioning-GPS -MeasurementResults	Class-definitions			
UE_Positioning_GPS _NavigationModel	UE-Positioning-GPS -NavigationModel	Class-definitions			
UE_Positioning_GPS _NavModelAddDataR	UE-Positioning-GPS -NavModelAddDataR	Class-definitions			
eq UE_Positioning_GPS	UE-Positioning-GPS	Class-definitions			
_ReferenceCellInfo UE_Positioning_GPS _ReferenceTime	-ReferenceCellInfo UE-Positioning-GPS -ReferenceTime	Class-definitions			
UE_Positioning_GPS _UTC_Model	UE-Positioning-GPS -UTC-Model	Class-definitions			
UE_Positioning_IPDL _Parameters	UE-Positioning-IPDL -Parameters	Class-definitions			
UE_Positioning_IPDL _Parameters_r4	UE-Positioning-IPDL -Parameters-r4	Class-definitions			
UE_Positioning_IPDL _Parameters_TDD_r4 _ext	UE-Positioning-IPDL -Parameters-TDD-r4 -ext	Class-definitions			
UE_Positioning_Meas uredResults	UE-Positioning-Meas uredResults	Class-definitions			
UE_Positioning_Meas uredResults_v390ext	UE-Positioning-Meas uredResults-v390ext	Class-definitions			
UE_Positioning_Meas urement	UE-Positioning-Meas urement	Class-definitions			
UE_Positioning_Meas urement_v390ext	UE-Positioning-Meas urement-v390ext	Class-definitions			
UE_Positioning_Meas urement_r4	UE-Positioning-Meas urement-r4	Class-definitions			
UE_Positioning_Meas urementEventResults	UE-Positioning-Meas urementEventResults	Class-definitions			
UE_Positioning_Meas urementInterval	UE-Positioning-Meas urementInterval	Class-definitions			
UE_Positioning_Meth odType	UE-Positioning-Meth odType	Class-definitions			
UE_Positioning_OTD OA_AssistanceData	UE-Positioning-OTD OA-AssistanceData	Class-definitions			

	ASN.1 Type Definitions By Reference				
Type Name	Type Reference	Module Identifier	Encoding Variation	Comments	
UE_Positioning_OTD OA_AssistanceData_r 4	UE-Positioning-OTD OA-AssistanceData-r 4	Class-definitions			
UE_Positioning_OTD OA_AssistanceData_r 4ext	UE-Positioning-OTD OA-AssistanceData-r 4ext	Class-definitions			
UE_Positioning_OTD OA_AssistanceData_ UEB	UE-Positioning-OTD OA-AssistanceData- UEB	Class-definitions			
UE_Positioning_IPDL _Parameters_TDDList _r4_ext	UE-Positioning-IPDL -Parameters-TDDList -r4-ext	Class-definitions			
UE_Positioning_OTD OA_Measurement	UE-Positioning-OTD OA-Measurement	Class-definitions			
UE_Positioning_OTD OA_Measurement_v3 90ext	UE-Positioning-OTD OA-Measurement-v3 90ext	Class-definitions			
UE_Positioning_OTD OA_NeighbourCellInfo	UE-Positioning-OTD OA-NeighbourCellInf o	Class-definitions			
UE_Positioning_OTD OA_NeighbourCellInfo _r4	UE-Positioning-OTD OA-NeighbourCellInf o-r4	Class-definitions			
UE_Positioning_OTD OA_NeighbourCellInfo _UEB	UE-Positioning-OTD OA-NeighbourCellInf o-UEB	Class-definitions			
UE_Positioning_OTD OA_NeighbourCellList	UE-Positioning-OTD OA-NeighbourCellList	Class-definitions			
UE_Positioning_OTD OA_NeighbourCellList _r4	UE-Positioning-OTD OA-NeighbourCellList -r4	Class-definitions			
UE_Positioning_OTD OA_NeighbourCellList _UEB	UE-Positioning-OTD OA-NeighbourCellList -UEB	Class-definitions			
UE_Positioning_OTD OA_Quality	UE-Positioning-OTD OA-Quality	Class-definitions			
UE_Positioning_OTD OA_ReferenceCellInfo	UE-Positioning-OTD OA-ReferenceCellInfo	Class-definitions			
UE_Positioning_OTD OA_ReferenceCellInfo _r4	UE-Positioning-OTD OA-ReferenceCellInfo -r4	Class-definitions			
UE_Positioning_OTD OA_ReferenceCellInfo _UEB	UE-Positioning-OTD OA-ReferenceCellInfo -UEB	Class-definitions			
UE_Positioning_Positi onEstimateInfo	UE-Positioning-Posit ionEstimateInfo	Class-definitions			
UE_Positioning_Repo rtCriteria	UE-Positioning-Repo rtCriteria	Class-definitions			
UE_Positioning_Repo rtingQuantity	UE-Positioning-ReportingQuantity	Class-definitions			
UE_Positioning_Repo rtingQuantity_v390ex t	UE-Positioning-Repo rtingQuantity-v390ex t	Class-definitions			
UE_Positioning_Repo rtingQuantity_r4	UE-Positioning-ReportingQuantity-r4	Class-definitions			

Continued from previous pa	ASN.1 Type Definitions By Reference				
Type Name	Type Reference	Module Identifier	Encoding Variation	Comments	
UE_Positioning_Resp onseTime	UE-Positioning-Resp onseTime	Class-definitions			
UTRA_CarrierRSSI	UTRA-CarrierRSSI	Class-definitions			
UTRAN_GPS_DriftRa te	UTRAN-GPS-DriftRa te	Class-definitions			
UTRAN_GPSReferenc eTime	UTRAN-GPSReferenc eTime	Class-definitions			
UTRAN_GPSReferenc eTimeResult	UTRAN-GPSReferenc eTimeResult	Class-definitions			
VarianceOfRLC_Buffe rPayload	VarianceOfRLC-Buffe rPayload	Class-definitions			
W	W	Class-definitions			
BCC	BCC	Class-definitions			
BCCH_ModificationIn fo	BCCH–ModificationIn fo	Class-definitions			
BCCH_ModificationTi me	BCCH–ModificationTi me	Class-definitions			
BSIC	BSIC	Class-definitions			
CBS_DRX_Level1Info rmation	CBS-DRX-Level1Inf ormation	Class-definitions			
CDMA2000_Message	CDMA2000-Message	Class-definitions			
CDMA2000_Message List	CDMA2000-Message List	Class-definitions			
CDMA2000_UMTS_F requency_List	CDMA2000-UMTS-F requency-List	Class-definitions			
CellValueTag	CellValueTag	Class-definitions			
ExpirationTimeFactor	ExpirationTimeFactor	Class-definitions			
FDD_UMTS_Frequenc y_List	FDD-UMTS-Frequen cy-List	Class-definitions			
FrequencyInfoCDMA2 000	FrequencyInfoCDMA2 000	Class-definitions			
GERAN_SystemInfoBI ock	GERAN-SystemInfoB lock	Class-definitions			
GERAN_SystemInfor mation	GERAN–SystemInfor mation	Class-definitions			
GSM_BA_Range	GSM-BA-Range	Class-definitions			
GSM_BA_Range_List	GSM-BA-Range-List	Class-definitions			
GSM_Classmark2	GSM-Classmark2	Class-definitions			
GSM_Classmark3	GSM-Classmark3	Class-definitions			
GSM_MessageList	GSM-MessageList	Class-definitions			
GsmSecurityCapability	GsmSecurityCapability	Class-definitions			
IdentificationOfReceiv edMessage	IdentificationOfReceiv edMessage	Class-definitions			
InterRAT_ChangeFailu reCause	InterRAT-ChangeFailu reCause	Class-definitions			
GERANIu_MessageLis t	GERANIu-MessageLis t	Class-definitions			
GERANIu_RadioAcces sCapability	GERANIu-RadioAcces sCapability	Class-definitions			
InterRAT_UE_RadioA ccessCapability	InterRAT-UE-RadioA ccessCapability	Class-definitions			

ASN.1 Type Definitions By Reference				
Type Name	Type Reference	Module Identifier	Encoding Variation	Comments
InterRAT_UE_RadioA ccessCapabilityList	InterRAT-UE-RadioA ccessCapabilityList	Class-definitions		
InterRAT_UE_RadioA ccessCapability_v590e xt	InterRAT-UE-RadioA ccessCapability-v590 ext	Class-definitions		
InterRAT_UE_Security Capability	InterRAT-UE-Securit yCapability	Class-definitions		
InterRAT_UE_Security CapList	InterRAT-UE-Securit yCapList	Class-definitions		
InterRAT_HO_Failure Cause	InterRAT-HO-Failure Cause	Class-definitions		
MasterInformationBlo ck	MasterInformationBlo ck	Class-definitions		
MIB_ValueTag	MIB-ValueTag	Class-definitions		
NCC	NCC	Class-definitions		
PLMN_ValueTag	PLMN-ValueTag	Class-definitions		
PredefinedConfiglden tityAndValueTag	PredefinedConfiglden tityAndValueTag	Class-definitions		
ProtocolErrorInformat ion	ProtocolErrorInformat ion	Class-definitions		
ReceivedMessageType	ReceivedMessageType	Class-definitions		
Rplmn_Information	Rplmn-Information	Class-definitions		
Rplmn_Information_r4	Rplmn–Information–r 4	Class-definitions		
SchedulingInformation	SchedulingInformation	Class-definitions		
SchedulingInformation SIB	SchedulingInformation SIB	Class-definitions		
SchedulingInformation SIBSb	SchedulingInformation SIBSb	Class-definitions		
SegCount	SegCount	Class-definitions		
SegmentIndex	SegmentIndex	Class-definitions		
SFN_Prime	SFN-Prime	Class-definitions		
SIB_Data_fixed	SIB-Data-fixed	Class-definitions		
SIB_Data_variable	SIB-Data-variable	Class-definitions		
SIBOccurldentity	SIBOccurldentity	Class-definitions		
SIBOccurrenceIdentity AndValueTag	SIBOccurrenceIdentity AndValueTag	Class-definitions		
SIBOccurValueTag	SIBOccurValueTag	Class-definitions		
SIB_ReferenceList	SIB-ReferenceList	Class-definitions		
SIBSb_ReferenceList	SIBSb-ReferenceList	Class-definitions		
SIB_ReferenceListFA CH	SIB-ReferenceListFA CH	Class-definitions		
SIB_Type	SIB-Type	Class-definitions		
SIB_TypeAndTag	SIB-TypeAndTag	Class-definitions		
SIBSb_TypeAndTag	SIBSb-TypeAndTag	Class-definitions		
SibOFF	SibOFF	Class-definitions		
SibOFF_List	SibOFF-List	Class-definitions		
SysInfoType1	SysInfoType1	Class-definitions		
SysInfoType1_v3a0ex t_IEs	SysInfoType1-v3a0ex t-IEs	Class-definitions		

	ASN.1 Type Definitions By Reference				
Type Name	Type Reference	Module Identifier	Encoding Variation	Comments	
SysInfoType2	SysInfoType2	Class-definitions			
SysInfoType3	SysInfoType3	Class-definitions			
SysInfoType3_v4b0ex t_IEs	SysInfoType3-v4b0ex t-IEs	Class-definitions			
SysInfoType3_v590ex t	SysInfoType3-v590ex t	Class-definitions			
SysInfoType4	SysInfoType4	Class-definitions			
SysInfoType4_v4b0ex t_IEs	SysInfoType4-v4b0ex t-IEs	Class-definitions			
SysInfoType4_v590ex t	SysInfoType4-v590ex t	Class-definitions			
SysInfoType4_v5b0ex t_IEs	SysInfoType4-v5b0ex t-IEs	Class-definitions			
SysInfoType5	SysInfoType5	Class-definitions			
SysInfoType5_v4b0ex t_IEs	SysInfoType5-v4b0ex t-IEs	Class-definitions			
SysInfoType5_v590ex t_IEs	SysInfoType5-v590ex t-IEs	Class-definitions			
SysInfoType6	SysInfoType6	Class-definitions			
SysInfoType6_v4b0ex t_IEs	SysInfoType6-v4b0ex t-IEs	Class-definitions			
SysInfoType6_v590ex t_IEs	SysInfoType6-v590ex t-IEs	Class-definitions			
SysInfoType7	SysInfoType7	Class-definitions			
SysInfoType8	SysInfoType8	Class-definitions			
SysInfoType9	SysInfoType9	Class-definitions			
SysInfoType10	SysInfoType10	Class-definitions			
SysInfoType11	SysInfoType11	Class-definitions			
SysInfoType11_v4b0e xt_IEs	SysInfoType11-v4b0e xt-IEs	Class-definitions			
SysInfoType11_v590e xt_IEs	SysInfoType11-v590e xt-IEs	Class-definitions			
SysInfoType12	SysInfoType12	Class-definitions			
SysInfoType12_v4b0e xt_IEs	SysInfoType12-v4b0e xt-IEs	Class-definitions			
SysInfoType12_v590e xt_IEs	SysInfoType12-v590e xt-IEs	Class-definitions			
SysInfoType13	SysInfoType13	Class-definitions			
SysInfoType13_v3a0e xt_IEs	SysInfoType13-v3a0e xt-IEs	Class-definitions			
SysInfoType13_v4b0e xt_IEs	SysInfoType13-v4b0e xt-IEs	Class-definitions			
SysInfoType13_1	SysInfoType13-1	Class-definitions			
SysInfoType13_2	SysInfoType13-2	Class-definitions			
SysInfoType13_3	SysInfoType13-3	Class-definitions			
SysInfoType13_4	SysInfoType13-4	Class-definitions			
SysInfoType14	SysInfoType14	Class-definitions			
SysInfoType15	SysInfoType15	Class-definitions			
SysInfoType15_v4b0e xt_IEs	SysInfoType15-v4b0e xt-IEs	Class-definitions			
SysInfoType15_1	SysInfoType15-1	Class-definitions			

ASN.1 Type Definitions By Reference				
Type Name	Type Reference	Module Identifier	Encoding Variation	Comments
SysInfoType15_2	SysInfoType15-2	Class-definitions		
SysInfoType15_3	SysInfoType15-3	Class-definitions		
SysInfoType16	SysInfoType16	Class-definitions		
SysInfoType17	SysInfoType17	Class-definitions		
SysInfoType17_v4b0e xt_IEs	SysInfoType17-v4b0e xt-IEs	Class-definitions		
SysInfoType17_v590e xt_IEs	SysInfoType17-v590e xt-IEs	Class-definitions		
SysInfoType18	SysInfoType18	Class-definitions		
SysInfoTypeSB1	SysInfoTypeSB1	Class-definitions		
SysInfoTypeSB2	SysInfoTypeSB2	Class-definitions		
TDD_UMTS_Frequenc y_List	TDD-UMTS-Frequen cy-List	Class-definitions		
ANSI_41_GlobalServi ceRedirectInfo	ANSI-41-GlobalServi ceRedirectInfo	Class-definitions		
ANSI_41_PrivateNeig hbourListInfo	ANSI-41-PrivateNeig hbourListInfo	Class-definitions		
ANSI_41_RAND_Info rmation	ANSI-41-RAND-Inf ormation	Class-definitions		
ANSI_41_UserZonel D_Information	ANSI-41-UserZonel D-Information	Class-definitions		
ANSI_41_NAS_Para meter	ANSI-41-NAS-Para meter	Class-definitions		
Min_P_REV	Min-P-REV	Class-definitions		
NAS_SystemInformati onANSI_41	NAS-SystemInformati onANSI-41	Class-definitions		
NID	NID	Class-definitions		
P_REV	P-REV	Class-definitions		
SID	SID	Class-definitions		
Detailed Comments :				

	Encoding Definitions				
Encoding Rule Name	Reference	Default	Comments		
DirectEncoding					
OctetUnaligned	TS 25.322 clause 9.2.1.2 – TMD PDU		To be used for the encoding of RLC TMD PDU.  An RLC PDU is a bit string.  An RLC SDU is included into an RLC PDU from first bit onward. The TMD PDU is used to transfer user data when RLC is operating in transparent mode. No overhead is added to the SDU by RLC. The data length is not constrained to be a multiple of 8 bits.  The TTCN writter shall take care of the length of the		
			bitstring to be sent according to the allowed RLC size in the Transport Format.		
PER_Unaligned	X.691		Packet encoding rules (X.691) unaligned and with adapted padding		
Detailed Comments :					

**Operation Name:** o\_PER\_EncodeRRC\_ConnSetup\_MAC(p\_PDU: DL\_CCCH\_Message)

Result Type : OCTETSTRING

Comments :

## Description

This TSO Receives an RRC Connection Setup PDU. It is expected to PER Encode with Octet Aligned.

It further PADS the encoded string with 0's so as to Make it a Bit string of length 120 Bytes.

The Result will be this 120 Byte OCTETSTRING

**Detailed Comments:** 

# **Test Suite Operation Definition**

 $\textbf{Operation Name :} o\_IntToOct(p\_N:INTEGER; p\_L:INTEGER)$ 

Result Type : OCTETSTRING

Comments :

#### Description

o\_IntToOct converts the INTEGER  $p_N$  into OCTETSTRING with length =  $p_L$ .

for example:

o\_IntToOct(14,1) = '0E'O; o\_IntToOct(18,1) = '12'O;

o\_IntToOct(18,2) = '0012'O.

Operation Name: o\_AuthRspChk(p\_AuthRsp: AuthRsp; p\_AuthRspExt: AuthRspExt; p\_K:BITSTRING; p\_RAND:

BITSTRING; p\_Ext: BOOLEAN)

Result Type : BOOLEAN

Comments :

#### Description

Checks the input parameter p\_AuthRsp and p\_AuthRspExt, both received in an Authentication Response, according to the authentication algorithm defined in the following procedure.

The extension, p\_AuthRspExt, is optional. Its presence is indicated by p\_Ext.

Returns TRUE if the Authentication Response contained in parameters p\_AuthRsp and eventually p\_AuthRspExt is correct, FALSE otherwise.

The value of tcv\_AuthN indicates whether the AuthRspExt has been provided by the UE or not (n=31, or 31 < n < 128). See 3G TS 34.108 cl. 8.1.2.

If not the parameter p\_AuthRspExt is not to be used.

Algorithm (without the knowledge of tcv\_AuthN):

\_\_\_\_\_

if NOT p\_Ext EvaluateAuthRsp else EvaluateAuthRspAndAuthRspExt

#### EvaluateAuthRsp:

\_\_\_\_\_

resultbitstring = o\_BitstringXOR(XRES, AuthRsp) if resultbitstring is all 0s then there is a match.

#### EvaluateAuthRspAndAuthRspExt:

\_\_\_\_\_

XREShigh = o\_BitstringXtract(XRES, 32, 32, 0)

/\* XRES divides into 2 parts: the higher part of 32 bits related to AuthRsp and the lower part related to AuthRspExt \*/

/\* SourceLength of 32 is only to ensure usage of the procedure \*/

resultbitstring = o\_BitstringXOR(XREShigh, AuthRsp)

if resultbitstring is all 0s then there is a match for the first 32 bits: Evaluate AuthRspExt else Authentication failed.

#### EvaluateAuthRspExt:

\_\_\_\_\_

/\* As AuthRespExt may not be octet aligned the last octet indicated in AuthRspExt is not used for checking \*/

```
if (AuthRspExt.iel = 1) then Authentication passed
/* there was only 1 possibly incomplete octet which is not used */
else
{
AuthRspExthigh = o BitstringXtract(AuthRspExt.authRsp. ((AuthRspExt.authRsp.))
```

AuthRspExthigh = o\_BitstringXtract(AuthRspExt.authRsp, ((AuthRspExt.iel -1)\* 8), (AuthRspExt.iel -1)\* 8, 0) /\* extract (AuthRspExt.iel -1)\* 8 bits starting from bit 0 \*/

XRESlow = o\_BitstringXtract(XRES, ((AuthRspExt.iel -1)\* 8 + 32), (AuthRspExt.iel -1)\* 8, 32)

/\* extract (AuthRspExt.iel –1)\* 8 bits starting from bit 32 \*/

resultbitstring = o\_BitstringXOR(XRESlow, AuthRspExthigh, (AuthRspExt.iel -1)\* 8)

if resultbitstring is all 0s then there is a match for the bits following the first 32 bits else Authentication failed

**Operation Name:** o\_BitstringChange(p\_Str: BITSTRING; p\_Len, p\_Offset: INTEGER)

Result Type : BITSTRING

Comments :

### Description

Performs the manipulation of a bitstring by toggling the bit identified by p\_Offset. The length of the string to be manipulated is specified in p\_Len. This is only provided to help ensure that the p\_Offset is less than p\_Len.

Returns a resulting bitstring of length p\_Len.

#### Examples:

- o\_BitstringChange('010101'B, 6, 5) produces '010100'B.
- $o\_BitstringChange ('010101'B,\,6,\,0)\ produces\ '110101'B.$

**Detailed Comments:** 

# **Test Suite Operation Definition**

Operation Name: o\_BitstringConcat(p\_Str1, p\_Str2: BITSTRING; p\_Len1, p\_Len2: INTEGER)

Result Type : BITSTRING

Comments :

#### Description

Performs the concatenation of 2 bitstrings of possibly different lengths. The bit significance is from left to right, ie the MSB is at the lefthand side.

Returns a resulting bitstring p\_Str1 || p\_Str2 of length p\_ Len1 + p\_Len.

#### Example:

o\_BitstringConcat('010101'B,'11'B) produces '01010111'B of length 6 + 2 = 8...

**Detailed Comments:** 

## **Test Suite Operation Definition**

 $\textbf{Operation Name : } o\_BitstringXOR(p\_Str1, p\_Str2: BITSTRING; p\_Len: INTEGER)$ 

Result Type : BITSTRING

Comments :

# Description

Performs an XOR operation using 2 bitstrings of the same length (p\_Len).

Returns a resulting Bitstring of length p\_Len.

Example:

o\_BitstringXOR('0011'B, '0101'B, 4) produces '0110'B

Operation Name: o\_BitstringXtract(p\_Str: BITSTRING; p\_SrcLen, p\_TargetLen, p\_Offset: INTEGER)

Result Type : BITSTRING

Comments :

### Description

Performs the wrap around extract of a bitstring. The length of the string from

which extraction is to be made is specified in p\_SrcLen. The length of the bitstring to be extracted is indicated as p\_TargetLen, the offset in the original

string is indicated in p\_Offset. The bit position 0 is at the left.

Returns a resulting bitstring of length p\_TargetLen.

#### Examples:

o\_BitstringXtract('101010'B, 6, 2, 1) produces '01'B.

- o\_BitstringXtract('101010'B, 6, 4, 3) produces '0101'B, wrapping around.
- o\_BitstringXtract('111000'B, 6, 4, 5) produces '0111'B, wrapping around.

### **Detailed Comments:**

## **Test Suite Operation Definition**

**Operation Name:** o\_ConvertIMSI(p\_Imsi: HEXSTRING)

Result Type : IMSI\_GSM\_MAP

Comments : The input parameter 'imsi' is a BCD string (subset of HEXSTRING), the result is of type

IMSI\_GSM\_MAP.

## Description

The input parameter p\_Imsi is a BCD string (subset of HEXSTRING), the result is of type IMSI\_GSM\_MAP.

### **Detailed Comments:**

# **Test Suite Operation Definition**

**Operation Name:** o\_ConvertPTMSI(p\_PTMSI: OCTETSTRING)

Result Type : P\_TMSI\_GSM\_MAP

**Comments**: The input parameter 'PTMSI' is a OCTETSTRING, the result is of type TMSI\_GSM\_MAP.

## Description

The input parameter 'PTMSI' is a OCTETSTRING, the result is of type P\_TMSI\_GSM\_MAP.

Operation Name: o\_ConvertTMSI(p\_Tmsi:OCTETSTRING)

Result Type : TMSI\_GSM\_MAP

**Comments**: The input parameter 'tmsi' is a OCTETSTRING, the result is of type TMSI\_GSM\_MAP.

#### Description

The input parameter p\_Tmsi is a OCTETSTRING, the result is of type TMSI\_GSM\_MAP.

**Detailed Comments:** 

# **Test Suite Operation Definition**

Operation Name: o\_ConvtPLMN(p\_MCC, p\_MNC: HEXSTRING)

Result Type : OCTETSTRING

Comments :

### Description

the functions of o\_ConvtPLMN are as following:

- 1. The least significant HEX of p\_MNC is removed from p\_MNC and inserted into p\_MCC in the position left to the third HEX to form a new p\_MCC of 4 HEXs, then swap the first HEX (left most, most significant Hex) with the second HEX of the new p\_MCC.
- 2. Swap the first Hex with the second HEX of the remaining part of p\_MNC and append it to the new p\_MCC formed in Step1 above.

For example:

o\_ConvtPLMN('123'H, '456'H) = '216354'O o\_ConvtPLMN ('234'H, '01F'H) = '32F410'O

**Detailed Comments:** 

## **Test Suite Operation Definition**

Operation Name: o\_GetPI (p\_Imsi: HEXSTRING; p\_Np: INTEGER)

Result Type : BITSTRING

**Comments**: The operation is used to calculate the PI (Page Indicator) from the given input parameters.

### Description

The PI is calculated as following:

PI = drx\_index mod np

The drx\_index is calculated as described hereafter:

drx\_index = (p\_lmsi / 8192))

This calculation is defined in TS 25.304 clause 8.3.

NOTE: the IMSI is passed as HEXSTRING, the relevant conversion shall be done.

Operation Name: o\_HexToDigitsMCC(p\_BCDdigits: HEXSTRING)

Result Type : MCC
Comments :

## Description

The input parameter p\_BCDdigits shall be a BCD string (subset of HEXSTRING), the result is a SEQUENCE (SIZE(3)) OF digit (MCC).

NOTE: The length of p\_BCDdigits shall be 3. User shall take the responsibility of fulfilling this requirement.

for example:

o\_HexToDigitsMCC('111'H) =  $\{1, 1, 1\}$ o\_HexToDigitsMCC('123'H) =  $\{1, 2, 3\}$ .

**Detailed Comments:** 

## **Test Suite Operation Definition**

**Operation Name:** o\_HexToDigitsMNC(p\_BCDdigits: HEXSTRING)

Result Type : MNC Comments :

#### Description

The length of the input parameter p\_BCDdigits shall be 3 HEX DIGITS, the first two shall be BCDdigit (subset of HEXSTRING) the result is a SEQUENCE (SIZE(2..3)) OF Digit (MNC).

The function of this operation is:

- 1. the least significant HEX is removed if it is 'F' and the operation returns SEQUENCE (SIZE(2)) OF Digit.
- 2. the operation returns SEQUENCE (SIZE(3)) OF Digit if all 3 HEX digits in p\_BCDdigits are BCD Digit.

for example:

o\_HexToDigitsMNC('123'H) =  $\{1, 2, 3\}$ o\_HexToDigitsMNC('13F'H) =  $\{1, 3\}$ .

Operation Name: o\_OctetstringConcat(p\_Str1, p\_Str2: OCTETSTRING)

Result Type : OCTETSTRING

Comments :

## Description

 $\hbox{o\_OctetstringConcat Performs the concatenation of 2 octetstrings of possibly different lengths.}\\$ 

The octet significance is from left to right, i.e. the MSB is at the lefthand side.

Returns a resulting octetstring p\_Str1  $\parallel$  p\_Str2 .

Example

o\_OctetstringConcat('135'O, '9A38'O) = '1359A38'O.

**Detailed Comments:** 

# **Test Suite Operation Definition**

Operation Name: o\_OctToBit ( p\_OctetStr: OCTETSTRING)

Result Type : BITSTRING

**Comments**: Converts an OCTETSTRING into a BITSTRING

Description

The size of the resulting BITSTRING is 8 times the size of the input OCTETSTRING

Operation Name: o\_SIB\_PER\_Encoding(p\_SIB: SIB)

Result Type : BITSTRING

Comments : generate the unaligned PER codes without "Encoder added (0-7) bits padding" from the input system

information block

#### Description

The function of the o\_SIB\_PER\_Encoding is as the follows:

it returns the unaligned PER encoding (BIT STRING) of the input system information block p\_SIB (without "Encoder added (1–7) bits padding"). The bits corresponding to the encoding of the CHOICE of the SIB type shall be removed.

```
Example:
for the following SIBType1 value:
  SysInfoType1 ::=
 cn_CommonGSM_MAP_NAS_SysInfo
                                      '0080'O.
 cn_DomainSysInfoList
                                     {{cn_DomainIdentity ps_domain,
                                                        gsm_MAP: '0000'O,
                                      cn_Type
                                      cn_DRX_CycleLengthCoeff p_CellInfo.dRX_CycleLength
                                      {cn_DomainIdentity cs_domain,
                                      cn_Type
                                                       gsm_MAP: o_OctetstringConcat(p_T3212,
o_IntToOct(p_ATTFlag, 1)),
                                      cn_DRX_CycleLengthCoeff p_CellInfo.dRX_CycleLength
                                      }
                                      },
 ue_ConnTimersAndConstants
                               t_301
                                      ms2000,
                               n_301 2,
                               t 302 ms4000,
                               n_302 3,
                               t_304 ms1000,
                               n_304 3,
                               t_305 m60,
                               t_307
                                      s50,
                               t_308 ms320,
                               t_309 8,
                               t_310 ms320,
                               n_310 5,
                               t_311 ms500,
                               t_312 5,
                               n_312 s200,
                               t_313 10,
                               n_313 s20,
                               t_314 s20,
                               t 315 s30,
                               n_315 s200,
                               t_316 s50,
                               t_317 s1800
 ue IdleTimersAndConstants
                                       t_300 ms400,
                                      n_300 7,
                                      t_312
                                             10,
                                      n_312 s200
 nonCriticalExtensions
                                      {}
```

The operation returns

Detailed Comments: 3GPP TS 25.331 clause 12.1

## **Test Suite Operation Definition**

Operation Name: o\_SIB\_Segmentation(p\_SIBBitString: BITSTRING)

Result Type : SegmentsOfSysInfoBlock

**Comments**: The returned result is a structured type.

#### Description

The function of the o\_SIB\_Segmentation is as following:

- 1. If the p\_SIBBitString is less than or equal to 226 bits, the bit string is fit into one segment. If the bit string is less than 226 bits but more than 214 bits, the segment shall be padded to 226 bits long with padding bits set to '0'B.
- 2. If the input operand p\_SIBBitString is longer than 226 bits it is segmented from left to right into segments, each segment except the last one is 222 bits . The last segment may be 222 bits or shorter. If the length of last segment is greater than 214 bits pad it to 222 bits with padding bits set to '0'B.
  - 3. The number of segments is assigned to segCount field of the result.
  - 4. The first segment is assigned to seg1 field of the result, the second segment is assigned to the seg2 field of the result, the third segment is assigned to the seg3 field of the result, and so on till the last segment.

Operation Name: o\_SUFI\_Handler( p\_SUFI\_Params: SUFI\_Params; p\_SUFI\_String: HEXSTRING )

Result Type : ResAndSUFIs

**Comments**: "See TS-34.123-3 section 6.5.2.1 for the handling of SUFIs"

## Description

## **Parameters**

## p\_SUFI\_Params

This parameter contains the list of checking criteria to be applied by the TSO

#### p SUFI String

This parameter contains the received string of SUFIs to be checked.

### Description

This TSO is used to check that the received string of SUFIs contained in p\_SUFI\_String. Checking criteria to be applied are contained in p\_SUFI\_Params.

. . . . .

## Output

- the BOOLEAN result of the TSO:

TRUE if all checking and the filling of the SuperFields structure were successful;

FALSE otherwise; in this case the TSO shall produce sufficient output to allow problem analysis

-The filled-in SuperFields structure

	Test Suite P	arameter Declarations	
Parameter Name	Туре	PICS/PIXIT Ref	Comments
pc_FDD	BOOLEAN	PICS, Table A.1/1	FDD(DS)
px_NumOfSegInPagResOrS ervReq	INTEGER		The Default value is 2. This Pixit is used in MAC test cases 7.1.1.2, 7.1.1.3, 7.1.1.4, 7.1.1.5 and 7.1.1.8 This indicates the number of RLC segments the Paging Response (CS Domain) or Service Request (PS domain will be segmented in.
pc_AutomaticAttachSwitch ON	BOOLEAN	PICS, Table A	Paramter is TRUE if UE supports automatic triggering of GMM Attach procedure when switched on
pc_Background	BOOLEAN	PICS, Table A.6/4	Background QoS/traffic class supported
pc_CS	BOOLEAN	PICS, Table A.3/1	Circuit Switched
pc_Conversational	BOOLEAN	PICS, Table A.6/1	Converational supported
pc_Interactive	BOOLEAN	PICS, Table A.6/3	Interactive QoS/traffic class supported
pc_MS_ClsmkA5_1	B1	PICS Table A.20/44	default Algorithm A5/1 supported. Default value: '0'B(i.e. A5/1 is supported)
pc_MS_ClsmkA5_2	B1	PICS Table A.20/46	default Algorithm A5/2 supported. Default value: '0'B (encryption algorithm A5/2 not available)
pc_MS_ClsmkA5_3	B1	PICS Table A.20/47	default Algorithm A5/3 supported. Default value: '0'B(encryption algorithm A5/3 not available)
pc_MS_ClsmkA5_4	B1	PICS Table A.20/48	default Algorithm A5/3 supported. Default value: '0'B(encryption algorithm A5/4 not available)
pc_MS_ClsmkA5_5	B1	PICS Table A.20/49	default Algorithm A5/3 supported. Default value: '0'B(encryption algorithm A5/5 not available)
pc_MS_ClsmkA5_6	B1	PICS Table A.20/50	default Algorithm A5/3 supported. Default value: '0'B(encryption algorithm A5/6 not available)
pc_MS_ClsmkA5_7	B1	PICS Table A.20/51	default Algorithm A5/7 supported. Default value: '0'B(encryption algorithm A5/7 not available)
pc_PS	BOOLEAN	PICS, Table A.3/2	Packet Switched
pc_Streaming	BOOLEAN	PICS, Table A.6/2	Streaming supported
pc_SwitchOnOff	BOOLEAN	PICS, Table A.20/35	switch on/off supported

	Test Suite Para	meter Declarations	
Parameter Name	Туре	PICS/PIXIT Ref	Comments
pc_UEA1_Supp	BOOLEAN	PICS, Table A.20/27	Support of UMTS encryption algorithm UEA1
pc_UMTS_GSM	BOOLEAN	PICS, Table A.1/4	To check if the UE supports both UMTS as well as GSM. If the variable is set as TRUE, means that both UMTS and GSM is supported. If the variable is set as FALSE, means that UE supports only UMTS
pc_USIM_Rmv	BOOLEAN	PICS, Table A.20/36	USIM removable without power down supported
px_AuthAMF	BITSTRING	PIXIT Table B.1	Authentication Management Field (16 bits). The value shall be different from '1111 1111 1111 111'B (AMFresynch). Default value: no default value can be proposed
px_AuthK	BITSTRING	PIXIT Table B.1	Authentication Key (128 bits). Default value: '000000000000000100000 0100000011000001110 0001000000
px_AuthN	INTEGER	PIXIT Table B.1	value of n to initialize tcv_AuthN (length of extended response) min 31, max 127 (TS 34.108 cl. 8.1.2). Default value: 127
px_AuthRAND	BITSTRING	PIXIT Table B.1	Random Challenge (128 bits). Default value: '01010101'B The value shall not be repeatable with 3 bits i.e. something like '001001001001001001'B not allowed.
px_CN_DomainTested	CN_DomainIdentity	PIXIT Table B.1	CN domain to be tested. This parameter is used in test cases that handle both PS and CS domains. Default value: cs_domain
px_CipherAlg	В3	PIXIT Table B.1	Cipher algorithm. Default value: (A5/1) '000'B
px_CipheringOnOff	BOOLEAN	PIXIT Table B.1	Security mode – TRUE if ciphering is applicable. Default value: TRUE

	Test Suite Parameter Declarations				
Parameter Name	Туре	PICS/PIXIT Ref	Comments		
px_FDD_OperationBand	INTEGER	PIXIT Table B.1	The operation band under test, as defined in 34.108 clause 5.1.1.  Value 1 means Band 1, 2 means Band 2, 3 means Band 3, 6 means Band 6.  Rest of the values are not defined. This pixit shall be set in synchronisation with the values that are being set to 6 other Pixits viz: px_UARFCN_D_High, px_UARFCN_D_High, px_UARFCN_D_Mid,px_UARFCN_L_Mid, px_UARFCN_D_Low, px_UARFCN_D_Low, px_UARFCN_U_Low		
px_FRESH	Fresh	PIXIT Table B.1	FRESH. Default value: no default value can be proposed		
px_IMSI_Def	HEXSTRING	PIXIT Table B.1	default IMSI. Default value: '001010123456063'H		
px_PTMSI_Def	OCTETSTRING	PIXIT Table B.1	default PTMSI . Default value: '12345678'O		
px_PTMSI_SigDef	OCTETSTRING	PIXIT Table B.1	default PTMSI signature (3 octets, 3GPP 24.008 / 10.5.5.8). Default value: 'AB1234'O		
px_PriScrmCode	PrimaryScramblingCode	PIXIT Table B.1	Primary scrambling code. Default value: 100		
px_RAT	RatType	PIXIT Table B.1	This parameter is used to specify which radio access technology is being used for the current test execution. Valid values: fdd and tdd. Default value: fdd		
px_RRC_CS_ServTested	RRC_ServTested	PIXIT Table B.1	CS service to be tested for RRC test cases. Default value: Speech		
px_RRC_PS_ServTested	RRC_ServTested	PIXIT Table B.1	PS service to be tested for RRC test cases. Default value: Speech		
px_SRNC_ld	SRNC_Identity	PIXIT Table B.1	SRNC Id. Default value: '0000000000001'B		
px_SRNTI	S_RNTI	PIXIT Table B.1	S RNTI. Default value: '000000000000000000001'B		
px_TCellA	Tcell	PIXIT Table B.1	TCell value for cell A. Default value: 0		
px_TCellB	Tcell	PIXIT Table B.1	TCell value for cell B. Default value: 512		
px_TCellC	Tcell	PIXIT Table B.1	TCell value for cell C. Default value: 1536		
px_TCellD	Tcell	PIXIT Table B.1	TCell value for cell D. Default value: 321		

	Test Suite Parameter Declarations			
Parameter Name	Туре	PICS/PIXIT Ref	Comments	
px_TCellE	Tcell	PIXIT Table B.1	TCell value for cell E. Default value: 833	
px_TCellF	Tcell	PIXIT Table B.1	TCell value for cell F. Default value: 6577	
px_TCellG	Tcell	PIXIT Table B.1	TCell value for cell G. Default value: 7253	
px_TCellH	Tcell	PIXIT Table B.1	TCell value for cell H. Default value: 4351	
px_TMSI_Def	OCTETSTRING	PIXIT Table B.1	default TMSI. Default value: '12345678'O	
px_UARFCN_D_High	INTEGER	PIXIT Table B.1	High Range downlink UARFCN value. Default value: 10837	
px_UARFCN_D_Low	INTEGER	PIXIT Table B.1	Low Range downlink UARFCN value Default value: 10563	
px_UARFCN_D_Mid	INTEGER	PIXIT Table B.1	Mid Range downlink UARFCN value Default value: 10700	
px_UARFCN_U_High	INTEGER	PIXIT Table B.1	High Range uplink UARFCN value. This value shall be set based on the operation band supported. Default value: 9887	
px_UARFCN_U_Low	INTEGER	PIXIT Table B.1	Low Range uplink UARFCN value. This value shall be set based on the operation band supported.  Default value: 9613	
px_UARFCN_U_Mid	INTEGER	PIXIT Table B.1	Mid Range uplink UARFCN value. This value shall be set based on the operation band supported.  Default value: 9750	
px_UE_OpModeDef	UE_OperationMode	PIXIT Table B.1	Default UE operation mode (either opModeA or opModeC). (For most UEs thiscorresponds class–A or class–C, and can not be changed by the user). Default value: opModeA	
px_UL_ScramblingCode	UL_ScramblingCode	PIXIT Table B.1	UL scrambling code value to be used by UE. Default value : 0	
px_UTRAN_GERAN	UTRAN_GERAN	PIXIT Table B.1	This parameter is used to specify for which region the system information blocks are broadcast in the test execution. Valid values: "UTRAN only" and "UTRAN and GERAN".  Default value: "UTRAN and GERAN"	
Detailed Comments :			l .	

Test Case Selection Expression Definitions				
Expression Name Selection Expression Comments				
AllUE	TRUE	Applicable for All UE's		
FDD_Mode	pc_FDD	C01		
RRC_FDD_PS pc_FDD AND pc_PS C06				
Detailed Comments :				

	Test Suite Constant Declarations			
Constant Name	Туре	Value	Comments	
tsc_DataTx_7_1_3_1	OCTETSTRING	'012345678901234567890 1234567890123456789012 3456789012345678901234 5678901234567'O	The 39 byte data to be sent in test case 7.1.3.1	
tsc_UL_SDU_Size7_1_3_1	INTEGER	(328 * 25) -8	UM payload size is 328, hence payload =UM_PL *50 -1 byte	
tsc_SUFI_Ack	SUFI_Type	'0010'B	Value for SUFI type field within a SUFI in a STATUS PDU. Ref 9.2.2.11	
tsc_Reserved3_OnFACH_F DD	TCTF	'011111111'B	Reserved TCTF value for logical channels mapped to FACH. Ref 3G TS 25.321 table 9.2.1.2	
tsc_Reserved4_OnFACH_F DD	TCTF	'101111111'B	Reserved TCTF value for logical channels mapped to FACH. Ref 3G TS 25.321 table 9.2.1.2	
tsc_DC_AMDPDU	DC_Field	'1'B	Value for D/C field within an AMD PDU. Ref 3G TS 25.322 clause 9.2.2.1	
tsc_P_Poll	PollingBit	'1'B	Value for PollingBit field within an AMDPDU indicating that a status report is requested. Ref 3G TS 25.322 clause 9.2.2.4	
tsc_E_Data	ExtBit	'0'B	Value for ExtBit in AMD and UMD PDU when the next field is data. Ref 3G TS 25.322 clause 9.2.2.5	
tsc_E_LI_AndE_Bit	ExtBit	'1'B	Value for ExtBit in AMD and UMD PDU when the next field is Length Indicator and E bit. Ref 3G TS 25.322 clause 9.2.2.5	
tsc_HE_LI_AndE_Bit	HeaderExt	'01'B	Value for headerExtField in AMD PDU when the succeeding octet contains a length indicator and E bit. Ref 3G TS 25.322 clause 9.2.2.7	
tsc_DefaultCellId	INTEGER	tsc_CellA	The default cell identifier for all MAC testing.	
tsc_AM_SN_Size	INTEGER	12	The number of bits used to represent an AM sequence number. Ref 3G TS 25.322 clause 9.2.2.3.	
tsc_LI7_Padding	INTEGER	127	Value for 7 bit length indicator when the rest of the RLC PDU contains padding ('11111111'B). An INTEGER so that it can be passed to LI constraints. Ref 3G TS 25.322 clause 9.2.2.8	
tsc_UE_ldTypeU_RNTI	UE_ldType	'00'B	Value for UE_IdType field in MAC PDU when a 32 bit U-RNTI is used. Ref 3G TS 25.321 table 9.2.1.7	

	Test Suite Constant Declarations			
Constant Name	Туре	Value	Comments	
tsc_UE_ldTypeC_RNTI	UE_ldType	'01'B	Value for UE_IdType field in MAC PDU when a 16 bit C-RNTI is used. Ref 3G TS 25.321 table 9.2.1.7	
tsc_UE_IdTypeReserved1	UE_ldType	'10'B	Reserved value for UE_IdType field in MAC PDU. Ref 3G TS 25.321 table 9.2.1.7	
tsc_UE_IdTypeReserved2	UE_ldType	'11'B	Reserved value for UE_IdType field in MAC PDU. Ref 3G TS 25.321 table 9.2.1.7	
tsc_CT_LoCh3	CT_Field	'0010'B	C/T Field value for 3rd Logical channel mapped to a single transport channel. Ref 3G TS 25.321 Table 9.2.1.5a	
tsc_CT_LoCh8	CT_Field	'0111'B	C/T Field value for 8th Logical channel mapped to a single transport channel. Ref 3G TS 25.321 Table 9.2.1.5a	
tsc_CT_Reserved	CT_Field	'1111'B	Reserved C/T Field value. PDUs with this coding will be discarded by this version of the protocol. Ref 3G TS 25.321 Table 9.2.1.5a	
tsc_DCCH_OnRACH_FDD	TCTF	'01'B	TCTF value for DCCH or DTCH mapped to RACH. Ref 3G TS 25.321 table 9.2.1.4	
tsc_CCCH_OnFACH_FDD	TCTF	'01000000'B	TCTF value when CCCH is mapped to FACH. Ref 3G TS 25.321 table 9.2.1.29.2.1.2	
tsc_Reserved1_OnFACH_F DD	TCTF	'01000001'B	Reserved TCTF value for logical channels mapped to FACH. Ref 3G TS 25.321 table 9.2.1.2	
tsc_CTCH_OnFACH_FDD	TCTF	'10000000'B	TCTF value when CTCH is mapped to FACH. Ref 3G TS 25.321 table 9.2.1.29.2.1.2	
tsc_Reserved2_OnFACH_F DD	TCTF	'10000001'B	Reserved TCTF value for logical channels mapped to FACH. Ref 3G TS 25.321 table 9.2.1.2	
tsc_DCCH_OnFACH_FDD	TCTF	'11'B	TCTF value when DCCH or DTCH is mapped to FACH. Ref 3G TS 25.321 table 9.2.1.29.2.1.2	
tsc_ExpectedPayloadSize	INTEGER	128	The RLC payload size in bits used for segmentation of the AM–RLC PDU without Standard AM header of 16 bits but included Length indicators and Padding.	

Test Suite Constant Declarations			
Constant Name	Туре	Value	Comments
tsc_DummyDL_DirectTransf erMsg_CS	OCTETSTRING	'144013FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF	The pre-coded Dummy DI direct Transfer Message, with Nas Message le set to 'FF'O and CN_Domain set to Cs-domain.
			0 DL_DCCH_Me ssage -00101 DL_DCCH_Mes sageType 5-DownlinkDirectTransfer0- Choice r30 OPTIONAL Non Critical extensions DownlinkDirectTransfer_r3 _IEs 01 RRC_Transactio nIdentifier 10 CN_DomainIde ntity 0 cs_domain00000 NAS_Message 0
tsc_DummyDL_DirectTransf erMsg_PS	OCTETSTRING	'146013FFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFFF	00010011Message length 9 (+1 Offset) 12 bits 11111111 11111111 11111111 11111111 1111
			to Ps-domain.  0 DL_DCCH_Me ssage -00101 DL_DCCH_Mes sageType 5-DownlinkDirectTransfer0- Choice r30 OPTIONAL Non Critical extensions DownlinkDirectTransfer_r3 _IEs 01 RRC_Transactio nIdentifier 11 CN_DomainIde ntity 1 ps_domain00000 NAS_Message 0  00010011Message length 9 (+1 Offset) 12 bits 11111111

	Test Suite Constant Declarations			
Constant Name	Туре	Value	Comments	
			11111111 11111111 11111111 11111111 1111	
tsc_DummyDL_DirectTransf erLen	INTEGER	13	Padding the Number of bytes in the pre-coded, DI direct Transfer message with Core	
tsc_WaitNoRACHTransmissi	INTEGER	10	Network set for ps domain. Wait Timer In Seconds	
tsc_TestData39B_2	OCTETSTRING	'000102030405060708090 0010203040506070809000 1020304050607080900010 2030405060708'O	Selected Based on tsc_TestData10B_2	
tsc_TestData39B	OCTETSTRING	'012345678901234567890 1234567890123456789012 3456789012345678901234 5678901234567'O	Selected based on tsc_TestData10B of length 39 bytes	
tsc_TestData10B_2	OCTETSTRING	'00010203040506070809' O	Selected Arbitrarily but different from tsc_TestData10B	
tsc_TestData10B	OCTETSTRING	'01234567890123456789' O	Selected Arbitrarily of 10B	
tsc_RRC_ConnecSetupLen	INTEGER	960	the Number of bits in the pre-coded, RRC coection Setup Message	
tsc_WaitNextRLC_Segment	INTEGER	200	Time in Milli Seconds, Value Taken Arbitrarily	
tsc_UM_SN_Size	INTEGER	7	The number of bits used to represent an UM sequence number. Ref 3G TS 25.322 clause 9.2.2.3	
tsc_UM_CCCH_Payloadsiz e	INTEGER	152	The RLC payload size in bits used for segmentation of the UM-RLC PDU on dl CCCH without Standard UM header of 8 bits but included Length indicators and Padding, if any.	
maxLogCHperTrCH	INTEGER	15	This constant is from MCI ASP proposal, but there is no value for it in the proposal. value 8 is for temporary use	
maxdlTrCH	INTEGER	16		
maxulTrCH	INTEGER	16		
tsc_AICH1	INTEGER	7	Physical channel identity for AICH channel associated with first PRACH	
tsc_AICH1_ChC	ChannelisationCode256	3	Channelization code for tsc_AICH1	

	Test Suite Constant Declarations			
Constant Name	Туре	Value	Comments	
tsc_AICH2	INTEGER	12	Physical channel identity for AICH2 channel associated with second PRACH	
tsc_AT_ResultOK	IA5String	" <cr><lf>OK<cr><lf>"</lf></cr></lf></cr>		
tsc_AttOn	INTEGER	1	Attach flag value On	
tsc_AttenuationServingCell	INTEGER	0	Value of attenuator to be used when setting a Serving Cell.	
tsc_BCCH1	INTEGER	1	Logical channel identity for logical channel BCCH mapped on BCH	
tsc_BCCH6	INTEGER	6	Logical channel identity for logical channel BCCH mapped on FACH	
tsc_BCH1	INTEGER	11	Identity for transport channel BCH	
tsc_CRNTI	C_RNTI	'000000000000001'B	C RNTI. Default value: '0000 0000 0000 0001'B	
tsc_CS_Domain	CN_DomainIdentity	cs_domain		
tsc_CellA	INTEGER	0	Identity of Cell A	
tsc_CellB	INTEGER	1	Identity of Cell B	
tsc_CellC	INTEGER	2	Identity of Cell C	
tsc_CellD	INTEGER	3	Identity of Cell D	
tsc_CellDedicated	INTEGER	<b>-1</b>	Identity of the dedicated cell.	
tsc_CellE	INTEGER	4	Identity of Cell E	
tsc_CellF	INTEGER	5	Identity of Cell F	
tsc_CellG	INTEGER	6	Identity of Cell G	
tsc_CellH	INTEGER	7	Identity of Cell H	
tsc_CellIdCellA	BITSTRING	00000000000000000000000000000000000000		
tsc_CellIdCellB	BITSTRING	00000000000000000000000000000000000000		
tsc_CellIdCellC	BITSTRING	00000000000000000000000000000000000000		
tsc_CellIdCellD	BITSTRING	00000000000000000000000000000000000000		
tsc_CellIdCellE	BITSTRING	'000000000000000000000 0000100'B		
tsc_CellIdCellF	BITSTRING	'0000000000000000000000 0000101'B		
tsc_CellIdCellG	BITSTRING	'0000000000000000000000 0000110'B		
tsc_CellIdCellH	BITSTRING	'0000000000000000000000 0000111'B		
tsc_DC_ControlPDU	DC_Field	'0'B	Value for D/C field within a STATUS PDU. Ref 3G TS 25.322 clause 9.2.2.1	
tsc_DL_CCCH5	INTEGER	5	Logical channel identity for logical channel CCCH mapped on FACH (downlink)	

Test Suite Constant Declarations			
Constant Name	Туре	Value	Comments
tsc_DL_DCCH1	INTEGER	1	Logical channel identity for DCCH1 (downlink), used by signalling radio bearer 1
tsc_DL_DCCH2	INTEGER	2	Logical channel identity for DCCH2 (downlink), used by signalling radio bearer 2
tsc_DL_DCCH3	INTEGER	3	Logical channel identity for DCCH3 (downlink), used by signalling radio bearer 3
tsc_DL_DCCH4	INTEGER	4	Logical channel identity for DCCH4 (downlink), used by signalling radio bearer 4
tsc_DL_DCH1	INTEGER	6	identity for transport channel DCH1 (downlink), in AMR speech this transport channel is used for RAB subflow#1
tsc_DL_DCH5	INTEGER	10	identity for transport channel DCH5 (downlink), in most case this transport channel is used for signalling bearers.
tsc_DL_DPCH1	INTEGER	26	physical channel identity for DPCH1(downlink)
tsc_DL_DPCH1_2ndScrC	SecondaryScramblingCode	1	secondary scrambling code for DL DPCH1
tsc_DL_DPCH1_ChC_64k _CS	SF512_AndCodeNumber	sf32:0	Channelization code for tsc_DL_DPCH1 for a 64 kbps CS configuration
tsc_DL_DPCH1_ChC_RLC _7_BitLl	SF512_AndCodeNumber	sf128:0	Channelization code for tsc_DL_DPCH1 for a 8 kbps CS/PS configuration used for 7 Bit LI RLC test cases
tsc_DL_DPCH1_ChC_SRB	SF512_AndCodeNumber	sf128:0	Channelization code for tsc_DL_DPCH1 for a SRB connection with a RAB established
tsc_DL_DPCH1_SFP_RLC _7BitLl	SF512_AndPilot	sfd128 : pb4	Spreading factor and pilot bits for tsc_DL_DPCH1 for RLC 7 bit LI configurations
tsc_DL_DPCH1_SFP_SRB	SF512_AndPilot	sfd128:pb4	Spreading factor and pilot bits for tsc_DL_DPCH1 for an SRB connection with a RAB established
tsc_DL_DTCH1	INTEGER	7	Logical channel identity for DTCH1 (downlink)
tsc_DL_PDSCH1	INTEGER	16	Physical channel identity for primaryPDSCH channel
tsc_DL_TxPower_DPCH	DL_TxPower	-5	down link transmit power level of DPCH used for CS RABS. Default value is –5 dBm
tsc_DPCCH_PowerOffset	DPCCH_PowerOffset	-40	DPCCH power offset value.  Defalut value: -80 (IE Value *2),

	Test Suite Constant Declarations			
Constant Name	Туре	Value	Comments	
tsc_DPCH_PowerOffsetPIL OT	INTEGER	0	Power offsett value of PILOT on DPCH	
tsc_DPCH_PowerOffsetTF CI	INTEGER	0	Power offsett value of TFCI on DPCH	
tsc_DPCH_PowerOffsetTP C	INTEGER	0	Power offsett value of TPC on DPCH	
tsc_DefaultDPCH_OffsetVa lue	DefaultDPCH_OffsetValueF DD	459	Default DPCH offset value. Actual value DefaultDPCH-OffsetValueF DD = IE value * 512 Default value : 459	
tsc_DelayAfterRRC_ConnR el	INTEGER	1000	Delay before sending after receiving RRC CONNECTION RELEASE complete in AM Mode (value in ms), so as to allow SS RLC layer to send ACK to UE.	
tsc_DelayBeforeRRC_Conn Rel	INTEGER	1000	Delay before sending RRC CONNECTION RELEASE (value in ms)	
tsc_FACH1	INTEGER	13	transport channel identity for FACH	
tsc_FACH2	INTEGER	14	transport channel identity for second FACH when it is connected to a secondary CCPCH together with PCH (transport channel identity = 14)	
tsc_GMM_PD	ProtocolDiscriminator	'1000'B	GMM protocol discriminator 3GPP 24.008 clause 10.4	
tsc_GainFactorBetaC_Belo w64k	INTEGER	11	Gain factor Beta C value to be used for RAB UL below 64kbps	
tsc_GainFactorBetaC_Highe r64k	INTEGER	9	Gain factor Beta C value to be used for RAB UL higher than 64kbps	
tsc_GainFactorBetaD	INTEGER	15		
tsc_IntegrProtAlgCap	B16	'0000000000000010'B	Integrity Protection Algorithm Capability	
tsc_KeySeqDef	KeySeq	'111'B	default Key Sequence. Default value: '111'B	
tsc_LAC_Def	OCTETSTRING	'0001'O		
tsc_MCC_Def	HEXSTRING	'001'H		
tsc_MNC_Def	HEXSTRING	'01F'H		
tsc_MSN	INTEGER	0		
tsc_MaxAllowPwr	MaxAllowedUL_TX_Power	33		
tsc_MessAuthCode	BITSTRING	'0000000000000000000000000000000000000		
tsc_Mui	INTEGER	0		
tsc_N300	INTEGER	3		
tsc_NMO_I	OCTETSTRING	'00'O	Network Mode of Operation I (3GPP 24.008 / 10.5.1.12.3)	

Test Suite Constant Declarations			
Constant Name	Туре	Value	Comments
tsc_NMO_II	OCTETSTRING	'01'O	Network Mode of Operation II (3GPP 24.008 / 10.5.1.12.3)
tsc_Now	INTEGER	512	To indicate the system information change starts immediately.
tsc_PCCH1	INTEGER	1	Logical channel identity for logical channel PCCH
tsc_PCH1	INTEGER	12	identity for transport channel PCH1
tsc_PDU_TypeStatus	CtrlPDU_Type	'000'B	Value for PDU type field within a STATUS PDU. Ref 3G TS 25.322 clause 9.2.2.2
tsc_PICH1	INTEGER	6	Physical channel identity for PICH channel associated with first secondary CCPCH
tsc_PICH1_ChC	ChannelisationCode256	2	Channelization code for tsc_PICH1
tsc_PICH2	INTEGER	11	Physical channel identity for PICH2 channel associated with second secondary CCPCH
tsc_PRACH1	INTEGER	8	Physical channel identity for first PRACH channel
tsc_PRACH1_SF	SF_PRACH	sfpr64	Channelization code for UL DPDCH for PRACH1
tsc_PRACH1_ScrC	PreambleScramblingCodeWo rdNumber	0	Scrambling code for preamble of PRACH1
tsc_PRACH1_Signatures	AvailableSignatures	'00000000111111111'B	available signatures for PRACH. (from 34.108 cl. 6.1 (SIB5))
tsc_PRACH2	INTEGER	9	Physical channel identity for second PRACH channel
tsc_PS_Domain	CN_DomainIdentity	ps_domain	
tsc_P_CCPCH	INTEGER	4	Physical channel identity for primary CCPCH channel
tsc_P_CPICH	INTEGER	0	Physical channel identity for primary CPICH channel
tsc_P_SCH	INTEGER	1	Physical channel identity for primary SCH channel
tsc_PowerAICH	AICH_PowerOffset	-5	relative transmission power level of AICH. The power level is specified relatively to power leve of CPICH in terms of AICH_Ec. Default is -5 dBm/3.84MHz
tsc_PowerPICH	PICH_PowerOffset	<b>-</b> 5	relative transmission power level of PICH. The power level is specified relatively to power level of CPICH in terms of PICH_Ec. Default is -5 dBm/3.84MHz

Test Suite Constant Declarations			
Constant Name	Туре	Value	Comments
tsc_PowerpCCPCH	DL_TxPower	-2	transmission power level of primary CCPCH relative to CPICH. Default is -2 dBm.
tsc_PowerpCPICH	DL_TxPower_PCPICH	-60	transmission power level of primary CPICH. The power level is specified in terms of CPICH_Ec. Default is -60 dBm.
tsc_PowerpSCH	DL_TxPower	<b>-</b> 5	transmission power level of primary SCH relative to CPICH. Default is -5 dBm.
tsc_PowersCCPCH1	DL_TxPower	-2	transmission power level of secondary CCPCH1 relative to CPICH.  Default is -2 dBm
tsc_PowersSCH	DL_TxPower	-5	transmission power level of secondary SCH relative to CPICH. Default is -5 dBm
tsc_PuncLimit	PuncturingLimit	pl1	puncturing limit for PRACH. default value is 1. Default value: PI1
tsc_RAB_DefCS	B8	'00000001'B	Default AB Id for the CS domain
tsc_RAB_DefPS	B8	'00000101'B	Default AB Id for the PS domain
tsc_RACH1	INTEGER	15	transport channel identity for RACH
tsc_RAC_Def	OCTETSTRING	'05'O	Routing Area Code, 1 octet, 3GPP 24.008 clause 10.5.1.12.3
tsc_RB0	INTEGER	0	signalling radio bearer on TM + CCCH
tsc_RB1	INTEGER	1	sibnalling radio bearer on UM + DCCH
tsc_RB10	INTEGER	10	radio access bearer identity, in AMR speech this RB is RAB subflow#1, in other cases this is a radio access bearer
tsc_RB11	INTEGER	11	radio access bearer identity, in AMR speech this RB is RAB subflow#2, in some other cases this is the signalling radio bearer for TM + BCCH_FACH.
tsc_RB12	INTEGER	12	radio access bearer, in AMR speech this RB is RAB subflow#3, in some other cases this is the bearer for TM PCCH

	Test Suite Constant Declarations			
Constant Name	Туре	Value	Comments	
tsc_RB13	INTEGER	13	radio access bearer, in AMR speech this RB is RAB subflow#3, in some other cases this is the bearer for TM PCCH	
tsc_RB2	INTEGER	2	signalling radio bearer on AM + DCCH	
tsc_RB20	INTEGER	20	radio access bearer for PS RAB	
tsc_RB21	INTEGER	21	radio access bearer for PS RAB	
tsc_RB22	INTEGER	22	Second AM radio access bearer for PS	
tsc_RB24	INTEGER	24	Second AM radio access bearer for PS	
tsc_RB25	INTEGER	25	PS Radio Bearer associated with a DTCH on HS-DSCH	
tsc_RB29	INTEGER	29	RB Id for Radio bearer that carries the 2nd CCCH in the DL	
tsc_RB3	INTEGER	3	signalling radio bearer on AM + DCCH for high priority NAS_DT	
tsc_RB30	INTEGER	30	radio access bearer for CBS RAB	
tsc_RB31	INTEGER	31		
tsc_RB4	INTEGER	4	signalling radio bearer on AM + DCCH for low priority NAS_DT	
tsc_RB_2ndCCCH	INTEGER	-5	uplink signalling radio bearer on TM + second CCCH	
tsc_RB_2ndPCCH	INTEGER	-4	radio bearer idenity for bearer on TM + PCCH + PCH used for sending paging message when there is no RAB subflows for speech.	
tsc_RB_AM_15_RLC	SS_RB_Identity	-13	RB Identity used for configuration of a TM RLC entity in the SS that will be used to simulate an AM RLC entity using 15 bit length indicators. The RB identity can be used by the SS decoder to determine which RLC mode is being simulated.	
			A negative value is used to indicate that the SS configuration is not identical to the UE configuration.	

Test Suite Constant Declarations					
Constant Name	Туре	Value	Comments		
tsc_RB_AM_7_RLC	SS_RB_Identity	-12	RB Identity used for configuration of a TM RLC entity in the SS that will be used to simulate an AM RLC entity using 7 bit length indicators. The RB identity can be used by the SS decoder to determine which RLC mode is being simulated.		
			A negative value is used to indicate that the SS configuration is not identical to the UE configuration.		
tsc_RB_BCCH	INTEGER	-1	radio bearer idenity for bearer on TM + BCCH + BCH used for broadcasting system information blocks		
tsc_RB_BCCH_FACH	INTEGER	-3	signalling radio bearer on TM + BCCH + FACH + sCCPCH1		
tsc_RB_BCCH_FACH_RAB	INTEGER	-19	RB Id for Radio bearer that carries the 2nd BCCH		
tsc_RB_CCCH_FACH_MA C	SS_RB_Identity	-18	RB Identity used for configuration of a TM RLC entity in the SS that will be used to simulate the CCCH mapped to FACH. The RB identity can be used by the SS decoder to determine which MAC configuration is being simulated.		
			A negative value is used to indicate that the SS configuration is not identical to the UE configuration.		
tsc_RB_DCCH_DCH_MAC	SS_RB_Identity	<b>-15</b>	RB Identity used for configuration of a TM RLC entity in the SS that will be used to simulate the high priority NAS SRB mapped to DCH. The RB identity can be used by the SS decoder to determine which MAC configuration is being simulated.		
			A negative value is used to indicate that the SS configuration is not identical to the UE configuration.		

Test Suite Constant Declarations				
Constant Name	Туре	Value	Comments	
tsc_RB_DCCH_FACH_MA C	SS_RB_Identity	-14	RB Identity used for configuration of a TM RLC entity in the SS that will be used to simulate the high priority NAS SRB mapped to FACH. The RB identity can be used by the SS decoder to determine which MAC configuration is being simulated.	
			A negative value is used to indicate that the SS configuration is not identical to the UE configuration.	
tsc_RB_PCCH	INTEGER	-2	radio bearer idenity for bearer on TM + PCCH + PCH used for sending paging message when there is no RAB subflows for speech.	
tsc_RB_PCCH2	INTEGER	<b>-4</b>		
tsc_RB_UM_15_RLC	SS_RB_Identity	_11	RB Identity used for configuration of a TM RLC entity in the SS that will be used to simulate a UM RLC entity using 15 bit length indicators. The RB identity can be used by the SS decoder to determine which RLC mode is being simulated.	
			A negative value is used to indicate that the SS configuration is not identical to the UE configuration.	
tsc_RB_UM_7_RLC	SS_RB_Identity	-10	RB Identity used for configuration of a TM RLC entity in the SS that will be used to simulate a UM RLC entity using 7 bit length indicators. The RB identity can be used by the SS decoder to determine which RLC mode is being simulated.	
			A negative value is used to indicate that the SS configuration is not identical to the UE configuration.	
tsc_SFN_OffsetA	INTEGER	0	SFN offset values for cell A Default value: 0	
tsc_SFN_OffsetB	INTEGER	0	SFN offset values for cell B Default value: 0	
tsc_SFN_OffsetC	INTEGER	0	SFN offset values for cell C	
			Default value: 0	

Test Suite Constant Declarations				
Constant Name	Туре	Value	Comments	
tsc_SFN_OffsetD	INTEGER	3000	SFN offset values for cell D	
			Default value: 3000	
tsc_SFN_OffsetE	INTEGER	3000	SFN offset values for cell E Default value: 3000	
tsc_SFN_OffsetF	INTEGER	678	SFN offset values for cell F Default value: 678	
tsc_SFN_OffsetG	INTEGER	1356	SFN offset values for cell G	
			Default value: 1356	
tsc_SFN_OffsetH	INTEGER	2034	SFN offset values for cell H	
			Default value: 2034	
tsc_SMPD	ProtocolDiscriminator	'1010'B	SM protocol discriminator	
tsc_SS_CS_Domain	SS_CN_DomainIdentity	0		
tsc_SS_PS_Domain	SS_CN_DomainIdentity	1		
tsc_S_CCPCH1	INTEGER	5	Physical channel identity for first secondary CCPCH channel	
tsc_S_CCPCH1_ChC	SF256_AndCodeNumber	sf64:1	Channelization code for tsc_S_CCPCH1	
tsc_S_CCPCH2	INTEGER	10	Physical channel identity for second secondary CCPCH channel	
tsc_S_CCPCH3	INTEGER	13	Physical channel identity forThird secondary CCPCH channel	
tsc_S_CCPCH_2ndScrCod e	INTEGER	0	Secondary scrambling code for S–CCPCH channels	
tsc_S_SCH	INTEGER	2	Physical channel identity for secondary SCH channel	
tsc_SlotFormatsCCPCH1	SCCPCHSlotFormat	8	channelization code for secondary CCPCH1 when spreading factor = 64, default value is 8. Default value: 8	
tsc_T3212_Def	OCTETSTRING	'1E'O	infinite	
tsc_TPC_CombinationIndex	TPC_CombinationIndex	0		
tsc_TT01	INTEGER	5000	TC protocol Timer: 5 sec (shall be 2,5 sec)	
tsc_TWaitSysInfo	INTEGER	5000	Wait for the completion of SysInfo sending	
tsc_TimingsCCPCH1	INTEGER	0	timing offset for secondary CCPCH1. default is 0. Default value: 0	
tsc_TpcStepSize	TPC_StepSizeFDD	0	Value 0 corresponds to 1 dB	
tsc_UE_TestLoopMode1	UE_TestLoopMode	'00'O	mode 1 with DCCH dummy transmission disabled	
tsc_UL_CCCH5	INTEGER	5	Logical channel identity for logical channel CCCH mapped RACH (uplink)	

	Test Suite Constant Declarations			
Constant Name	Туре	Value	Comments	
tsc_UL_DCCH1	INTEGER	1	Logical channel identity for DCCH1 (uplink), used by signalling radio bearer 1	
tsc_UL_DCCH2	INTEGER	2	Logical channel identity for DCCH2 (uplink), used by signalling radio bearer 2	
tsc_UL_DCCH3	INTEGER	3	Logical channel identity for DCCH3 (uplink), used by signalling radio bearer 3	
tsc_UL_DCCH4	INTEGER	4	Logical channel identity for DCCH4 (uplink), used by signalling radio bearer 4	
tsc_UL_DCH1	INTEGER	1	identity for transport channel DCH1 (uplink), in AMR speech this transport channel is used for RAB subflow#1	
tsc_UL_DCH5	INTEGER	5	identity for transport channel DCH5 (uplink), in most case this transport channel is used for signalling bearers.	
tsc_UL_DPCH1	INTEGER	20	physical channel identity for DPCH1(uplink)	
tsc_UL_DPDCH_SF_RLC_ 7BitLI	SpreadingFactor	sf64	Channelization code for UL DPDCH for 7 Bit LI RLC configurations	
tsc_UL_DPDCH_SF_SRB	SpreadingFactor	sf64	Channelization code for UL DPDCH for an SRB connection with a RAB established	
tsc_UL_DTCH1	INTEGER	7	Logical channel identity for DTCH1 (uplink)	
tsc_UL_MAC_Prt1	MAC_LogicalChannelPriorit y	1		
tsc_UL_MAC_Prt2	MAC_LogicalChannelPriorit y	2		
tsc_UL_MAC_Prt3	MAC_LogicalChannelPriorit y	3		
tsc_UL_MAC_Prt4	MAC_LogicalChannelPriorit y	4		
tsc_URA_IdCellA	BITSTRING	'00000000000001'B		
tsc_URA_IdCellB	BITSTRING	'00000000000001'B		
tsc_URA_IdCellC	BITSTRING	'000000000000010'B		
tsc_URA_IdCellD	BITSTRING	'000000000000010'B		
tsc_URA_IdCellE	BITSTRING	'00000000000011'B		
tsc_URA_IdCellF	BITSTRING	'00000000000011'B		
tsc_URA_IdCellG	BITSTRING	'000000000000100'B		
tsc_URA_IdCellH	BITSTRING	'000000000000100'B		
tsc_USIM_NeedRmv	BOOLEAN	TRUE	Removal of USIM is needed in a test case (USIM is not always inserted)	
tsc_WaitBeforePaging	INTEGER	5000	Waiting time before PAGING (ms)	

# Continued from previous page

Test Suite Constant Declarations				
Constant Name	Туре	Value	Comments	
tsc_sCCPCH_PowerOffset PILOT	INTEGER	6	Power offsett value of PILOT on sCCPCH	
tsc_sCCPCH_PowerOffset TFCI	INTEGER	6	Power offsett value of TFCI on sCCPCH	
Detailed Comments :				

Test Suite Constant Declarations By Reference				
Constant Name	Туре	Value Reference	Module Identifier	Comments
hiPDSCHidentities	INTEGER	hiPDSCHidentities	Class-definitions	
hiPUSCHidentities	INTEGER	hiPUSCHidentities	Class-definitions	
hiRM	INTEGER	hiRM	Class-definitions	
maxAC	INTEGER	maxAC	Class-definitions	
maxAdditionalMeas	INTEGER	maxAdditionalMeas	Class-definitions	
maxASC	INTEGER	maxASC	Class-definitions	
maxASCmap	INTEGER	maxASCmap	Class-definitions	
maxASCpersist	INTEGER	maxASCpersist	Class-definitions	
maxCCTrCH	INTEGER	maxCCTrCH	Class-definitions	
maxCellMeas	INTEGER	maxCellMeas	Class-definitions	
maxCellMeas_1	INTEGER	maxCellMeas-1	Class-definitions	
maxCNdomains	INTEGER	maxCNdomains	Class-definitions	
maxCPCHsets	INTEGER	maxCPCHsets	Class-definitions	
maxDPCH_DLchan	INTEGER	maxDPCH-DLchan	Class-definitions	
maxDPDCH_UL	INTEGER	maxDPDCH-UL	Class-definitions	
maxDRACclasses	INTEGER	maxDRACclasses	Class-definitions	
maxFACHPCH	INTEGER	maxFACHPCH	Class-definitions	
maxFreq	INTEGER	maxFreq	Class-definitions	
maxFreqBandsFDD	INTEGER	maxFreqBandsFDD	Class-definitions	
maxFreqBandsTDD	INTEGER	maxFreqBandsTDD	Class-definitions	
maxFreqBandsGSM	INTEGER	maxFreqBandsGSM	Class-definitions	
maxGERAN_SI	INTEGER	maxGERAN-SI	Class-definitions	
maxHProcesses	INTEGER	maxHProcesses	Class-definitions	
maxHSSCCHs	INTEGER	maxHSSCCHs	Class-definitions	
maxInterSysMessages	INTEGER	maxInterSysMessages	Class-definitions	
maxLoCHperRLC	INTEGER	maxLoCHperRLC	Class-definitions	
maxMAC_d_PDUsize s	INTEGER	maxMAC-d-PDUsize s	Class-definitions	
maxMeasEvent	INTEGER	maxMeasEvent	Class-definitions	
maxMeasIntervals	INTEGER	maxMeasIntervals	Class-definitions	
maxMeasParEvent	INTEGER	maxMeasParEvent	Class-definitions	
maxNumCDMA2000F reqs	INTEGER	maxNumCDMA2000F reqs	Class-definitions	
maxNumGSMFreqRan ges	INTEGER	maxNumGSMFreqRan ges	Class-definitions	
maxNumFDDFreqs	INTEGER	maxNumFDDFreqs	Class-definitions	
maxNumTDDFreqs	INTEGER	maxNumTDDFreqs	Class-definitions	
maxOtherRAT	INTEGER	maxOtherRAT	Class-definitions	
maxOtherRAT_16	INTEGER	maxOtherRAT-16	Class-definitions	
maxPage1	INTEGER	maxPage1	Class-definitions	
maxPCPCH_APsig	INTEGER	maxPCPCH-APsig	Class-definitions	
maxPCPCH_APsubC h	INTEGER	maxPCPCH-APsubC h	Class-definitions	
maxPCPCH_CDsig	INTEGER	maxPCPCH-CDsig	Class-definitions	
maxPCPCH_CDsubC h	INTEGER	maxPCPCH-CDsubC	Class-definitions	
maxPCPCH_SF	INTEGER	maxPCPCH-SF	Class-definitions	
maxPCPCHs	INTEGER	maxPCPCHs	Class-definitions	
maxPDCPAlgoType	INTEGER	maxPDCPAlgoType	Class-definitions	

Test Suite Constant Declarations By Reference				
Constant Name	Туре	Value Reference	Module Identifier	Comments
maxPDSCH	INTEGER	maxPDSCH	Class-definitions	
maxPDSCH_TFClgro ups	INTEGER	maxPDSCH-TFClgro ups	Class-definitions	
maxPRACH	INTEGER	maxPRACH	Class-definitions	
maxPRACH_FPACH	INTEGER	maxPRACH-FPACH	Class-definitions	
maxPUSCH	INTEGER	maxPUSCH	Class-definitions	
maxQueuelDs	INTEGER	maxQueueIDs	Class-definitions	
maxRABsetup	INTEGER	maxRABsetup	Class-definitions	
maxRAT	INTEGER	maxRAT	Class-definitions	
maxRB	INTEGER	maxRB	Class-definitions	
maxRBallRABs	INTEGER	maxRBallRABs	Class-definitions	
maxRBMuxOptions	INTEGER	maxRBMuxOptions	Class-definitions	
maxRBperRAB	INTEGER	maxRBperRAB	Class-definitions	
maxReportedGSMCell s	INTEGER	maxReportedGSMCell s	Class-definitions	
maxRL	INTEGER	maxRL	Class-definitions	
maxRL_1	INTEGER	maxRL-1	Class-definitions	
maxROHC_PacketSiz es_r4	INTEGER	maxROHC-PacketSiz es-r4	Class-definitions	
maxROHC_Profile_r4	INTEGER	maxROHC-Profile-r4	Class-definitions	
maxSat	INTEGER	maxSat	Class-definitions	
maxSCCPCH	INTEGER	maxSCCPCH	Class-definitions	
maxSIB	INTEGER	maxSIB	Class-definitions	
maxSIB_FACH	INTEGER	maxSIB-FACH	Class-definitions	
maxSIBperMsg	INTEGER	maxSIBperMsg	Class-definitions	
maxSRBsetup	INTEGER	maxSRBsetup	Class-definitions	
maxSystemCapability	INTEGER	maxSystemCapability	Class-definitions	
maxTF	INTEGER	maxTF	Class-definitions	
maxTF_CPCH	INTEGER	maxTF-CPCH	Class-definitions	
maxTFC	INTEGER	maxTFC	Class-definitions	
maxTFCsub	INTEGER	maxTFCsub	Class-definitions	
maxTFCI_2_Combs	INTEGER	maxTFCI-2-Combs	Class-definitions	
maxTGPS	INTEGER	maxTGPS	Class-definitions	
maxTrCH	INTEGER	maxTrCH	Class-definitions	
maxTrCHpreconf	INTEGER	maxTrCHpreconf	Class-definitions	
maxTS	INTEGER	maxTS	Class-definitions	
maxTS_1	INTEGER	maxTS-1	Class-definitions	
maxTS_2	INTEGER	maxTS-2	Class-definitions	
maxTS_LCR	INTEGER	maxTS-LCR	Class-definitions	
maxTS_LCR_1	INTEGER	maxTS-LCR-1	Class-definitions	
maxURA	INTEGER	maxURA	Class-definitions	
maxURNTI_Group	INTEGER	maxURNTI-Group	Class-definitions	
Detailed Comments :				

Test Suite Variable Declarations				
Variable Name	Туре	Value	Comments	
tsv_AuthSQN	BITSTRING	'0000000000000000000000000000000000000	48 bits (TS 33.102 cl. 6.3.7, TS 34.108 cl. 8.1.2) used and updated whenever an authentication is performed	
Detailed Comments :	Detailed Comments :			

	Test Case Variable Declarations				
Variable Name	Туре	Value	Comments		
tcv_AccessServiceClass	B4	'0000'B	to be used in 7.1.2.4a		
tcv_SQN_Received	INTEGER	0	The SQN of the received PDU		
tcv_ReceiveSigConnRelInd	BOOLEAN	FALSE	This tcv will be used in the MAC test cases 7.1.1.2, 3,4,5 & 8		
tcv_StatusPDU	MAC_PDU_RCV_STATUS		This variable is used to store a received STATUS PDU. No default value is provided, because it is not possible to come up with a sensible default STATUS PDU.		
tcv_MAC_PDU	MAC_PDU	cs_MAC_PDU_Def( - )	This variable is used in ts_SendAuthReq to store a MAC PDU containing the next Authentication Request segment to be transmitted. The MAC header fields are initialised to the values passed to the test step, and the data field is initialised to the appropriate Authentication Request segment during each iteration through the loop.		
tcv_RBReconfCmplRecvd	BOOLEAN	FALSE	to be used in test case 7.1.2.4a, to indicate reception of RB Reconfiguaration complete		
tcv_LP_DataReceived	BOOLEAN	FALSE	to be used in test case 7.1.2.4a, to indicate reception of Loop back data for data tx in step 6		
tcv_PRACH_PreambleSigU sed	INTEGER	0			
tcv_PRACH_AccessSlotUse d	INTEGER	0			
tcv_PRACH_ExpAccessSlo t	INTEGER	0			
tcv_StatusMatchRes	ResAndSUFIs		To Store the Result send by the SUPEr TSO 0_SUFI_Handler		
tcv_DummyDL_DirectTransf erMsg	OCTETSTRING	tsc_DummyDL_DirectTransf erMsg_PS	Used to store the Dummy dl Direct Transfer message for target Domain		
tcv_MAC_Counter	INTEGER	0	Counter used in MAC Suite		
tcv_RLC_UM_PDU	MAC_UMD_PDU		This variable is used to store an RLC UM PDU to be transmitted. Generally this variable is initialised by using the test step ts_GetRRC_ConnectionSet upSegment.		

	Test Case Variable Declarations			
Variable Name	Туре	Value	Comments	
tcv_RRC_ConnecSetupSeg mentNum	INTEGER	0	This variable is used to iterate through the 3 segments in the hand coded Authentication Request message.	
tcv_RRC_ConnecSetupMsg	OCTETSTRING		to store the Precoded RRC Connection Setup PDU.	
tcv_ActTime	ActivationTime	0	Activation Time	
tcv_Assigned_PTMSI_Sig	O3	px_PTMSI_SigDef	Current assigned PTMSI signature	
tcv_AssignedPTMSI	OCTETSTRING	px_PTMSI_Def	Current assigned PTMSI	
tcv_AssignedTMSI	OCTETSTRING	px_TMSI_Def	Current assigned TMSI	
tcv_AuthAK	BITSTRING	INT_TO_BIT ( 0, 48 )	Anonymity Key 48 bits (TS 33.102 cl. 6.3.7, TS 34.108 cl. 8.1.2)	
tcv_AuthAMF	BITSTRING	px_AuthAMF	Authentication Management Field 16 bits (TS 33.102 cl. 6.3.7, TS 34.108 cl. 8.1.2)	
tcv_AuthAUTN	B128	INT_TO_BIT ( 0, 128 )	to hold complete calculated AUTN 128 bits (TS24.008 cl 10.5.3.1.1)	
tcv_AuthAUTN_1	B48	INT_TO_BIT ( 0, 48 )	to hold first part of calculated AUTN 64 bits	
tcv_AuthAUTN_2	B80	INT_TO_BIT ( 0, 80 )	to hold second part of calculated AUTN 64 bits	
tcv_AuthCDOUT	BITSTRING	INT_TO_BIT ( 0, 64 )	CDOUT 64 bits (TS 34.108 cl. 8.1.2)	
tcv_AuthCK	BITSTRING	INT_TO_BIT ( 0, 128 )	Ciphering Key 128 bits (TS 33.102 cl. 6.3.7, TS 34.108 cl. 8.1.2)	
tcv_AuthCK_1	BITSTRING	INT_TO_BIT ( 0, 64 )	Ciphering Key 1st part (bits 0–63) 64 bits (TS 33.102 cl. 6.8.1.2)	
tcv_AuthCK_2	BITSTRING	INT_TO_BIT ( 0, 64)	Ciphering Key 2nd part (bits 64–127) 64 bits (TS 33.102 cl. 6.8.1.2)	
tcv_AuthCK_XOR	BITSTRING	INT_TO_BIT ( 0, 64 )	Ciphering Key 1st and 2nd part, XORed 64 bits (TS 33.102 cl. 6.8.1.2)	
tcv_AuthIK	BITSTRING	INT_TO_BIT ( 0, 128 )	Integrity Key 128 bits (TS 33.102 cl. 6.3.7, TS 34.108 cl. 8.1.2)	
tcv_AuthIK_1	BITSTRING	INT_TO_BIT ( 0, 64)	Integrity Key 1st part (bits 0–63) 64 bits (TS 33.102 cl. 6.8.1.2)	
tcv_AuthIK_2	BITSTRING	INT_TO_BIT ( 0, 64 )	Integrity Key 2nd part (bits 64–127) 64 bits (TS 33.102 cl. 6.8.1.2)	

	Test Case Variable Declarations			
Variable Name	Туре	Value	Comments	
tcv_AuthIK_XOR	BITSTRING	INT_TO_BIT ( 0, 64 )	Integrity Key 1st and 2nd part, XORed 64 bits (TS 33.102 cl. 6.8.1.2)	
tcv_AuthK	BITSTRING	px_AuthK	Authentication Key 128 bits (TS 33.102 cl. 6.3.7, TS 34.108 cl. 8.1.2)	
tcv_AuthKcGSM	BITSTRING	INT_TO_BIT ( 0, 64 )	GSM Cipher Key 64 bits (TS 33.102 cl. 6.8.1.2)	
tcv_AuthMAC	BITSTRING	INT_TO_BIT ( 0, 64 )	Message Authentication Code 64 bits (TS 33.102 cl. 6.3.7, TS 34.108 cl. 8.1.2)	
tcv_AuthN	INTEGER	px_AuthN	min 31, max 127 (TS 34.108 cl. 8.1.2)	
tcv_AuthRAND	BITSTRING	px_AuthRAND	Random Challenge 128 bits (TS 33.102 cl. 6.3.7, TS 34.108 cl. 8.1.2)	
tcv_AuthRsp	AuthRsp	INT_TO_BIT (0,32)	to hold a Authentication Response parameter value received from the UE 32 bits (TS 24.008 cl 10.5.3.2)	
tcv_AuthRspExt	AuthRspExt		to hold a Authentication Response Extension parameter value received from the UE 96 bits (TS24.008 cl 10.5.3.2.1)	
tcv_AuthRspPDU	AUTHENTICATIONRESPO NSE		to hold a Authentication Response PDU	
tcv_AuthXDOUT	BITSTRING	INT_TO_BIT ( 0, 128 )	XDOUT 128 bits (TS 34.108 cl. 8.1.2)	
tcv_AuthXDOUT_Half	BITSTRING	INT_TO_BIT ( 0, 64 )	lower half of XDOUT 64 bits (TS 34.108 cl. 8.1.2)	
tcv_AuthXRES	BITSTRING	INT_TO_BIT ( 0, 32 )	XRES min 32, max 128 bits (TS 34.108 cl. 8.1.2)	
tcv_BCCH_ModifyTime	INTEGER	512	To hold the BCCH modification time to be used by PAGING TYPE1 or SYSTEM INFORMATION CHANGE INDICATION. The initial value indicates changing now.	
tcv_CellIndInfo	CellIndependantInfo	c_CellIndInfoDef		
tcv_CellInfoA	CellInfoCfg	c_CellInfoDef ( tsc_CellA, px_PriScrmCode, tsc_URA_IdCellA, px_TCellA, tsc_SFN_OffsetA, c_FreqInfo ( px_UARFCN_D_Mid - 950 , px_UARFCN_D_Mid), px_UL_ScramblingCode )		

	Test Case Variable Declarations			
Variable Name	Туре	Value	Comments	
tcv_CellInfoB	CellInfoCfg	c_CellInfoDef ( tsc_CellB, px_PriScrmCode, tsc_URA_IdCellB, px_TCellB, tsc_SFN_OffsetB, c_FreqInfo ( px_UARFCN_D_Mid - 950 , px_UARFCN_D_Mid), ((px_UL_ScramblingCode + 1000) MOD 16777216))		
tcv_CellInfoC	CellInfoCfg	c_CellInfoDef ( tsc_CellC, px_PriScrmCode, tsc_URA_IdCellC, px_TCellC, tsc_SFN_OffsetC, c_FreqInfo ( px_UARFCN_D_Mid - 950 , px_UARFCN_D_Mid), ((px_UL_ScramblingCode + 2000) MOD 16777216))		
tcv_CellInfoD	CellInfoCfg	c_CellInfoDef ( tsc_CellD, px_PriScrmCode, tsc_URA_IdCellD, px_TCellD, tsc_SFN_OffsetD, c_FreqInfo ( px_UARFCN_D_Mid - 950 , px_UARFCN_D_Mid), ((px_UL_ScramblingCode + 3000) MOD 16777216 ) )		
tcv_CellInfoE	CellInfoCfg	c_CellInfoDef ( tsc_CellE, px_PriScrmCode, tsc_URA_IdCellE, px_TCellE, tsc_SFN_OffsetE, c_FreqInfo ( px_UARFCN_D_Mid - 950 , px_UARFCN_D_Mid), ((px_UL_ScramblingCode + 4000) MOD 16777216))		
tcv_CellInfoF	CellInfoCfg	c_CellInfoDef ( tsc_CellF, px_PriScrmCode, tsc_URA_IdCellF, px_TCellF, tsc_SFN_OffsetF, c_FreqInfo ( px_UARFCN_D_Mid - 950 , px_UARFCN_D_Mid), ((px_UL_ScramblingCode + 5000) MOD 16777216))		

Test Case Variable Declarations				
Variable Name	Туре	Value	Comments	
tcv_CellInfoG	CellInfoCfg	c_CellInfoDef ( tsc_CellG, px_PriScrmCode, tsc_URA_IdCellG, px_TCellG, tsc_SFN_OffsetG, c_FreqInfo ( px_UARFCN_D_Mid - 950 , px_UARFCN_D_Mid), ((px_UL_ScramblingCode + 6000) MOD 16777216 ) )		
tcv_CellInfoH	CellInfoCfg	c_CellInfoDef ( tsc_CellH, px_PriScrmCode, tsc_URA_IdCellH, px_TCellH, tsc_SFN_OffsetH, c_FreqInfo ( px_UARFCN_D_Mid - 950 , px_UARFCN_D_Mid), ((px_UL_ScramblingCode + 7000) MOD 16777216 ) )		
tcv_CipherActTime	ActivationTime	0	Activation Time	
tcv_CN_Domain	CN_DomainIdentity	cs_domain		
tcv_Count	INTEGER	0	To hold a temporary counter value.	
tcv_CS_KeySeq	KeySeq	tsc_KeySeqDef		
tcv_DefaultRadioCnf	BOOLEAN	TRUE	To be used in test cases that require a non deault radio configuration. TRUE: a default radio configuration is to be used FALSE: a non default radio configuration is to be used.	
tcv_dRX_CycleLengthPagin g	UTRAN_DRX_CycleLength Coefficient		DRX cycleLength value to be used for PAGING	
tcv_E_PLMN	PLMN_List	c_PLMN_List1 (o_ConvtPLMN(tsc_MCC_ Def, tsc_MNC_Def))		
tcv_FrameNumber	INTEGER	0	Values 04095	
tcv_FreqInfoHigh	FrequencyInfo	c_FreqInfo ( px_UARFCN_D_High - 950 , px_UARFCN_D_High)		
tcv_FreqInfoLow	FrequencyInfo	c_FreqInfo ( px_UARFCN_D_Low - 950 , px_UARFCN_D_Low)		
tcv_FreqInfoMid	FrequencyInfo	c_FreqInfo ( px_UARFCN_D_Mid - 950 , px_UARFCN_D_Mid)		
tcv_GMM_AttachExpect	BOOLEAN	FALSE	This TCV is to be used in Idle update step in NMO2 for a class A Mobile	
tcv_GMM_AttachRec	BOOLEAN	FALSE	This TCV is to be used in Idle update step in NMO2 for a class A Mobile	

	Test Case Variable Declarations			
Variable Name	Туре	Value	Comments	
tcv_GMM_DetachExpect	BOOLEAN	FALSE	This TCV is to be used in the Detach Handling	
tcv_GMM_RAU_Expect	BOOLEAN	FALSE	This TCV is to be used in the Routing Area Update Handler	
tcv_GMM_RAU_Rec	BOOLEAN	FALSE	This TCV is to be used in the Routing Area Update Handler	
tcv_HFN	B20	'0000000000000000000'B	Hyper Frame Number for CS or PS domain – to be used in security steps	
tcv_InitialUE_Id	InitialUE_Identity	c_UE_ldDefIMSI	Used to store the UE Identity	
tcv_Int_ModifyFlag	BOOLEAN	FALSE	This Flag will be used in Security related steps. If it is set to True, it means that A Integrity Modification is being done at that stage.	
tcv_K	INTEGER	0		
tcv_MIB	MasterInformationBlock	c_MIB_Def ( c_CellInfoDef ( tsc_CellA, px_PriScrmCode, tsc_URA_IdCellA, px_TCellA, tsc_SFN_OffsetA, c_FreqInfo ( px_UARFCN_D_Mid - 950 , px_UARFCN_D_Mid), px_UL_ScramblingCode ))	the initial value c_MIB_DefUTRAN_GERAN is for UTRAN/GERAN, for UTRAN only tcv_MIB shall be re-initialized to c_MIB_Def_UTRAN.	
tcv_MIB_ValueTagChanged	BOOLEAN	TRUE	initial value = TRUE, set to TRUE after MIBValueTag changed, set to FALSE after MIB delivered to SS.	
tcv_MM_TestExecution	BOOLEAN	FALSE	Indication of MM test execution, set to TRUE once NMO II is set, used to properly handle ATTACH and DETACH procedures in MM tests	
tcv_N308	INTEGER	2		
tcv_NumCfgCell	INTEGER	0	Number of cells configured	
tcv_NumOfPLMN	INTEGER	1	This TCV is used to decide if the test case is a Single PLMN or Multi PLMN test case and based on it initialise SIB 11, 12 & 18 accordingly.  Values 1>> 1 PLMN, 2 >> 2 PLMN, 3 >> 3 PLMN Rest Not defined	

Test Case Variable Declarations			
Variable Name	Туре	Value	Comments
tcv_PollSDU	Poll_SDU	sdu1	number of SDU's between pollings, this initial value is for ts_SS_CreateCellFACH. (from 34.123–1). used in RB2, RB3, RB4.
tcv_PollWindow	PollWindow	pw99	percentage of transmission window,threshold for polling, this initial value is for ts_SS_CreateCellFACH. (from 34.123–1). used in RB2, RB3, RB4.
tcv_PS_AuthCK	BITSTRING	INT_TO_BIT ( 0, 128 )	Ciphering Key for PS domain 128 bits (TS 33.102 cl. 6.3.7, TS 34.108 cl. 8.1.2)
tcv_PS_AuthIK	BITSTRING	INT_TO_BIT ( 0, 128 )	Integrity Key for PS domain 128 bits (TS 33.102 cl. 6.3.7, TS 34.108 cl. 8.1.2)
tcv_PS_KeySeq	KeySeq	tsc_KeySeqDef	Ciphering key sequence number for PS domain
tcv_RAB_Id	B8	'00000000B	to hold the RABId received in a SETUP or a CALL CONFIRMED message
tcv_RB_ActivationTimeInfoL ist	RB_ActivationTimeInfoList	cs_RB_ActTimeInfoListSRB s ( 0,0,0,0 )	
tcv_RB_SigResumed	BOOLEAN	FALSE	
tcv_RB_TestModeActivated	BOOLEAN	FALSE	Set to TRUE if RB test mode is activated. To be used in the postamble: when RB test mode has been used then NAS do not need to be released.
tcv_ReceivePS_ServiceReq	BOOLEAN	FALSE	This Type tcv by default will be set to False. It will be set to TRUE, when MO Service request has been rejected, and hence Ue can retransmit Service Request which should be handled in Default handlers.
tcv_Res	BOOLEAN	FALSE	to hold the BOOLEAN result of a test suite operation or a test Step
tcv_RLC_IgnoreStatus	BOOLEAN	FALSE	This variable is used to indicate that an RLC STATUS PDU may be received and should be ignored.
tcv_RLC_SeqNumDL_RB1	RLC_SequenceNumber	0	Downlink RLC Sequence Number for RB1
tcv_RLC_SeqNumDL_RB2	RLC_SequenceNumber	0	Downlink RLC Sequence Number for RB2
tcv_RLC_SeqNumDL_RB20	RLC_SequenceNumber	0	Downlink RLC Sequence Number for RB20
tcv_RLC_SeqNumDL_RB21	RLC_SequenceNumber	0	Downlink RLC Sequence Number for RB21

Test Case Variable Declarations			
Variable Name	Туре	Value	Comments
tcv_RLC_SeqNumDL_RB22	RLC_SequenceNumber	0	Downlink RLC Sequence Number for RB22
tcv_RLC_SeqNumDL_RB24	RLC_SequenceNumber	0	Downlink RLC Sequence Number for RB24
tcv_RLC_SeqNumDL_RB3	RLC_SequenceNumber	0	Downlink RLC Sequence Number for RB3
tcv_RLC_SeqNumDL_RB4	RLC_SequenceNumber	0	Downlink RLC Sequence Number for RB4
tcv_RRC_EstCauMO	EstablishmentCause	originatingConversationalCa	To hold the establishment cause for MO call that is supported by UE. Assigned in ts_RRC_InitVariables.
tcv_RRC_EstCauMT	EstablishmentCause	terminatingConversationalC all	To hold the establishment cause for MT call that is supported by UE. Assigned in ts_RRC_InitVariables.
tcv_RRC_MSN_RB0	RRC_SequenceNumber	0	Used to store the MSN of RB0
tcv_RRC_MSN_RB1	RRC_SequenceNumber	0	Used to store the MSN of RB1
tcv_RRC_MSN_RB2	RRC_SequenceNumber	0	Used to store the MSN of RB2
tcv_RRC_MSN_RB2_UL	RRC_SequenceNumber	0	Used to store the UL MSN of RB2
tcv_RRC_MSN_RB3	RRC_SequenceNumber	0	Used to store the MSN of RB3
tcv_RRC_MSN_RB4	RRC_SequenceNumber	0	Used to store the MSN of RB4
tcv_RRC_PagingCau	PagingCause	terminatingConversationalC all	To hold the paging cause for MT call that is supported by UE. Assigned in ts_RRC_InitVariables.
tcv_RRC_RAB_Type	RB_ConfigType	cell_DCH_64kCS_RAB_SR B	To hold the RAB config type that is supported by the UE. Assigned in ts_RRC_InitVariables.
tcv_RRC_Ti	RRC_TransactionIdentifier	0	To hold the RRC Transaction Identifier.
tcv_SB1	SysInfoTypeSB1	c_SB1_Def	the initial value c_SB1_DefUTRAN_GERAN is for UTRAN/GERAN, for UTRAN only tcv_SB1 shall be re-initialized to c_SB1_DefUTRAN.
tcv_SB1_ValueTag	INTEGER	1	To hold current SB1_ValueTag, value range is 1 to 4.
tcv_SB1_ValueTagChanged	BOOLEAN	FALSE	initial value = FALSE, set to TRUE after SB1ValueTag changed, set to FALSE after SB1 delivered to SS.
tcv_Segs	SegmentsOfSysInfoBlock		Variable buffering the result of SIBSegmentation

	Test Case Variable Declarations		
Variable Name	Туре	Value	Comments
tcv_SIB1	SysInfoType1	cb_SIB1_Def (     c_CellInfoDef (     tsc_CellA,     px_PriScrmCode,     tsc_URA_IdCellA,     px_TCellA,tsc_SFN_Offset     A, c_FreqInfo (     px_UARFCN_D_Mid - 950     , px_UARFCN_D_Mid),     px_UL_ScramblingCode ))	
tcv_SIB11	SysInfoType11	cb_SIB11_Def( c_CellInfoDef ( tsc_CellA,     px_PriScrmCode,     tsc_URA_IdCellA,     px_TCellA,     tsc_SFN_OffsetA,     c_FreqInfo (     px_UARFCN_D_Mid),     px_UL_ScramblingCode ),     c_CellInfoDef (     tsc_CellB,     px_TCellB,     tsc_SFN_OffsetB,     c_FreqInfo (     px_UARFCN_D_Mid) = 950     , px_URFCN_D_Mid = 950     , px_URFCN_D_Mid = 950     , px_UARFCN_D_Mid = 950     , px_UARFCN_D_Mid),     px_UL_ScramblingCode ),     c_CellInfoDef (     tsc_CellC,     px_TcellC,     tsc_SFN_OffsetC,     c_FreqInfo (     px_UARFCN_D_Mid = 950     , px_UARFCN_D_Mid = 950     , px_UARFCN_D_Mid = 950     , px_UARFCN_D_Mid),     px_UL_ScramblingCode ),     c_CellInfoDef (     tsc_CellD,     px_TcellD,     tsc_SFN_OffsetD,     c_FreqInfo (     px_UARFCN_D_Mid = 950     , px_UARFCN_	

Test Case Variable Declarations			
Variable Name	Туре	Value	Comments
		tsc_CellF, px_PriScrmCode, tsc_URA_IdCellF, px_TCellF, tsc_SFN_OffsetF, c_FreqInfo ( px_UARFCN_D_Mid - 950 , px_UARFCN_D_Mid), px_UL_ScramblingCode ), c_CellInfoDef ( tsc_CellG, px_PriScrmCode, tsc_URA_IdCellG, px_TCellG, tsc_SFN_OffsetG, c_FreqInfo ( px_UARFCN_D_Mid - 950 , px_UARFCN_D_Mid), px_UL_ScramblingCode ), c_CellInfoDef ( tsc_CellH, px_PriScrmCode, tsc_URA_IdCellH, px_TCellH, tsc_SFN_OffsetH, c_FreqInfo ( px_UARFCN_D_Mid - 950 , px_UARFCN_D_Mid - 950 , px_UARFCN_D_Mid - 950 , px_UARFCN_D_Mid - 950 , px_UARFCN_D_Mid), px_UL_ScramblingCode ) )	
tcv_SIB12	SysInfoType12	cb_SIB12_Def	
tcv_SIB18	SysInfoType18		no initial value
tcv_SIB2	SysInfoType2		no initial value
tcv_SIB3	SysInfoType3	cb_SIB3_DefUTRAN_GERA N( c_CellInfoDef (     tsc_CellA,     px_PriScrmCode,     tsc_URA_IdCellA,     px_TCellA,     tsc_SFN_OffsetA,     c_FreqInfo (     px_UARFCN_D_Mid - 950     , px_UL_ScramblingCode ))	the initial value c_SB3_DefUTRAN_GERAN is for UTRAN/GERAN, for UTRAN only tcv_SB3 shall be re-initialized to c_SB3_DefUTRAN.
tcv_SIB4	SysInfoType4	cb_SIB4_DefUTRAN_GERA N ( c_CellInfoDef (  tsc_CellA,  px_PriScrmCode,  tsc_URA_IdCellA,  px_TCellA,tsc_SFN_Offset A, c_FreqInfo (  px_UARFCN_D_Mid - 950  , px_UARFCN_D_Mid),  px_UL_ScramblingCode ))	the initial value c_SB4_DefUTRAN_GERAN is for UTRAN/GERAN, for UTRAN only tcv_SB4 shall be re-initialized to c_SB4_DefUTRAN.
tcv_SIB7	SysInfoType7	c_SIB7_Def	
tcv_Start	START_Value	'000000000000000000000'B	To hold the START value received in the INITIAL DIRECT TRANSFER message

Test Case Variable Declarations			
Variable Name	Туре	Value	Comments
tcv_StartList	STARTList	c_StartListCS	To hold the START list sent by UE
tcv_SubChNum	AvailableSubChannelNumber s	'1111111111111'B	Available subchannel numbers for PRACH, this initial value is for ts_SS_CreateCellFACH. (from 34.108 cl. 6.1 (SIB5))
tcv_TestBody	BOOLEAN	FALSE	to indicate if the test body is currently being executed
tcv_TGCFN	TGCFN	0	
tcv_TimeoutInDefault	BOOLEAN	FALSE	Indication of a TimeoutInDefault having occurred
tcv_TimerPoll	TimerPoll	tp400	value for polling timer, this initial value is for ts_SS_CreateCellFACH. (from 34.123–1). used in RB2, RB3, RB4
tcv_TimerPollProhibit	TimerPollProhibit	tpp200	minimum time between polls, this initial value is for ts_SS_CreateCellFACH. (from 34.123–1). used in RB2, RB3, RB4
tcv_TmpAttachReqPDU	ATTACHREQUEST		Temporary variable
tcv_TmpAuthAndCiphRspP DU	AUTHENTICATIONANDCIP HERINGRESPONSE		Temporary variable
tcv_TmpB3	B3	'000'B	Temporary variable
tcv_TmpCellInfo	CellInfoCfg	c_CellInfoDef ( tsc_CellA, px_PriScrmCode, tsc_URA_IdCellA, px_TCellA, tsc_SFN_OffsetA, c_FreqInfo ( px_UARFCN_D_Mid - 950 , px_UARFCN_D_Mid), px_UL_ScramblingCode )	To temporary store CellInfo data
tcv_TmpRAU_ReqPDU	ROUTINGAREAUPDATERE QUEST		Temporary variable
tcv_UE_OpMode	UE_OperationMode	px_UE_OpModeDef	Indicates the current UE operation mode (either A or C).

Test Case Variable Declarations		
Туре	Value	Comments
BOOLEAN	TRUE	This value is to represent the state of the UE. TRUE means UE is Switched/Powered On, and hence only Switch/Power OFF operation can be done, and no Switch/Power On operation. False Means, UE is off, and only Switch/Power On Operation can be done. This Variable is introduced to help automation of test cases. The dafault value of ON, is consistent with present Test Sequence, where MMI command to switch/Power off is called before creation of the first cell on SS Side.
INTEGER	0	use to represent the integer equivalent of 7 bit UE system specific Capability. The Valid range is 0 to 127
BOOLEAN	FALSE	The user of ts_IdleUpdated needs to set tcv_Use_E_PLMN to 'True' if he wants to send 'equivalent PLMN list' as set in tcv_E_PLMN during CS or PS registration
	Type BOOLEAN INTEGER	Type Value BOOLEAN TRUE  INTEGER 0

PCO Type Declarations		
PCO Type	Role	Comments
DSAP	LT	
CSAP	LT	
Dc_SAP	LT	
ММІ	UT	
Detailed Comments :		

PCO Name	PCO Type	Role	Comments
AM	DSAP	LT	PCO above AM SAP of RLC
CMAC	CSAP	LT	Control and observation point between RRC and MAC
СРНҮ	CSAP	LT	Control and observation point between RRC and PHY
CRLC	CSAP	LT	Control and observation point between RRC and RLC
Dc	Dc_SAP	LT	Carry transmission and reception of NAS messages
TM	DSAP	LT	PCO above TM SAP of RLC
UM	DSAP	LT	PCO above UM SAP of RLC
Ut	MMI	UT	The PCO used for the upper tester

Timer Declarations			
Timer Name	Duration	Unit	Comments
t_TimeoutInDefault	300	ms	Used to catch timeouts in the Defaults
t_Dly	5000	ms	general purpose delay timer
t_Guard	300	s	test case guard timer
t_Poll	60000	ms	This timer is used to ensure that PDUs are received with the poll bit set. The duration of this timer must be longer than the duration of the test body. Expiry of this timer is handled in the RLC_Default behaviour table, and results in an inconclusive verdict.
t_Reset	5000	ms	This timer is used to ensure that RESET PDUs are received. The duration of this timer must be longer than the duration of the test body. Expiry of this timer is handled in the RLC_Default behaviour table, and results in an inconclusive verdict.
t_Status	10000	ms	This timer is used to ensure that STATUS PDUs are received. In general, it is started at the beginning of the test body. The duration of this timer must be longer than the duration of the test body. Expiry of this timer is handled in the RLC_Default behaviour table, and results in an inconclusive verdict.
t_T312	1	s	Timer to check physical channel establishment criteria
t_WaitMS	13500	ms	general wait timer
t_WaitS	15	s	general watch timer

### **ASP Type Definition**

ASP Name: AT\_CmdCnf
PCO Type: MMI

Comments: The ASP is used get the result of a requested AT command previously sent to the UT (UT ->LT).

Parameter Name	Parameter Type	Comments
result	BOOLEAN	OPTIONAL
resultString	IA5String	OPTIONAL
sMS_BlockMode	HEXSTRING	to control and observe the Block mode procedure for SMS

**Detailed Comments:** 

### **ASP Type Definition**

**ASP Name**: AT\_CmdReq **PCO Type**: MMI

Comments: The ASP is used to request a AT command to the UT (LT ->UT).

Parameter Name	Parameter Type	Comments
cmd	IA5String	command line
sMS_BlockMode	HEXSTRING	to control and observe the Block mode procedure for SMS

**Detailed Comments:** 

# **ASP Type Definition**

 $\textbf{ASP Name} \; : \; \mathsf{MMI\_CmdCnf}$ 

PCO Type : MMI

Comments: The ASP is used get the result of a requested command previously sent to the UT (UT ->LT).

Parameter Name	Parameter Type	Comments
result	BOOLEAN	
resultString	IA5String	OPTIONAL

**Detailed Comments:** 

# **ASP Type Definition**

ASP Name: MMI\_CmdReq

PCO Type : MMI

Comments: The ASP is used to request an MMI command to the UT (LT ->UT).

Parameter Name	Parameter Type	Comments
cmd	IA5String	command line
Data to the second		

# **ASP Type Definition**

ASP Name: RLC\_AM\_TestDataInd

PCO Type : DSAP

Comments: To indicate the reception of unstructered data using acknowledged mode in the uplink direction

Parameter Name	Parameter Type	Comments
cellId	INTEGER	
rB_ld	SS_RB_Identity	RB identity (RB3 or RB4)
data	PDU	

**Detailed Comments:** 

# **ASP Type Definition**

ASP Name: RLC\_AM\_TestDataReq

PCO Type : DSAP

Comments: To request the transmission of unstructered data using acknowledged mode in the downlink direction

Parameter Type	Comments
INTEGER	
SS_RB_Identity	RB identity (RB3 or RB4)
PDU	
	INTEGER SS_RB_Identity

**Detailed Comments:** 

### **ASP Type Definition**

ASP Name: RLC\_TR\_TestDataInd

PCO Type : DSAP

Comments: To indicate the reception of unstructered data using transparent mode in the uplink direction

Parameter Name	Parameter Type	Comments
cellId	INTEGER	
rB_ld	SS_RB_Identity	RB identity (RB3 or RB4)
data	PDU	

**Detailed Comments:** 

### **ASP Type Definition**

ASP Name: RLC\_TR\_TestDataReq

PCO Type : DSAP

Comments: To request the transmission of unstructered data using transparent mode in the downlink direction. TTCN

writter is requires to send data according to the transport block size allowed.

Parameter Name	Parameter Type	Comments
cellid	INTEGER	
rB_ld	SS_RB_Identity	RB identity (RB3 or RB4)
data	PDU	

### **ASP Type Definition**

ASP Name: RRC\_DataInd (RRC-DATA-IND)

PCO Type : Dc\_SAP

Comments: The ASP is used to indicate the receipt of the NAS PDU message using acknowledged operation (NAS <-

· · · · · · · · · · · · · · · · · · ·		
Parameter Name	Parameter Type	Comments
cellid	INTEGER	Cell Id
rB_ld	SS_RB_Identity	RB identity (RB3 or RB4)
ch	LogicChGERAN	Logical channel (used for interworking with GERAN)
sapld	SapId	RRC SAP identifier (SAP0)
cN_Domain	SS_CN_DomainIdentity	CN domain identity
start	START_Value	Mandatory in INITIAL DIRECT TRANSFER
msg	PDU	NAS PDU
Detailed Comments:		

# **ASP Type Definition**

ASP Name: RRC\_DataReq PCO Type : Dc\_SAP

Comments: The ASP is used to request the transmission of the NAS PDU message using acknowledged operation (NAS

-> RRC).

Parameter Name	Parameter Type	Comments
cellId	INTEGER	
rB_ld	SS_RB_Identity	RB identity (RB3 or RB4)
ch	LogicChGERAN	Logical channel (used for interworking with GERAN)
sapld	SapId	RRC SAP identifier (SAP0)
cN_Domain	SS_CN_DomainIdentity	CN domain identity
msg	PDU	NAS PDU
Detailed Comments :		

# **ASN.1 ASP Type Definition**

ASP Name: CRLC\_SetRRC\_MessageSN\_REQ

PCO Type : CSAP

Comments: To request the SS to set the RRC message sequence number in COUNT-I to the value specified in this ASP.

The ASP is used to initialise SS RRC

### **Type Definition**

```
SEQUENCE
```

cellId INTEGER(-1..63), routingInfo RoutingInfo,

count\_I\_LSB\_UL RRC\_SequenceNumber OPTIONAL, count\_I\_LSB\_DL RRC\_SequenceNumber OPTIONAL

```
ASN.1 ASP Type Definition

ASP Name : CRLC_SetRRC_MessageSN_CNF
PCO Type : CSAP
Comments : To confirm the RRC message sequence number setting request

Type Definition

SEQUENCE
{
    cellId INTEGER(-1..63),
    routingInfo RoutingInfo
}

Detailed Comments :
```

```
ASP Name: CRLC_RRC_MessageSN_REQ
PCO Type: CSAP

Comments: To request the SS to return the values in COUNT-I for sending the next DL RRC message or for receiving the next UL RRC message on the concerned SRB.

Type Definition

SEQUENCE
{
    cellId INTEGER(-1..63), routingInfo RoutingInfo |
}

Detailed Comments:
```

```
ASP Name: CRLC_RRC_MessageSN_CNF
PCO Type: CSAP

Comments: To return the counter I value (HFN and RRC message sequence number) for sending the next DL RRC message or for receiving the next UL RRC message on the concerned SRB.
COUNT_I_MSB is the 28 MSB of the COUNT-I (HFN)

Type Definition

SEQUENCE
{
    cellId INTEGER(-1..63),
    routingInfo RoutingInfo,
    count_I_MSB_UL COUNT_I_MSB,
    count_I_LSB_UL RRC_SequenceNumber,
    count_I_LSB_DL COUNT_I_MSB,
    count_I_LSB_DL COUNT_I_MSB,
    count_I_LSB_DL RRC_SequenceNumber
}

Detailed Comments:
```

# ASN.1 ASP Type Definition ASP Name: CMAC\_Ciphering\_Activate\_CNF PCO Type: CSAP Comments: To confirm to activate or inactivate the ciphering Type Definition SEQUENCE { cellId INTEGER (-1..63), routingInfo RoutingInfo }

### **Detailed Comments:**

# **ASN.1 ASP Type Definition**

ASP Name: CMAC\_Ciphering\_Activate\_REQ

PCO Type : CSAP

Comments: To request to start or, restart or stop downlink ciphering or uplink deciphering. The physicalChannelIdentity

of DPCH applies to routingInfo.Do not increment HFN part of COUNT-C if the value of

incrementCOUNT\_C\_Ind is "NotIncr".

### **Type Definition**

```
SEQUENCE
{
    cellId INTEGER(-1..63),
    routingInfo RoutingInfo,
    ratType RatType,
    cn_DomainIdentity CN_DomainIdentity,
    cipheringModeInfo CipheringModeInfo,
    incHFN Increment_Mode
```

### **Detailed Comments:**

### **ASN.1 ASP Type Definition**

ASP Name: CMAC\_Config\_CNF

PCO Type : CSAP

Comments: For MAC emulator to report that a previous attempt to setup, reconfigure or release a logical channel is

successful.

### **Type Definition**

SEQUENCE {

cellId INTEGER (-1..63), routingInfo RoutingInfo

# **ASN.1 ASP Type Definition**

ASP Name: CMAC\_Config\_REQ

PCO Type : CSAP

**Comments:** To request to configure MAC entity. Setup is used for creation of the MAC instances or the MAC resources.

Release is used for free the all MAC resources. The reconfiguration is to change the MAC parameters, it is

not the MAC modification.

### Type Definition

```
SEQUENCE {
    cellId INTEGER (-1..63),
    routingInfo RoutingInfo,
    ratType RatType,
    configMessage CHOICE {
        setup CmacConfigReq,
        reconfigure CmacConfigReq,
        release NULL
    }
```

### **Detailed Comments:**

## **ASN.1 ASP Type Definition**

 $\textbf{ASP Name} \ : \ \mathsf{CMAC\_PAGING\_Config\_CNF}$ 

PCO Type : CSAP

Comments: To confirm to setup the Paging message

### **Type Definition**

```
SEQUENCE {
  cellId INTEGER (0..63),
  routingInfo RoutingInfo
```

**Detailed Comments:** 

# **ASN.1 ASP Type Definition**

**ASP Name:** CMAC\_PAGING\_Config\_REQ

PCO Type : CSAP

Comments: To request MAC layer to send the Paging message on the specified configuration.

### **Type Definition**

```
SEQUENCE {
    cellId INTEGER (0..63),
    routingInfo RoutingInfo,
    ratType RatType,
    configMessage CmacPagingConfigReq
```

```
ASN.1 ASP Type Definition

ASP Name: CMAC_SYSINFO_Config_CNF
PCO Type: CSAP
Comments: To confirm to setup the BCCH message to MAC layer

Type Definition

SEQUENCE {
    cellId INTEGER (0..63),
    routingInfo RoutingInfo
}
Detailed Comments:
```

```
ASN.1 ASP Type Definition

ASP Name : CMAC_SYSINFO_Config_REQ
PCO Type : CSAP
Comments : To request MAC layer to send the BCCH message on the specified configuration.

Type Definition

SEQUENCE {
    cellId INTEGER (0..63),
    routingInfo RoutingInfo,
    ratType RatType,
    configMessage CmacSysinfoConfigReq
}

Detailed Comments :
```

```
ASN.1 ASP Type Definition

ASP Name: CMAC_SecurityMode_Config_CNF
PCO Type: CSAP
Comments: To confirm to configure the MAC security mode

Type Definition

SEQUENCE {
    cellId INTEGER (-1..63)
}
Detailed Comments:
```

# **ASN.1 ASP Type Definition**

ASP Name: CMAC\_SecurityMode\_Config\_REQ

PCO Type : CSAP

Comments: To request to configure the MAC security mode

If there are several CMAC\_Ciphering\_Activate\_REQ follow this ASP, the SS shall take a serial of specified

actions on the same contents in this ASP at the activation time indicated in each

CMAC\_Ciphering\_Activate\_REQ.

# **Type Definition**

```
SEQUENCE {
    cellId INTEGER (-1..63),
    macCipheringInfo SecurityInfo
}
```

**Detailed Comments:** 

# **ASN.1 ASP Type Definition**

ASP Name: CPHY\_AICH\_AckModeSet\_CNF

PCO Type : CSAP

Comments: To confirm setting of AICH Acknowledge Mode

# **Type Definition**

SEQUENCE {

cellId INTEGER(0..63), routingInfo RoutingInfo

}

**Detailed Comments:** 

## **ASN.1 ASP Type Definition**

ASP Name: CPHY\_AICH\_AckModeSet\_REQ

PCO Type : CSAP

Comments: To request for setting of AICH Acknowledge Mode

### **Type Definition**

SEQUENCE {

cellid INTEGER(0..63), routingInfo RoutingInfo, ratType RatType, alCH\_Mode AlCH\_Mode

# ASP. Name: CPHY\_Cell\_Config\_CNF PCO Type: CSAP Comments: To confirm to setup the cell parameter Type Definition SEQUENCE { cellId INTEGER (0..63) } Detailed Comments:

# **ASN.1 ASP Type Definition**

ASP Name: CPHY\_Cell\_Config\_REQ

PCO Type : CSAP

**Comments:** To request to setup the cell parameter.

The unit of tcell is chip; the unit of sfnOffset is frame number; the primary scambling code number of the cell

is 16\*primaryScramblingCode\_SS; the unit of dLTxAttenuationLevel is dB.

### **Type Definition**

```
SEQUENCE {
    cellId INTEGER (0..63),
    tcell INTEGER(0..38399),
    sfnOffset INTEGER (0 .. 4095 ),
    frequencyInfo FrequencyInfo,
    primaryScramblingCode_SS INTEGER (0..511),
    cellTxPowerLevel CellTxPowerLevel,
    dLTxAttenuationLevel INTEGER(0..30)
```

**Detailed Comments:** 

### **ASN.1 ASP Type Definition**

ASP Name: CPHY\_Cell\_Release\_CNF

PCO Type : CSAP

 $\textbf{Comments}: \ \mathsf{The} \ \mathsf{confirmation} \ \mathsf{to} \ \mathsf{the} \ \mathsf{CPHY\_Cell\_Release\_Req}$ 

# Type Definition

SEQUENCE {

soft\_Reset BOOLEAN,

cell\_ID\_List SEQUENCE (SIZE (1..8)) OF INTEGER(0..63) -- cell IDs

### **ASN.1 ASP Type Definition**

**ASP Name**: CPHY\_Cell\_Release\_REQ

PCO Type : CSAP

Comments: 1. This Primitive with "Soft\_Reset" flag ON gives a common known starting point/state of SS for a test

case. The SS performs the following whenever it receives this primitive with "Soft\_Reset" flag ON:Releases

all configured Channels and cells (if any) irrespective of Cell ID list IE.

2. Releases the associated Memory Buffers (if any).

3. Cancels all active timers (if any) With "Soft\_Reset" flag OFF:

1. Releases cells listed in IE Cell\_ID\_List and associated configured Channels (if any)

2. Releases the Memory Buffers(if any) associated with Cells listed in IE Cell\_ID\_List

3. Cancels all active timers (if any) associated with Cells listed in IE Cell\_ID\_List.

### **Type Definition**

```
SEQUENCE {
    soft_Reset BOOLEAN,
    cell_ID_List SEQUENCE (SIZE (1..8)) OF INTEGER(0..63) -- cell IDs
}
```

### **Detailed Comments:**

## **ASN.1 ASP Type Definition**

ASP Name: CPHY\_Frame\_Number\_CNF

PCO Type : CSAP

Comments: To return the requested connection frame number. The routingInfo indicates a physical channel.

### **Type Definition**

SEQUENCE{

cellid INTEGER(0..63), routingInfo RoutingInfo,

frameNumber INTEGER (0..255)

}

### **Detailed Comments:**

### **ASN.1 ASP Type Definition**

ASP Name: CPHY\_Frame\_Number\_REQ

PCO Type : CSAP

Comments: To request the physical layer to return a connection frame number on which the next message can be sent

at the specified PCO on the specified logical channel. The return frame number shall leave time from current frame number in order to leave some execution time for TTCN preparing next message. The routingInfo

indicates a physical channel

### **Type Definition**

SEQUENCE{

cellid INTEGER(0..63), routingInfo RoutingInfo

}

```
ASP Name: CPHY_Ini_CNF
PCO Type: CSAP
Comments: Confirm the test initialisation

Type Definition

SEQUENCE
{
    confirmation NULL
}

Detailed Comments:
```

ASP Name: CPHY\_Ini\_REQ
PCO Type: CSAP
Comments: Request to initialise the test

Type Definition

ENUMERATED {
 defaultRadioEnvironment(0),
 nonDefaultMultiCell(1)
}

Detailed Comments:

ASP Name: CPHY\_Out\_of\_Sync\_IND
PCO Type: CSAP
Comments: To report that the physical channel synchronization (in FDD mode, sync with uplink DPCCH) was lost as detected by the SS receiver.

Type Definition

SEQUENCE {
 cellId INTEGER (0..63),
 routingInfo RoutingInfo
}

Detailed Comments:

ASN.1 ASP Type Definition

ASP Name: CPHY\_PRACH\_Measurement\_CNF
PCO Type: CSAP
Comments: To Confirm PRACH Measurement Req

Type Definition

SEQUENCE {
 cellId INTEGER(0..63),
 routingInfo RoutingInfo
}

Detailed Comments:

# **ASN.1 ASP Type Definition**

ASP Name: CPHY\_PRACH\_Measurement\_REQ

PCO Type : CSAP

Comments: To request for Start or Stop of PRACH Measurements to be done every PRACH PREAMBLE Or Message

received

### **Type Definition**

```
SEQUENCE {
    cellId INTEGER(0..63),
    routingInfo RoutingInfo,
    ratType RatType,
    pRACH_MeasurementInd PRACH_MeasurementInd
```

**Detailed Comments:** 

# **ASN.1 ASP Type Definition**

ASP Name: CPHY\_PRACH\_Measurement\_Report\_IND

PCO Type : CSAP

Comments: SS indicates a PRACH parameters measurement report for each PRACH Preambles and Message received

from the UE

### **Type Definition**

SEQUENCE {

cellId INTEGER(0..63), routingInfo RoutingInfo, ratType RatType, measurementReport PRACH\_MeasurementReport

}

**Detailed Comments:** 

# **ASN.1 ASP Type Definition**

ASP Name: CPHY\_RL\_Modify\_CNF

PCO Type : CSAP

Comments: To confirm to modify the Radio Link

**Type Definition** 

 ${\tt SEQUENCE}\ \{$ 

cellId INTEGER (0..63), routingInfo RoutingInfo

# **ASN.1 ASP Type Definition**

ASP Name: CPHY\_RL\_Modify\_REQ

PCO Type : CSAP

Comments: To request to modify the Radio Link

HardHandover (PhysicalChannelReconfig)

ChannelisationCodeChange

FrequencyChange

PhysicalChannelModifyForTrCHReconfig CompressedMode( PhysicalChannelReconfig)

Re\_Synchronized HardHandover

Softhandover

### **Type Definition**

```
SEQUENCE {
    cellId INTEGER (0..63),
    routingInfo RoutingInfo,
    ratType RatType,
    modifyMessage CphyRIModifyReq
```

**Detailed Comments:** 

# **ASN.1 ASP Type Definition**

ASP Name: CPHY\_RL\_Release\_CNF

PCO Type : CSAP

Comments: PHY emulator confirms that a specified physical channel has been released.

## **Type Definition**

SEQUENCE {

cellId INTEGER (0..63), routingInfo RoutingInfo

}

**Detailed Comments:** 

# **ASN.1 ASP Type Definition**

ASP Name: CPHY\_RL\_Release\_REQ

PCO Type : CSAP

Comments: To request to release the Radio Link

### **Type Definition**

SEQUENCE {

cellId INTEGER (0..63), routingInfo RoutingInfo

```
ASP. Name: CPHY_RL_Setup_CNF
PCO Type: CSAP
Comments: To confirm to setup the Radio Link

Type Definition

SEQUENCE {
    cellId INTEGER (0..63),
    routingInfo RoutingInfo
}

Detailed Comments:
```

```
ASN.1 ASP Type Definition

ASP Name: CPHY_RL_Setup_REQ
PCO Type: CSAP
Comments: To request to setup the associated transport channels and the Radio Link itself.

Type Definition

SEQUENCE {
    cellId INTEGER (0..63),
    routingInfo RoutingInfo,
    ratType RatType,
    setupMessage CphyRISetupReq
}

Detailed Comments:
```

```
ASP. 1 ASP Type Definition

ASP Name: CPHY_Sync_IND
PCO Type: CSAP
Comments: To indicate that physical channel synchronization (in FDD mode, sync with DPCCH) has been achieved.

Type Definition

SEQUENCE{
    cellId INTEGER (0..63),
    routingInfo RoutingInfo
}

Detailed Comments:
```

```
ASN.1 ASP Type Definition

ASP Name: CPHY_TrCH_Config_CNF
PCO Type: CSAP
Comments: To confirm to configure the transport channel

Type Definition

SEQUENCE {
    cellId INTEGER (0..63),
    routingInfo RoutingInfo
}

Detailed Comments:
```

```
ASN.1 ASP Type Definition

ASP Name : CPHY_TrCH_Config_REQ
PCO Type : CSAP
Comments : To request to configure the transport channel

Type Definition

SEQUENCE {
    cellId INTEGER(0..63),
    routingInfo RoutingInfo,
    ratType RatType,
    trchConfigType TrChConfigType,
    configMessage CphyTrchConfigReq
}

Detailed Comments :
```

ASN.1 ASP Type Definition

ASP Name: CPHY\_TrCH\_Release\_CNF
PCO Type: CSAP
Comments: To confirm to release tthe Radio Link

Type Definition

SEQUENCE {
 cellId INTEGER (0..63),
 routingInfo RoutingInfo
}

Detailed Comments:

ASN.1 ASP Type Definition

ASP Name : CPHY\_TrCH\_Release\_REQ
PCO Type : CSAP
Comments : To request to release the Radio Link

Type Definition

SEQUENCE {
 cellId INTEGER (0..63),
 routingInfo RoutingInfo,
 trchConfigType TrChConfigType
}

Detailed Comments :

ASN.1 ASP Type Definition

ASP Name : CRLC\_Ciphering\_Activate\_CNF
PCO Type : CSAP
Comments : To confirm to activate or inactivate the ciphering

Type Definition

SEQUENCE {
cellId INTEGER (-1..63)}

Detailed Comments :

#### **ASN.1 ASP Type Definition**

ASP Name: CRLC\_Ciphering\_Activate\_REQ

PCO Type : CSAP

Comments: To request to start, restart or stop downlink ciphering or uplink deciphering. The RB-identity applied to

routingInfo indicates the SRB being not suspended during the execution of the ciphering mode command. Each call of the ASP includes one RLC SN in rb\_DL\_CiphActivationTimeInfo for the corresponding

rb-identity.

#### **Type Definition**

```
SEQUENCE {
    cellId INTEGER (-1..63),
    ratType RatType,
    cn_DomainIdentity CN_DomainIdentity,
    ciphActivationInfo CiphActivationInfo,
    incHFN RLC_IncMode
```

#### **Detailed Comments:**

#### **ASN.1 ASP Type Definition**

**ASP Name**: CRLC\_Config\_CNF

PCO Type : CSAP

Comments: For RLC emulator to comfirm that a previous attempt to establish, reconfigure or release a radio bearer has

been successful

#### **Type Definition**

SEQUENCE {
 cellId INTEGER (-1..63),
 routingInfo RoutingInfo

**Detailed Comments:** 

# **ASN.1 ASP Type Definition**

ASP Name: CRLC\_Config\_REQ

PCO Type : CSAP

Comments: To request to setup, reconfigure or release RLC entity

#### **Type Definition**

SEQUENCE {

cellid INTEGER (–1..63), routingInfo RoutingInfo, ratType RatType, configMessage CrlcConfigReq

# ASP. Name: CRLC\_Integrity\_Activate\_CNF PCO Type: CSAP Comments: To confirm to activate or inactivate the integrity protection Type Definition SEQUENCE { cellId INTEGER (-1..63) }

ASP Name: CRLC\_Integrity\_Activate\_REQ

PCO Type : CSAP

**Detailed Comments:** 

Comments: To request to start or to modify the downlink or uplink integrity protection. The ASP shall be called before

the sending of SECURITY MODE COMMAND. It activates the integrity on all SRBs in DL. The ASP shall

not be called if the integrity shall be switched off in the test case.

#### **Type Definition**

**ASN.1 ASP Type Definition** 

```
SEQUENCE {
    cellId INTEGER (-1..63),
    cn_DomainIdentity CN_DomainIdentity,
    integrityActivationInfo IntegrityActivationInfo
```

#### **Detailed Comments:**

#### **ASN.1 ASP Type Definition**

**ASP Name:** CRLC\_Integrity\_Failure\_IND

PCO Type : CSAP

Comments: RLC emulator reports the occurrences of a failure in integrity protection, i.e. reception of an

integrity-protected RLC AM/UM SDU containing a non-matching X-MAC value compared to the desired.

#### **Type Definition**

```
SEQUENCE {
    cellId INTEGER(-1..63),
    routingInfo RoutingInfo,
    failureCause ENUMERATED { codeNotMatched(0) }
}
```

```
ASP Name: CRLC_Resume_CNF
PCO Type: CSAP
Comments: To confirm the resume request

Type Definition

SEQUENCE {
    cellId INTEGER (-1..63),
    routingInfo RoutingInfo
}

Detailed Comments:
```

ASP. 1 ASP Type Definition

ASP Name: CRLC\_Resume\_REQ
PCO Type: CSAP
Comments:

Type Definition

SEQUENCE {
 cellId INTEGER (-1..63),
 routingInfo RoutingInfo
}

Detailed Comments:

ASN.1 ASP Type Definition

ASP Name : CRLC\_SecurityMode\_Config\_CNF
PCO Type : CSAP
Comments : To confirm to configure the ciphering

Type Definition

SEQUENCE {
 cellId INTEGER (-1..63)
}
Detailed Comments :

#### **ASN.1 ASP Type Definition**

ASP Name: CRLC\_SequenceNumber\_CNF

PCO Type : CSAP

Comments: To return the requested counter sequence number to which the next DL PDU to be sent or the expected UL

PDU to be received.

#### **Type Definition**

```
SEQUENCE {
    cellId INTEGER (-1..63),
    routingInfo RoutingInfo,
    count_C_MSB_UL COUNT_C_MSB,
    count_C_LSB_UL RLC_SequenceNumber,
    count_C_MSB_DL COUNT_C_MSB,
    count_C_LSB_DL RLC_SequenceNumber
```

**Detailed Comments:** 

# **ASN.1 ASP Type Definition**

**ASP Name**: CRLC\_SequenceNumber\_REQ

PCO Type : CSAP

Comments: To request the RLC layer to return current counter sequence numbers to which the next DL PDU to be sent

or the expected UL PDU to be received.

#### **Type Definition**

```
SEQUENCE {
  cellId INTEGER (-1..63),
  routingInfo RoutingInfo
```

**Detailed Comments:** 

### **ASN.1 ASP Type Definition**

ASP Name: CRLC\_Suspend\_CNF

PCO Type : CSAP

Comments: To confirm the suspension of data transmission. The parameter vt indicates either the value of the Send

State Variable VT(S) for AM, or the value of Data State Variable VT(US) for UM.

#### **Type Definition**

SEQUENCE {

cellid INTEGER (-1..63), routingInfo RoutingInfo, vt RLC\_SequenceNumber

# **ASN.1 ASP Type Definition**

ASP Name: CRLC\_Suspend\_REQ

PCO Type : CSAP

 $\textbf{Comments}: \ \text{To request the suspension of data transmission. The parameter n indicates that an RLC entity will not send a limit of the context of the$ 

PDU with "Sequence Number">=VT(S)+N for AM and "Sequence Number">=VT(US)+N for UM, where N is

a non-negative integer

#### Type Definition

```
SEQUENCE {
    cellId INTEGER (-1..63),
    routingInfo RoutingInfo,
    n RLC_SequenceNumber
}
```

**Detailed Comments:** 

# **ASN.1 ASP Type Definition**

ASP Name: RLC\_AM\_DATA\_CNF

PCO Type : DSAP Comments :

#### **Type Definition**

```
SEQUENCE {
  cellId INTEGER(-1..63),
  routingInfo RoutingInfo,
  mui Mui
```

Detailed Comments :

# **ASN.1 ASP Type Definition**

ASP Name: RLC\_AM\_DATA\_IND

PCO Type : DSAP

Comments: To indicate to receive DATA using ackowledged mode

### **Type Definition**

```
SEQUENCE {
    cellId INTEGER(-1..63),
    routingInfo RoutingInfo,
    integrityResult IntegrityResult ,
    aM_message CHOICE {
        uL_DCCH_Message UL_DCCH_Message,
        uL_CCCH_Message UL_SHCCH_Message
}
```

# **ASN.1 ASP Type Definition** ASP Name: RLC\_AM\_DATA\_REQ PCO Type : DSAP Comments: To request to transmit DATA using ackowledged mode **Type Definition** SEQUENCE { cellId INTEGER(-1..63), routingInfo RoutingInfo, confirmationRequest AmConfirmationRequest, aM\_message CHOICE { dL\_DCCH\_Message DL\_DCCH\_Message, dL\_CCCH\_Message DL\_CCCH\_Message, pCCH\_Message PCCH\_Message, dL\_SHCCH\_Message DL\_SHCCH\_Message, bCCH\_FACH\_Message BCCH\_FACH\_Message, bCCH\_BCH\_Message BCCH\_BCH\_Message, $invalid\_dL\_DCCH\_Message\ Invalid\_DL\_DCCH\_Message,$ invalid\_dL\_CCCH\_Message Invalid\_DL\_CCCH\_Message, invalid\_dL\_SHCCH\_Message Invalid\_DL\_SHCCH\_Message

```
ASP Name: RLC_TR_DATA_IND
PCO Type: DSAP
Comments: To indicate to receivet DATA using transparent mode

Type Definition

SEQUENCE {
    cellId INTEGER(-1..63),
    routingInfo RoutingInfo,
    tM_message CHOICE {
        uL_DCCH_Message UL_DCCH_Message,
        uL_CCCH_Message UL_SHCCH_Message,
        uL_SHCCH_Message UL_SHCCH_Message
    }
}
Detailed Comments:
```

# **ASN.1 ASP Type Definition** ASP Name: RLC\_TR\_DATA\_REQ PCO Type : DSAP Comments: To request to transmit DATA using transparent mode **Type Definition** SEQUENCE { cellId INTEGER(-1..63), routingInfo RoutingInfo, tM\_message CHOICE { dL\_DCCH\_Message DL\_DCCH\_Message, dL\_CCCH\_Message DL\_CCCH\_Message, pCCH\_Message PCCH\_Message, dL\_SHCCH\_Message DL\_SHCCH\_Message, bCCH\_FACH\_Message BCCH\_FACH\_Message, bCCH\_BCH\_Message BCCH\_BCH\_Message, invalid\_dL\_DCCH\_Message Invalid\_DL\_DCCH\_Message, invalid\_dL\_CCCH\_Message Invalid\_DL\_CCCH\_Message, invalid\_dL\_SHCCH\_Message Invalid\_DL\_SHCCH\_Message

```
ASP Name: RLC_UM_DATA_IND
PCO Type: DSAP
Comments: To indicate to receivet DATA using unacknowledged mode

Type Definition

SEQUENCE {
    cellId INTEGER(-1..63),
    routingInfo RoutingInfo,
    integrityResult IntegrityResult,
    uM_message CHOICE {
    uL_DCCH_Message UL_DCCH_Message,
    uL_CCCH_Message UL_SHCCH_Message,
    uL_SHCCH_Message UL_SHCCH_Message
}
}
Detailed Comments:
```

#### **ASN.1 ASP Type Definition**

ASP Name: RLC\_UM\_DATA\_REQ

PCO Type : DSAP

Comments: To request to transmit DATA using unacknowledged mode

#### **Type Definition**

```
SEQUENCE {
    cellId INTEGER(-1..63),
    routingInfo RoutingInfo,
    uM_message CHOICE {
        dL_DCCH_Message DL_DCCH_Message,
        dL_CCCH_Message DL_CCCH_Message,
        pCCH_Message PCCH_Message,
        pCH_Message DL_SHCCH_Message,
        bCCH_FACH_Message BCCH_FACH_Message,
        bCCH_BCH_Message BCCH_BCH_Message,
        invalid_dL_DCCH_Message Invalid_DL_DCCH_Message,
        invalid_dL_CCCH_Message Invalid_DL_CCCH_Message,
        invalid_dL_SHCCH_Message Invalid_DL_SHCCH_Message
    },
    specialLI BOOLEAN
}
```

PDU Name : RLC\_STATUS\_PDU

PCO Type : DSAP

Encoding Rule Name: Encoding Variation:

Comments : An AMD STATUS PDU. Ref 3G TS 25.322 clause 9.2.1.5

Field Name	Field Type	Field Encoding	Comments
dC_Field	DC_Field		1
type	CtrlPDU_Type		2
superFields	SuperFields		3
superFieldsRec	HEXSTRING		4
padding	RLC_Padding		5

**Detailed Comments**: 1. Always tsc\_DC\_ControlPDU for a STATUS PDU.

2. Always tsc\_PDU\_TypeStatus for a STATUS PDU.

3. The superfields expected in the STATUS PDU.

4. The superfields to be sent in the STATUS PDU.

Must be present to ensure that the total size of this PDU is exactly equal to the current PU size. It is the callers responsibility to ensure that the superfields are either terminated with a NO\_MORE SUFI, or an ACK SUFI.

PDU Name : MAC\_AMD\_PDU

PCO Type : DSAP

Encoding Rule Name: Encoding Variation:

Comments : Acknowledged mode RLC PDU with 7 bit length indicators. Ref 3G TS 25.322 clause 9.2.1.4

Field Name	Field Type	Field Encoding	Comments
dcField	DC_Field		1
seqNum	AM_SeqNum		2
pollingBit	PollingBit		3
headerExt	HeaderExt		4
lenInds	LenInds		5
data	AM_Data		6
piggybackedStatus	MAC_PiggyBackedSTATUS _PDU		7
padding	RLC_Padding		8

**Detailed Comments**: 1. Data / Control field. Always tsc\_DC\_AMDPDU for an AMD\_PDU.

 The sequence number for the PDU. Generally this field contains the value INT\_TO\_BIT( p\_SN, tsc\_AM\_SN\_Size ), where p\_SN is a parameter containing the current AM SN.

- 3. The pollingBit field may take on the values tsc\_P\_Poll, or tsc\_P\_NoPoll.
- If the lenInds field is present, the headerExt field shall be tsc\_HE\_LI\_AndE\_Bit.
   Otherwise, the headerExt field shall be tsc\_HE\_Data.
- The length indicator group for the PDU. If this field present, this must be indicated by the headerExt field.
- The data field contains the data to be sent, or the data expected to be received. Usually this data is created by using either ts\_GetRxAM\_PRBS, or ts\_GetTxAM\_PRBS.
- 7. The piggybackedStatus field is used to transmit or receive a piggybacked STATUS PDU within an RLC PDU. It is the callers responsibility to ensure that there is an LI present indicating that the piggybacked STATUS PDU is present.
- 8. The padding field must be present if the size of the LI group + the data size + the optional piggybacked status PDU is less than the current PU size.

PDU Name : MAC\_PiggyBackedSTATUS\_PDU

PCO Type : DSAP

Encoding Rule Name : Encoding Variation :

Comments : A piggybacked STATUS PDU within an AMD PDU. This type is identical to the STATUS PDU,

except the D/C field is replaced with a reserved bit. Ref 3G TS 25.322 clause 9.2.1.6. If padding is required, the padding field in the PDU containing this piggy–backed STATUS PDU should be

used.

Field Name	Field Type	Field Encoding	Comments
r	BITSTRING[1]		Reserved for future extensions.
type	CtrlPDU_Type		Always tsc_PDU_TypeStatus
superFields	SuperFields		

#### **PDU Type Definition**

PDU Name : MAC\_PDU
PCO Type : DSAP

Encoding Rule Name: DirectEncoding

**Encoding Variation**:

Comments : MAC layer PDU. Ref 3G TS 25.321 clause 9.1.2

Field Name	Field Type	Field Encoding	Comments
tctf	TCTF		1
ueldType	UE_ldType		2
ueld	UE_ld		3
ctField	CT_Field		4
data	PDU		5

**Detailed Comments**: For a detailed description of the semantics and applicability of each of these

fields, see 3G TS 25.321 clause 9.2.1.

1. Target Channel Type Field. Used to indicate which logical channel data should be routed to / from when mapped to RACH / FACH.

UE Id type field. Used to indicate if the UE\_Id field contains a 16 bit C-RNTI or a 32 bit U-RNTI.

3. UE Id field. Contains the C-RNTI or the U-RNTI of the UE that this message is to or from.

4. C/T field. Used to multiplex / demultiplex when more than 1 logical channel of a specific type is mapped to the same transport channel.

5. The RLC PDU to be transmitted or received.

PDU Name : MAC\_PDU\_RCV\_STATUS

PCO Type : DSAP

Encoding Rule Name: DirectEncoding

**Encoding Variation**:

Comments : MAC layer PDU. Ref 3G TS 25.321 clause 9.1.2

Field Name	Field Type	Field Encoding	Comments
tctf	TCTF		1
ueldType	UE_ldType		2
ueld	UE_ld		3
ctField	CT_Field		4
data	RLC_STATUS_PDU		5

**Detailed Comments**: For a detailed description of the semantics and applicability of each of these

fields, see 3G TS 25.321 clause 9.2.1.

1. Target Channel Type Field. Used to indicate which logical channel data should be routed to / from when mapped to RACH / FACH.

UE Id type field. Used to indicate if the UE\_Id field contains a 16 bit C-RNTI or a 32 bit U-RNTI.

3. UE Id field. Contains the C-RNTI or the U-RNTI of the UE that this message is to or from.

4. C/T field. Used to multiplex / demultiplex when more than 1 logical channel of a specific type is mapped to the same transport channel.

5. The RLC PDU to be transmitted or received.

**PDU Name** : MAC\_UMD\_PDU

**PCO Type** : DSAP

Encoding Rule Name: DirectEncoding

**Encoding Variation**:

Comments : Unacknowledged mode RLC PDU. Ref 3G TS 25.322 clause 9.2.1.3

Field Name	Field Type	Field Encoding	Comments
seqNum	UM_SeqNum		1
eBit	ExtBit		2
lenInds	LenInds		3
data	MAC_UM_Data		4
padding	RLC_Padding		5

Detailed Comments: 1. The sequence number for the PDU. Generally this field contains the value

INT\_TO\_BIT( p\_SN, tsc\_UM\_SN\_Size ), where p\_SN is a parameter containing the

current UM SN.

2. If the lenInds field is present, the eBit field shall be tsc\_E\_LI\_AndE\_Bit.

Otherwise, the eBit field shall be tsc\_E\_Data.

3. The length indicator group for the PDU. If this field present, this must be

indicated by the eBit field.

4. The data field contains the data to be sent, or the data expected to be received. Usually this data is created by using either ts\_GetRxUM\_PRBS, or

ts\_GetTxUM\_PRBS.

5. The padding field must be present if the size of the LI group + the data

size is less than the current payload size.

#### **PDU Type Definition**

**PDU Name** : AUTHENTICATION\_AND\_CIPHERING\_FAILURE

**PCO Type** : Dc\_SAP

**Encoding Rule Name: Encoding Variation**:

Comments : 3GPP 24.008 V3.6.0 clause 9.4.10a (GMM message)

Field Name	Field Type	Field Encoding	Comments
skipIndicator	SkipIndicator		Skip Indicator M BITSTRING [4]
gMMProtocolDiscriminator	ProtocolDiscriminator		GMM Protocol Discriminator  M  BITSTRING (4)
msgType	MsgType		BITSTRING [4] '0001 1100'B M BITSTRING [8]
gmmCause	RejCau		M 1 octet
authFailurePar	AuthenticationFailureParame ter		O TLV, 16 octets

PDU Name : ACTIVATEPDPCONTEXTREQUESTul

PCO Type : Dc\_SAP

Encoding Rule Name: Encoding Variation:

Comments : Activate PDP Context Request

ue -> n

3GPP 24.008 clause, 9.5.1

Field Name	Field Type	Field Encoding	Comments
i	ТІ		transaction identifier M BITSTRING [4]
sM_ProtocolDiscriminator	ProtocolDiscriminator		protocol discriminator M BITSTRING [4]
msgType	MsgType		message type M BITSTRING [8]
requestedNSAPI	NSAPI_v		Network service access point identifier M V BITSTRING [8]
requestedLLC_SAPI	LLC_SAPI_v		LLC service access point identifier M V BITSTRING [8]
requestedQoS	QualityOfService_lv		Quality of service M LV OCTETSTRING [13–15]
pDP_Address	PktDataProtoAddr_Iv		Packet data protocol address M LV OCTETSTRING [3–19]
accessPtName	AccessPtName		Access point name O TLV OCTETSTRING [3–102]
protocolConfOpts	ProtoCfgOpt		Protocol configuration options O TLV OCTETSTRING [3–253]

PDU Name : ACTIVATERBTESTMODE

PCO Type : Dc\_SAP

Encoding Rule Name : Encoding Variation :

Comments : ACTIVATE RB TEST MODE n -> ue 3G TS 34.109 V3.0.0 cl. 6.6

Field Name	Field Type	Field Encoding	Comments
skipIndicator	SkipIndicator		Skip Indicator M BITSTRING [4]
tCProtocolDiscriminator	ProtocolDiscriminator		TC Protocol Discriminator M BITSTRING [4]
msgType	MsgType		Message Type M BITSTRING [8]

**Detailed Comments:** 

**PDU Type Definition** 

PDU Name : ACTIVATERBTESTMODECOMPLETE

PCO Type : Dc\_SAP

Encoding Rule Name: Encoding Variation:

Comments : ACTIVATE RB TEST MODE COMPLETE ue -> n 3G TS 34.109 V3.0.0 cl. 6.7

Field Name	Field Type	Field Encoding	Comments
skipIndicator	SkipIndicator		Skip Indicator M BITSTRING [4]
tCProtocolDiscriminator	ProtocolDiscriminator		TC Protocol Discriminator M BITSTRING [4]
msgType	MsgType		Message Type M BITSTRING [8]

PDU Name : ATTACHACCEPT

PCO Type : Dc\_SAP

Encoding Rule Name: Encoding Variation:

Comments : 3GPP 24.008 V3.6.0 clause 9.4.2 (GMM message)

Field Name	Field Type	Field Encoding	Comments
skipIndicator	SkipIndicator		Skip Indicator
			M BITSTRING [4]
gMMProtocolDiscriminator	ProtocolDiscriminator		GMM Protocol Discriminator
			M BITSTRING [4]
msgType	MsgType		Message Type
			M BITSTRING [8]
forceToStandby	ForceToStandby		M
,	,		1/2 octet
attachResult	AttachResult		M
a a si a dia D.A a data Tira a a	ODDO Timos u		1/2 octet
periodicRAupdateTimer	GPRS_Timer_v		M 1 octet
radioPrioTOM8	RadioPriority2_v		M
			1/2 octet
radioPrioSMS	RadioPriority_v		M 1/2 octet
rai	RAI_v		Routing Area Identification
iai	IXAI_V		M
			6 octets
ptmsiSignature	PTMSI_Signature		O 4 cototo
negReadyTimer	GPRS_Timer		4 octets O
negriceady rimer	Of No_filler		2 octets
allocatedPTMSI	GMM_MS_IdentityPTMSI		0
			7 octets
msIdentity	GMM_MS_Identity		O 7–10 octets
gmmCause	GMM_Cause		0
g			2 octets
t3302Value	GPRS_Timer2		O TLV
a a III la tifica tia a	CallNatification		3 octets
cellNotification	CellNotification		O 1 octet
equivalentPLMN	PLMN_List		0
•			5–17 octets
ntwFeatureSupport	NtwFeatureSupport_tv		O TV
emergNumList	EmergNumList		1 octet O TLV
Cindigitalinest	Linergivanicist		5–50 octets
Detailed Comments :		•	

PDU Name : ATTACHCOMPLETE

PCO Type : Dc\_SAP

Encoding Rule Name: Encoding Variation:

Comments : 3GPP 24.008 V3.6.0 clause 9.4.3 (GMM message)

Field Name	Field Type	Field Encoding	Comments
skipIndicator	SkipIndicator		Skip Indicator M BITSTRING [4]
gMMProtocolDiscriminator	ProtocolDiscriminator		MM Protocol Discriminator M BITSTRING [4]
msgType	MsgType		'0000 0011'B M BITSTRING [8]

**Detailed Comments:** 

**PDU Type Definition** 

PDU Name : ATTACHREJECT

PCO Type : Dc\_SAP

Encoding Rule Name : Encoding Variation :

Comments : 3GPP 24.008 V3.6.0 clause 9.4.4 (GMM message)

Field Name	Field Type	Field Encoding	Comments
skipIndicator	SkipIndicator		Skip Indicator M BITSTRING [4]
gMMProtocolDiscriminator	ProtocolDiscriminator		GMM Protocol Discriminator '1000' M BITSTRING [4]
msgType	MsgType		Message Type '0000 0100' M BITSTRING [8]
gmmCause	RejCau		M 1 octet
t3302Value	GPRS_Timer2		O, TLV 3 octets
Detailed Comments :			

PDU Name : ATTACHREQUEST

PCO Type : Dc\_SAP

Encoding Rule Name: Encoding Variation:

Comments : 3GPP 24.008 V3.6.0 clause 9.4.1 (GMM message)

Field Name	Field Type	Field Encoding	Comments
skipIndicator	SkipIndicator		Skip Indicator M BITSTRING [4]
gMMProtocolDiscriminator	ProtocolDiscriminator		GMM Protocol Discriminator '1000' M BITSTRING [4]
msgType	MsgType		Message Type '0000 0001' M BITSTRING [8]
msNetworkCap	MS_NetworkCap_lv		MS network capability M 3–9 octets
gprsCiphKeySeqNo	CiphKeySeqNum		Ciphering key sequence number M BITSTRING[4]
attachType	AttachType		Attach Type M BITSTRING [4]
drxParameter	DRXparamter		M 2 octets
ptmsiORimsi	MS_Identity_lv		Mobile Identity M 6–9 octets
oldRAI	RAI_v		Routing Area Identification M 6 octets
msRadioAccessCap	MSRadioAccessCap_lv		M 6–52 octets
oldPTMSI_Signature	PTMSI_Signature		O 4 octets
readyTimer	GPRS_Timer		O 2 octets
tmsiStatus	TMSI_Status		O 1 octet
pS_LCS_Capability	PS_LCS_Capability		O TLV 3 octets
Detailed Comments :			

PDU Name : AUTHENTICATIONANDCIPHERINGREQUEST

PCO Type : Dc\_SAP

Encoding Rule Name : Encoding Variation :

Comments : 3GPP 24.008 V3.6.0 clause 9.4.9 (GMM message)

Field Name	Field Type	Field Encoding	Comments
skipIndicator	SkipIndicator		Skip Indicator M BITSTRING [4]
gMMProtocolDiscriminator	ProtocolDiscriminator		GMM Protocol Discriminator
msgType	MsgType		M BITSTRING [4] '0001 0010'B
			M BITSTRING [8]
imeisvReq	IMEISVRequest		M BITSTRING[4]
ciphAlgorithm	CiphAlgorithm		Ciphering algorithm M BITSTRING[4]
acRefNo	AC_ReferenceNumber		M BITSTRING [4]
forceToStandby	ForceToStandby		M BITSTRING [4]
authRand	AuthenticationParamterRAN D		O, TV 17 octets
gprsCiphKeySeqNo	CiphKeySeqNum_tv		Ciphering key sequence number O, TV, 1
aUTN	GMM_AUTN		Auth. parameter AUTN O, TLV, 18 octets

PDU Name : AUTHENTICATIONANDCIPHERINGRESPONSE

PCO Type : Dc\_SAP

Encoding Rule Name : Encoding Variation :

Comments : 3GPP 24.008 V3.6.0 clause 9.4.10 (GMM message)

Field Name	Field Type	Field Encoding	Comments
skipIndicator	SkipIndicator		Skip Indicator M BITSTRING [4]
gMMProtocolDiscriminator	ProtocolDiscriminator		GMM Protocol Discriminator
msgType	MsgType		M BITSTRING [4] '0001 0011'B M BITSTRING [8]
spare4	B4		
acRefNo	AC_ReferenceNumber		M BITSTRING [4]
authRsp	AuthRsp_tv		O, TV 5 octets
imeisv	GMM_MS_Identity		O TLV, 11 octets
authRspExt	AuthRspExt		O TLV, 3–14 octets
Detailed Comments :	•		

PDU Name : AUTHENTICATIONFAILURE

PCO Type : Dc\_SAP

Encoding Rule Name: Encoding Variation:

Comments : MM AUTHENTICATION FAILURE ue -> n

3G TS 24.008 V3.4.0 cl. 9.2.3a

Field Name	Field Type	Field Encoding	Comments
skipIndicator	SkipIndicator		Skip Indicator M BITSTRING [4]
mMProtocolDiscriminator	ProtocolDiscriminator		MM Protocol Discriminator M BITSTRING [4]
msgType	MsgType		Message Type (1) M BITSTRING [8]
rejCau	RejCau		Reject Cause M BITSTRING [8]
authFailParam	AuthenticationFailureParame ter		Authentication Failure Paramter O AuthFail (128 bits)

Detailed Comments: (1) (see 3G TS 24.008 cl. 10.4) In messages sent from the MS,

for core network nodes earlier than R99:

bit 8 shall be set to 0 and bit 7 is reserved for the send sequence number;

for core network nodes of R99 or later:

bits 7 and 8 are reserved for the send sequence number.

PDU Name : AUTHENTICATIONREQUEST

PCO Type : Dc\_SAP

Encoding Rule Name: Encoding Variation:

**Comments** : MM AUTHENTICATION REQUEST n -> ms

3G TS 24.008 V3.4.0 cl. 9.2.2

Field Name	Field Type	Field Encoding	Comments
skipIndicator	SkipIndicator		Skip Indicator M BITSTRING [4]
mMProtocolDiscriminator	ProtocolDiscriminator		MM Protocol Discriminator M BITSTRING [4]
msgType	MsgType		Message Type M BITSTRING [8]
spare4	B4		Spare half octet M BITSTRING [4]
ciphKeySeqNum	CiphKeySeqNum		Ciphering Key Sequence Number M BITSTRING [4]
rAND	MM_RAND		Auth. parameter RAND M BITSTRING [128]
aUTN	AUTN		Auth. parameter AUTN O AUTN

Detailed Comments: (1) In messages sent from the network bits 7 and 8 are "0" (see 3G TS 24.008 cl. 10.4).

PDU Name : AUTHENTICATIONRESPONSE

PCO Type : Dc\_SAP

Encoding Rule Name : Encoding Variation :

**Comments**: MM AUTHENTICATION RESPONSE ue -> n

3G TS 24.008 V3.4.0 cl. 9.2.2

Field Name	Field Type	Field Encoding	Comments
skipIndicator	SkipIndicator		Skip Indicator M BITSTRING [4]
mMProtocolDiscriminator	ProtocolDiscriminator		MM Protocol Discriminator M BITSTRING [4]
msgType	MsgType		Message Type (1) M BITSTRING [8]
authRsp	AuthRsp		Authentication Response M OCTETSTRING [4]
authRspExt	AuthRspExt		Authentication Response Extension O AuthRspExt (3–14 octets)

**Detailed Comments**: (1) (see 3G TS 24.008 cl. 10.4) In messages sent from the MS,

for core network nodes earlier than R99:

bit 8 shall be set to 0 and bit 7 is reserved for the send sequence number;

for core network nodes of R99 or later:

bits 7 and 8 are reserved for the send sequence number.

# **PDU Type Definition**

PDU Name : CLOSEUETESTLOOP

PCO Type : Dc\_SAP

Encoding Rule Name: Encoding Variation:

Comments : CLOSE UE TEST LOOP n -> ue 3G TS 34.109 V3.0.0 cl. 6.2

Field Type	Field Encoding	Comments
SkipIndicator		Skip Indicator M BITSTRING [4]
ProtocolDiscriminator		TC Protocol Discriminator M BITSTRING [4]
MsgType		Message Type M BITSTRING [8]
UE_TestLoopMode		UE test loop mode M UE_TestLoopMode
UE_TestLoopMode1LB_Set up		UE test loop mode 1 LB setup C UE_TestLoopMode1LB_Set up
	SkipIndicator  ProtocolDiscriminator  MsgType  UE_TestLoopMode  UE_TestLoopMode1LB_Set	SkipIndicator  ProtocolDiscriminator  MsgType  UE_TestLoopMode  UE_TestLoopMode1LB_Set

PDU Name : CLOSEUETESTLOOPCOMPLETE

PCO Type : Dc\_SAP

Encoding Rule Name : Encoding Variation :

 $\hbox{\bf Comments} \qquad : \ \hbox{\bf CLOSE UE TEST LOOP ue} \ -> n \ 3G \ \hbox{\bf TS} \ 34.109 \ \hbox{\bf V} 3.0.0 \ \ \hbox{\bf cl.} \ 6.3$ 

Skip Indicator M BITSTRING
[4]
TC Protocol Discriminator M BITSTRING [4]
Message Type M BITSTRING [8]

**Detailed Comments:** 

# **PDU Type Definition**

PDU Name : DEACTIVATEPDPCONTEXTREQUEST

PCO Type : Dc\_SAP

Encoding Rule Name: Encoding Variation:

Comments : Deactivate PDP Context Request

n <=> ue 24.008, 9.5.14

Field Name	Field Type	Field Encoding	Comments
ti	ТІ		transaction identifier M BITSTRING [4]
sM_ProtocolDiscriminator	ProtocolDiscriminator		protocol discriminator M BITSTRING [4]
msgType	MsgType		message type M BITSTRING [8]
sM_Cause	SM_Cause_v		SM cause M V OCTETSTRING [1]
tearDwnInd	TearDwnInd_tv		Tear down indicator O TV BITSTRING [8]
protocolConfOpts	ProtoCfgOpt		Protocol configuration options O TLV OCTETSTRING [3–253]

PDU Name : DEACTIVATERBTESTMODE

PCO Type : Dc\_SAP

**Encoding Rule Name: Encoding Variation**:

: DEACTIVATE RB TEST MODE n -> ue 3G TS 34.109 V3.0.0 cl. 6.8 Comments

Field Name	Field Type	Field Encoding	Comments
skipIndicator	SkipIndicator		Skip Indicator M BITSTRING [4]
tCProtocolDiscriminator	ProtocolDiscriminator		TC Protocol Discriminator M BITSTRING [4]
msgType	MsgType		Message Type M BITSTRING [8]

**Detailed Comments:** 

**PDU Type Definition** 

**PDU Name** : DEACTIVATERBTESTMODECOMPLETE

PCO Type : Dc\_SAP

**Encoding Rule Name: Encoding Variation**:

Comments : DEACTIVATE RB TEST MODE COMPLETE ue -> n 3G TS 34.109 cl. 6.9

Field Name	Field Type	Field Encoding	Comments
skipIndicator	SkipIndicator		Skip Indicator M BITSTRING [4]
tCProtocolDiscriminator	ProtocolDiscriminator		TC Protocol Discriminator M BITSTRING [4]
msgType	MsgType		Message Type M BITSTRING [8]
Detailed Comments :	•		

PDU Name : DETACHREQUESTMO

PCO Type : Dc\_SAP

Encoding Rule Name: Encoding Variation:

Comments : 3GPP 24.008 V3.6.0 clause 9.4.5.2 (Mobile originating detach, GMM message)

Field Name	Field Type	Field Encoding	Comments
skipIndicator	SkipIndicator		Skip Indicator M BITSTRING [4]
gMMProtocolDiscriminator	ProtocolDiscriminator		GMM Protocol Discriminator
			M BITSTRING [4]
msgType	MsgType		Message Type M BITSTRING [8]
spare4	B4		M 1/2 octet
detachType	DetachType		M 1/2 octet
ptmsi	GMM_MS_IdentityPTMSI		O TLV
ptmsiSignature	PTMSI_Signature_tlv		0

PDU Name : LOCATIONUPDATINGACCEPT

PCO Type : Dc\_SAP

Encoding Rule Name: Encoding Variation:

**Comments** : MM LOCATION UPDATING ACCEPT n -> ms

3G TS 24.008 V3.4.0 cl. 9.2.13

Field Name	Field Type	Field Encoding	Comments
skipIndicator	SkipIndicator		Skip Indicator M BITSTRING [4]
mMProtocolDiscriminator	ProtocolDiscriminator		MM Protocol Discriminator M BITSTRING [4]
msgType	MsgType		Message Type (1) M BITSTRING [8]
locAreald	LocAreald_v		Location Area Id. V M LocAreald_v (5 octets)
mobileId	MM_MS_Identity		Mobile Identity O MobileId (3–11 octets)
followOnProceed	FollowOnProceed		Follow on proceed O BITSTRING [8]
cTSPerm	CTSPerm		CTS Permission O BITSTRING [8]
equivalentPLMN	PLMN_List		O 17 octets
emergNumList	EmergNumList		O TLV 5–50 octets
Detailed Comments : (1) In	messages sent from the network	bits 7 and 8 are "0" (see 3G TS	24.008 cl. 10.4) .

PDU Name : LOCATIONUPDATINGREQUEST

PCO Type : Dc\_SAP

Encoding Rule Name: Encoding Variation:

Comments : MM LOCATION UPDATING REQUEST ue -> n

3G TS 24.008 V3.4.0 cl. 9.2.15

Field Name	Field Type	Field Encoding	Comments
skipIndicator	SkipIndicator		Skip Indicator M BITSTRING [4]
mMProtocolDiscriminator	ProtocolDiscriminator		MM Protocol Discriminator M BITSTRING [4]
msgType	MsgType		Message Type (1) M BITSTRING [8]
ciphKeySeqNum	CiphKeySeqNum		Ciphering Key Sequence Number M BITSTRING [4]
locUpdType	LocUpdType		Location Updating Type M BITSTRING [4]
locAreald	LocAreald_v		Location Area Id. V M LocAreald (5 octets)
mSClsmk1	MS_Clsmk1		Mobile Station Classmark 1 M MSClsmk1 (1 octets)
mobileId	MS_Identity_lv		Mobile Identity LV M MobileId (2–9 octets)
mSClsmk2	MS_Clsmk2		Mobile Station Classmark 2 TLV O MSCIsmk2 (5 octets)

Detailed Comments: (1) (see 3G TS 24.008 cl. 10.4) In messages sent from the UE,

for core network nodes earlier than R99:

bit 8 shall be set to 0 and bit 7 is reserved for the send sequence number;

for core network nodes of R99 or later:

bits 7 and 8 are reserved for the send sequence number.

PDU Name : PAGINGRESPONSE

PCO Type : Dc\_SAP

Encoding Rule Name:
Encoding Variation:

**Comments** : PAGINGRESPONSE ue -> n

GSM 04.18 cl. 9.1.25

Field Name	Field Type	Field Encoding	Comments
skipIndicator	SkipIndicator		Skip Indicator M BITSTRING [4]
rRProtocolDiscriminator	ProtocolDiscriminator		RR Protocol Discriminator M BITSTRING [4]
msgType	MsgType		Message Type (1) M BITSTRING [8]
spare4	B4		Spare half octet M BITSTRING [4]
ciphKeySeqNum	CiphKeySeqNum		Ciphering Key Sequence Number M BITSTRING [4]
mSClsmk2	MS_Clsmk2_lv		Mobile Station Classmark 2 M MSClsmk2 (4 octets)
mobileId	MS_Identity_lv		Mobile Identity LV M MobileId (2–10 octets)

 $\textbf{Detailed Comments} \hspace{0.1cm} \textbf{:} \hspace{0.1cm} \textbf{(1) (see 3G TS 24.008 cl. 10.4) In messages sent from the UE,} \\$ 

for core network nodes earlier than R99:

bit 8 shall be set to 0 and bit 7 is reserved for the send sequencenumber;

for core network nodes of R99 or later:

bits 7 and 8 are reserved for the send sequence number.

(2) (see 3G TS 24.008 cl. 4.5.1.3.3) The UE shall respond with the PAGING RESPONSE message defined in GSM 04.18, chapter 9.1.25. For reasons of backward compatibility the paging response

shall use the RR protocol discriminator.

PDU Name : ROUTINGAREAUPDATEREQUEST

PCO Type : Dc\_SAP

Encoding Rule Name: Encoding Variation:

Comments : 3GPP 24.008 V3.6.0 clause 9.4.14 (GMM message)

Field Name	Field Type	Field Encoding	Comments
skipIndicator	SkipIndicator		Skip Indicator M BITSTRING [4]
gMMProtocolDiscriminator	ProtocolDiscriminator		GMM Protocol Discriminator '1000' M BITSTRING [4]
msgType	MsgType		Message Type '0000 1000' M BITSTRING [8]
gprsCiphKeySeqNo	CiphKeySeqNum		Ciphering key sequence number M BITSTRING[4]
updateType	UpdateType_v		Update Type M BITSTRING [4]
oldRAI	RAI_v		Routing Area Identification M 6 octets
msRadioAccessCap	MSRadioAccessCap_lv		M 6–52 octets
oldPTMSI_Signature	PTMSI_Signature		O 4 octets
readyTimer	GPRS_Timer		O 2 octets
drxParameter	DRXparamter_tv		O, TV 3 octets
tmsiStatus	TMSI_Status		O 1 octet
ptmsi	GMM_MS_IdentityPTMSI		O, TLV 7 octets
msnetworkcap	MS_NetworkCap_tlv		MS network capability O, TLV 4–10 octets
pDP_ContextStatus	PDP_ContextStatus		O 4 octets
pS_LCS_Capability	PS_LCS_Capability		O TLV

PDU Name : SERVICEREQUEST

PCO Type : Dc\_SAP

Encoding Rule Name: Encoding Variation:

Comments : 3GPP 24.008 V3.6.0 clause 9.4.20 (GMM message)

Field Name	Field Type	Field Encoding	Comments
skipIndicator	SkipIndicator		Skip Indicator M BITSTRING [4]
gMMProtocolDiscriminator	ProtocolDiscriminator		GMM Protocol Discriminator
			M BITSTRING [4]
msgType	MsgType		Message Type M BITSTRING [8]
serviceType	ServiceType_v		Service type M BITSTRING[4]
ciphKeySeqNo	CiphKeySeqNum		Ciphering key sequence number M BITSTRING[4]
ptmsi	MS_Identity_Iv		Mobile Identity M 6 octets
pDP_ContextStatus	PDP_ContextStatus		O 4 octets
Detailed Comments :			

**PDU Name** : SETUPul PCO Type : Dc\_SAP

**Encoding Rule Name: Encoding Variation**:

: CC SETUP n <- ue 3G TS 24.008 cl. 9.3.23.2 Comments

Field Name	Field Type	Field Encoding	Comments
ti	TI		transaction identifier M BITSTRING [4]
cC_ProtocolDiscriminator	ProtocolDiscriminator		CC protocol discriminator M
msgType	MsgType		BITSTRING [4] message type (1) M
			BITSTRING [8]
repeatInd	RepeatInd		repeat indicator C
			BITSTRING[8]
bcap1	Bcap		Bearer capability M
			OCTETSTRING [316]
bcap2	Bcap		Bearer capability O
			OCTETSTRING [316]
facility	Facility		facility O
cgps	CGPS		calling party subaddr. O OCTETSTRING [223]
cdpn	CDPN		called party number M
			OCTETSTRING[343]
cdps	CDPS		called party subaddr. O OCTETSTRING [223]
llcRepeatInd	RepeatInd		LLC repeat indicator O OCTETSTRING [1]
IIc1	LLC		low layer compatib.1 O OCTETSTRING [218]
Ilc2	LLC		low layer compatib.2 O OCTETSTRING [218]
hlcRepeatInd	RepeatInd		HLC repeat indicator O OCTETSTRING [1]
hlc1	HLC		high layer compat.1 O OCTETSTRING [25]
hlc2	HLC		high layer compat. 2 O OCTETSTRING [25]
userUser	UserUser		user-user O
sS_VersionInd	SS_VersionInd		OCTETSTRING [3131] SS version indicator ue -> n O
cLIR_Suppression	CLIR_Suppression		OCTETSTRING [23] CLIR suppression C OCTETSTRING[1]

Continued on next page

PDU Type Definition				
Field Name	Field Type	Field Encoding	Comments	
cLIR_Invocation	CLIR_Invocation		CLIR invocation O OCTETSTRING[1]	
cC_Capabilities	CC_Capabilities		cc capabilities O OCTETSTRING[3]	
facilityCCBS_AdvRecall	Facility		facility for CCBS (advanced recall alignemet) O	
facilityCCBS_RecallAlign	Facility		facility for CCBS (recall alignement not essential) O	
streamld	StreamId		stream identifier O OCTETSTRING[3]	
supportedCodecs	CodecList		supported codecs O OCTETSTRING[5-n]	

**Detailed Comments**: (1) bits 7 and 8 are 0 and send sequence number for earlier than R99 resp. a 2bit send sequence number for R99 or later (see 3G TS 24.008 cl. 10.4)

# **PDU Type Definition**

PDU Name : STATUS\_PDU

PCO Type : DSAP

**Encoding Rule Name:** Encoding Variation:

Comments : An AMD STATUS PDU. Ref 3G TS 25.322 clause 9.2.1.5

Field Name	Field Type	Field Encoding	Comments
dC_Field	DC_Field		1
type	CtrlPDU_Type		2
superFieldsTx	SuperFields		3
superFieldsAndPadRx	HEXSTRING		4
paddingTx	Padding		5

**Detailed Comments**: 1. Always tsc\_DC\_ControlPDU for a STATUS PDU.

2. Always tsc\_PDU\_TypeStatus for a STATUS PDU.

3. The superfields transmitted in the STATUS PDU.

4. The superfields and padding to be received in the STATUS PDU.

5. The padding transmitted must be present to ensure that the total size of this PDU is exactly equal to the current PDU size. It is the callers responsibility to ensure that the superfields are either terminated with a NO\_MORE SUFI, or an ACK SUFI.

PDU Name : TMSIREALLOCATIONCOMPLETE

PCO Type : Dc\_SAP

Encoding Rule Name : Encoding Variation :

Comments : MM TMSI REALLOCATION COMPLETE ue -> n

3G TS 24.008 V3.4.0 cl. 9.2.18

Field Name	Field Type	Field Encoding	Comments
skipIndicator	SkipIndicator		Skip Indicator M BITSTRING [4]
mMProtocolDiscriminator	ProtocolDiscriminator		MM Protocol Discriminator M BITSTRING [4]
msgType	MsgType		Message Type (1) M BITSTRING [8]

Detailed Comments: (1) (see 3G TS 24.008 cl. 10.4) In messages sent from the UE,

for core network nodes earlier than R99:

bit 8 shall be set to 0 and bit 7 is reserved for the send sequence number;

for core network nodes of R99 or later:

bits 7 and 8 are reserved for the send sequence number.

**PDU Type Definition** 

PDU Name : TrD\_PDU
PCO Type : DSAP
Encoding Rule Name : OctetUnaligned

Encoding Variation :

Comments : Transparent mode RLC PDU. Ref 3G TS 25.322 clause 9.2.1.2

Field Name	Field Type	Field Encoding	Comments
data	BITSTRING		

**Detailed Comments:** 

**ASN.1 PDU Type Definition** 

PDU Name : Invalid\_DL\_CCCH\_Message

PCO Type : DSAP

Encoding Rule Name: PER\_Unaligned

Encoding Variation : Comments :

**Type Definition** 

SEQUENCE {

integrityCheckInfo IntegrityCheckInfo OPTIONAL,

message Invalid\_DL\_CCCH\_MsgType

}

#### **ASN.1 PDU Type Definition**

PDU Name : Invalid\_DL\_DCCH\_Message

PCO Type : DSAP

Encoding Rule Name: PER\_Unaligned

Encoding Variation : Comments :

#### **Type Definition**

SEQUENCE {

integrityCheckInfo [0] IntegrityCheckInfo OPTIONAL,

message [1] Invalid\_DL\_DCCH\_MsgType

**Detailed Comments:** 

### **ASN.1 PDU Type Definition**

PDU Name : Invalid\_DL\_SHCCH\_Message

PCO Type : DSAP

Encoding Rule Name: PER\_Unaligned

Encoding Variation : Comments :

#### Type Definition

SEQUENCE {

message Invalid\_DL\_SHCCH\_MsgType

**Detailed Comments:** 

	ASN.1 PDU Type Definitions By Reference					
PDU Name	PCO Type	Type Reference	Module Identifie	Enc Rule	Enc Variation	Comments
BCCH_BCH_ Message	DSAP	BCCH-BCH- Message	Class-definitio	PER_Unaligne d		
BCCH_FACH_ Message	DSAP	BCCH-FACH -Message	Class-definitio	PER_Unaligne d		
DL_CCCH_Me ssage	DSAP	DL-CCCH-M essage	Class-definitio	PER_Unaligne d		
DL_DCCH_Me ssage	DSAP	DL-DCCH-M essage	Class-definitio	PER_Unaligne d		
DL_SHCCH_ Message	DSAP	DL-SHCCH- Message	Class-definitio	PER_Unaligne d		
PCCH_Messag e	DSAP	PCCH-Messa ge	Class-definitio	PER_Unaligne d		
UL_CCCH_Me ssage	DSAP	UL-CCCH-M essage	Class-definitio	PER_Unaligne d		
UL_DCCH_Me ssage	DSAP	UL-DCCH-M essage	Class-definitio	PER_Unaligne d		
UL_SHCCH_ Message	DSAP	UL-SHCCH- Message	Class-definitio	PER_Unaligne d		
Detailed Comme	ents:					

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Alias Definitions		
Alias Name	Expansion	Comments
TxMAC	RLC_TR_TestDataReq	This alias is used to transmit a MAC PDU. Note that MAC PDUs are sent using the RLC Tr PCO, on a logical channel mapped to a transport channel operating in a special MAC mode that will not add any MAC header information. This means that the entire MAC PDU can be specified within the TTCN. This is described in detail in 34.123–3, clause (TBD?) (MAC test method).
RxMAC	RLC_TR_TestDataInd	This alias is used to receive a MAC PDU. Note that MAC PDUs are received using the RLC Tr PCO, on a logical channel mapped to a transport channel operating in a special MAC mode that will not remove any MAC header information. This means that the entire MAC PDU can be inspected by the TTCN. This is described in detail in 34.123–3, clause (TBD?) (MAC test method).
RxStatus	RLC_TR_TestDataInd	This alias is used to receive an AM STATUS PDU. Note that AM PDUs are received using the Tr PCO, so that the RLC PDU can be specified within the TTCN. This is described in detail in 34.123–3, clause 6.5 (RLC test method).

# III Constraints Part

Constraint Name : cr\_SUFI\_Params(p\_lb, p\_ub: AM\_SeqNum; p\_wsnpres, p\_mrwpres: BOOLEAN; p\_nack\_1,

p\_nack\_2, p\_nack\_3: AM\_SeqNum)

Group :

Structured Type : SUFI\_Params

Derivation Path : Encoding Variation :

Comments: This constraint initializes the list of parameters to be used as input for TSO o\_SUFI\_Handler which

treats a HEXSTRING containing received SUFIs.

Refer to this TSO and the description of the test methodolgy.

Element Name	Element Value	Element Encoding	Comments
LB	p_lb		1
UB	p_ub		1
WSN_presence	p_wsnpres		1
MRW_presence	p_mrwpres		1
Nack1	p_nack_1		1
Nack2	p_nack_2		1
Nack3	p_nack_3		1

Detailed Comments: 1....

#### **Structured Type Constraint Declaration**

Constraint Name : c\_LenInd7AndE\_Bit( p\_LI7:INTEGER; p\_ExtBit: ExtBit )

Group :

Structured Type : LenInd7AndE\_Bit

Derivation Path : Encoding Variation :

**Comments**: This constraint is used to create a 7 bit length indicator followed by an

extension bit.

Parameters:

p\_LI7: An integer containing the required length indicator.

0 <= p\_LI7 <= 127

p\_ExtBit: Used to indicate whether the next octet contains a length inidicator and E bit, or data. p\_ExtBit must be either tsc\_Ll\_AndE\_Bit or tsc\_E\_Data.

Element Name	Element Value	Element Encoding	Comments
lenInd	INT_TO_BIT( p_LI7, 7 )		
extBit	p_ExtBit		

Constraint Name : c\_LIs1\_7BitLI( p\_LI1: INTEGER )

Group :

Structured Type : LenInds

Derivation Path : Encoding Variation :

Comments : This constraint is used to send or receive a length indicator group within a

PDU (AM or UM). This constraint is used when there is exactly one 7 bit LI in

the group.

Parameters: p\_LI1:

An integer representing the first 7 bit length indicator. This parameter is

used within a call to INT\_TO\_BIT, so a value must be provided.

Element Name	Element Value	Element Encoding	Comments
lenInd7_1	c_LenInd7AndE_Bit( p_LI1, tsc_E_Data )		
lenInd7_2	_		
lenInd7_3	_		
lenInd7_4	_		
lenInd7_5	_		
lenInd15_1	_		
lenInd15_2	_		
lenInd15_3	_		
	•	·	•

Constraint Name : c\_Lls2\_7BitLls( p\_Ll1, p\_Ll2: INTEGER )

Group :

Structured Type : LenInds

Derivation Path : Encoding Variation :

**Comments**: This constraint is used to send or receive a length indicator group within a

PDU (AM or UM). This constraint is used when there are exactly two 7 bit LIs

in the group.

Parameters: p\_LI1:

An integer representing the first 7 bit length indicator. This parameter is used within a call to INT\_TO\_BIT, so a value must be provided.

p LI2:

An integer representing the second 7 bit length indicator. This parameter is

used within a call to INT\_TO\_BIT, so a value must be provided.

Element Name	Element Value	Element Encoding	Comments
lenInd7_1	c_LenInd7AndE_Bit( p_LI1, tsc_E_LI_AndE_Bit )		
lenInd7_2	c_LenInd7AndE_Bit( p_LI2, tsc_E_Data )		
lenInd7_3	_		
lenInd7_4	_		
lenInd7_5	_		
lenInd15_1	_		
lenInd15_2	_		
lenInd15_3	_		

**Detailed Comments:** 

**Structured Type Constraint Declaration** 

Constraint Name : cs\_Ack( p\_LSN: INTEGER )

Group

Structured Type : SUFI\_Ack

Derivation Path : Encoding Variation :

**Comments**: An ACK SUFI to be used in SuperFields constraints.

Parameters:

p\_LSN: An integer containing the last sequence number to be acknowledged.

0 <= p\_LSN <= 4095

Padding calculations:

4 half octets

Element Name	Element Value	Element Encoding	Comments
type	tsc_SUFI_Ack		4 bits
Isn	INT_TO_BIT( p_LSN, 12 )		12 bits

Constraint Name : cs\_SF\_Ack( p\_LSN:INTEGER )

Group :

Structured Type : SuperFields

Derivation Path : Encoding Variation :

Comments : This constraint is used to represent a SUFI list within a STATUS PDU that

positively acknowledges all PUs with SN < p\_LSN.

Parameters: p\_LSN:

An integer representing LSN (last sequence number), which acknowledges all PUs with SN < LSN that are NOT indicated to be erroneous in earlier parts of the STATUS PDU. This parameter is used in a call to INT\_TO\_BIT, so a value must be

provided.

Padding calculation:

4 half octets

Element Name	Element Value	Element Encoding	Comments
windowSize	-		
list	-		
rList	-		
bitmap	_		
mRW	-		
mRW_Ack	_		
noMore	_		
ack	cs_Ack( p_LSN )		4 half octets

**Detailed Comments:** 

#### **Structured Type Constraint Declaration**

Constraint Name : c\_AuthFailParamGmmAny

Group

**Structured Type**: AuthenticationFailureParameter

Derivation Path : Encoding Variation : Comments :

Element Name	Element Value	Element Encoding	Comments
iei	'00110000'B		
iel	'0E'O		
auts	?		

Constraint Name : c\_AC\_RefNum3

Group :

Structured Type : AC\_ReferenceNumber

Derivation Path : Encoding Variation : Comments :

Element Name	Element Value	Element Encoding	Comments
value	'0011'B		

**Detailed Comments:** 

## **Structured Type Constraint Declaration**

Constraint Name : c\_AttachTypeAny

Group :

**Structured Type** : AttachType

Derivation Path : Encoding Variation : Comments :

Element Name	Element Value	Element Encoding	Comments
for	?		Follow-on request
type	?		Type of attach

**Detailed Comments:** 

## **Structured Type Constraint Declaration**

Constraint Name : c\_AuthCiphRspExtAny

Group :

Structured Type : AuthRspExt

Derivation Path : Encoding Variation : Comments :

Element Name	Element Value	Element Encoding	Comments
iei	'00101001'B		IEI is 0x29 (see 24.008 / 9.4.10)
iel	?		
rES	?		

Constraint Name : c\_AuthFailParamAny

Group :

Structured Type : AuthenticationFailureParameter

Derivation Path : Encoding Variation : Comments :

Element Name	Element Value	Element Encoding	Comments
iei	'00100010'B		
iel	'0E'O		
auts	?		

**Detailed Comments:** 

# **Structured Type Constraint Declaration**

Constraint Name : c\_AuthRspAny\_tv

Group :

Structured Type : AuthRsp\_tv

Derivation Path : Encoding Variation : Comments :

Element Name	Element Value	Element Encoding	Comments
iei	'00100010'B		'00100010'B (22 hex)
value	?		Authentication Parameter RES

**Detailed Comments:** 

#### **Structured Type Constraint Declaration**

Constraint Name : c\_AuthRspExtAny

Group :

Structured Type : AuthRspExt

Derivation Path : Encoding Variation : Comments :

Element Name	Element Value	Element Encoding	Comments	
iei	'00100001'B		'00100001'B	
iel	?			
rES	?			
Detail 10				

Constraint Name : c\_AUTN(p\_AUTN: BITSTRING)

Group :
Structured Type : AUTN
Derivation Path :

**Encoding Variation:** 

Comments : Authentication Parameter AUTN

3G TS 24.008 cl. 10.5.3.1.1

Element Name	Element Value	Element Encoding	Comments
iei	'00100000'B		
iel	'10'O		Length of 16 octets
aUTN	p_AUTN		value of Authentication Parameter AUTN

**Detailed Comments:** 

## **Structured Type Constraint Declaration**

Constraint Name : c\_CellIndInfoDef

Group :

•

Structured Type : CellIndependantInfo

Derivation Path : Encoding Variation : Comments

Element Name	Element Value	Element Encoding	Comments
cs_cipheringStarted	FALSE		
ps_cipheringStarted	FALSE		
recentSecureDomain	cs_domain		the domain on which security was recently started, and hence the SRB are ciphered and Integrit protected with this domain.
dL_CipherMode	cs_Null_CipheringModeCom mand		
uL_CipherMode	-		
cipheringAlgorithmCapability	'000000000000011'B		
integrityStarted	FALSE		
dL_Integrity	cs_IntegrityProtectStart ( px_FRESH )		
uL_Integrity	-		
dl_IntegrityCheckInfo	-		
start_CS	'00000000000000000000'B		Default new key
start_PS	'0000000000000000000'B		Default new key

**Constraint Name** 

: c\_CellInfoDef (p\_CellId : INTEGER; p\_priScrmCode : PrimaryScramblingCode; p\_URA\_ld : BITSTRING; p\_tCell : Tcell; p\_sfnOffset : INTEGER; p\_FreqInfo : FrequencyInfo; p\_UL\_ScramblingCode : UL\_ScramblingCode )

Group

**Structured Type** : CellInfoCfg

**Derivation Path Encoding Variation:** Comments

Element Name	Element Value	Element Encoding	Comments
cellId	p_CellId		
frequencyInfo	p_FreqInfo		
attenuationLevel	tsc_AttenuationServingCell		
priScrmCode	p_priScrmCode		
powerpCPICH	tsc_PowerpCPICH		
powerpSCH	tsc_PowerpSCH		
powersSCH	tsc_PowersSCH		
powerpCCPCH	tsc_PowerpCCPCH		
powersCCPCH	tsc_PowersCCPCH1		
powersCCPCH1	tsc_PowersCCPCH1		
timingsCCPCH1	tsc_TimingsCCPCH1		
powerAICH	tsc_PowerAICH		
powerPICH	tsc_PowerPICH		
cellTxPowerLevel	defaultCellTxPowerLvI : NULL		
tCell	p_tCell		
sfnOffset	p_sfnOffset		
puncLimit	tsc_PuncLimit		
sf_PRACH	tsc_PRACH1_SF		
slotFormatsCCPCH1	tsc_SlotFormatsCCPCH1		
mcc	tsc_MCC_Def		
mnc	tsc_MNC_Def		
lac	tsc_LAC_Def		
rac	tsc_RAC_Def		
attFlag	tsc_AttOn		
nmo	tsc_NMO_I		
ura_Identity	p_URA_ld		
t3212	tsc_T3212_Def		
cRNTI	tsc_CRNTI		
uRNTI	c_U_RNTI_Def		
cellConfig	cell_NotConfigured		
dRX_CycleLength	c_DRX_CycleLengthStrucD ef		
uL_ScramblingCode	p_UL_ScramblingCode		
DL_DPCH_SHO	FALSE		
UL_DPCH_SHO	FALSE		
dl_DPCH_2ndScrCode	tsc_DL_DPCH1_2ndScrC		
Detailed Comments :			

 $\begin{tabular}{ll} \textbf{Constraint Name} & : c\_CiphAlgorithm (p\_alg:B3) \\ \end{tabular}$ 

Group :

Structured Type : CiphAlgorithm

Derivation Path : Encoding Variation : Comments :

Element Name	Element Value	Element Encoding	Comments
spare1	'0'B		
algorithm	p_alg		

**Detailed Comments:** 

#### **Structured Type Constraint Declaration**

Constraint Name : c\_CiphKeySeqNum(p\_KeySeq: KeySeq)

Group :

Structured Type : CiphKeySeqNum

Derivation Path : Encoding Variation : Comments :

Element Name	Element Value	Element Encoding	Comments
spare1	'0'B		
keySeq	p_KeySeq		
keySeq	p_KeySeq		

**Detailed Comments:** 

## **Structured Type Constraint Declaration**

Constraint Name : c\_DetachTypeReAttNotRequiredGPRS

Group :

Structured Type : DetachType

Derivation Path : Encoding Variation :

**Comments**: 'normal detach, re-attach not required'

Element Name	Element Value	Element Encoding	Comments
powOff	'0'B		
type	'001'B		

Constraint Name : c\_DRX\_CycleLengthStrucDef

Group :

Structured Type : DRX\_CycleLengthStructure

Derivation Path : Encoding Variation : Comments :

Element Name	Element Value	Element Encoding	Comments
cN_CS_DRX_CycleLength	7		
cN_PS_DRX_CycleLength	7		
uTRAN_DRX_CycleLength	9		

**Detailed Comments:** 

# **Structured Type Constraint Declaration**

**Constraint Name** : c\_DRX\_ParamterAny

Group :

Structured Type : DRXparamter

Derivation Path : Encoding Variation : Comments :

Element Name	Element Value	Element Encoding	Comments
splitPGcycleCode	?		Split PG cycle code
cnDRXcoef	?		CN specific DRX cycle length coefficient
splitOnCCCH	?		Split on CCCCH
nonDRXtimer	?		non-DRX timer

**Detailed Comments:** 

## **Structured Type Constraint Declaration**

Constraint Name : c\_ForceToStandby( p\_val : B3 )

Group :

Structured Type : ForceToStandby

Derivation Path : Encoding Variation : Comments :

Element Name	Element Value	Element Encoding	Comments
spare	'0'B		
value	p_val		

Constraint Name : c\_GMM\_AttachResult( p\_result : B3 )

Group :

Structured Type : AttachResult

Derivation Path : Encoding Variation : Comments :

Element Name	Element Value	Element Encoding	Comments
spare	'0'B		
result	p_result		
	I.		

**Detailed Comments:** 

#### **Structured Type Constraint Declaration**

Constraint Name : c\_GMM\_AuthAUTN (p\_autn : B128)

Group :

Structured Type : GMM\_AUTN

Derivation Path : Encoding Variation : Comments :

Element Name	Element Value	Element Encoding	Comments
iei	'00101000'B		
iel	'10'O		
aUTN	p_autn		

**Detailed Comments:** 

## **Structured Type Constraint Declaration**

Constraint Name : c\_GMM\_AuthRAND (p\_rand : BITSTRING)

Group :

Structured Type : AuthenticationParamterRAND

Derivation Path : Encoding Variation : Comments :

Element Name	Element Value	Element Encoding	Comments
iei	'00100001'B		
randValue	p_rand		

Constraint Name : c\_GMM\_KeySeq\_tv (p\_key : KeySeq )

Group :

Structured Type : CiphKeySeqNum\_tv

Derivation Path : Encoding Variation : Comments :

Element Name	Element Value	Element Encoding	Comments
iei	'1000'B		
spare1	'0'B		
keySeq	p_key		

**Detailed Comments:** 

# **Structured Type Constraint Declaration**

Constraint Name : c\_GMM\_MobileIdTMSI (p\_tmsi : OCTETSTRING)

Group :

Structured Type : GMM\_MS\_Identity

Derivation Path : Encoding Variation :

Comments : Default TMSI

Element Name	Element Value	Element Encoding	Comments
iei	'00100011'B		
iel	'05'O		TMSI consists of 4 octets
iDigit1	'1111'B		special coding for TMSI
oddEvenInd	'0'B		even
typeOfId	'100'B		TMSI
otherDigits	p_tmsi		

**Detailed Comments:** 

## **Structured Type Constraint Declaration**

Constraint Name : c\_GMM\_UpdateType\_v( p\_for : B1; p\_type : B3 )

Group :

Structured Type : UpdateType\_v

Derivation Path : Encoding Variation : Comments :

Element Name	Element Value	Element Encoding	Comments
for	p_for		
value	p_type		

Constraint Name : c\_GPRS\_Timer\_v( p\_unit : B3; p\_value : B5 )

Group

Structured Type : GPRS\_Timer\_v

Derivation Path : Encoding Variation : Comments :

Element Name	Element Value	Element Encoding	Comments
unit	p_unit		
value	p_value		

**Detailed Comments:** 

#### **Structured Type Constraint Declaration**

Constraint Name : c\_GPRS\_TimerAny

Group :

Structured Type : GPRS\_Timer

Derivation Path : Encoding Variation : Comments :

Element Name	Element Value	Element Encoding	Comments
iei	'00010111'B		00010111'B (17 hex)
unit	?		Unit
value	?		Timer value

**Detailed Comments:** 

#### **Structured Type Constraint Declaration**

Constraint Name : c\_LB\_SetupRB\_IE( p\_LB\_Size, p\_RB\_Identity: INTEGER )

Group

Structured Type : LB\_SetupRB\_IE

Derivation Path : Encoding Variation :

Comments : This constraint is used as an LB entry in an LB setup list.

Parameters:

p\_LB\_Size: The uplink RLC SDU size in bits. This value will be represented as a

14 bit value in the LB Setup IE, so the valid range is from 0..16383.

p\_RB\_Identity: The RB Id of the radio bearer that loopback is to be setup for. Valid range is 5..31, since RB 0–4 are used for signalling radio bearers.

Element Name	Element Value	Element Encoding	Comments
rLC_SDU_Size	INT_TO_BIT( p_LB_Size, 16		
	)		
spare_2	'000'B		
rB_Identity	INT_TO_BIT( p_RB_Identity,		
	5)		

Constraint Name : c\_LocAreald\_v(p\_MCC: HEXSTRING; p\_MNC: HEXSTRING; p\_LAC: OCTETSTRING)

Group :

Structured Type : LocAreald\_v

Derivation Path : Encoding Variation : Comments :

Element Name	Element Value	Element Encoding	Comments
plmn	o_ConvtPLMN(p_MCC, p_MNC)		
lac	p_LAC		

**Detailed Comments:** 

## **Structured Type Constraint Declaration**

Constraint Name : c\_LocArealdAny\_v

Group :

Structured Type : LocAreald\_v

Derivation Path : Encoding Variation : Comments :

Element Name	Element Value	Element Encoding	Comments
plmn	?		
lac	?		

**Detailed Comments:** 

#### **Structured Type Constraint Declaration**

Constraint Name : c\_LocUpdTypeAny

Group :

Structured Type : LocUpdType

Derivation Path : Encoding Variation : Comments :

Element Name	Element Value	Element Encoding	Comments	
fOR	?			
spare1	'0'B			
IUT	?			
Detailed Comments .				

Constraint Name : c\_MobileIdAny\_lv

Group :

Structured Type : MS\_Identity\_lv

Derivation Path : Encoding Variation : Comments :

Element Name	Element Value	Element Encoding	Comments
iel	?		
iDigit1	?		
oddEvenInd	?		
typeOfId	?		
otherDigits	?		

\_\_\_\_\_\_

## **Structured Type Constraint Declaration**

Constraint Name : c\_MobileIdPTMSI (p\_ptmsi : O0\_8 )

Group :

Structured Type : GMM\_MS\_IdentityPTMSI

Derivation Path : Encoding Variation : Comments :

Element Name	Element Value	Element Encoding	Comments
iei	'00011000'B		
iel	'05'O		TMSI consists of 4 octets
iDigit1	'1111'B		special coding for TMSI
oddEvenInd	'0'B		even
typeOfld	'100'B		TMSI / P-TMSI
otherDigits	p_ptmsi		

Constraint Name : c\_MobileIdPTMSI\_Any

Group :

Structured Type : GMM\_MS\_IdentityPTMSI

Derivation Path : Encoding Variation : Comments :

Element Name	Element Value	Element Encoding	Comments
iei	'00011000'B		
iel	'05'O		TMSI consists of 4 octets
iDigit1	'1111'B		special coding for TMSI
oddEvenInd	'0'B		even
typeOfld	'100'B		TMSI / P-TMSI
otherDigits	?		Any value

**Detailed Comments:** 

# **Structured Type Constraint Declaration**

Constraint Name : c\_MobileIdPTMSI\_lv (p\_ptmsi : O0\_8)

Group :

Structured Type : MS\_Identity\_lv

Derivation Path : Encoding Variation : Comments :

Element Name	Element Value	Element Encoding	Comments
iel	'05'O	<u> </u>	TMSI consists of 4 octets
iDigit1	'1111'B		special coding for TMSI
oddEvenInd	'0'B		even
typeOfId	'100'B		TMSI / P-TMSI
otherDigits	p_ptmsi		
B . II . I	•		

Constraint Name : c\_MobileIdTMSI\_Def

Group :

Structured Type : MM\_MS\_Identity

Derivation Path : Encoding Variation :

Comments : Default TMSI

Element Name	Element Value	Element Encoding	Comments
iei	'00010111'B		
iel	'05'O		TMSI consists of 4 octets
iDigit1	'1111'B		special coding for TMSI
oddEvenInd	'0'B		even
typeOfld	'100'B		TMSI
otherDigits	px_TMSI_Def		

**Detailed Comments:** 

# **Structured Type Constraint Declaration**

Constraint Name : c\_MobileIdTMSI\_lv

Group :

Structured Type : MS\_Identity\_lv

Derivation Path : Encoding Variation :

Comments : Default TMSI

Element Name	Element Value	Element Encoding	Comments	
iel	'05'O		TMSI consists of 4 octets	
iDigit1	'1111'B		special coding for TMSI	
oddEvenInd	'0'B		even	
typeOfld	'100'B		TMSI	
otherDigits	px_TMSI_Def			
Data il a la Communità	_		<u> </u>	

Constraint Name : c\_MS\_Clsmk1\_Any

Group :

Structured Type : MS\_Clsmk1

Derivation Path : Encoding Variation : Comments :

Element Name	Element Value	Element Encoding	Comments		
spare1	'0'B				
revLvI	?				
eSIND	?				
a5_1	?				
rFPwrCap	?				
Part 11 - 10 amounts					

Detailed Comments :

## **Structured Type Constraint Declaration**

Constraint Name : c\_MS\_Clsmk2\_Any

Group :

Structured Type : MS\_Clsmk2

Derivation Path : Encoding Variation : Comments :

Comments :				
Element Name	Element Value	Element Encoding	Comments	
iei	'00110011'B			
iel	'03'O			
spare1_1	'0'B			
revLvl	?			
eSIND	?			
a5_1	?			
rFPwrCap	?			
spare1_2	'0'B			
pSCap	?			
sSSI	?			
sMCap	?			
vBS	?			
vGCS	?			
fC	?			
cM3	?			
spare1_3	'0'B			
ICSVA	?			
uCS2	?			
soLSA	?			
cMSP	?			
a5_3	?			
a5_2	?			
Detailed Comments :				

Constraint Name : c\_MS\_Clsmk2\_Any\_lv

Group :

Structured Type : MS\_Clsmk2\_lv

Derivation Path : Encoding Variation : Comments :

Element Name	Element Value	Element Encoding	Comments
iel	'03'O		
spare1_1	'0'B		
revLvI	?		
eSIND	?		
a5_1	?		
rFPwrCap	?		
spare1_2	'0'B		
pSCap	?		
sSSI	?		
sMCap	?		
vBS	?		
vGCS	?		
fC	?		
cM3	?		
spare1_3	'0'B		
ICSVA	?		
uCS2	?		
soLSA	?		
cMSP	?		
a5_3	?		
a5_2	?		
Detailed Comments :			

Structured Type Constraint Declaration				
	Ctructured	Tyma	Canatraint	Declaration

Constraint Name : c\_MS\_RadioAccessCapAny\_lv

Group

:

**Structured Type** : MSRadioAccessCap\_lv

Derivation Path : Encoding Variation : Comments :

Element Name	Element Value	Element Encoding	Comments
iel	?		
value	?		MS radio access capability value (CSN.1 coding)
Detailed Comments :			

Constraint Name : c\_PLMN\_List1 (p\_Plmn1 : OCTETSTRING )

Group :

Structured Type : PLMN\_List

Derivation Path : Encoding Variation :

Comments : equivalent PLMN list containing 1 PLMN (OCTETSTRING[3])

Element Name	Element Value	Element Encoding	Comments
iei	'01001010'B		'01001010'B
iel	'03'O		
plmn1	p_Plmn1		PLMN 1
plmn2	-		PLMN 2
plmn3	_		PLMN 3
plmn4	-		PLMN 4
plmn5	_		PLMN 5

**Detailed Comments:** 

**Structured Type Constraint Declaration** 

Constraint Name : c\_PTMSI\_Signature (p\_ptmsi : OCTETSTRING)

Group :

Structured Type : PTMSI\_Signature

Derivation Path : Encoding Variation : Comments :

Element Name	Element Value	Element Encoding	Comments
iei	'00011001'B		
value	p_ptmsi		

**Detailed Comments:** 

**Structured Type Constraint Declaration** 

Constraint Name : c\_PTMSI\_Signature\_tlv (p\_ptmsi : OCTETSTRING)

Group :

Structured Type : PTMSI\_Signature\_tlv

Derivation Path : Encoding Variation : Comments :

Element Name	Element Value	Element Encoding	Comments	
iei	'00011001'B			
iel	'03'O			
value	p_ptmsi			

Constraint Name : c\_PTMSI\_SignatureAny

Group :

Structured Type : PTMSI\_Signature

Derivation Path : Encoding Variation : Comments :

Element Name	Element Value	Element Encoding	Comments
iei	'00011001'B		'00011001'B (19 hex)
value	?		P-TMSI signature value

**Detailed Comments:** 

#### **Structured Type Constraint Declaration**

Constraint Name : c\_RadioPriority(p\_val : B3)

Group :

Structured Type : RadioPriority\_v

Derivation Path : Encoding Variation : Comments :

Element Name	Element Value	Element Encoding	Comments
spare	'0'B		
value	p_val		

**Detailed Comments:** 

## **Structured Type Constraint Declaration**

Constraint Name : c\_RadioPriority2(p\_val : B3)

Group :

Structured Type : RadioPriority2\_v

Derivation Path : Encoding Variation : Comments :

Element Name	Element Value	Element Encoding	Comments
spare	'0'B		
value	p_val		

Constraint Name : c\_RAI\_Any\_v

Group :
Structured Type : RAI\_v

Derivation Path :
Encoding Variation :
Comments :

Element Name	Element Value	Element Encoding	Comments
plmn	?		MCC + MNC 3 digits each
lac	?		LAC
rac	?		RAC

**Detailed Comments:** 

**Structured Type Constraint Declaration** 

 $\textbf{Constraint Name} \quad : \ c\_RAI\_v \ (p\_mcc : HEXSTRING; \ p\_mnc : HEXSTRING; \ p\_lac : OCTETSTRING; \ p\_rac : CTETSTRING; \ p\_rac :$ 

OCTETSTRING)

Group :

**Structured Type** : RAI\_v

Derivation Path : Encoding Variation : Comments :

Element Name	Element Value	Element Encoding	Comments
plmn	o_ConvtPLMN(p_mcc, p_mnc)		
lac	p_lac		
rac	p_rac		

**Detailed Comments:** 

**Structured Type Constraint Declaration** 

Constraint Name : c\_RepeatIndAny

Group :

Structured Type : RepeatInd

Derivation Path : Encoding Variation : Comments :

Element Name	Element Value	Element Encoding	Comments	
iei	'1101'B		'D'H	
repeatInd	?			

**Constraint Name** : c\_ServiceType\_v(p\_type : B3)

Group

Structured Type : ServiceType\_v

Derivation Path : Encoding Variation : Comments :

Element Name	Element Value	Element Encoding	Comments
spare1	'0'B		
type	p_type		

**Detailed Comments:** 

#### **Structured Type Constraint Declaration**

Constraint Name : c\_TMSI\_StatusAny

Group :

Structured Type : TMSI\_Status

Derivation Path : Encoding Variation : Comments :

Element Name	Element Value	Element Encoding	Comments
iei	'1001'B		'1001'B
spare3	'000'B		
flag	?		Flag

Constraint Name : c\_UE\_TestLoopMode1\_LB\_Setup( p\_LB\_Size, p\_RB\_Identity: INTEGER )

Group :

Structured Type : UE\_TestLoopMode1LB\_Setup

Derivation Path : Encoding Variation :

Comments : This constraint is used as a complete UE test loop mode 1 setup IE, with a

single LB entity in the LB setup list.

Parameters:

p\_LB\_Size: The uplink RLC SDU size in bits. This value will be represented as a

14 bit value in the LB Setup IE, so the valid range is from 0..16383.

p\_RB\_Identity: The RB Id of the radio bearer that loopback is to be setup for. Valid range is 5..31, since RB 0–4 are used for signalling radio bearers.

Element Name	Element Value	Element Encoding	Comments
iel	'03'O		
IB_SetupRB_IE1	c_LB_SetupRB_IE( p_LB_Size, p_RB_Identity)		
IB_SetupRB_IE2	_		
IB_SetupRB_IE3	_		
IB_SetupRB_IE4	_		
IB_SetupRB_IE5	_		

**Detailed Comments:** 

#### **Structured Type Constraint Declaration**

Constraint Name : cb\_IMEISV\_Request( p\_value: B3 )

Group :

Structured Type : IMEISVRequest

Derivation Path : Encoding Variation : Comments :

Element Name	Element Value	Element Encoding	Comments	
spare1	'0'B			
value	p_value			

Constraint Name : cr\_AccessPtNameAny

Group :

Structured Type : AccessPtName

Derivation Path : Encoding Variation : Comments :

Element Name	Element Value	Element Encoding	Comments
iei	'00101000'B		
length	?		
accessPtName	?		

**Detailed Comments:** 

# **Structured Type Constraint Declaration**

Constraint Name : cr\_Bcap3aEtcAny

Group :

Structured Type : Bcap3aEtc

Derivation Path : Encoding Variation : Comments :

Element Name	Element Value	Element Encoding	Comments
extBit	?		
coding	?		
spare2	?		
speechVersion	?		

Constraint Name : cr\_BcapAnyMO

Group : Bcap
Structured Type : Bcap
Derivation Path : Encoding Variation :

 $\textbf{Comments} \hspace{1.5cm} : \hspace{.1cm} \text{Any bearer capability for direction n <- ue} \\$ 

Element Name	Element Value	Element Encoding	Comments
iei	'00000100'B		
iel	?		
extBit3	*		
radioChRequi	*		
codingStd	*		
transferMode	*		
itc	*		
bcap3aEtc1	cr_Bcap3aEtcAny IF_PRESENT		
bcap3aEtc2	cr_Bcap3aEtcAny IF_PRESENT		
bcap3aEtc3	cr_Bcap3aEtcAny IF_PRESENT		
bcap3aEtc4	cr_Bcap3aEtcAny IF_PRESENT		
bcap3aEtc5	cr_Bcap3aEtcAny IF_PRESENT		
bcap3aEtc6	cr_Bcap3aEtcAny IF_PRESENT		
extBit4	*		
compress	*		
structure	*		
duplexMode	*		
cfg	*		
nirr	*		
establish	*		
extBit5	*		
accessId	*		
rateAdapt	*		
sacp	*		
extBit5a	*		
OherItc	*		
OtherRateAdapt	*		
spare3	*		
extBit5b	*		
rateAdaptHeader	*		
multiFrame	*		
mode	*		
logLinkld	*		
assignorAssignee	*		
inBandOutBand	*		
spare1	*		
extBit6	*		

Continued on next page

Structured Type Constraint Declaration			
Element Name	Element Value	Element Encoding	Comments
layer1Id	*		
userInfoLayer1	*		
syncAsync	*		
extBit6a	*		
numStopBits	*		
nego	*		
numDataBits	*		
userRate	*		
extBit6b	*		
intermRate	*		
nicTx	*		
nicRx	*		
parity	*		
extBit6c	*		
connectElem	*		
modemType	*		
extBit6d	*		
OtherModemType	*		
FixedNtwUserRate	*		
extBit6e	*		
acceptChCoding	*		
maxNumTrafficCh	*		
extBit6f	*		
ulMl	*		
wAIUR	*		
extBit6g	*		
acceptChCodingExt	*		
asymInd	*		
spare2	*		
extBit7	*		
layer2id	*		
userInfoLayer2	*		
Detailed Comments :			

Constraint Name : cr\_CC\_CapabilitiesAny

Group :

Structured Type : CC\_Capabilities

Derivation Path : Encoding Variation : Comments :

Element Name	Element Value	Element Encoding	Comments
iei	'00010101'B		
iel	?		
maxNumBearer	?		
spare2	?		
рср	?		
dtmf	?		
spare4	?		
maxNumSpeechBearer	?		

Detailed Comments :

# **Structured Type Constraint Declaration**

Constraint Name : cr\_CDPN\_Any

Group :

Structured Type : CDPN

Derivation Path : Encoding Variation : Comments :

Element Name	Element Value	Element Encoding	Comments
iei	'01011110'B		information element identifier
iel	?		length
typeOfNumPlan	cr_TypeOfNumPlanAny		type of number and numbering plan identification
digits	*		BCD numbers

Constraint Name : cr\_CDPS\_Any

Group :

Structured Type : CDPS

Derivation Path : Encoding Variation : Comments :

Element Name	Element Value	Element Encoding	Comments
iei	'01101101'B		
iel	?		
subadrs	cr_SubadrsAny		

**Detailed Comments:** 

**Structured Type Constraint Declaration** 

Constraint Name : cr\_CGPS\_Any

Group

Structured Type : CGPS

Derivation Path : Encoding Variation : Comments :

Element Name	Element Value	Element Encoding	Comments
iei	'01011101'B		information element identifier
iel	?		length
subadrs	cr_SubadrsAny		Subaddress

**Detailed Comments:** 

## **Structured Type Constraint Declaration**

Constraint Name : cr\_CodecAny

Group :

Structured Type : Codec

Derivation Path : Encoding Variation :

Comments : Codec

3G TS 24.008 cl. 10.5.4.32

Element Name	Element Value	Element Encoding	Comments
sysld	?		system identification
len	?		length
bitMap1to8	?		codec bitmap bits 1-8
bitMap9to16	*		codec bitmap bits 9-16
Detailed Comments :			

Constraint Name : cr\_CodecListAny

Group :

Structured Type : CodecList

Derivation Path : Encoding Variation :

**Comments** : Supported Codec List

3G TS 24.008 cl. 10.5.3.32

Element Name	Element Value	Element Encoding	Comments
iei	'01000000'B		'01000000'B (40 hex)
iel	?		length
codec1	cr_CodecAny IF_PRESENT		Codec
codec2	cr_CodecAny IF_PRESENT		Codec
codec3	cr_CodecAny IF_PRESENT		Codec
codec4	cr_CodecAny IF_PRESENT		Codec
codec5	cr_CodecAny IF_PRESENT		Codec

**Detailed Comments:** 

# **Structured Type Constraint Declaration**

Constraint Name : cr\_DRXparamter\_tv\_Any

Group :

Structured Type : DRXparamter\_tv

Derivation Path : Encoding Variation :

**Comments**: to be used in ROUTINGAREAUPDATEREQUEST constraints

Element Name	Element Value	Element Encoding	Comments
iei	'00100111'B		'00100111'B (hex 27)
splitPGcycleCode	?		Split PG cycle code
cnDRXcoef	?		CN specific DRX cycle length coefficient
splitOnCCCH	?		Split on CCCCH
nonDRXtimer	?		non-DRX timer
Detailed Comments :			

Constraint Name : cr\_Facility\_Any

Group :

Structured Type : Facility

Derivation Path : Encoding Variation :

Comments : Facility information element

3G TS 24.008 cl. 10.5.4.15

Element Name	Element Value	Element Encoding	Comments
iei	'00011100'B		information element identifier '00011100'B
iel	?		length
comps	*		Component

**Detailed Comments:** 

**Structured Type Constraint Declaration** 

Constraint Name : cr\_FacilityAdvRecall

Group :

Structured Type : Facility

Derivation Path : Encoding Variation : Comments :

Element Name	Element Value	Element Encoding	Comments
iei	'00011101'B		information element identifier
iel	?		length
comps	*		Component

**Detailed Comments:** 

**Structured Type Constraint Declaration** 

Constraint Name : cr\_GPRS\_TimerAny

Group :

Structured Type : GPRS\_Timer

Derivation Path : Encoding Variation :

**Comments**: to be used in ROUTINGAREAUPDATEREQUEST constraints

Element Name	Element Value	Element Encoding	Comments
iei	'00010111'B		00010111'B (17 hex)
unit	?		Unit
value	?		Timer value
Petrilled Comments			

Constraint Name : cr\_HLC\_Any

Group : HLC Structured Type : HLC Derivation Path : Encoding Variation :

**Comments** : High layer compatibility

Element Name	Element Value	Element Encoding	Comments
iei	'01111101'B		information element identifier
iel	?		
extBit3	*		
codingStd	*		
interpretation	*		
presentModeProtocolProfile	*		
extBit4	*		
hlcld	*		
extBit4a	*		
exteHlcld	*		
Detailed Comments :			

Constraint Name : cr\_LLC\_Any

Group : LLC
Structured Type : LLC
Derivation Path :
Encoding Variation :

**Comments**: Low layer compatibility (CC information element)

: Low layer compatibility (CC information element)			
Element Name	Element Value	Element Encoding	Comments
iei	'01111100'B		
iel	?		
extBit3	*		
codingStd	*		
itc	*		
extBit3a	*		
negoInd	*		
spare6	*		
extBit4	*		
transferMode	*		
infoTransferRate	*		
extBit4_1	*		
rateMultiplier	*		
extBit5	*		
layer1Id	*		
userInfoLayer1	*		
extBit5a	*		
syncAsync	*		
nego	*		
userRate	*		
extBit5b1	*		
intermRate	*		
nicTx	*		
nicRx	*		
flowCtrlTx	*		
flowCtrlRx	*		
spare1	*		
extBit5b2	*		
rateAdaptHeader	*		
multiFrame	*		
mode	*		
logLinkld	*		
assignorAssignee	*		
inBandOutBand	*		
spare1_5b2	*		
extBit5c	*		
numStopBits	*		
numDataBits	*		
parity	*		
extBit5d	*		
duplexMode	*		

Continued on next page

Structured Type Constraint Declaration			
Element Name	Element Value	Element Encoding	Comments
modemType	*		
extBit6	*		
layer2id	*		
userInfoLayer2	*		
extBit6a1	*		
modeLayer2	*		
spare3	*		
q933	*		
extBit6a2	*		
userSpecifLayer2	*		
extBit6b	*		
windowSize	*		
extBit7	*		
layer3id	*		
userInfoLayer3	*		
extBit7a1	*		
OptionUserSpecifLayer3	*		
extBit7a2	*		
modeLayer3	*		
spare5	*		
extb7b	*		
spare3_7b	*		
defaultPacketSize	*		
extBit7c	*		
packetWindowSize	*		
extBit7a3	*		
spare3_7a3	*		
addLayer3ProtocolInfo	*		
extBit7a4	*		
spare3_7a4	*		
addLayer3ProtocolInfoL	*		
Detailed Comments :	·	· · · · · · · · · · · · · · · · · · ·	

Constraint Name : cr\_LLC\_SAPI\_v

Group

Structured Type : LLC\_SAPI\_v

Derivation Path : Encoding Variation :

**Comments**: LLC SAPI value assigned as SAPI 3 in order to ensure that there are no problems at the time of

handover from UMTS to GSM

Element Name	Element Value	Element Encoding	Comments
spare	'0000'B		
ILC_SAPI_Value	('0000'B, '0011'B, '0101'B, '1001'B, '1011'B)		

**Detailed Comments:** 

**Structured Type Constraint Declaration** 

Constraint Name : cr\_MS\_NetworkCap\_tlv\_Any

Group :

Structured Type : MS\_NetworkCap\_tlv

Derivation Path : Encoding Variation : Comments :

Element Name	Element Value	Element Encoding	Comments
iei	'00110001'B		'00110001'B (hex 31)
iel	?		
value	?		MS network capability value (CSN.1 coding)

**Detailed Comments:** 

**Structured Type Constraint Declaration** 

Constraint Name : cr\_MS\_NetworkCapAss\_lv

Group :

Structured Type : MS\_NetworkCap\_lv

Derivation Path :
Encoding Variation :
Comments :

Element Name	Element Value	Element Encoding	Comments
iel	?		
value	?		MS network capability value (CSN.1 coding)

Constraint Name : cr\_NSAPI\_v

Group :

Structured Type : NSAPI\_v

Derivation Path : Encoding Variation :

Comments : Received value of NSAPI

Element Name	Element Value	Element Encoding	Comments	
spare	'0000'B			
nSAPI_Value	('0101'B, '0110'B, '0111'B, '1000'B, '1001'B, '1010'B, '1101'B, '1110'B, '1110'B, '1111'B)			
Detailed Comments :				

**Structured Type Constraint Declaration** 

Constraint Name : cr\_PDP\_ContextStatusAny

Group :

Structured Type : PDP\_ContextStatus

Derivation Path : Encoding Variation :

**Comments**: to be used in ROUTINGAREAUPDATEREQUEST constraints

Element Name	Element Value	Element Encoding	Comments	
iei	'00110010'B		'00110010'B	
iel	?		Unit	
nSAPI	?		Timer value	
Detailed Comments :				

**Structured Type Constraint Declaration** 

Constraint Name : cr\_ProtoCfgOptAny

Group :

Structured Type : ProtoCfgOpt

Derivation Path : Encoding Variation : Comments :

Element Name	Element Value	Element Encoding	Comments
iei	'00100111'B		270
length	?		
ext	?		
spare	?		
configprotocol	?		
protocolldContents	*		
Detailed Comments :			

**Constraint Name** : cr\_PS\_LCS\_CapabilityAny

Group

Structured Type : PS\_LCS\_Capability

**Derivation Path Encoding Variation:** 

Comments

: PS LCS Capability 3GPP 24.008 / 10.5.5.22

Element Name	Element Value	Element Encoding	Comments
iei	'00110011'B		'00110011'B (33 hex)
iel	'01'O		
spare	'000'B		
oTD_A	?		
oTD_B	?		
gPS_A	?		
gPS_B	?		
gPS_C	?		
	•		

Constraint Name : cr\_QualityOfService\_lv\_Any

Group :

Structured Type : QualityOfService\_lv

Derivation Path : Encoding Variation : Comments :

Element Name	Element Value	Element Encoding	Comments
length	?		
spare	?		
dlyClass	?		
relabilityClass	?		
peakThroughput	?		
spare1	?		
precedenceClass	?		
spare2	?		
meanThroughput	?		
trafficClass	?		
deliveryOrder	?		
deliveryErrorSDU	?		
maxSDUSize	?		
maxBitRateUplink	?		
maxBitRateDnlink	?		
residualBER	?		
sduErrRatio	?		
transDly	?		
trafficHandpro	?		
bitRateUplink	?		
bitRateDnlink	?		
spare3	*		
signallingInd	*		
srcStatsDescr	*		
maxBitRateDnlinkExt	*		
bitRateDnlinkExt	*		

Constraint Name : cr\_SS\_VersionIndAny

Group :

Structured Type : SS\_VersionInd

Derivation Path : Encoding Variation :

Comments : SS version indicator IE with AnyOrOmit values

Element Name	Element Value	Element Encoding	Comments
iei	'01111111'B		
iel	?		
sS_VersionInfo	*		

**Detailed Comments:** 

# **Structured Type Constraint Declaration**

Constraint Name : cr\_StaticPDP\_AddressAny

Group :

Structured Type : PktDataProtoAddr\_lv

Derivation Path : Encoding Variation : Comments :

Element Name	Element Value	Element Encoding	Comments
length	?		
spare	'0000'B		
pDP_TypeOrg	?		
pDP_TypeOrg pDP_TypeNo	?		
addrInfo	*		
Patrilla I Community			

**Detailed Comments:** 

# **Structured Type Constraint Declaration**

Constraint Name : cr\_StreamIdAny

Group :

Structured Type : Streamld

Derivation Path : Encoding Variation : Comments :

Element Name	Element Value	Element Encoding	Comments
iei	'00101101'B		
iel	?		
val	?		

Constraint Name : cr\_SubadrsAny

Group :

Structured Type : Subadrs

Derivation Path : Encoding Variation : Comments :

Element Name	Element Value	Element Encoding	Comments
extBit	?		extension bit
typrOfSubadrs	?		Type of subaddress
oddEven	?		odd/even indicator
spare3	?		3 spare bits
subadrsInfo	*		subaddress information

**Detailed Comments:** 

# **Structured Type Constraint Declaration**

Constraint Name : cr\_TearDwnInd\_tv

Group :

Structured Type : TearDwnInd\_tv

Derivation Path : Encoding Variation :

**Comments**: Tear down indicator used for the direction

ue -> n

Element Name	Element Value	Element Encoding	Comments
iei	'1001'B		
spare	'000'B		
tdiflag	'?'B		TDI Flag = 0, Tear down of all PDP Context not requested. TDI Flag = 1, Tear down of all PDP Context requested.

**Detailed Comments:** 

# **Structured Type Constraint Declaration**

Constraint Name : cr\_Tl\_Any

Group : Structured Type : TI
Derivation Path : Encoding Variation :

Comments : Transaction identifier – used for MO calls

Element Name	Element Value	Element Encoding	Comments
tiFlag	?		from network to MS
tiVal	?		

Constraint Name : cr\_TI\_MO

Group : Structured Type : TI
Derivation Path : Encoding Variation :

**Comments**: Transaction identifier – used for MO calls

Element Name	Element Value	Element Encoding	Comments
tiFlag	'0'B		from network to MS
tiVal	?		

**Detailed Comments:** 

**Structured Type Constraint Declaration** 

Constraint Name : cr\_TypeOfNumPlanAny

Group :

Structured Type : TypeOfNumPlan

Derivation Path : Encoding Variation : Comments :

Element Name	Element Value	Element Encoding	Comments
extBit	?		extension bit
typeOfNum	?		Type of number
numbPlanId	?		Numbering plan id.

**Detailed Comments:** 

# **Structured Type Constraint Declaration**

Constraint Name : cr\_UserUserAny

Group :

Structured Type : UserUser

Derivation Path : Encoding Variation : Comments :

Element Name	Element Value	Element Encoding	Comments	
iei	'01111110'B		information element identifier	
iel	?		length	
userUserProtocolDiscr	?		user–user protocol discriminator	
userUserInfo	*		user user information	

Detailed Comments: In SETUP, ALERTING, CONNECT, DISCONNECT, RELEASE and RELEASE COMPLETE

messages the userUserInfo length is of 0 – 32 bytes.

In USER INFORMATION messages the userUserInfo length is of 1 – 128.

Constraint Name : c\_PowerOffsetInfoBelow64k

Group

**ASN1 Type** : PowerOffsetInformation

Derivation Path : Encoding Variation : Comments :

#### **Constraint Value**

```
{
    gainFactorInformation signalledGainFactors:{
        modeSpecificInfo fdd:{
            gainFactorBetaC tsc_GainFactorBetaC_Below64k
        },
        gainFactorBetaD tsc_GainFactorBetaD,
        referenceTFC_ID 0
        },
        powerOffsetPp_m OMIT
```

**Detailed Comments:** 

# **ASN.1 Type Constraint Declaration**

Constraint Name : c\_PowerOffsetInfoComputed

Group

**ASN1 Type** : PowerOffsetInformation

Derivation Path : Encoding Variation : Comments :

#### **Constraint Value**

{
 gainFactorInformation computedGainFactors : 0,
 powerOffsetPp\_m OMIT
}

Constraint Name : c\_PowerOffsetInfoHigher64k

Group :

**ASN1 Type** : PowerOffsetInformation

Derivation Path : Encoding Variation : Comments :

#### **Constraint Value**

```
{
    gainFactorInformation signalledGainFactors:{
        modeSpecificInfo fdd:{
            gainFactorBetaC tsc_GainFactorBetaC_Higher64k
        },
        gainFactorBetaD tsc_GainFactorBetaD,
        referenceTFC_ID 0
        },
        powerOffsetPp_m OMIT
```

**Detailed Comments:** 

# **ASN.1 Type Constraint Declaration**

Constraint Name : cd\_SIB1\_Def\_N300 ( p\_CellInfo : CellInfoCfg )

Group

ASN1 Type : SysInfoType1
Derivation Path : cb\_SIB1\_Def.

**Encoding Variation:** 

**Comments**: This constraint sets N300 as 0

**Constraint Value** 

REPLACE ue\_ldleTimersAndConstants.n\_300 BY 0

Constraint Name : cs\_PRACH\_SysInfoList\_4ASC

Group :

**ASN1 Type** : PRACH\_SystemInformationList

Derivation Path : Encoding Variation : Comments :

#### **Constraint Value**

```
{{
  prach_RACH_Info {
   modeSpecificInfo fdd: {
    availableSignatures tsc_PRACH1_Signatures,
    availableSF tsc_PRACH1_SF,
    preambleScramblingCodeWordNumber tsc_PRACH1_ScrC,
    puncturingLimit pl1,
    availableSubChannelNumbers '111111111111'B
  transportChannelldentity tsc_RACH1,
  rach_TransportFormatSet commonTransChTFS: c_RACH_TFS_UE,
  rach_TFCS normalTFCI_Signalling : complete : {
   ctfcSize ctfc2Bit : {{
      ctfc2 0,
      powerOffsetInformation { gainFactorInformation computedGainFactors : 0,
      powerOffsetPp_m 0
    { ctfc2 1,
      powerOffsetInformation {
       gainFactorInformation signalledGainFactors : {
        modeSpecificInfo fdd: {
         gainFactorBetaC 11
        gainFactorBetaD 15,
        referenceTFC_ID 0 },
       powerOffsetPp_m 0
  }},
  prach_Partitioning fdd : {{
    accessServiceClass_FDD {
      availableSignatureStartIndex 0,
      availableSignatureEndIndex 7,
      assignedSubChannelNumber '0100'B
    } },{
    accessServiceClass FDD {
      availableSignatureStartIndex 0,
      availableSignatureEndIndex 7,
      assignedSubChannelNumber '0001'B
    accessServiceClass_FDD {
      availableSignatureStartIndex 0,
      availableSignatureEndIndex 7,
      assignedSubChannelNumber '0010'B
    } },{
    accessServiceClass_FDD {
      availableSignatureStartIndex 0,
      availableSignatureEndIndex 7,
      assignedSubChannelNumber '0000'B
  } }},
  persistenceScalingFactorList { psf0_9, psf0_9},
  ac_To_ASC_MappingTable {0, 0, 0, 3, 2, 1, 0},
  modeSpecificInfo fdd: {
```

Continued on next page

# ASN.1 Type Constraint Declaration Constraint Value primaryCPICH\_TX\_Power 31, constantValue -10, prach\_PowerOffset { powerRampStep 3, -- db preambleRetransMax 4 }, rach\_TransmissionParameters { mmax 2, nb01Min 3, nb01Max 10 }, aich\_Info { channelisationCode256 tsc\_AlCH1\_ChC, sttd\_Indicator FALSE, aich\_TransmissionTiming e0

#### **Detailed Comments:**

}}

Constraint Name : cs\_PRACH\_SysInfoList\_1ASC

Group :

**ASN1 Type** : PRACH\_SystemInformationList

Derivation Path : Encoding Variation : Comments :

#### **Constraint Value**

```
{{
  prach_RACH_Info {
   modeSpecificInfo fdd: {
    availableSignatures tsc_PRACH1_Signatures,
    availableSF tsc_PRACH1_SF,
    preambleScramblingCodeWordNumber tsc_PRACH1_ScrC,
    puncturingLimit pl1,
    availableSubChannelNumbers '111111111111'B
  transportChannelldentity tsc_RACH1,
  rach_TransportFormatSet commonTransChTFS: c_RACH_TFS_UE,
  rach_TFCS normalTFCI_Signalling : complete : {
   ctfcSize ctfc2Bit : {{
     ctfc2 0,
     powerOffsetInformation { gainFactorInformation computedGainFactors : 0,
      powerOffsetPp_m 0
    { ctfc2 1,
     powerOffsetInformation {
       gainFactorInformation signalledGainFactors : {
        modeSpecificInfo fdd: {
         gainFactorBetaC 11
        gainFactorBetaD 15,
        referenceTFC_ID 0 },
       powerOffsetPp_m 0
  }},
  prach_Partitioning fdd : {{
    accessServiceClass_FDD {
     availableSignatureStartIndex 0,
     availableSignatureEndIndex 7,
     assignedSubChannelNumber '0010'B
  } }},
  persistenceScalingFactorList OMIT,
  ac_To_ASC_MappingTable { 0, 0, 0, 0, 0, 0, 0, 0},
  modeSpecificInfo fdd: {
   primaryCPICH_TX_Power 31,
   constantValue -10,
   prach_PowerOffset {
    powerRampStep 3, -- db
    preambleRetransMax 4
   },
   rach_TransmissionParameters {
    mmax 2,
    nb01Min 3,
    nb01Max 10
   aich_Info {
    channelisationCode256 tsc_AICH1_ChC,
    sttd_Indicator FALSE,
    aich_TransmissionTiming e0
```

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```
ASN.1 Type Constraint Declaration

Constraint Value

}
}

Detailed Comments:
```

# **ASN.1 Type Constraint Declaration**

Constraint Name : cd\_UL\_AM\_RLC\_T\_PollOmit

Group :

ASN1 Type : UL\_AM\_RLC\_Mode Derivation Path : cb\_UL\_AM\_RLC.

Encoding Variation:
Comments:

# **Constraint Value**

REPLACE pollingInfo.timerPoll BY OMIT

**Detailed Comments:** 

# **ASN.1 Type Constraint Declaration**

Constraint Name : cs\_PRACH\_MsgMeasRep

Group

**ASN1 Type** : PRACH\_MeasurementReport

Derivation Path : Encoding Variation : Comments :

# **Constraint Value**

usedPRACH\_AcessSlot ?, usedPRACH\_Signature OMIT

# ASN.1 Type Constraint Declaration Constraint Name : cs\_PRACH\_PreamMeasRep Group : ASN1 Type : PRACH\_MeasurementReport Derivation Path : Encoding Variation : Comments : Constraint Value { usedPRACH\_AcessSlot ?,

usedPRACH\_AcessSlot ?, usedPRACH\_Signature ?

**Detailed Comments:** 

# **ASN.1 Type Constraint Declaration**

Constraint Name : cbs\_DefaultRLC\_InfoUM

Group :

ASN1 Type : RLC\_Info

Derivation Path : Encoding Variation :

Comments : This constraint is used within the radio bearer setup procedure as the default

configuration for the UE UM RLC entity.

This constraint is intended to be used as a base constraint, and modified constraints can be used to alter specific fields as required by any test

purposes that do not use the default configuration.

#### **Constraint Value**

{
 ul\_RLC\_Mode ul\_UM\_RLC\_Mode: {
 transmissionRLC\_Discard OMIT
 },
 dl\_RLC\_Mode dl\_UM\_RLC\_Mode: NULL
}

**Detailed Comments:** 

# **ASN.1 Type Constraint Declaration**

Constraint Name : C\_TFC\_RestrictUE\_0\_1\_2

Group

ASN1 Type : TFC\_Subset

Derivation Path : Encoding Variation : Comments :

**Constraint Value** 

allowedTFC\_List: { 0 , 1,2}

Constraint Name : c\_TrLogMapping\_Rach1TransRB3

Group :

ASN1 Type : TrCH\_LogCHMappingList1

Derivation Path : Encoding Variation :

Comments : This constraint is identical to c\_TrLogMapping\_PchRach1, except that the

macHeaderManipulation field for RB3 is set to 'OmitMacHeader' for RB3. This allows the MAC header information to be inspected by the TTCN for received

PDUs.

#### **Constraint Value**

```
ulconnectedTrCHList
 trchid tsc_RACH1,
 trCH_LogCHMappingList {
    logicalChannel_Mapping ul_LogicalChannelMapping : {
     macHeaderManipulation normalMacHeader,
     ul_TransportChannelType rach,
     logicalChannelIdentity tsc_UL_CCCH5,
     logicalChannelType cCCH
    rB_Identity tsc_RB0
    logicalChannel_Mapping ul_LogicalChannelMapping: {
     macHeaderManipulation normalMacHeader,
     ul_TransportChannelType rach,
     logicalChannelIdentity tsc_UL_DCCH1,
     logicalChannelType dCCH
    rB_Identity tsc_RB1
    logicalChannel_Mapping ul_LogicalChannelMapping : {
     macHeaderManipulation normalMacHeader,
     ul_TransportChannelType rach,
     logicalChannelIdentity tsc_UL_DCCH2,
     logicalChannelType dCCH
    rB_Identity tsc_RB2
    logicalChannel_Mapping ul_LogicalChannelMapping: {
     macHeaderManipulation omitMacHeader,
     ul_TransportChannelType rach,
     logicalChannelIdentity tsc_UL_DCCH3,
     logicalChannelType dCCH
    rB_Identity tsc_RB_DCCH_FACH_MAC
    logicalChannel_Mapping ul_LogicalChannelMapping: {
     macHeaderManipulation normalMacHeader,
     ul_TransportChannelType rach,
     logicalChannelIdentity tsc_UL_DCCH4,
     logicalChannelType dCCH
    rB_Identity tsc_RB4
```

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```
ASN.1 Type Constraint Declaration

Constraint Value

logicalChannel_Mapping ul_LogicalChannelMapping : {
    macHeaderManipulation normalMacHeader ,
    ul_TransportChannelType rach,
    logicalChannelIdentity tsc_UL_DTCH1,
    logicalChannelType dTCH
    },
    rB_Identity tsc_RB20
    }
}
Constraint Declaration

Detailed Comments :
```

Constraint Name : c\_TrLogMapping\_PchFach1TransRB3

Group

ASN1 Type : TrCH\_LogCHMappingList1

Derivation Path : Encoding Variation :

**Comments**: This constraint is identical to c\_TrLogMapping\_PchFach1, except that the

macHeaderManipulation field for RB3 is set to 'OmitMacHeader' for RB3. This allows the MAC header information to be specified by the TTCN for transmitted

PDUs.

For FDD mode only. map PCCH to PCH and DCCH1, DCCH2, DCCH3, DCCH4, CCCH and

BCCH(for BCCH\_FACH)

#### **Constraint Value**

```
ulconnectedTrCHList OMIT,
dlconnectedTrCHList {
  trchid tsc_PCH1,
  trCH_LogCHMappingList {
    logicalChannel_Mapping dl_LogicalChannelMapping: {
     macHeaderManipulation normalMacHeader,
     dl_TransportChannelType pch,
     logicalChannelIdentity tsc_PCCH1,
     logicalChannelType pCCH,
     rlc_SizeList configured: NULL,
     mac_LogicalChannelPriority 1
    rB_Identity tsc_RB_PCCH
  }
  trchid tsc FACH1,
  trCH_LogCHMappingList {
    logicalChannel_Mapping dl_LogicalChannelMapping: {
     macHeaderManipulation normalMacHeader,
     dl_TransportChannelType fach,
     logicalChannelIdentity tsc_BCCH6.
     logicalChannelType bCCH,
     rlc_SizeList configured: NULL,
     mac_LogicalChannelPriority 6
    rB_Identity tsc_RB_BCCH_FACH },
    logicalChannel_Mapping dl_LogicalChannelMapping : {
     macHeaderManipulation normalMacHeader,
     dl_TransportChannelType fach,
     logicalChannelIdentity tsc_DL_CCCH5,
     logicalChannelType cCCH,
     rlc_SizeList configured: NULL,
     mac_LogicalChannelPriority 1
    rB_Identity tsc_RB0
    logicalChannel_Mapping dl_LogicalChannelMapping : {
     macHeaderManipulation normalMacHeader,
     dl_TransportChannelType fach,
     logicalChannelIdentity tsc_DL_DCCH1,
     logicalChannelType dCCH,
```

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#### **Constraint Value**

```
rlc_SizeList configured: NULL,
   mac_LogicalChannelPriority 2
  rB_Identity tsc_RB1
  logicalChannel_Mapping dl_LogicalChannelMapping : {
   macHeaderManipulation normalMacHeader,
   dl_TransportChannelType fach,
   logicalChannelIdentity tsc_DL_DCCH2,
   logicalChannelType dCCH,
   rlc_SizeList configured: NULL,
   mac_LogicalChannelPriority 3
  rB_Identity tsc_RB2
  logicalChannel_Mapping dl_LogicalChannelMapping : {
   macHeaderManipulation omitMacHeader,
   dl_TransportChannelType fach,
   logicalChannelIdentity tsc_DL_DCCH3,
   logicalChannelType dCCH,
   rlc_SizeList configured: NULL,
   mac_LogicalChannelPriority 4
  rB_Identity tsc_RB_DCCH_FACH_MAC
  logicalChannel_Mapping dl_LogicalChannelMapping : {
   macHeaderManipulation normalMacHeader,
   dl_TransportChannelType fach,
   logicalChannelIdentity tsc_DL_DCCH4,
   logicalChannelType dCCH,
   rlc_SizeList configured: NULL,
   mac_LogicalChannelPriority 5
  rB_Identity tsc_RB4
trchid tsc_FACH2,
trCH_LogCHMappingList
  logicalChannel_Mapping dl_LogicalChannelMapping:
   macHeaderManipulation normalMacHeader,
   dl_TransportChannelType fach,
   logicalChannelIdentity tsc_DL_DTCH1,
   logicalChannelType dTCH,
   rlc_SizeList configured : NULL,
   mac_LogicalChannelPriority 8
  rB_Identity tsc_RB20
```

Constraint Name : c\_TrLogMappingDL\_4DCCH\_TransRB3

Group :

ASN1 Type : TrCH\_LogCHMappingList1

Derivation Path : Encoding Variation :

**Comments**: This constraint is identical to c\_TrLogMappingDL\_4DCCH, except that the

macHeaderManipulation field for RB3 is set to 'OmitMacHeader' for RB3. This allows the MAC header information to be inspected by the TTCN for received

PDUs.

#### **Constraint Value**

```
ulconnectedTrCHList OMIT,
dlconnectedTrCHList {
  trchid tsc_DL_DCH5,
  trCH_LogCHMappingList {
    logicalChannel_Mapping dl_LogicalChannelMapping : {
     macHeaderManipulation normalMacHeader,
     dl_TransportChannelType dch,
     logicalChannelIdentity tsc_DL_DCCH1,
     logicalChannelType dCCH,
     rlc_SizeList configured: NULL,
     mac_LogicalChannelPriority 1
    rB_Identity tsc_RB1
    logicalChannel_Mapping dl_LogicalChannelMapping : {
     macHeaderManipulation normalMacHeader,
     dl_TransportChannelType dch,
     logicalChannelIdentity tsc_DL_DCCH2,
     logicalChannelType dCCH,
     rlc_SizeList configured: NULL,
     mac_LogicalChannelPriority 2
    rB_Identity tsc_RB2
    logicalChannel_Mapping dl_LogicalChannelMapping: {
     macHeaderManipulation omitMacHeader,
     dl_TransportChannelType dch,
     logicalChannelIdentity tsc_DL_DCCH3,
     logicalChannelType dCCH,
     rlc SizeList configured: NULL,
     mac_LogicalChannelPriority 3
    rB_Identity tsc_RB_DCCH_DCH_MAC
    logicalChannel_Mapping dl_LogicalChannelMapping : {
     macHeaderManipulation normalMacHeader,
     dl_TransportChannelType dch,
     logicalChannelIdentity tsc_DL_DCCH4,
     logicalChannelType dCCH,
     rlc_SizeList configured : NULL,
     mac_LogicalChannelPriority 4
    rB_Identity tsc_RB4
```

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ASN.1 Type Constraint Declaration				
Constraint Value				
}				
}				
Detailed Comments :				

Constraint Name : c\_TrLogMappingUL\_4DCCH\_TransRB3

Group :

**ASN1 Type** : TrCH\_LogCHMappingList1

Derivation Path : Encoding Variation :

Comments : This constraint is identical to c\_TrLogMappingUL\_4DCCH, except that the

macHeaderManipulation field for RB3 is set to 'OmitMacHeader' for RB3. This allows the MAC header information to be inspected by the TTCN for received

PDUs.

#### **Constraint Value**

```
ulconnectedTrCHList {
  trchid tsc_UL_DCH5,
  trCH_LogCHMappingList {
    logicalChannel_Mapping ul_LogicalChannelMapping : {
     macHeaderManipulation normalMacHeader,
     ul_TransportChannelType dch,
     logicalChannelIdentity tsc_UL_DCCH1,
     logicalChannelType dCCH
    rB_Identity tsc_RB1
    logicalChannel_Mapping ul_LogicalChannelMapping : {
     macHeaderManipulation normalMacHeader,
     ul_TransportChannelType dch,
     logicalChannelIdentity tsc UL DCCH2,
     logicalChannelType dCCH
    rB_Identity tsc_RB2
    logicalChannel_Mapping ul_LogicalChannelMapping: {
     macHeaderManipulation omitMacHeader,
     ul_TransportChannelType dch,
     logicalChannelIdentity tsc_UL_DCCH3,
     logicalChannelType dCCH
    rB_Identity tsc_RB_DCCH_DCH_MAC
    logicalChannel_Mapping ul_LogicalChannelMapping: {
     macHeaderManipulation normalMacHeader,
     ul_TransportChannelType dch,
     logicalChannelIdentity tsc_UL_DCCH4,
     logicalChannelType dCCH
    rB_Identity tsc_RB4
dlconnectedTrCHList OMIT
```

Constraint Name : cd\_TrLogMapping\_PchFach1TransRB0

Group :

ASN1 Type : TrCH\_LogCHMappingList1

Derivation Path : c\_TrLogMappingPCH\_FACH\_PS.

**Encoding Variation:** 

**Comments**: This constraint is identical c\_TrLogMappingPCH\_FACH\_PS.except that the

macHeaderManipulation field for RB0 is set to 'OmitMacHeader' for RB0. This allows the MAC header information to be specified by the TTCN for transmitted

PDUs. and the changed special RB Id for the CCCH in DL.

For FDD mode only. map PCCH to PCH and DCCH1, DCCH2, DCCH3, DCCH4, CCCH and

BCCH(for BCCH\_FACH)

#### **Constraint Value**

REPLACE dlconnectedTrCHList.[1].trCH\_LogCHMappingList

[1].logicalChannel\_Mapping.dl\_LogicalChannelMapping.macHeaderManipulation BY omitMacHeader, REPLACE dlconnectedTrCHList.[1].trCH\_LogCHMappingList .[1].rB\_Identity BY tsc\_RB\_CCCH\_FACH\_MAC

**Detailed Comments:** 

## **ASN.1 Type Constraint Declaration**

Constraint Name : cd\_SIB5\_MAC ( p\_CellInfo : CellInfoCfg )

Group :

ASN1 Type : SysInfoType5

Derivation Path : cb\_SIB5\_Def.

Encoding Variation:
Comments:

# Constraint Value

```
REPLACE prach_SystemInformationList.[0].prach_Partitioning.fdd BY

{{
    accessServiceClass_FDD {
        availableSignatureStartIndex 0,
        availableSignatureEndIndex 7,
        assignedSubChannelNumber '0001'B
    }
    },
    {
        accessServiceClass_FDD {
            availableSignatureStartIndex 0,
            availableSignatureStartIndex 0,
            availableSignatureEndIndex 7,
            assignedSubChannelNumber '0010'B
    }
}},
REPLACE prach_SystemInformationList.[0].persistenceScalingFactorList BY OMIT,
REPLACE prach_SystemInformationList.[0].ac_To_ASC_MappingTable BY {0, 1, 1, 1, 1, 1, 0},
REPLACE prach_SystemInformationList.[0].modeSpecificInfo.fdd.prach_PowerOffset.preambleRetransMax BY 5,
REPLACE prach_SystemInformationList.[0].modeSpecificInfo.fdd.rach_TransmissionParameters.mmax BY 1
```

 $\textbf{Constraint Name} \hspace{0.3cm} : \hspace{0.1cm} \text{cd\_SIB6\_MAC\_1ASC (} \hspace{0.1cm} \text{p\_CellInfo : CellInfoCfg )}$ 

Group :

ASN1 Type : SysInfoType6

Derivation Path : cb\_SIB6\_Def.

Encoding Variation:
Comments:

**Constraint Value** 

REPLACE prach\_SystemInformationList BY cs\_PRACH\_SysInfoList\_1ASC

**Detailed Comments:** 

**ASN.1 Type Constraint Declaration** 

Constraint Name : cd\_SIB6\_MAC\_4ASC ( p\_CellInfo : CellInfoCfg )

Group :

ASN1 Type : SysInfoType6
Derivation Path : cb\_SIB6\_Def.

Encoding Variation:
Comments:

**Constraint Value** 

REPLACE prach\_SystemInformationList BY cs\_PRACH\_SysInfoList\_4ASC

Constraint Name : c\_RB\_InfoReconfigList20\_MAC

Group :

ASN1 Type : RB\_InformationReconfigList

Derivation Path : Encoding Variation :

Comments : SRB1 to SRB4 and RB20 With MLP for RAB mapped on RACH reconfigured to 1

#### **Constraint Value**

```
{
       rb_Identity tsc_RB1,
       pdcp_Info OMIT,
       pdcp_SN_Info OMIT,
       rlc_Info OMIT,
        rb_MappingInfo OMIT,
       rb_StopContinue OMIT
       rb_Identity tsc_RB2,
       pdcp_Info OMIT,
        pdcp_SN_Info OMIT,
        rlc_Info OMIT,
        rb_MappingInfo OMIT,
       rb_StopContinue OMIT
       rb_Identity tsc_RB3,
       pdcp_Info OMIT,
       pdcp_SN_Info OMIT,
       rlc Info OMIT,
        rb_MappingInfo OMIT,
       rb_StopContinue OMIT
       rb_Identity tsc_RB4,
       pdcp_Info OMIT,
        pdcp_SN_Info OMIT,
       rlc_Info OMIT,
        rb_MappingInfo OMIT,
       rb_StopContinue OMIT
       rb_Identity tsc_RB20,
        pdcp_Info OMIT,
       pdcp_SN_Info OMIT,
       rlc Info OMIT,
       rb_MappingInfo
          { --RB_MappingInfo
              ul_LogicalChannelMappings oneLogicalChannel:{ --UL_LogicalChannelMapping,
                  ul_TransportChannelType dch : tsc_UL_DCH1,
                  logicalChannelIdentity OMIT,
                  rlc_SizeList configured: NULL,
                  mac_LogicalChannelPriority 1
              dl_LogicalChannelMappingList {{
                     dl_TransportChannelType dch : tsc_DL_DCH1,
                     logicalChannelIdentity OMIT
              }}
                   -RB_MappingInfo
              ul\_Logical Channel Mappings\ one Logical Channel : \{--UL\_Logical Channel Mapping, --UL\_Logical Channel Mapping, --UL\_Logical
```

Continued on next page

```
ASN.1 Type Constraint Declaration

Constraint Value

ul_TransportChannelType rach: NULL,
logicalChannelIdentity tsc_UL_DTCH1,
rlc_SizeList explicitList: { { rlc_SizeIndex 2} },
mac_LogicalChannelPriority 1
},
dl_LogicalChannelMappingList {{
    dl_TransportChannelType fach: NULL,
    logicalChannelIdentity tsc_DL_DTCH1
}}
}
Detailed Comments:
```

```
ASN.1 Type Constraint Declaration
Constraint Name
                 : c_DL_InfoPerRL_DCH_OrFACH_ToFACH_PS_MAC (p_ScrmbCode: PrimaryScramblingCode )
Group
ASN1 Type
                 : DL_InformationPerRL_List
Derivation Path
Encoding Variation:
Comments
                                              Constraint Value
{{
  modeSpecificInfo fdd:{
   primaryCPICH_Info { primaryScramblingCode p_ScrmbCode},
   pdsch_SHO_DCH_Info OMIT,
   pdsch_CodeMapping OMIT
  dl_DPCH_InfoPerRL OMIT,
  sccpch_InfoforFACH OMIT
Detailed Comments:
```

```
ASN.1 Type Constraint Declaration

Constraint Name : cd_SIB7_MAC_SIB5_DPL_1
Group :
ASN1 Type : SysInfoType7
Derivation Path : c_SIB7_Def.
Encoding Variation :
Comments :

Constraint Value

REPLACE prach_Information_SIB5_List BY {1}

Detailed Comments :
```

Constraint Name : c\_AICH\_Info

Group :

ASN1 Type : AICH\_Info

Derivation Path : Encoding Variation :

**Comments**: no transmission diversity, AICH timing = e0

#### **Constraint Value**

```
{
    channelisationCode256 tsc_AICH1_ChC,
    sttd_Indicator FALSE,
    aich_TransmissionTiming e0
```

**Detailed Comments:** 

# **ASN.1 Type Constraint Declaration**

Constraint Name : c\_DCH\_148\_TFS\_DL

Group :

**ASN1 Type** : CommonOrDedicatedTFS

Derivation Path : Encoding Variation :

**Comments**: transport format set for signalling bearer on dedicated channel

#### **Constraint Value**

```
{
    tti tti40 :{{ tb_Size 148,
        numberOfTbSizeList { zero : NULL, one : NULL},
        logicalChannelList allSizes : NULL
    }},
    semistaticTF_Information {
        channelCodingType convolutional :third,
        rateMatchingAttribute 170,
        crc_Size crc16
    }
```

**Detailed Comments :** TS 34.108 cl. 6.10.2.4.1.2:

TTI = 40 ms;

two transport formats: TransportBlocks = 1, TB size = 148 bits; TansportBlock = 0, Size = 148.

rlc\_Size = RLC PDU size =148 bits.

coding = convolutional; coding rate = 1/3; CRCsize = 16; RateMatching = 170

Constraint Name : c\_DCH\_148\_TFS\_UE\_UL

Group :

**ASN1 Type** : DedicatedTransChTFS

Derivation Path : Encoding Variation :

Comments : transport format set for signalling bearer on dedicated channel used in message sent to UE

```
Constraint Value
```

```
{
    tti tti40 :{{ rlc_Size bitMode : sizeType2 : {part1 2, part2 OMIT},
        numberOfTbSizeList { zero : NULL, one : NULL},
        logicalChannelList allSizes : NULL
}},
semistaticTF_Information {
    channelCodingType convolutional :third,
    rateMatchingAttribute 170,
    crc_Size crc16
}
}
```

Detailed Comments: TS 34.108 cl. 6.10.2.4.1.2:

TTI = 40 ms;

two transport formats:

TransportBlocks = 1, TB size = 148 bits; TansportBlock = 0, Size = 148. rlc\_Size = RLC PDU size = TB\_Size -4 = 144 bits.( DCH, w/ MUX)

coding = convolutional; coding rate = 1/3; CRCsize = 16; RateMatching = 170

# **ASN.1 Type Constraint Declaration**

Constraint Name : c\_DCH\_148\_TFS\_UL

Group :

ASN1 Type : CommonOrDedicatedTFS

Derivation Path : Encoding Variation :

**Comments**: transport format set for signalling bearer on dedicated channel

#### **Constraint Value**

```
{
    tti tti40 :{{ tb_Size 148,
        numberOfTbSizeList { zero : NULL, one : NULL},
        logicalChannelList allSizes : NULL
}},
semistaticTF_Information {
    channelCodingType convolutional :third,
    rateMatchingAttribute 170,
    crc_Size crc16
}
```

**Detailed Comments:** TS 34.108 cl. 6.10.2.4.1.2:

TTI = 40 ms;

two transport formats: TransportBlocks = 1, TB size = 148 bits; TansportBlock = 0, Size = 148.

rlc\_Size = RLC PDU size =148 bits.

coding = convolutional; coding rate = 1/3; CRCsize = 16; RateMatching = 170

Constraint Name : c\_DCH\_148\_TTI\_10\_TFS

Group :

**ASN1 Type** : CommonOrDedicatedTFS

Derivation Path : Encoding Variation :

**Comments**: transport format set for signalling bearer on dedicated channel

```
Constraint Value
```

```
{
tti tti10 :{{ tb_Size 148,
    numberOfTbSizeList { zero : NULL, one : NULL},
    logicalChannelList allSizes : NULL
}},
semistaticTF_Information {
    channelCodingType convolutional :third,
    rateMatchingAttribute 192, -- dummy value, value is not needed for 13.6 kbps
    crc_Size crc16
}
}
```

**Detailed Comments**: TS 34.108 cl. 6.10.2.4.1.3:

TTI = 10 ms;

two transport formats: TransportBlocks = 1, TB size = 148 bits; TansportBlock = 0, Size = 148.

rlc\_Size = RLC PDU size =148 bits.

coding = convolutional; coding rate = 1/3; CRCsize = 16;

RateMatching = 192 (dummy value, value is not needed for 13.6 kbps)

#### **ASN.1 Type Constraint Declaration**

Constraint Name : c\_DCH\_148\_TTI\_10\_TFS\_UE

Group :

**ASN1 Type** : DedicatedTransChTFS

Derivation Path : Encoding Variation :

Comments : transport format set for signalling bearer on dedicated channel used in message sent to UE

## **Constraint Value**

```
{
    tti tti10 :{{ rlc_Size bitMode : sizeType2 : {part1 2, part2 OMIT},
        numberOfTbSizeList { zero : NULL, one : NULL},
        logicalChannelList allSizes : NULL
    }},
    semistaticTF_Information {
        channelCodingType convolutional :third,
        rateMatchingAttribute 192, -- dummy value, value is not needed for 13.6 kbps
        crc_Size crc16
    }
}
```

**Detailed Comments:** TS 34.108 cl. 6.10.2.4.1.3:

TTI = 10 ms;

two transport formats:

TransportBlocks = 1, TB size = 148 bits; TansportBlock = 0, Size = 148. rlc\_Size = RLC PDU size = TB\_Size -4 = 144 bits.( DCH, w/ MUX)

coding = convolutional; coding rate = 1/3; CRCsize = 16; RateMatching = 192

**Constraint Name**: c\_DCH\_336\_148\_DL\_InfoRLC\_UM(p\_ActTime : ActivationTime)

Group :

**ASN1 Type** : CphyTrchConfigReq

Derivation Path : Encoding Variation :

**Comments**: SS CPHY DL transport channel configuration for RLC tests using 336 bit transport blocks.

Reference 3G TS 34.108, clause 6.11.1, and 6.11.3.

Note that the TFS for DCH1 is restricted to {0x336, 1x336} for RLC testing.

#### **Constraint Value**

```
activationTime activationCFN: p_ActTime,
 ulconnectedTrCHList OMIT,
 ulTFCS OMIT,
 dlconnectedTrCHList {
   trchid tsc DL DCH1,
   dl_TransportChannelType dch,
   transportChannelInfo c_DCH_336_TFS_RLC_UM
   trchid tsc_DL_DCH5,
   dl_TransportChannelType dch,
   transportChannelInfo c_DCH_148_TFS_DL
 dlTFCS c_TFCS_Cmpl0_1_2_3_Tx ( c_PowerOffsetInfoHigher64k )
Detailed Comments: For DCH5 (3G TS 34.108, 6.10.2.4.1.2)
                       TTI = 40 \text{ ms};
                       two transport formats: TransportBlocks = 1, TB size = 148 bits; TansportBlock = 0, Size = 148.
                       coding = convolutional;
                       coding rate = 1/3;
                       CRCsize = 16;
                       RateMatching = 155.
                       For DCH1 (3G TS 34.108 cl. 6.11.1 and 6.11.3):
                       TTI = 20 \text{ ms};
                       two transport formats: TransportBlocks = 1, TB size = 336 bits; TansportBlock = 0, Size = 336.
                       coding = turbo;
                       CRCsize = 16;
                       RateMatching = 130
```

**Constraint Name**: c\_DCH\_336\_148\_UL\_InfoRLC\_UM (p\_ActTime : ActivationTime)

Group :

**ASN1 Type** : CphyTrchConfigReq

Derivation Path : Encoding Variation :

**Comments**: SS UL transport channel configuration for RLC tests using 336 bit transport blocks.

Reference 3G TS 34.108, clause 6.11.1,

RateMatching = 130

Note that the TFS for DCH1 is restricted to {0x336, 1x336} for RLC testing.

# **Constraint Value**

```
activationTime activationCFN: p_ActTime,
 ulconnectedTrCHList {
   trchid tsc_UL_DCH1,
   ul_TransportChannelType dch,
   transportChannelInfo c_DCH_336_TFS_RLC_UM
   trchid tsc_UL_DCH5,
   ul_TransportChannelType dch,
   transportChannelInfo c_DCH_148_TFS_UL
 ulTFCS c_TFCS_Cmpl0_1_2_3_Rx, -- sent to SS
 dlconnectedTrCHList OMIT,
 dITFCS OMIT
Detailed Comments: For DCH5 (3G TS 34.108, 6.10.2.4.1.2)
                       TTI = 40 \text{ ms};
                       two transport formats: TransportBlocks = 1, TB size = 148 bits; TansportBlock = 0, Size = 148.
                       coding = convolutional;
                       coding rate = 1/3;
                       CRCsize = 16;
                       RateMatching = 155.
                       For DCH1 (3G TS 34.108 cl. 6.11.1 and 6.11.3):
                       TTI = 20 \text{ ms}:
                       two transport formats: TransportBlocks = 1, TB size = 336 bits; TansportBlock = 0, Size = 336 bits
                       coding = turbo;
                       CRCsize = 16;
```

Constraint Name : c\_DCH\_336\_TFS\_RLC\_UE\_UM

Group :

**ASN1 Type** : DedicatedTransChTFS

Derivation Path : Encoding Variation :

Comments : DCH1 Transport format set for RLC tests using 7 bit length indicators used in message sent to

UE.

Reference 3G TS 34.108, clause 6.11.1, and 6.11.3.

Note that the TFS for DCH1 is restricted to {0x336, 1x336} for RLC testing with 7 bit length

indicators.

#### **Constraint Value**

```
{
  tti tti40 :{
    {
        rlc_Size octetModeType1 :
        sizeType2 : {
            part1 2,
            part2 OMIT
        },
        numberOfTbSizeList{
            zero : NULL , one : NULL
        },
        logicalChannelList allSizes : NULL
    },
    semistaticTF_Information {
        channelCodingType convolutional: third,
        rateMatchingAttribute 155,
        crc_Size crc16
    }
}
```

**Detailed Comments**: TTI = 20 ms;

2 transport formats:

TB size always=336 bits; TransportBlocks = 0, and 1;

rlc\_Size = TB\_Size (DCH, w/o MUX)

coding = turbo; CRCsize = 16; RateMatching = 130

Constraint Name : c\_DCH\_336\_TFS\_RLC\_UM

Group

**ASN1 Type** : CommonOrDedicatedTFS

Derivation Path : Encoding Variation :

**Comments**: DCH1 Transport format set for RLC UM tests using 7 bit length indicators.

Reference 3G TS 34.108, clause 6.11.1,

Note that the TFS for DCH1 is restricted to {0x336, 1x336} for RLC testing with 7 bit length

indicators.

#### **Constraint Value**

```
{
  tti tti40 :{
     {
          tb_Size 336,
          numberOfTbSizeList{ zero : NULL, one : NULL},
          logicalChannelList allSizes : NULL
     }
    },
    semistaticTF_Information {
          channelCodingType convolutional: third,
          rateMatchingAttribute 155,
          crc_Size crc16
     }
}
```

**Detailed Comments**: TTI = 20 ms;

2 transport formats: TB size always=336 bits; TransportBlocks = 0, and 1;

coding = turbo; CRCsize = 16; RateMatching = 130

```
ASN.1 Type Constraint Declaration
Constraint Name
                   : c_DCH_336_TFS_UE
Group
ASN1 Type
                   : DedicatedTransChTFS
Derivation Path
Encoding Variation:
Comments
                    : transport format set for transport channel used in CreateCell_DCH_64kPS_RAB_SRB for
                     message sent to UE
                                                   Constraint Value
 tti tti20 :{ {
   rlc_Size octetModeType1 : sizeType2 : {part1 2, part2 OMIT},
   numberOfTbSizeList { zero : NULL, one : NULL, small : 2, small : 3, small : 4 },
   logicalChannelList allSizes: NULL
 semistaticTF_Information {
  channelCodingType turbo: NULL,
  rateMatchingAttribute 150,
  crc_Size crc16
Detailed Comments: 3GPP TS 34.108 clause 6.10.2.4.1.24
                      TTI = 20 \text{ ms};
                      5 transport formats:
                      TB size always=336 bits; TransportBlocks = 0,1,2,3 and 4;
                      rlsc_Size = TB_Size ( DCH, w/o MUX)
                      coding = turbo;
                      CRCsize = 16;
                      RateMatching = 150
```

```
ASN.1 Type Constraint Declaration
Constraint Name : c_DL_AddReconfTransChInfo (
                    p_DITrChId:TransportChannelIdentity;
                    p_UITrChId:TransportChannelIdentity
Group
ASN1 Type
                  : DL_AddReconfTransChInformation
Derivation Path
Encoding Variation:
Comments
                                                Constraint Value
 dl_TransportChannelType dch,
 dl_transportChannelIdentity p_DITrChId,
 tfs_SignallingMode sameAsULTrCH:
  ul_TransportChannelType dch,
  ul_TransportChannelIdentity p_UITrChId
 dch_QualityTarget{
  bler_QualityValue -20
Detailed Comments:
```

```
ASN.1 Type Constraint Declaration

Constraint Name : c_DL_AddReconfTransChInfoListDCCH_SRB
Group :
ASN1 Type : DL_AddReconfTransChInfoList
Derivation Path :
Encoding Variation :
Comments :

Constraint Value

{
    c_DL_AddReconfTransChInfo(tsc_DL_DCH5,tsc_UL_DCH5)
}
Detailed Comments :
```

Constraint Name : c\_DL\_CommonInformationDCH\_DPCH\_Offset (p\_Sf: SF512\_AndPilot )

Group :

**ASN1 Type** : DL\_CommonInformation

Derivation Path : Encoding Variation : Comments :

#### **Constraint Value**

```
dl_DPCH_InfoCommon{
 cfnHandling initialise : {
  cfntargetsfnframeoffset OMIT
 modeSpecificInfo fdd:{
  dl_DPCH_PowerControlInfo {
   modeSpecificInfo fdd:{
    dpc_Mode singleTPC
  },
  powerOffsetPilot_pdpdch tsc_DPCH_PowerOffsetPILOT,
  dl_rate_matching_restriction OMIT,
  spreadingFactorAndPilot p_Sf,
  positionFixedOrFlexible flexible,
  tfci_Existence TRUE
 }
modeSpecificInfo fdd:{
 defaultDPCH_OffsetValue tsc_DefaultDPCH_OffsetValue,
 dpch_CompressedModeInfo OMIT,
 tx_DiversityMode noDiversity,
 ssdt_Information OMIT
}
```

**Detailed Comments**: NOTE: not aligned with 34.108. Reason: The value 'inactive' in 34.018 is not valid with asn.1

definition v360

Constraint Name : c\_DL\_CommonInformationRB\_SetUp (p\_Sf: SF512\_AndPilot )

Group :

**ASN1 Type** : DL\_CommonInformation

Derivation Path : Encoding Variation : Comments :

#### **Constraint Value**

```
dl_DPCH_InfoCommon{
 cfnHandling maintain: NULL,
 modeSpecificInfo fdd:{
  dl_DPCH_PowerControlInfo {
   modeSpecificInfo fdd:{
    dpc_Mode singleTPC
   }
  },
  powerOffsetPilot_pdpdch tsc_DPCH_PowerOffsetPILOT,
  dl_rate_matching_restriction OMIT,
  spreadingFactorAndPilot p_Sf,
  positionFixedOrFlexible flexible,
  tfci_Existence TRUE
 }
modeSpecificInfo fdd:{
 defaultDPCH_OffsetValue OMIT,
 dpch\_CompressedModeInfo\ OMIT ,
 tx_DiversityMode noDiversity,
 ssdt_Information OMIT
```

#### **Detailed Comments:**

# **ASN.1 Type Constraint Declaration**

Constraint Name : c\_DL\_CommonTransChInfoDCH(p\_Tfcs:TFCS)

Group

ASN1 Type : DL\_CommonTransChInfo

Derivation Path : Encoding Variation : Comments :

#### **Constraint Value**

```
{
    sccpch_TFCS OMIT,
    modeSpecificInfo fdd:
    {
        dl_Parameters dl_DCH_TFCS : p_Tfcs
    }
}
```

```
ASN.1 Type Constraint Declaration

Constraint Name : c_DL_CommonTransChInfoSameAsUL

Group :
ASN1 Type : DL_CommonTransChInfo

Derivation Path :
Encoding Variation :
Comments :

Constraint Value

{
sccpch_TFCS OMIT,
modeSpecificInfo fdd:{
dl_Parameters sameAsUL: NULL
}
}
Detailed Comments :
```

```
ASN.1 Type Constraint Declaration
Constraint Name
                 : c_DL_InfoPerRL_DPCH_Offset (
                    p_ScrmbCode : PrimaryScramblingCode ;
                    p_SecScrmbCode : SecondaryScramblingCode ;
                    p_Sf: SF512_AndCodeNumber
Group
ASN1 Type
                  : DL_InformationPerRL_List
Derivation Path
Encoding Variation:
Comments
                                                Constraint Value
{{
  modeSpecificInfo fdd : {
   primaryCPICH_Info { primaryScramblingCode p_ScrmbCode } ,
   pdsch_SHO_DCH_Info OMIT,
   pdsch_CodeMapping OMIT
  dl_DPCH_InfoPerRL fdd : {
   pCPICH_UsageForChannelEst mayBeUsed,
   dpch_FrameOffset (( (tsc_DefaultDPCH_OffsetValue*512 ) MOD 38400) / 256 ),
   -- DPCH-FrameOffset = DefaultDPCH-OffsetValueFDD MOD 38400
   -- Actual value DPCH-FrameOffset = IE value * 256
   -- Actual value DefaultDPCH-OffsetValueFDD = IE value * 512
   secondaryCPICH_Info OMIT,
   dl_ChannelisationCodeList {{
     secondaryScramblingCode p_SecScrmbCode,
     sf_AndCodeNumber p_Sf,
     scramblingCodeChange noCodeChange
   tpc\_CombinationIndex\ tsc\_TPC\_CombinationIndex,
   ssdt_CellIdentity OMIT,
   closedLoopTimingAdjMode OMIT
```

**Detailed Comments:** 

sccpch\_InfoforFACH OMIT

Constraint Name : c\_DL\_InformationPerRL ( p\_ScrmbCode: PrimaryScramblingCode; p\_Sf:

SF512\_AndCodeNumber; p\_SecondaryScramblingCode : SecondaryScramblingCode )

Group

ASN1 Type : DL\_InformationPerRL\_List

Derivation Path : Encoding Variation : Comments :

#### **Constraint Value**

```
{{
  modeSpecificInfo fdd: {
   primaryCPICH_Info { primaryScramblingCode p_ScrmbCode },
   pdsch_SHO_DCH_Info OMIT,
   pdsch_CodeMapping OMIT
  dl_DPCH_InfoPerRL fdd : {
   pCPICH_UsageForChannelEst mayBeUsed,
   dpch_FrameOffset (( (tsc_DefaultDPCH_OffsetValue*512 ) MOD 38400) / 256 ),
   -- DPCH-FrameOffset = DefaultDPCH-OffsetValueFDD MOD 38400
   -- Actual value DPCH-FrameOffset = IE value * 256
   -- Actual value DefaultDPCH-OffsetValueFDD = IE value * 512
   secondaryCPICH_Info OMIT,
   dl_ChannelisationCodeList {{
     secondary Scrambling Code\ p\_Secondary Scrambling Code\ ,
     sf_AndCodeNumber p_Sf,
     scramblingCodeChange OMIT
   tpc_CombinationIndex tsc_TPC_CombinationIndex,
   ssdt_CellIdentity OMIT,
   closedLoopTimingAdjMode OMIT
  sccpch_InfoforFACH OMIT
```

**Constraint Name** : c\_FACH\_TFS

Group

**ASN1 Type** : CommonOrDedicatedTFS

**Derivation Path Encoding Variation:** 

Comments : transport format set for FACH

```
Constraint Value
```

```
tti tti10 :{ {
  tb_Size 168,
  numberOfTbSizeList { zero : NULL, one : NULL, small : 2 },
  logicalChannelList allSizes: NULL
semistaticTF_Information {
 channelCodingType convolutional: half,
 rateMatchingAttribute 220,
 crc_Size crc16
```

**Detailed Comments**: TTI = 10 ms;

three transport formats: TransportBlocks = 2, TB size = 168 bits; TransportBlocks = 1, TB size =

168 bits; TansportBlock = 0, Size = 168.

coding = convolutional;

rate = 1/2; CRCsize = 16; RateMatching = 220

# **ASN.1 Type Constraint Declaration**

**Constraint Name** : c\_FACH\_TFS\_PS

Group

**ASN1 Type** : CommonOrDedicatedTFS

**Derivation Path Encoding Variation:** 

Comments : transport format set for FACH (PS) used for SS configuration

# **Constraint Value**

```
tti tti10 :{ {
  tb_Size 360,
  numberOfTbSizeList { zero : NULL, one : NULL},
  logicalChannelList allSizes: NULL
semistaticTF_Information {
 channelCodingType turbo: NULL,
 rateMatchingAttribute 130,
 crc_Size crc16
```

**Detailed Comments**: TTI = 10 ms;

two transport formats: TransportBlocks = 1, TB size = 360 bits; TansportBlock = 0, Size = 360.

coding = turbo; CRCsize = 16; RateMatching = 130

Constraint Name : c\_FACH\_TFS\_PS\_UE

Group :

**ASN1 Type** : CommonTransChTFS

Derivation Path : Encoding Variation :

**Comments**: transport format set for FACH (PS)

#### **Constraint Value**

```
{
    tti tti10 :{ {
        rlc_Size fdd : {octetModeRLC_SizeInfoType2 sizeType2: 3},
        numberOfTbSizeList { zero : NULL, one : NULL},
        logicalChannelList allSizes : NULL
    }},
    semistaticTF_Information {
        channelCodingType turbo : NULL,
        rateMatchingAttribute 130,
        crc_Size crc16
    }
}
```

**Detailed Comments**: TTI = 10 ms;

two transport formats:

TransportBlocks = 1, TB size = 360 bits; TansportBlock = 0, Size = 360.

rlc\_Size = TB\_Size ( FACH)

coding = turbo; CRCsize = 16; RateMatching = 130

Constraint Name : c\_FACH\_TFS\_UE

Group :

**ASN1 Type** : CommonTransChTFS

Derivation Path : Encoding Variation :

**Comments**: transport format set for FACH

```
Constraint Value
```

```
{
  tti tti10 :{ {
    rlc_Size fdd : {octetModeRLC_SizeInfoType2 sizeType1: 15},
    numberOfTbSizeList { zero : NULL, one : NULL, small : 2},
    logicalChannelList allSizes : NULL
}},
  semistaticTF_Information {
    channelCodingType convolutional : half,
    rateMatchingAttribute 220,
    crc_Size crc16
}
}
```

**Detailed Comments**: TTI = 10 ms;

three transport formats:

TransportBlocks = 2, TB size = 168 bits; TransportBlocks = 1, TB size = 168 bits; TansportBlock =

0, Size = 168.

rlc\_Size = TB\_Size ( FACH)
coding = convolutional;

rate = 1/2; CRCsize = 16; RateMatching = 220

# **ASN.1 Type Constraint Declaration**

Constraint Name : c\_FreqInfo ( p\_uarfcnUL , p\_uarfcnDL : UARFCN )

Group

**ASN1 Type** : FrequencyInfo

Derivation Path : Encoding Variation : Comments :

#### Constraint Value

```
{
    modeSpecificInfo fdd: {
        uarfcn_UL p_uarfcnUL ,
        uarfcn_DL p_uarfcnDL
    }
```

```
ASN.1 Type Constraint Declaration
```

 $\textbf{Constraint Name} \qquad \textbf{:} \ \ c\_MAC\_PagingCfg(p\_E18: B18; p\_dRX: INTEGER) \\$ 

Group :

**ASN1 Type** : CmacPagingConfigReq

Derivation Path : Encoding Variation : Comments :

#### **Constraint Value**

```
{
    pl_BitMapInfo e18: p_E18,
    dRX_CycleLength p_dRX,
    iMSI o_ConvertIMSI(px_IMSI_Def),
    t_pich_T_sccpch FALSE
```

Constraint Name : c\_MIB\_Def (p\_CellInfo : CellInfoCfg)

Group :

**ASN1 Type** : MasterInformationBlock

Derivation Path : Encoding Variation :

Comments : Default setting of MIB. 3GPP TS 34.123–3 clause 8.4.3

#### **Constraint Value**

```
mib_ValueTag 1,
plmn_Type gsm_MAP : {
 plmn_Identity {
  mcc o_HexToDigitsMCC ( p_CellInfo.mcc),
  mnc o_HexToDigitsMNC (p_CellInfo.mnc ) }
sibSb_ReferenceList {
  sibSb_Type sysInfoTypeSB1: 1,
  scheduling {scheduling {
    sib_Pos rep16:1
  }}
 },
 {
  sibSb_Type sysInfoType1: 1,
  scheduling {scheduling {
    sib_Pos rep64:11
  }}
  sibSb_Type sysInfoType2: 1,
  scheduling {scheduling {
    sib_Pos rep64:11
  }}
  sibSb_Type sysInfoType3: 1,
  scheduling {scheduling {
    sib_Pos rep64: 10
 },
  sibSb_Type sysInfoType4: 1,
  scheduling {scheduling {
    sib_Pos rep64: 26
  }}
  sibSb_Type sysInfoType5 : 1,
  scheduling {scheduling {
    segCount 4,
    sib_Pos rep64: 19,
    sib_PosOffsetInfo {so4, so2, so2}
  }}
}
```

Detailed Comments: Assum no segmentation for SIB1, SIB2, SIB3, SIB4.

Contains scheduling informations for SIB1, SIB2, SIB3, SIB4, SIB5 and SB1 only, the scheduling information for other SIBs are in SysInfoTypeSB1.

The value 1 of valueTags is a place holder, actual values of them will be non-zero and assigned

dynamically in various SendSystemInformation test Steps.

Constraint Name : c\_PCH\_TFS

Group :

**ASN1 Type** : CommonOrDedicatedTFS

Derivation Path : Encoding Variation :

**Comments**: transport format set for PCH

#### **Constraint Value**

```
{
  tti tti10:{{
    tb_Size 240,
    numberOfTbSizeList { zero : NULL, one : NULL},
    logicalChannelList allSizes : NULL
}},
semistaticTF_Information {
    channelCodingType convolutional : half,
    rateMatchingAttribute 230,
    crc_Size crc16
}
}
```

**Detailed Comments**: TTI = 10 ms;

two transport formats: TransportBlocks = 1, TB size = 240 bits; TansportBlock = 0, Size = 240.

coding = convolutional;

rate = 1/2; CRCsize = 16; RateMatching = 230

#### **ASN.1 Type Constraint Declaration**

**Constraint Name** : c\_PCH\_TFS\_UE

Group :

**ASN1 Type** : CommonTransChTFS

Derivation Path : Encoding Variation :

**Comments**: transport format set for PCH

### **Constraint Value**

```
{
  tti tti10 :{ {
    rlc_Size fdd : {octetModeRLC_SizeInfoType2 sizeType1: 24},
    numberOfTbSizeList { zero : NULL, one : NULL},
    logicalChannelList allSizes : NULL
  }},
  semistaticTF_Information {
    channelCodingType convolutional : half,
    rateMatchingAttribute 230,
    crc_Size crc16
  }
}
```

**Detailed Comments**: TTI = 10 ms;

two transport formats:

TransportBlocks = 1, TB size = 240 bits; TansportBlock = 0, Size = 240.

rlc\_Size = TB\_Size (PCH) coding = convolutional;

rate = 1/2; CRCsize = 16; RateMatching = 230

```
ASN.1 Type Constraint Declaration
Constraint Name
                 : c_PagingType1_P_TMSI (
                   p_PagCause: PagingCause;
                   p_P_Tmsi : P_TMSI_GSM_MAP;
                   p_Domain: CN_DomainIdentity)
Group
ASN1 Type
                  : PagingType1
Derivation Path
Encoding Variation:
Comments
                                              Constraint Value
 pagingRecordList {
  cn_Identity:{
   pagingCause p_PagCause,
   cn_DomainIdentity p_Domain,
   cn_pagedUE_Identity p_TMSI_GSM_MAP : p_P_Tmsi
 },
 bcch_ModificationInfo OMIT,
 laterNonCriticalExtensions OMIT
Detailed Comments:
```

```
ASN.1 Type Constraint Declaration
                  : c_PagingType1_TMSI ( p_PagCause: PagingCause; p_Tmsi: TMSI_GSM_MAP;
Constraint Name
                      p_Domain : CN_DomainIdentity )
Group
ASN1 Type
                  : PagingType1
Derivation Path
Encoding Variation:
Comments
                                                Constraint Value
 pagingRecordList {
  cn_Identity:{
   pagingCause p_PagCause,
   cn_DomainIdentity p_Domain,
   cn\_pagedUE\_Identity\ tmsi\_GSM\_MAP:\ p\_Tmsi
  }
 bcch_ModificationInfo OMIT,
 laterNonCriticalExtensions OMIT
Detailed Comments:
```

Constraint Name : c\_PichInfo

Group

ASN1 Type : PICH\_Info

Derivation Path : Encoding Variation :

**Comments** : value for pi\_CountPerFrame FFS

#### **Constraint Value**

fdd :{
 channelisationCode256 tsc\_PICH1\_ChC,
 pi\_CountPerFrame e18,
 sttd\_Indicator FALSE

# 

```
rab_Identity gsm_MAP_RAB_Identity : p_RAB_Id,
 cn_DomainIdentity ps_domain,
 re_EstablishmentTimer p_Reesttimer
rb_InformationSetupList {{ --RB_InformationSetupList
  rb_Identity tsc_RB20,
  pdcp_Info OMIT,
  rlc_InfoChoice rlc_Info: p_RLC_Info,
  rb_MappingInfo {
   { --RB_MappingInfo
     ul_LogicalChannelMappings oneLogicalChannel:{ --UL_LogicalChannelMapping,
      ul_TransportChannelType dch : tsc_UL_DCH1,
      logicalChannelIdentity OMIT,
      rlc_SizeList configured: NULL,
      mac_LogicalChannelPriority 8
     dl_LogicalChannelMappingList {{
       dl_TransportChannelType dch : tsc_DL_DCH1,
       logicalChannelIdentity OMIT
    }}
   },
   { --RB_MappingInfo
    ul_LogicalChannelMappings oneLogicalChannel:{ --UL_LogicalChannelMapping,
      ul_TransportChannelType rach: NULL,
      logicalChannelIdentity tsc_UL_DTCH1,
      rlc_SizeList explicitList : { { rlc_SizeIndex 2} },
      mac_LogicalChannelPriority 8
    dl_LogicalChannelMappingList {{
       dl TransportChannelType fach : NULL,
       logicalChannelIdentity tsc_DL_DTCH1
}}
```

Group :

ASN1 Type : RAB\_InformationSetupList

Derivation Path : Encoding Variation :

Comments : RAB\_InformationSetup for RLC tests on RB10. Reference 3G TS 34.108, clause 6.11.1 to 6.11.4

The corresponding SS entity should be configured as a TM entity, such that the RLC header  $\frac{1}{2}$ 

information can be specified and / or verified from the TTCN.

#### **Constraint Value**

```
{
  rab_Info {
   rab_Identity gsm_MAP_RAB_Identity: p_RAB_Id,
   cn_DomainIdentity p_Domain,
   re_EstablishmentTimer useT314
  rb_InformationSetupList {{
    rb_Identity p_RB_Id,
    pdcp_Info OMIT,
    rlc_InfoChoice rlc_Info :p_RLC_Info,
    rb_MappingInfo {{
       ul_LogicalChannelMappings oneLogicalChannel:{
        ul_TransportChannelType dch: tsc_UL_DCH1,
        logicalChannelIdentity tsc_UL_DTCH1,
        rlc_SizeList configured :NULL,
        mac_LogicalChannelPriority 7
       dl_LogicalChannelMappingList {{
         dl_TransportChannelType dch: tsc_DL_DCH1,
         logicalChannelIdentity tsc_DL_DTCH1
      }}
    }}
  }}
}
```

Constraint Name : c\_RACH\_TFS

Group :

**ASN1 Type** : CommonOrDedicatedTFS

Derivation Path : Encoding Variation :

**Comments**: transport format set for RACH

#### **Constraint Value**

```
{
tti tti20 :{{
    tb_Size 168,
    numberOfTbSizeList { one : NULL},
    logicalChannelList configured : NULL
},
{
    tb_Size 360,
    numberOfTbSizeList { one : NULL },
    logicalChannelList configured : NULL
}},
semistaticTF_Information {
    channelCodingType convolutional : half,
    rateMatchingAttribute 150,
    crc_Size crc16
}
}
```

**Detailed Comments**: TTI = 20 ms;

two transport formats: TransportBlocks = 1, TB size = 168 bits and TransportBlocks = 1, TB size =

360 bits;

coding = convolutional;

rate = 1/2; CRCsize = 16

Constraint Name : c\_RACH\_TFS\_UE

Group :

ASN1 Type : CommonTransChTFS

Derivation Path : Encoding Variation :

Comments : transport format set for RACH used in message sent to UE

#### **Constraint Value**

```
{
    tti tti20 :{{
        rlc_Size fdd : {octetModeRLC_SizeInfoType2 sizeType1: 15},
        numberOfTbSizeList { one : NULL},
        logicalChannelList configured : NULL
    },
    {
        rlc_Size fdd : { octetModeRLC_SizeInfoType2 sizeType2 : 3},
        numberOfTbSizeList { one : NULL },
        logicalChannelList configured : NULL
    }},
    semistaticTF_Information {
        channelCodingType convolutional : half,
        rateMatchingAttribute 150,
        crc_Size crc16
    }
}
```

**Detailed Comments**: TTI = 20 ms;

two transport formats:

TransportBlocks = 1, TB size = 168 bits and TransportBlocks = 1, TB size = 360 bits;

rlc\_Size = TB\_Size (RACH)
coding = convolutional;

rate = 1/2; CRCsize = 16; RateMatching = 1

#### **ASN.1 Type Constraint Declaration**

Constraint Name : c\_RB2\_IntegrityProtActivationInfoList(p\_RRCSN: RRC\_MessageSequenceNumber)

Group :

**ASN1 Type** : IntegrityProtActivationInfoList

Derivation Path : Encoding Variation :

Comments : To Start Integrity on RB2 in UL

#### **Constraint Value**

```
{{
    rb_Identity tsc_RB2,
    rrc_MessageSequenceNumber p_RRCSN
}}
```

# **ASN.1 Type Constraint Declaration** $\textbf{Constraint Name} \hspace{0.3cm} : \hspace{0.3cm} c\_RB\_ActTimeInfo(p\_RB\_Id: INTEGER; \hspace{0.1cm} p\_N: RLC\_SequenceNumber)$ **ASN1 Type** : RB\_ActivationTimeInfo

**Derivation Path Encoding Variation:** Comments

Group

### **Constraint Value**

rb\_Identity p\_RB\_Id, rlc\_SequenceNumber p\_N

**Detailed Comments:** 

# **ASN.1 Type Constraint Declaration**

Constraint Name : c\_RLC\_InfoAM\_Def

Group

**ASN1 Type** : RLC\_Info

**Derivation Path Encoding Variation:** Comments

#### **Constraint Value**

ul\_RLC\_Mode ul\_AM\_RLC\_Mode: cb\_UL\_AM\_RLC , dl\_RLC\_Mode dl\_AM\_RLC\_Mode : cb\_DL\_AM\_RLC

**Constraint Name**: c\_RestRB\_IntegrityProtActivationInfoList(p\_SN0, p\_SN1, p\_SN3, p\_SN4:

RRC\_MessageSequenceNumber)

Group

ASN1 Type : IntegrityProtActivationInfoList

Derivation Path : Encoding Variation :

Comments : To Start Integrity on RB2 in UL

# **Constraint Value**

```
{{
    rb_Identity tsc_RB0,
    rrc_MessageSequenceNumber p_SN0
},
{
    rb_Identity tsc_RB1,
    rrc_MessageSequenceNumber p_SN1
},
{
    rb_Identity tsc_RB3,
    rrc_MessageSequenceNumber p_SN3
},
{
    rb_Identity tsc_RB4,
    rrc_MessageSequenceNumber p_SN4
}}
Detailed Comments:
```

Constraint Name : c\_SB1\_Def

Group :

**ASN1 Type** : SysInfoTypeSB1

Derivation Path : Encoding Variation :

Comments : Default setting of SB1. scheduling is defined in 3GPP TS 34.123–3 clause 8.4.3

#### **Constraint Value**

```
sib_ReferenceList {
  sib_Type sysInfoType6: 1,
  scheduling {scheduling {
     segCount 4,
     sib_Pos rep64: 3,
     sib_PosOffsetInfo {so4, so2, so2}
  }}
 },
  sib_Type sysInfoType7: NULL,
  scheduling {scheduling {
     sib_Pos rep16: 2
  }}
  sib_Type sysInfoType11: 1,
  scheduling { scheduling {
     segCount 3,
     sib_Pos rep64: 29,
     sib_PosOffsetInfo {so2, so2}
  }}
 },
  sib_Type sysInfoType12: 1,
  scheduling { scheduling {
     segCount 3,
     sib_Pos rep64: 13,
     sib_PosOffsetInfo {so2, so2}
  }}
 },
  sib_Type sysInfoType18: 1,
  scheduling { scheduling {
     sib_Pos rep64: 18
}},
nonCriticalExtensions OMIT
```

**Detailed Comments:** Assum no segmentation for SIB7.

Contains scheduling informations for SIB6, SIB7, SIB11, SIB12, SIB18 only, the scheduling

information for other SIBs may be added later.

The value 1 of valueTags is a place holder, actual values of them will be non-zero and assigned

dynamically in various SendSystemInformation test Steps.

# ASN.1 Type Constraint Declaration Constraint Name : c\_SB1\_Schedul1 Group : ASN1 Type : SchedulingInformation Derivation Path : Encoding Variation : Comments : SB1 of one segment Constraint Value { scheduling { sib\_Pos rep16 :1 } }

**Detailed Comments:** 

# **ASN.1 Type Constraint Declaration**

Constraint Name : c\_SIB11\_Schedul1

Group :

**ASN1 Type** : SchedulingInformation

Derivation Path : Encoding Variation :

Comments : SIB11 of one segment, 3GPP TS 34.123–3 clause 8.4.3

#### **Constraint Value**

```
{
    scheduling {
        sib_Pos rep64 :29
    }
}
```

**Detailed Comments:** 

# **ASN.1 Type Constraint Declaration**

Constraint Name : c\_SIB11\_Schedul2

Group

**ASN1 Type** : SchedulingInformation

Derivation Path : Encoding Variation :

Comments : SIB11 of two segments, 3GPP TS 34.123–3 clause 8.4.3

# **Constraint Value**

```
{
scheduling {
  segCount 2,
  sib_Pos rep64 :29,
  sib_PosOffsetInfo {so2}
}
```

# ASN.1 Type Constraint Declaration Constraint Name : c\_SIB11\_Schedul3 Group : ASN1 Type : SchedulingInformation Derivation Path : Encoding Variation : Comments : SIB11 of three segments, 3GPP TS 34.123–3 clause 8.4.3 Constraint Value { scheduling { scheduling { segCount 3, sib\_Pos rep64 :29, sib\_PosOffsetInfo {so2, so2} } }

```
ASN.1 Type Constraint Declaration

Constraint Name : c_SIB12_Schedul1
Group :
ASN1 Type : SchedulingInformation
Derivation Path :
Encoding Variation :
Comments : SIB12 of one segment, 3GPP TS 34.123–3 clause 8.4.3

Constraint Value

{
    scheduling {
        sib_Pos rep64 :13
      }
}
Detailed Comments :
```

```
ASN.1 Type Constraint Declaration
Constraint Name
                  : c_SIB12_Schedul2
Group
ASN1 Type
                  : SchedulingInformation
Derivation Path
Encoding Variation:
Comments
                  : SIB12 of two segments, 3GPP TS 34.123-3 clause 8.4.3
                                                Constraint Value
 scheduling {
  segCount 2,
  sib_Pos rep64: 13,
  sib_PosOffsetInfo {so2}
Detailed Comments:
```

Constraint Name : c\_SIB12\_Schedul3

Group :

**ASN1 Type** : SchedulingInformation

Derivation Path : Encoding Variation :

Comments : SIB12 of three segments, 3GPP TS 34.123–3 clause 8.4.3

#### **Constraint Value**

```
{
  scheduling {
    segCount 3,
    sib_Pos rep64 :13,
    sib_PosOffsetInfo {so2, so2}
  }
}
```

**Detailed Comments:** 

# **ASN.1 Type Constraint Declaration**

Constraint Name : c\_SIB18\_2PLMN ( p\_InterCellInfo : CellInfoCfg )

Group :

**ASN1 Type** : SysInfoType18

Derivation Path : Encoding Variation :

**Comments**: The Cell Info will be of the cell of other PLMN

# **Constraint Value**

```
idleModePLMNIdentities
{
    plmnsOfIntraFreqCellsList OMIT,
    plmnsOfInterFreqCellsList
    {{
        plmn_Identity {
            mcc o_HexToDigitsMCC ( p_InterCellInfo.mcc),
            mnc o_HexToDigitsMNC (p_InterCellInfo.mnc )
        }
    }},
    plmnsOfInterRATCellsList OMIT
},
    connectedModePLMNIdentities OMIT,
    nonCriticalExtensions OMIT
```

Constraint Name : c\_SIB18\_3PLMN ( p\_Inter1CellInfo, p\_Inter2CellInfo : CellInfoCfg )

Group :

ASN1 Type : SysInfoType18

Derivation Path : Encoding Variation :

Comments : The Cell Info will be of the one cell each of other PLMN's

#### **Constraint Value**

```
idleModePLMNIdentities
 plmnsOfIntraFreqCellsList OMIT,
 plmnsOfInterFreqCellsList\\
   plmn_Identity {
    mcc o_HexToDigitsMCC ( p_Inter1CellInfo.mcc),
    mnc o_HexToDigitsMNC (p_Inter1CellInfo.mnc )
   },{
   plmn_Identity {
    mcc o_HexToDigitsMCC ( p_Inter1CellInfo.mcc),
    mnc o_HexToDigitsMNC (p_Inter1CellInfo.mnc )
   plmn_Identity {
    mcc o_HexToDigitsMCC ( p_Inter1CellInfo.mcc),
    mnc o_HexToDigitsMNC (p_Inter1CellInfo.mnc)
   plmn_Identity {
    mcc o_HexToDigitsMCC ( p_Inter2CellInfo.mcc),
    mnc o_HexToDigitsMNC (p_Inter2CellInfo.mnc )
 }},
 plmnsOfInterRATCellsList OMIT
connectedModePLMNIdentities OMIT,
nonCriticalExtensions OMIT
```

# **ASN.1 Type Constraint Declaration Constraint Name** : c\_SIB18\_Def ( p\_CellInfo : CellInfoCfg ) Group **ASN1 Type** : SysInfoType18 **Derivation Path Encoding Variation:** Comments **Constraint Value** idleModePLMNIdentities plmnsOfIntraFreqCellsList OMIT, plmnsOfInterFreqCellsList OMIT, plmnsOfInterRATCellsList OMIT connectedModePLMNIdentities OMIT, nonCriticalExtensions OMIT **Detailed Comments:**

```
ASN.1 Type Constraint Declaration

Constraint Name : c_SIB2_Def ( p_CellInfo : CellInfoCfg )

Group :
ASN1 Type : SysInfoType2

Derivation Path :
Encoding Variation :
Comments : Default system information block type 2

Constraint Value

{
    ura_IdentityList { p_CellInfo.ura_Identity },
    nonCriticalExtensions OMIT
}

Detailed Comments : for cell 1 and cell 2.
```

```
ASN.1 Type Constraint Declaration

Constraint Name : c_SIB5_Schedul1
Group :
ASN1 Type : SchedulingInformation
Derivation Path :
Encoding Variation :
Comments : SIB5 of one segment, 3GPP TS 34.123–3 clause 8.4.3

Constraint Value

{
scheduling {
sib_Pos rep64 :19
}
}
Detailed Comments :
```

Constraint Name : c\_SIB5\_Schedul2

Group :

**ASN1 Type** : SchedulingInformation

Derivation Path : Encoding Variation :

Comments : SIB5 of two segments, 3GPP TS 34.123–3 clause 8.4.3

#### **Constraint Value**

```
{
    scheduling {
        segCount 2,
        sib_Pos rep64 :19,
        sib_PosOffsetInfo {so4}
    }
```

**Detailed Comments:** 

# **ASN.1 Type Constraint Declaration**

Constraint Name : c\_SIB5\_Schedul3

Group :

**ASN1 Type** : SchedulingInformation

Derivation Path : Encoding Variation :

**Comments**: SIB5 of three segments, 3GPP TS 34.123–3 clause 8.4.3

# **Constraint Value**

```
{
    scheduling {
        segCount 3,
        sib_Pos rep64 :19,
        sib_PosOffsetInfo {so4, so2}
    }
```

# ASN.1 Type Constraint Declaration Constraint Name : c\_SIB5\_Schedul4 Group : ASN1 Type : SchedulingInformation Derivation Path : Encoding Variation : Comments : SIB5 of four segments, 3GPP TS 34.123–3 clause 8.4.3 Constraint Value { scheduling { scheduling { segCount 4, sib\_Pos rep64 :19, sib\_PosOffsetInfo {so4, so2, so2} } } }

```
ASN.1 Type Constraint Declaration

Constraint Name : c_SIB6_Schedul1
Group :
ASN1 Type : SchedulingInformation
Derivation Path :
Encoding Variation :
Comments : SIB6 of one segment

Constraint Value

{
    scheduling {
        sib_Pos rep64 : 3
    }
}
Detailed Comments :
```

```
ASN.1 Type Constraint Declaration

Constraint Name : c_SIB6_Schedul2
Group :
ASN1 Type : SchedulingInformation
Derivation Path :
Encoding Variation :
Comments : SIB6 of two segments

Constraint Value

{
    scheduling {
        segCount 2,
        sib_Pos rep64 :3,
        sib_PosOffsetInfo {so4}
    }
}
Detailed Comments :
```

Constraint Name : c\_SIB6\_Schedul3

Group :

**ASN1 Type** : SchedulingInformation

Derivation Path : Encoding Variation :

**Comments** : SIB6 of three segments

# **Constraint Value**

```
{
  scheduling {
    segCount 3,
    sib_Pos rep64 :3,
    sib_PosOffsetInfo {so4, so2}
  }
}
```

**Detailed Comments:** 

# **ASN.1 Type Constraint Declaration**

Constraint Name : c\_SIB6\_Schedul4

Group :

**ASN1 Type** : SchedulingInformation

Derivation Path : Encoding Variation :

**Comments** : SIB6 of four segments

# **Constraint Value**

```
{
  scheduling {
    segCount 4,
    sib_Pos rep64 :3,
    sib_PosOffsetInfo {so4, so2, so2}
  }
}
```

Constraint Name : c\_SIB7\_Def

Group :

**ASN1 Type** : SysInfoType7

Derivation Path : Encoding Variation :

Comments : Default system information block type 7

#### **Constraint Value**

```
{
    modeSpecificInfo fdd : {
      ul_Interference -100
    },
    prach_Information_SIB5_List { 2 },
    prach_Information_SIB6_List { 2 },
    nonCriticalExtensions OMIT
    }
```

```
ASN.1 Type Constraint Declaration
Constraint Name
                  : c_SRB_InfoSetupAM_DCH (
                     p_UI_lgchId: LogicalChannelIdentity;
                    p_MAC_lgch_prtDCH , p_MAC_lgch_prtRACH : MAC_LogicalChannelPriority ;
                    p_DI_lgchId: LogicalChannelIdentity
Group
ASN1 Type
                   : SRB_InformationSetup
Derivation Path
Encoding Variation:
Comments
                                                  Constraint Value
 rb_Identity OMIT,
 rlc_InfoChoice rlc_Info:
  ul_RLC_Mode ul_AM_RLC_Mode: cd_UL_AM_RLC_SRB,
  dl_RLC_Mode dl_AM_RLC_Mode : cd_DL_AM_RLC_SRB
 rb_MappingInfo
 {
   ul_LogicalChannelMappings oneLogicalChannel: {
    ul_TransportChannelType dch: tsc_UL_DCH5,
    logicalChannelIdentity p_UI_lgchId,
    rlc_SizeList configured :NULL,
    mac_LogicalChannelPriority p_MAC_lgch_prtDCH
   dl_LogicalChannelMappingList{{
     dl_TransportChannelType dch: tsc_DL_DCH5,
     logicalChannelIdentity p_DI_lgchld
   }}
  },
   ul_LogicalChannelMappings oneLogicalChannel: {
    ul_TransportChannelType rach:NULL,
    logicalChannelIdentity p_UI_lgchId,
    rlc\_SizeList\ explicitList\ :\ \{\ rlc\_SizeIndex\ 1\}\ \},
    mac_LogicalChannelPriority p_MAC_lgch_prtRACH
   dl_LogicalChannelMappingList{{
     dl_TransportChannelType fach: NULL,
     logicalChannelIdentity p_DI_lgchld
}
Detailed Comments:
```

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**Constraint Name**: c\_SRB\_InfoSetupAM\_FACH ( p\_RB\_Id: RB\_Identity; p\_UI\_IgchId:

LogicalChannelIdentity;p\_MAC\_lgch\_prtDCH , p\_MAC\_lgch\_prt: MAC\_LogicalChannelPriority;

p\_DI\_lgchld: LogicalChannelIdentity)

Group :

**ASN1 Type** : SRB\_InformationSetup

Derivation Path : Encoding Variation : Comments :

#### **Constraint Value**

```
rb_Identity p_RB_Id,
rlc_InfoChoice rlc_Info:
 ul_RLC_Mode ul_AM_RLC_Mode: cd_UL_AM_RLC_SRB,
 dl_RLC_Mode dl_AM_RLC_Mode: cd_DL_AM_RLC_SRB
rb_MappingInfo
  ul_LogicalChannelMappings oneLogicalChannel: {
   ul_TransportChannelType rach: NULL,
   logicalChannelIdentity p_UI_lgchId,
   rlc_SizeList explicitList : { { rlc_SizeIndex 1} },
   mac_LogicalChannelPriority p_MAC_lgch_prt
  dl_LogicalChannelMappingList{{
    dl_TransportChannelType fach: NULL,
    logicalChannelIdentity p_DI_lgchld
  }}
 },
  ul_LogicalChannelMappings oneLogicalChannel: {
   ul_TransportChannelType dch: tsc_UL_DCH5,
   logicalChannelIdentity p_UI_lgchId,
   rlc_SizeList configured :NULL,
   mac_LogicalChannelPriority p_MAC_lgch_prtDCH
  dl_LogicalChannelMappingList{{
    dl_TransportChannelType dch: tsc_DL_DCH5,
    logicalChannelIdentity p_DI_lgchld
  }}
 }
```

Constraint Name : c\_SRB\_InfoSetupUM\_DCH ( p\_UI\_lgchId : LogicalChannelIdentity ; p\_MAC\_lgch\_prtDCH, p\_MAC\_lgch\_prtRACH : MAC\_LogicalChannelPriority ; p\_DI\_lgchId : LogicalChannelIdentity )

Group :

ASN1 Type : SRB\_InformationSetup

Derivation Path : Encoding Variation : Comments :

# **Constraint Value**

```
rb_Identity OMIT,
rlc_InfoChoice rlc_Info:
 ul_RLC_Mode ul_UM_RLC_Mode:
  transmissionRLC_Discard OMIT
 dl_RLC_Mode dl_UM_RLC_Mode: NULL
rb_MappingInfo
{
  ul_LogicalChannelMappings oneLogicalChannel: {
   ul_TransportChannelType dch: tsc_UL_DCH5,
   logicalChannelIdentity p_UI_lgchId,
   rlc_SizeList configured :NULL,
   mac_LogicalChannelPriority p_MAC_lgch_prtDCH
  dl_LogicalChannelMappingList{{
    dl_TransportChannelType dch: tsc_DL_DCH5,
    logicalChannelIdentity p_DI_lgchld
  }}
 },
  ul_LogicalChannelMappings oneLogicalChannel: {
   ul_TransportChannelType rach:NULL,
   logicalChannelIdentity p_UI_lgchld,
   rlc\_SizeList\ explicitList\ :\ \{\ rlc\_SizeIndex\ 1\}\ \},
   mac_LogicalChannelPriority p_MAC_lgch_prtRACH
  dl_LogicalChannelMappingList{{
    dl_TransportChannelType fach: NULL,
    logicalChannelIdentity p_DI_lgchld
```

 $\textbf{Constraint Name} \hspace{0.3cm} : \hspace{0.3cm} c\_SRB\_InfoSetupUM\_FACH \hspace{0.1cm} (\hspace{0.1cm} p\_RB\_Id: \hspace{0.1cm} RB\_Identity; \hspace{0.1cm} p\_UI\_IgchId: \hspace{0.1cm} LogicalChannelIdentity; \hspace{0.1cm} (\hspace{0.1cm} p\_RB\_Id: \hspace{0.1cm} RB\_Identity; \hspace{0.1cm} p\_UI\_IgchId: \hspace{0.1cm} LogicalChannelIdentity; \hspace{0.1cm} (\hspace{0.1cm} p\_RB\_Id: \hspace{0.1cm} RB\_Identity; \hspace{0.1cm} p\_UI\_IgchId: \hspace{0.1cm} LogicalChannelIdentity; \hspace{0.1cm} (\hspace{0.1cm} p\_RB\_Id: \hspace{0.1cm} RB\_Identity; \hspace{0.1cm} p\_UI\_IgchId: \hspace{0.1cm} LogicalChannelIdentity; \hspace{0.1cm} (\hspace{0.1cm} p\_RB\_Id: \hspace{0.1cm} RB\_Identity; \hspace{0.1cm} p\_UI\_IgchId: \hspace{0.1cm} LogicalChannelIdentity; \hspace{0.1cm} (\hspace{0.1cm} p\_RB\_Id: \hspace{0.1cm} RB\_Identity; \hspace{0.1cm} p\_UI\_IgchId: \hspace{0.1cm} LogicalChannelIdentity; \hspace{0.1cm} (\hspace{0.1cm} p\_RB\_Id: \hspace{0.1cm} RB\_Identity; \hspace{0.1cm} (\hspace{0.1cm} p\_RB\_Id: \hspace{0.1cm} RB\_Id: \hspace{0.1cm} (\hspace{0.1cm} p\_RB\_Id: \hspace{0.1cm} RB\_Id: \hspace{0.1cm} (\hspace{0.1cm} p\_RB\_Id: \hspace{0.1cm} RB\_Id: \hspace{0.1cm} RB\_Id: \hspace{0.1cm} (\hspace{0.1cm} p\_RB\_Id: \hspace{0.1cm} RB\_Id: \hspace{0.1cm} (\hspace{0.1cm} p\_RB\_Id: \hspace{0.1cm} RB\_Id: \hspace{0.1cm} RB\_Id: \hspace{0.1cm} (\hspace{0.1cm} p\_RB\_Id: \hspace{0.1cm} RB\_Id: \hspace{0.1cm} RB\_Id: \hspace{0.1cm} RB\_Id: \hspace{0.1cm} (\hspace{0.1cm} p\_RB\_Id: \hspace{0.1cm} RB\_Id: \hspace{0.1cm} RB\_Id: \hspace{0.1cm} (\hspace{0.1cm} p\_RB\_Id: \hspace{0.1cm} RB\_Id: \hspace{0.1cm} RB\_Id: \hspace{0.1cm} RB\_Id: \hspace{0.1cm} RB\_Id: \hspace{0.1cm} (\hspace{0.1cm} p\_R$ 

p\_MAC\_lgch\_prtDCH , p\_MAC\_lgch\_prt: MAC\_LogicalChannelPriority; p\_Dl\_lgchld:

LogicalChannelIdentity)

Group :

**ASN1 Type** : SRB\_InformationSetup

Derivation Path : Encoding Variation : Comments :

#### **Constraint Value**

```
rb_Identity p_RB_Id,
rlc_InfoChoice rlc_Info:
 ul_RLC_Mode ul_UM_RLC_Mode:
  transmissionRLC_Discard timerBasedNoExplicit: dt50
 dl_RLC_Mode dl_UM_RLC_Mode: NULL
},
rb_MappingInfo
{
  ul_LogicalChannelMappings oneLogicalChannel: {
   ul_TransportChannelType rach:NULL,
   logicalChannelIdentity p_UI_lgchId,
   rlc_SizeList explicitList : { { rlc_SizeIndex 1} },
   mac_LogicalChannelPriority p_MAC_lgch_prt
  dl_LogicalChannelMappingList{{
    dl_TransportChannelType fach: NULL,
    logicalChannelIdentity p_DI_lgchld
  }}
 },
  ul_LogicalChannelMappings oneLogicalChannel: {
   ul_TransportChannelType dch: tsc_UL_DCH5,
   logicalChannelIdentity p_UI_lgchId,
   rlc_SizeList configured :NULL,
   mac_LogicalChannelPriority p_MAC_lgch_prtDCH
  dl_LogicalChannelMappingList{{
    dl_TransportChannelType dch: tsc_DL_DCH5,
    logicalChannelIdentity p_DI_lgchld
```

```
Constraint Name : c_TFCS_Cmpl0_1_2_3_4_5_6_7_8_9_Rx
```

Group :

ASN1 Type : TFCS

Derivation Path :

Encoding Variation :

Comments :

#### **Constraint Value**

```
normalTFCI_Signalling: complete: {
 ctfcSize ctfc4Bit:{
   powerOffsetInformation OMIT
  },
   ctfc4 1,
   powerOffsetInformation OMIT
   ctfc4 2,
   powerOffsetInformation OMIT
   ctfc4 3,
   powerOffsetInformation OMIT
   powerOffsetInformation OMIT
   ctfc4 5,
   powerOffsetInformation OMIT
   powerOffsetInformation OMIT
   ctfc47,
   powerOffsetInformation OMIT
   powerOffsetInformation OMIT
   ctfc4 9,
   powerOffsetInformation OMIT
```

)

Group :
ASN1 Type : TFCS
Derivation Path :

Encoding Variation:
Comments:

#### **Constraint Value**

```
normalTFCI_Signalling: complete: {
 ctfcSize ctfc4Bit:{
   ctfc4 0,
   powerOffsetInformation c_PowerOffsetInfoComputed
   ctfc4 1,
   powerOffsetInformation c_PowerOffsetInfoComputed
   ctfc4 2,
   powerOffsetInformation c_PowerOffsetInfoComputed
  },
   powerOffsetInformation c_PowerOffsetInfoComputed
   powerOffsetInformation c_PowerOffsetInfoComputed
   powerOffsetInformation c_PowerOffsetInfoComputed
   ctfc4 6,
   powerOffsetInformation c_PowerOffsetInfoComputed
   ctfc4 7,
   powerOffsetInformation c_PowerOffsetInfoComputed
   ctfc4 8,
   powerOffsetInformation c_PowerOffsetInfoComputed
   powerOffsetInformation p_PowerOffsetInformation
```

Constraint Name : c\_TFCS\_Cmpl0\_1\_2\_3\_Rx

Group : TFCS
ASN1 Type : TFCS
Derivation Path : Encoding Variation :

Comments : TFCS information without power offset information – for receiver

#### **Constraint Value**

```
normalTFCI_Signalling: complete: {
  ctfcSize ctfc4Bit:{
    {
     ctfc4 0,  
     powerOffsetInformation OMIT
    },
    {
     ctfc4 1,  
     powerOffsetInformation OMIT
    },
    {
     ctfc4 2,  
     powerOffsetInformation OMIT
    },
    {
     ctfc4 3,  
     powerOffsetInformation OMIT
    }
}
```

Constraint Name : c\_TFCS\_Cmpl0\_1\_2\_3\_Tx ( p\_PowerOffsetInformation : PowerOffsetInformation )

Group : TFCS
ASN1 Type : TFCS
Derivation Path : Encoding Variation :

**Comments**: TFCS information with power offset information – for transmitter

#### **Constraint Value**

```
normalTFCI_Signalling: complete: {
  ctfcSize ctfc4Bit:{
    {
      ctfc4 0,
      powerOffsetInformation c_PowerOffsetInfoComputed
    },
    {
      ctfc4 1,
      powerOffsetInformation c_PowerOffsetInfoComputed
    },
    {
      ctfc4 2,
      powerOffsetInformation c_PowerOffsetInfoComputed
    },
    {
      ctfc4 3,
      powerOffsetInformation p_PowerOffsetInformation
    }
}
```

**Detailed Comments:** 

# **ASN.1 Type Constraint Declaration**

Constraint Name : c\_TFCS\_Cmpl0\_1\_Rx

Group :
ASN1 Type : TFCS
Derivation Path :
Encoding Variation :

**Comments**: TFCS information without power offset information – for receiver

## **Constraint Value**

 $\textbf{Constraint Name} \quad : c\_TFCS\_Cmpl0\_1\_Tx \ ( \ p\_PowerOffsetInformation \ : PowerOffsetInformation \ )$ 

Group : TFCS
ASN1 Type : TFCS
Derivation Path : Encoding Variation :

Comments : TFCS information with power offset information – for transmitter

#### **Constraint Value**

```
normalTFCI_Signalling: complete: {
    ctfcSize ctfc2Bit:{
        ctfc2 0,
        powerOffsetInformation c_PowerOffsetInfoComputed
    },
    {
        ctfc2 1,
        powerOffsetInformation p_PowerOffsetInformation
    }
}
```

Constraint Name : c\_TFCS\_CmplFACH\_Tx ( p\_PowerOffsetInformation : PowerOffsetInformation )

Group : TFCS
ASN1 Type : TFCS
Derivation Path : Encoding Variation :

**Comments**: TFCS information with power offset information – for transmitter

#### **Constraint Value**

```
normalTFCI_Signalling: complete: {
    ctfc4 0,
        powerOffsetInformation c_PowerOffsetInfoComputed },
    {
        ctfc4 1,
        powerOffsetInformation c_PowerOffsetInfoComputed },
        {
        ctfc4 2,
        powerOffsetInformation c_PowerOffsetInfoComputed },
        {
        ctfc4 3,
        powerOffsetInformation c_PowerOffsetInfoComputed },
        {
        ctfc4 4,
        powerOffsetInformation c_PowerOffsetInfoComputed },
        {
        ctfc4 5,
        powerOffsetInformation c_PowerOffsetInfoComputed },
        {
        ctfc4 6,
        powerOffsetInformation c_PowerOffsetInfoComputed },
        {
        ctfc4 6,
        powerOffsetInformation c_PowerOffsetInfoComputed },
        {
        ctfc4 8,
        powerOffsetInformation p_PowerOffsetInfoComputed },
    }
```

### **Detailed Comments:**

# **ASN.1 Type Constraint Declaration**

Constraint Name : c\_TrChConfigTypeDCH\_NoSHO

Group

**ASN1 Type** : TrChConfigType

Derivation Path : Encoding Variation : Comments :

#### **Constraint Value**

dch : normal

### **ASN.1 Type Constraint Declaration Constraint Name** : c\_TrChInfoBCH1 Group **ASN1 Type** : TrCHInfo **Derivation Path Encoding Variation:** Comments **Constraint Value** dlconnectedTrCHList { { trchid tsc\_BCH1, transportChannelInfo { tti tti20 : {{tb\_Size 246, numberOfTbSizeList {one : NULL}, logicalChannelList configured: NULL}}, semistaticTF\_Information { channelCodingType convolutional :half, rateMatchingAttribute 1, crc\_Size crc16 } }}, dITFCS c\_TFCS\_Cmpl0 ( c\_PowerOffsetInfoBelow64k )

# ASN.1 Type Constraint Declaration Constraint Name : c\_TrChInfoDL\_13\_6\_StandAlone Group : ASN1 Type : TrCHInfo Derivation Path : Encoding Variation : Comments : Constraint Value { dlconnectedTrCHList { { trchid tsc\_DL\_DCH5, transportChannelInfo c\_DCH\_148\_TTI\_10\_TFS }}, dlTFCS c\_TFCS\_CmpI0\_1\_Tx (c\_PowerOffsetInfoBelow64k) } Detailed Comments :

Constraint Name : c\_TrChInfoDL\_336\_148\_RLC\_UM

Group

ASN1 Type : TrCHInfo

Derivation Path : Encoding Variation :

**Comments**: DL Transport channel configuration information for RLC tests using 336 bit transport blocks.

This information is used within the CMAC\_Config\_REQ for DCH1 and DCH5

Reference 3G TS 34.108 clause 6.11.1 and 6.11.3.

### **Constraint Value**

```
{
    dlconnectedTrCHList {
        {
             trchid tsc_DL_DCH1,
            transportChannelInfo c_DCH_336_TFS_RLC_UM
        },
        {
             trchid tsc_DL_DCH5,
            transportChannelInfo c_DCH_148_TFS_DL
        }
        },
        dlTFCS c_TFCS_Cmpl0_1_2_3_Tx ( c_PowerOffsetInfoHigher64k ) --- sent to SS
}

Patrillal Comments of
```

### **Detailed Comments:**

### **ASN.1 Type Constraint Declaration**

Constraint Name : c\_TrChInfoPCH\_FACH

Group :

ASN1 Type : TrCHInfo

Derivation Path : Encoding Variation :

**Comments** : For FDD mode only

### **Constraint Value**

```
{
    dlconnectedTrCHList {
        { trchid tsc_PCH1,
            transportChannelInfo c_PCH_TFS
        },
        { trchid tsc_FACH1,
            transportChannelInfo c_FACH_TFS
        },
        { trchid tsc_FACH2,
            transportChannelInfo c_FACH_TFS_PS
        },
        dlTFCS c_TFCS_CmplFACH_Tx ( c_PowerOffsetInfoBelow64k ) --- sent to SS
    }
```

Constraint Name : c\_TrChInfoPCH\_FACH\_PS

Group

ASN1 Type : TrCHInfo

Derivation Path : Encoding Variation :

Comments : For FDD mode only (PS)

```
{
    dlconnectedTrCHList {
        { trchid tsc_PCH1,
            transportChannelInfo c_PCH_TFS
        },
        { trchid tsc_FACH1,
            transportChannelInfo c_FACH_TFS
        },
        { trchid tsc_FACH2,
            transportChannelInfo c_FACH_TFS_PS
```

**Constraint Value** 

**Detailed Comments:** 

### **ASN.1 Type Constraint Declaration**

Constraint Name : c\_TrChInfoUL\_13\_6\_StandAlone

dITFCS c\_TFCS\_CmpIFACH\_Tx ( c\_PowerOffsetInfoBelow64k ) -- sent to SS

Group :

ASN1 Type : TrCHInfo

Derivation Path : Encoding Variation : Comments :

### **Constraint Value**

```
{
    ulconnectedTrCHList {
        { trchid tsc_UL_DCH5,
            transportChannelInfo c_DCH_148_TTI_10_TFS
        }},
    ulTFCS c_TFCS_Cmpl0_1_Rx -- sent to SS
}
```

Constraint Name : c\_TrChInfoUL\_336\_148\_RLC\_UM

Group

ASN1 Type : TrCHInfo

Derivation Path : Encoding Variation :

**Comments**: UL Transport channel configuration information for RLC tests using 336 bit transport blocks.

This information is used within the CMAC\_Config\_REQ for DCH1 and DCH5

Reference 3G TS 34.108 clause 6.11.1

### **Constraint Value**

```
{
    ulconnectedTrCHList {
        {
             trchid tsc_UL_DCH1,
            transportChannelInfo c_DCH_336_TFS_RLC_UM
        },
        {
             trchid tsc_UL_DCH5,
            transportChannelInfo c_DCH_148_TFS_UL
        }
        },
        ulTFCS c_TFCS_Cmpl0_1_2_3_Rx --- sent to SS
}
```

### **Detailed Comments:**

### **ASN.1 Type Constraint Declaration**

Constraint Name : c\_TrLogMappingBCH1

Group :

**ASN1 Type** : TrCH\_LogCHMappingList1

Derivation Path : Encoding Variation : Comments :

### **Constraint Value**

Constraint Name : c\_TrLogMappingDL\_4DCCH

Group :

**ASN1 Type** : TrCH\_LogCHMappingList1

Derivation Path : Encoding Variation : Comments :

### **Constraint Value**

```
ulconnectedTrCHList OMIT,
dlconnectedTrCHList {
  trchid tsc_DL_DCH5,
  trCH_LogCHMappingList {
    logicalChannel_Mapping dl_LogicalChannelMapping: {
     macHeaderManipulation normalMacHeader,
     dl_TransportChannelType dch,
     logicalChannelIdentity tsc_DL_DCCH1,
     logicalChannelType dCCH,
     rlc_SizeList configured: NULL,
     mac_LogicalChannelPriority 1
    rB_Identity tsc_RB1
    logicalChannel_Mapping dl_LogicalChannelMapping : {
     macHeaderManipulation normalMacHeader,
     dl_TransportChannelType dch,
     logicalChannelIdentity tsc DL DCCH2,
     logicalChannelType dCCH,
     rlc_SizeList configured : NULL,
     mac_LogicalChannelPriority 2
    rB_Identity tsc_RB2
    logicalChannel_Mapping dl_LogicalChannelMapping: {
     macHeaderManipulation normalMacHeader,
     dl_TransportChannelType dch,
     logicalChannelIdentity tsc_DL_DCCH3,
     logicalChannelType dCCH,
     rlc_SizeList configured: NULL,
     mac_LogicalChannelPriority 3
    rB_Identity tsc_RB3
    logicalChannel_Mapping dl_LogicalChannelMapping: {
     macHeaderManipulation normalMacHeader,
     dl_TransportChannelType dch,
     logicalChannelIdentity tsc_DL_DCCH4,
     logicalChannelType dCCH,
     rlc_SizeList configured: NULL,
     mac_LogicalChannelPriority 4
    rB_Identity tsc_RB4
```

Constraint Name : c\_TrLogMappingDL\_4DCCH\_1DTCH\_RLC( p\_RB\_Identity: SS\_RB\_Identity )

Group

ASN1 Type : TrCH\_LogCHMappingList1

Derivation Path : Encoding Variation :

Comments : DL Logical channel mapping list for RLC tests. The DTCH RAB for RLC testing is mapped to

DCH1. The SRBs are mapped to DCH5.

Parameters p\_RB\_Identity:

The RB Id to be used within the SS. This value can be used by the SS decoder to determine which

RLC mode is being simulated.

Expected values: -10 => UM7 -11 => UM15 -12 => AM7 -13 => AM15

### **Constraint Value**

```
ulconnectedTrCHList OMIT,
dlconnectedTrCHList {
  trchid tsc_DL_DCH1,
  trCH_LogCHMappingList {
    logicalChannel_Mapping dl_LogicalChannelMapping: {
     macHeaderManipulation normalMacHeader,
     dl_TransportChannelType dch,
     logicalChannelIdentity tsc_DL_DTCH1,
     logicalChannelType dTCH,
     rlc_SizeList configured: NULL,
     mac_LogicalChannelPriority 7
    rB_Identity p_RB_Identity
  trchid tsc_DL_DCH5,
  trCH_LogCHMappingList {
    logicalChannel_Mapping dl_LogicalChannelMapping: {
     macHeaderManipulation normalMacHeader,
     dl TransportChannelType dch,
     logicalChannelIdentity tsc_DL_DCCH1,
     logicalChannelType dCCH,
     rlc_SizeList configured: NULL,
     mac_LogicalChannelPriority 1
    rB_Identity tsc_RB1
   },
    logicalChannel_Mapping dl_LogicalChannelMapping: {
     macHeaderManipulation normalMacHeader,
     dl_TransportChannelType dch,
     logicalChannelIdentity tsc_DL_DCCH2,
     logicalChannelType dCCH,
     rlc_SizeList configured: NULL,
     mac_LogicalChannelPriority 2
```

### **Constraint Value**

```
rB_Identity tsc_RB2
logicalChannel_Mapping dl_LogicalChannelMapping : {
macHeaderManipulation normalMacHeader,
dl_TransportChannelType dch, logicalChannelIdentity tsc_DL_DCCH3,
logicalChannelType dCCH,
rlc_SizeList configured : NULL,
mac_LogicalChannelPriority 3
rB_Identity tsc_RB3
logicalChannel_Mapping dl_LogicalChannelMapping : {
macHeaderManipulation normalMacHeader,
dl_TransportChannelType dch,
logicalChannelIdentity tsc_DL_DCCH4,
logicalChannelType dCCH,
rlc_SizeList configured: NULL,
mac_LogicalChannelPriority 4
rB_Identity tsc_RB4
```

Constraint Name : c\_TrLogMappingPCH\_FACH\_CellDCH

Group :

ASN1 Type : TrCH\_LogCHMappingList1

Derivation Path : Encoding Variation :

**Detailed Comments:** 

Comments : For FDD mode only. map PCCH to PCH and CCCH and BCCH(for BCCH\_FACH)

To be used for the Cell DCH configuration

### **Constraint Value**

```
ulconnectedTrCHList OMIT,
dlconnectedTrCHList {
  trchid tsc_PCH1,
  trCH_LogCHMappingList {
    logicalChannel_Mapping dl_LogicalChannelMapping : {
     macHeaderManipulation normalMacHeader,
     dl_TransportChannelType pch,
     logicalChannelIdentity tsc_PCCH1,
     logicalChannelType pCCH,
     rlc_SizeList configured : NULL,
     mac_LogicalChannelPriority 1
    rB_Identity tsc_RB_PCCH
  trchid tsc FACH1,
  trCH_LogCHMappingList {
    logicalChannel_Mapping dl_LogicalChannelMapping : {
     macHeaderManipulation normalMacHeader,
     dl_TransportChannelType fach,
     logicalChannelIdentity tsc_DL_CCCH5,
     logicalChannelType cCCH,
     rlc_SizeList configured : NULL,
     mac_LogicalChannelPriority 1
    rB_Identity tsc_RB0
```

Constraint Name : c\_TrLogMappingPCH\_FACH\_PS

Group :

ASN1 Type : TrCH\_LogCHMappingList1

Derivation Path : Encoding Variation :

Comments: For FDD mode only (PS). map PCCH to PCH and DCCH1, DCCH2, DCCH3, DCCH4, CCCH,

BCCH(for BCCH\_FACH) to FACH2, and DTCH to FACH1

### **Constraint Value**

```
ulconnectedTrCHList OMIT,
dlconnectedTrCHList {
  trchid tsc_PCH1,
  trCH_LogCHMappingList {
    logicalChannel_Mapping dl_LogicalChannelMapping : {
     macHeaderManipulation normalMacHeader,
     dl_TransportChannelType pch,
     logicalChannelIdentity tsc_PCCH1,
     logicalChannelType pCCH,
     rlc_SizeList configured : NULL,
     mac_LogicalChannelPriority 1
    rB_Identity tsc_RB_PCCH
  trchid tsc_FACH1,
  trCH_LogCHMappingList {
    logicalChannel_Mapping dl_LogicalChannelMapping : {
     macHeaderManipulation normalMacHeader,
     dl_TransportChannelType fach,
     logicalChannelIdentity tsc_BCCH6,
     logicalChannelType bCCH,
     rlc_SizeList configured: NULL,
     mac_LogicalChannelPriority 6
    rB_Identity tsc_RB_BCCH_FACH
   },
    logicalChannel_Mapping dl_LogicalChannelMapping: {
     macHeaderManipulation normalMacHeader,
     dl_TransportChannelType fach,
     logicalChannelIdentity tsc_DL_CCCH5,
     logicalChannelType cCCH,
     rlc_SizeList configured: NULL,
     mac_LogicalChannelPriority 1
    rB_Identity tsc_RB0
    logicalChannel_Mapping dl_LogicalChannelMapping : {
     macHeaderManipulation normalMacHeader,
     dl_TransportChannelType fach,
     logicalChannelIdentity tsc_DL_DCCH1,
     logicalChannelType dCCH,
     rlc_SizeList configured: NULL,
     mac_LogicalChannelPriority 1
```

**Detailed Comments:** 

### **ASN.1 Type Constraint Declaration**

### **Constraint Value**

```
rB_Identity tsc_RB1
  logicalChannel_Mapping dl_LogicalChannelMapping : {
   macHeaderManipulation normalMacHeader,
   dl_TransportChannelType fach,
   logicalChannelIdentity tsc_DL_DCCH2,
   logicalChannelType dCCH,
   rlc_SizeList configured : NULL,
   mac_LogicalChannelPriority 2
  rB_Identity tsc_RB2
  logicalChannel_Mapping dl_LogicalChannelMapping : {
   macHeaderManipulation normalMacHeader,
   dl_TransportChannelType fach,
   logicalChannelIdentity tsc_DL_DCCH3,
   logicalChannelType dCCH,
   rlc_SizeList configured : NULL,
   mac_LogicalChannelPriority 3
  rB_Identity tsc_RB3
  logicalChannel_Mapping dl_LogicalChannelMapping : {
   macHeaderManipulation normalMacHeader,
   dl_TransportChannelType fach,
   logicalChannelIdentity tsc_DL_DCCH4,
   logicalChannelType dCCH,
   rlc_SizeList configured : NULL,
   mac_LogicalChannelPriority 4
  rB_Identity tsc_RB4
},{
trchid tsc_FACH2,
trCH_LogCHMappingList {
  logicalChannel_Mapping dl_LogicalChannelMapping: {
   macHeaderManipulation normalMacHeader,
   dl_TransportChannelType fach,
   logicalChannelIdentity tsc_DL_DTCH1,
   logicalChannelType dTCH,
   rlc_SizeList configured : NULL,
   mac_LogicalChannelPriority 8
  rB_Identity tsc_RB20
```

Constraint Name : c\_TrLogMappingRACH\_DTCH

Group :

ASN1 Type : TrCH\_LogCHMappingList1

Derivation Path : Encoding Variation : Comments :

### **Constraint Value**

```
ulconnectedTrCHList {
  trchid tsc_RACH1,
  trCH_LogCHMappingList {
    logicalChannel_Mapping ul_LogicalChannelMapping: {
     macHeaderManipulation normalMacHeader,
     ul TransportChannelType rach,
     logicalChannelIdentity tsc_UL_CCCH5,
     logicalChannelType cCCH
    rB_Identity tsc_RB0
   },
    logicalChannel_Mapping ul_LogicalChannelMapping : {
     macHeaderManipulation normalMacHeader,
     ul_TransportChannelType rach,
     logicalChannelIdentity tsc_UL_DCCH1,
     logicalChannelType dCCH
    rB_Identity tsc_RB1
    logicalChannel_Mapping ul_LogicalChannelMapping: {
     macHeaderManipulation normalMacHeader,
     ul_TransportChannelType rach,
     logicalChannelIdentity tsc_UL_DCCH2,
     logicalChannelType dCCH
    rB_Identity tsc_RB2
    logicalChannel_Mapping ul_LogicalChannelMapping: {
     macHeaderManipulation normalMacHeader,
     ul_TransportChannelType rach,
     logicalChannelIdentity tsc_UL_DCCH3,
     logicalChannelType dCCH
    rB_Identity tsc_RB3
    logicalChannel_Mapping ul_LogicalChannelMapping: {
     macHeaderManipulation normalMacHeader,
     ul_TransportChannelType rach,
     logicalChannelIdentity tsc_UL_DCCH4,
     logicalChannelType dCCH
    rB_Identity tsc_RB4
    logicalChannel_Mapping ul_LogicalChannelMapping: {
     macHeaderManipulation normalMacHeader,
     ul_TransportChannelType rach,
     logicalChannelIdentity tsc_UL_DTCH1,
```

```
ASN.1 Type Constraint Declaration

Constraint Value

logicalChannelType dTCH
},
rB_Identity tsc_RB20
}
}
dlconnectedTrCHList OMIT
}
Detailed Comments:
```

Constraint Name : c\_TrLogMappingUL\_4DCCH

Group :

**ASN1 Type** : TrCH\_LogCHMappingList1

Derivation Path : Encoding Variation : Comments :

### **Constraint Value**

```
ulconnectedTrCHList {
  trchid tsc_UL_DCH5,
  trCH_LogCHMappingList {
    logicalChannel_Mapping ul_LogicalChannelMapping: {
     macHeaderManipulation normalMacHeader,
     ul TransportChannelType dch,
     logicalChannelIdentity tsc_UL_DCCH1,
     logicalChannelType dCCH
    rB_Identity tsc_RB1
   },
    logical Channel\_Mapping\ ul\_Logical Channel Mapping\ :\ \{
     macHeaderManipulation normalMacHeader,
     ul_TransportChannelType dch,
     logicalChannelIdentity tsc_UL_DCCH2,
     logicalChannelType dCCH
    rB_Identity tsc_RB2
    logicalChannel_Mapping ul_LogicalChannelMapping : {
     macHeaderManipulation normalMacHeader,
     ul_TransportChannelType dch,
     logicalChannelIdentity tsc_UL_DCCH3,
     logicalChannelType dCCH
    rB_Identity tsc_RB3
    logicalChannel_Mapping ul_LogicalChannelMapping: {
     macHeaderManipulation normalMacHeader,
     ul_TransportChannelType dch,
     logicalChannelIdentity tsc_UL_DCCH4,
     logicalChannelType dCCH
    rB_Identity tsc_RB4
},
dlconnectedTrCHList OMIT
```

Constraint Name : c\_TrLogMappingUL\_4DCCH\_1DTCH\_RLC( p\_RB\_Identity: SS\_RB\_Identity )

Group

**ASN1 Type** : TrCH\_LogCHMappingList1

Derivation Path : Encoding Variation :

Comments : UL Logical channel mapping list for RLC tests. The DTCH RAB for RLC testing is mapped to

DCH1. The SRBs are mapped to DCH5.

Parameters p\_RB\_Identity:

The RB Id to be used within the SS. This value can be used by the SS decoder to determine which

RLC mode is being simulated.

Expected values: -10 => UM7 -11 => UM15 -12 => AM7 -13 => AM15

### **Constraint Value**

```
ulconnectedTrCHList {
  trchid tsc_UL_DCH1,
  trCH_LogCHMappingList {
    logicalChannel_Mapping ul_LogicalChannelMapping : {
     macHeaderManipulation normalMacHeader,
     ul_TransportChannelType dch,
     logicalChannelIdentity tsc UL DTCH1,
     logicalChannelType dTCH
    rB_Identity p_RB_Identity
 },
  trchid tsc_UL_DCH5,
  trCH_LogCHMappingList {
    logicalChannel_Mapping ul_LogicalChannelMapping : {
     macHeaderManipulation normalMacHeader,
     ul_TransportChannelType dch,
     logicalChannelIdentity tsc_UL_DCCH1,
     logicalChannelType dCCH
    rB_Identity tsc_RB1
    logicalChannel_Mapping ul_LogicalChannelMapping : {
     macHeaderManipulation normalMacHeader,
     ul_TransportChannelType dch,
     logicalChannelIdentity tsc_UL_DCCH2,
     logicalChannelType dCCH
    rB_Identity tsc_RB2
    logicalChannel_Mapping ul_LogicalChannelMapping : {
     macHeaderManipulation normalMacHeader,
     ul_TransportChannelType dch,
     logicalChannelIdentity tsc_UL_DCCH3,
     logicalChannelType dCCH
```

```
ASN.1 Type Constraint Declaration

Constraint Value

},
rB_Identity tsc_RB3
},
{
logicalChannel_Mapping ul_LogicalChannelMapping : {
    macHeaderManipulation normalMacHeader,
    ul_TransportChannelType dch,
    logicalChannelIdentity tsc_UL_DCCH4,
    logicalChannelType dCCH
    },
    rB_Identity tsc_RB4
}
}
Detailed Comments :
```

```
ASN.1 Type Constraint Declaration

Constraint Name : c_UE_IdDefIMSI
Group :
ASN1 Type : InitialUE_Identity
Derivation Path :
Encoding Variation :
Comments :

Constraint Value

imsi : o_ConvertIMSI(px_IMSI_Def)

Detailed Comments :
```

Constraint Name : c\_UL\_AddReconfTransChInfoList7\_RLC\_UM

Group

ASN1 Type : UL\_AddReconfTransChInfoList

Derivation Path : Encoding Variation :

Comments : Transport channel information for DCH1 and DCH5 for UM RLC tests using 7 bit length

indicators.

Reference 3G TS 34.108, clause 6.11.1

### **Constraint Value**

```
{{
    ul_TransportChannelType dch,
    transportChannelIdentity tsc_UL_DCH1,
    transportFormatSet dedicatedTransChTFS: c_DCH_336_TFS_RLC_UE_UM
    },
    {
     ul_TransportChannelType dch,
     transportChannelIdentity tsc_UL_DCH5,
     transportFormatSet dedicatedTransChTFS: c_DCH_148_TFS_UE_UL
    }}
```

### **Detailed Comments:**

### **ASN.1 Type Constraint Declaration**

Constraint Name : c\_UL\_AddReconfTransChInfoListDCCH\_13\_6k

Group :

ASN1 Type : UL\_AddReconfTransChInfoList

Derivation Path : Encoding Variation : Comments :

### **Constraint Value**

```
{{
    ul_TransportChannelType dch,
    transportChannelIdentity tsc_UL_DCH5,
    transportFormatSet dedicatedTransChTFS: c_DCH_148_TTI_10_TFS_UE
}}
```

Constraint Name : c\_UL\_AddReconfTransChInfoListDCCH\_3\_4k

Group :

ASN1 Type : UL\_AddReconfTransChInfoList

Derivation Path : Encoding Variation : Comments :

### **Constraint Value**

```
{{
    ul_TransportChannelType dch,
    transportChannelIdentity tsc_UL_DCH5,
    transportFormatSet dedicatedTransChTFS: c_DCH_148_TFS_UE_UL
}}
```

**Detailed Comments:** 

### **ASN.1 Type Constraint Declaration**

Constraint Name : c\_UL\_AddReconfTransChInfoListDCH\_PS\_64k

Group

ASN1 Type : UL\_AddReconfTransChInfoList

Derivation Path : Encoding Variation : Comments :

### **Constraint Value**

```
{{
    ul_TransportChannelType dch,
    transportChannelIdentity tsc_UL_DCH1,
    transportFormatSet dedicatedTransChTFS: c_DCH_336_TFS_UE
    },
    {
     ul_TransportChannelType dch,
     transportChannelIdentity tsc_UL_DCH5,
     transportFormatSet dedicatedTransChTFS: c_DCH_148_TFS_UE_UL
}}
```

Constraint Name : c\_UL\_CommTrChInfoDCCH\_13\_6k
Group :

ASN1 Type : UL\_CommonTransChInfo

Derivation Path : Encoding Variation : Comments :

### **Constraint Value**

```
{
    tfc_Subset OMIT,
    prach_TFCS OMIT,
    modeSpecificInfo fdd:{
        ul_TFCS c_TFCS_Cmpl0_1_Tx ( c_PowerOffsetInfoBelow64k )
    }
```

**Detailed Comments:** 

### **ASN.1 Type Constraint Declaration**

Constraint Name : c\_UL\_CommTrChInfoDCH\_PS\_64k

Group :

**ASN1 Type** : UL\_CommonTransChInfo

Derivation Path : Encoding Variation : Comments :

### **Constraint Value**

```
{
    tfc_Subset OMIT,
    prach_TFCS OMIT,
    modeSpecificInfo fdd:{
        ul_TFCS c_TFCS_Cmpl0_1_2_3_4_5_6_7_8_9_Tx ( c_PowerOffsetInfoHigher64k )
    }
```

Constraint Name : c\_UL\_CommTrChInfoRLC\_8K

Group :

ASN1 Type : UL\_CommonTransChInfo

Derivation Path : Encoding Variation :

Comments : UL\_CommonTransChInfo for AM and UM RLC tests using 7 and 15 bit length indicators.

Reference 3G TS 34.108, clause 6.11.1 - 6.11.4.

Note that the TFS for DCH1 is limited to 0x336, and 1x366 for RLC testing with 7 bit length

indicators.

### **Constraint Value**

```
{
    tfc_Subset OMIT,
    prach_TFCS OMIT,
    modeSpecificInfo fdd:{
        ul_TFCS c_TFCS_Cmpl0_1_2_3_Tx ( c_PowerOffsetInfoBelow64k )
    }
}
```

### **Detailed Comments:**

### **ASN.1 Type Constraint Declaration**

Constraint Name : c\_UL\_DPCH\_13\_6\_StandAlone ( p\_UL\_ScramblingCode : UL\_ScramblingCode )

Group :

ASN1 Type : UL\_DPCH\_Info

Derivation Path : Encoding Variation :

Comments : this DPCH is the same as stand-alone UL:13.6 DL:13.6 kbps SRBs for DCCH. Used for RLC AM

and UM mode testing.

### Constraint Value

```
{
    ul_DPCH_PowerControlInfo fdd:{
        dpcch_PowerOffset tsc_DPCCH_PowerOffset,
        pc_Preamble 1,
        sRB_delay 7,
        powerControlAlgorithm algorithm1: tsc_TpcStepSize
    },
    modeSpecificInfo fdd :{
        scramblingCodeType longSC,
        scramblingCode p_UL_ScramblingCode,
        numberOfDPDCH OMIT,
        spreadingFactor tsc_UL_DPDCH_SF_SRB,
        tfci_Existence TRUE,
        numberOfFBI_Bits OMIT,
        puncturingLimit pl1
    }
}
```

```
ASN.1 Type Constraint Declaration

Constraint Name : c_U_RNTI_Def
Group :
ASN1 Type : U_RNTI
Derivation Path :
Encoding Variation :
Comments : Default U_RNTI identity

Constraint Value

{
    srnc_Identity px_SRNC_Id,
    s_RNTI px_SRNTI
}
Detailed Comments :
```

```
ASN.1 Type Constraint Declaration
Constraint Name : cb_DL_AM_RLC
Group
ASN1 Type
                 : DL_AM_RLC_Mode
Derivation Path
Encoding Variation:
Comments
                                              Constraint Value
 inSequenceDelivery TRUE,
 receivingWindowSize rw128,
 dl RLC StatusInfo {
  timerStatusProhibit tsp200,
  --timerEPC OMIT
  missingPDU_Indicator TRUE,
  timerStatusPeriodic OMIT
Detailed Comments:
```

Constraint Name : cb\_DL\_DPCH\_64K\_CS ( p\_DL\_CommonInformation : DL\_CommonInformation ;

p\_SecondaryScramblingCode : SecondaryScramblingCode )

Group

ASN1 Type : DL\_DPCHInfo

Derivation Path : Encoding Variation : Comments :

### **Constraint Value**

```
dl_CommonInformation p_DL_CommonInformation,
dl_DPCH_InfoPerRL fdd: {
    pCPICH_UsageForChannelEst mayBeUsed,
    dpch_FrameOffset (( (tsc_DefaultDPCH_OffsetValue*512 ) MOD 38400) / 256 ),
     -- DPCH-FrameOffset = DefaultDPCH-OffsetValueFDD MOD 38400
     -- Actual value DPCH-FrameOffset = IE value * 256

    Actual value DefaultDPCH-OffsetValueFDD = IE value * 512 ,

    dl\_ChannelisationCodeList \ \{ secondaryScramblingCode \ p\_SecondaryScramblingCode \ , \ and \ begin{picture}(100,000) \put(0,0){\line(1,0){100}} \pu
             sf_AndCodeNumber tsc_DL_DPCH1_ChC_64k_CS
    }},
    tpc_CombinationIndex 0
powerOffsetOfTFCI_PO1 tsc_DPCH_PowerOffsetTFCI,
powerOffsetOfTPC_PO2 tsc_DPCH_PowerOffsetTPC,
powerOffsetOfPILOT_PO3 tsc_DPCH_PowerOffsetPILOT,
 dl_TxPower tsc_DL_TxPower_DPCH,
dl_TxPowerMax 15,
 dl_TxPowerMin -35
```

### **ASN.1 Type Constraint Declaration**

 $\textbf{Constraint Name} \hspace{0.3cm} : \hspace{0.3cm} cb\_DL\_DPCH\_8K\_RLC\_7BitLI \hspace{0.1cm} (\hspace{0.1cm} p\_DL\_CommonInformation : DL\_CommonInformation; \\$ 

 $p\_SecondaryScramblingCode \ : SecondaryScramblingCode \ )$ 

Group :

**Detailed Comments:** 

ASN1 Type : DL\_DPCHInfo

**Derivation Path**: cb\_DL\_DPCH\_64K\_CS.

Encoding Variation : Comments :

### **Constraint Value**

 $\label{lem:replaced_local} REPLACE\ dl\_DPCH\_InfoPerRL.fdd.dl\_ChannelisationCodeList.[0].sf\_AndCodeNumber\ BY\ tsc\_DL\_DPCH1\_ChC\_RLC\_7\_BitLI$ 

Constraint Name : cb\_DL\_DPCH\_SRB\_StandAloneDPCH\_Offset ( p\_SecondaryScramblingCode :

SecondaryScramblingCode )

Group

ASN1 Type : DL\_DPCHInfo

Derivation Path : Encoding Variation : Comments :

### **Constraint Value**

```
dl_CommonInformation cd_DL_CommonInformationDCH_DPCH_Offset (tsc_DL_DPCH1_SFP_SRB),
dl_DPCH_InfoPerRL fdd: {
 pCPICH_UsageForChannelEst mayBeUsed,
 dpch_FrameOffset (( (tsc_DefaultDPCH_OffsetValue*512 ) MOD 38400) / 256 ),
 -- DPCH-FrameOffset = DefaultDPCH-OffsetValueFDD MOD 38400
 -- Actual value DPCH-FrameOffset = IE value * 256
 -- Actual value DefaultDPCH-OffsetValueFDD = IE value * 512,
 dl_ChannelisationCodeList { { secondaryScramblingCode p_SecondaryScramblingCode ,
   sf_AndCodeNumber tsc_DL_DPCH1_ChC_SRB
 }},
 tpc_CombinationIndex 0
powerOffsetOfTFCI_PO1 tsc_DPCH_PowerOffsetTFCI,
powerOffsetOfTPC_PO2 tsc_DPCH_PowerOffsetTPC,
powerOffsetOfPILOT_PO3 tsc_DPCH_PowerOffsetPILOT,
dl_TxPower tsc_DL_TxPower_DPCH,
dl_TxPowerMax 15,
dl_TxPowerMin -35
```

Constraint Name : cb\_SIB11\_Def ( p\_ActiveCellInfo, p\_IntraCellInfo2, p\_IntraCellInfo3, p\_IntraCellInfo4, p\_IntraCellInfo5, p\_InterCellInfo6, p\_InterCellInfo7, p\_InterCellInfo8 : CellInfoCfg )

Group

ASN1 Type : SysInfoType11

Derivation Path : Encoding Variation :

Comments : Default system information block type 11. To be used by cell A,B,C,G and H:

5 intra cells frequency of the same frequency3 inter cell frequency of the same frequency.

### **Constraint Value**

```
sib12indicator TRUE,
measurementControlSysInfo {
 use_of_HCS hcs_not_used : {
  cellSelectQualityMeasure cpich_RSCP: {
   intraFreqMeasurementSysInfo {
     intraFregMeasurementID OMIT, -- default value
     intraFreqCellInfoSI_List {
      removedIntraFreqCellList OMIT, -- removedIntraFreqCellList in SIB11 is not used and ignored by the UE
      newIntraFreqCellList {{
        intraFreqCellID p_ActiveCellInfo.cellId,
        cellInfo {
          cellIndividualOffset OMIT, -- default value
          referenceTimeDifferenceToCell OMIT,
          modeSpecificInfo fdd: {
           primary CPICH\_Info \ \{\ primary Scrambling Code \ p\_Active CellInfo.pri Scrm Code \ \},
           readSFN_Indicator FALSE
           tx_DiversityIndicator FALSE
         },
          cellSelectionReselectionInfo OMIT
        }
        intraFreqCellID p_IntraCellInfo2.cellId,
        cellInfo {
          cellIndividualOffset OMIT, -- default value
          referenceTimeDifferenceToCell OMIT,
          modeSpecificInfo fdd: {
           primaryCPICH_Info { primaryScramblingCode p_IntraCellInfo2.priScrmCode },
           readSFN_Indicator TRUE,
           tx_DiversityIndicator FALSE
         },
          cellSelectionReselectionInfo OMIT -- value same as the serving cell
        intraFreqCellID p_IntraCellInfo3.cellId,
        cellInfo {
          cellIndividualOffset OMIT, -- default value
          referenceTimeDifferenceToCell OMIT,
          modeSpecificInfo fdd: {
           primaryCPICH_Info { primaryScramblingCode p_IntraCellInfo3.priScrmCode },
           readSFN_Indicator TRUE.
           tx_DiversityIndicator FALSE
         },
          cellSelectionReselectionInfo OMIT -- value same as the serving cell
        }
        intraFreqCellID p_IntraCellInfo4.cellId,
          cellIndividualOffset OMIT, -- default value
```

### **Constraint Value**

```
referenceTimeDifferenceToCell OMIT,
     modeSpecificInfo fdd: {
     primaryCPICH_Info { primaryScramblingCode p_IntraCellInfo4.priScrmCode },
      readSFN_Indicator TRUE,
     tx_DiversityIndicator FALSE
    cellSelectionReselectionInfo OMIT -- value same as the serving cell
   intraFreqCellID p_IntraCellInfo5.cellId,
   cellInfo {
    cellIndividualOffset OMIT, -- default value
     referenceTimeDifferenceToCell OMIT,
    modeSpecificInfo fdd : {
     primaryCPICH_Info { primaryScramblingCode p_IntraCellInfo5.priScrmCode },
      readSFN_Indicator TRUE,
     tx_DiversityIndicator FALSE
    }.
    cellSelectionReselectionInfo OMIT -- value same as the serving cell
}}
intraFreqMeasQuantity {
filterCoefficient OMIT, -- default value
modeSpecificInfo fdd : {
  intraFreqMeasQuantity_FDD cpich_RSCP
},
reportingInfoForCellDCH {
intraFreqReportingQuantity {
  activeSetReportingQuantities {
   dummy noReport,
   cellIdentity_reportingIndicator TRUE,
   cellSynchronisationInfoReportingIndicator FALSE,
   modeSpecificInfo fdd: {
    cpich_Ec_N0_reportingIndicator FALSE,
    cpich_RSCP_reportingIndicator TRUE,
    pathloss_reportingIndicator FALSE }
  monitoredSetReportingQuantities {
   dummy noReport,
   cellIdentity_reportingIndicator TRUE,
   cellSynchronisationInfoReportingIndicator TRUE,
   modeSpecificInfo fdd: {
    cpich_Ec_N0_reportingIndicator FALSE,
    cpich_RSCP_reportingIndicator TRUE,
    pathloss_reportingIndicator FALSE }
 measurementReportingMode {
  measurementReportTransferMode acknowledgedModeRLC,
  periodicalOrEventTrigger eventTrigger
 reportCriteria intraFreqReportingCriteria : {
  eventCriteriaList {{
     event e1a: {
     triggeringCondition monitoredSetCellsOnly,
      reportingRange 10, -- Actual value ReportingRange = IE value * 0.5
      reportDeactivationThreshold t2,
      reportingAmount ra4
```

### **Constraint Value**

```
reportingInterval ri4
      hysteresis 0,
      timeToTrigger ttt640,
      reportingCellStatus withinActiveAndOrMonitoredUsedFreq: e3
      event e1b: {
       triggeringCondition activeSetCellsOnly,
       reportingRange 10, -- Actual value ReportingRange = IE value * 0.5
       forbiddenAffectCellList OMIT,
       w 1},
      hysteresis 0,
      timeToTrigger ttt640,
      reportingCellStatus withinActiveAndOrMonitoredUsedFreq: e3
      event e1c: {
       replacementActivationThreshold t3,
       reportingAmount ra4,
       reportingInterval ri4
      hysteresis 0,
      timeToTrigger ttt640,
      reportingCellStatus withinActiveAndOrMonitoredUsedFreq: e3
  }}
}
interFreqMeasurementSysInfo
 interFreqCellInfoSI_List {
  removedInterFreqCellList OMIT, -- removedInterFreqCellList in SIB11 is not used and ignored by the UE
  newInterFreqCellList { {
    interFreqCellID p_InterCellInfo6.cellId,
    frequencyInfo p_InterCellInfo6.frequencyInfo,
    cellInfo {
      cellIndividualOffset OMIT, -- default value
      referenceTimeDifferenceToCell OMIT,
      modeSpecificInfo fdd: {
       primaryCPICH_Info { primaryScramblingCode p_InterCellInfo6.priScrmCode },
       readSFN_Indicator FALSE,
       tx_DiversityIndicator FALSE
     },
      cellSelectionReselectionInfo OMIT -- value same as the serving cell
    interFreqCellID p_InterCellInfo7.cellId,
    frequencyInfo OMIT,
    cellInfo {
      cellIndividualOffset OMIT, -- default value
      referenceTimeDifferenceToCell OMIT,
      modeSpecificInfo fdd: {
       primaryCPICH_Info { primaryScramblingCode p_InterCellInfo7.priScrmCode },
       readSFN_Indicator FALSE,
       tx_DiversityIndicator FALSE
     },
      cellSelectionReselectionInfo OMIT -- value same as the serving cell
```

# ASN.1 Type Constraint Declaration Constraint Value { interFreqCellID p\_InterCellInfo8.cellId, frequencyInfo OMIT, cellInfo { cellIndividualOffset OMIT, -- default value referenceTimeDifferenceToCell OMIT, modeSpecificInfo fdd : { primaryCPICH\_Info { primaryScramblingCode p\_InterCellInfo8.priScrmCode }, readSFN\_Indicator FALSE, tx\_DiversityIndicator FALSE }, cellSelectionReselectionInfo OMIT -- value same as the serving cell } } }

### **Detailed Comments:**

nonCriticalExtensions OMIT

}}}

Constraint Name : cb\_SIB11\_Freq2 ( p\_ActiveCellInfo, p\_IntraCellInfo2, p\_IntraCellInfo3, p\_InterCellInfo4, p\_InterCellInfo5, p\_InterCellInfo6, p\_InterCellInfo7, p\_InterCellInfo8 : CellInfoCfg )

Group

**ASN1 Type** : SysInfoType11

Derivation Path : Encoding Variation :

Comments : Default system information block type 11. To be used by cell D,E,F:

3 intra cells frequency of the same frequency5 inter cell frequency of the same frequency.

### **Constraint Value**

```
sib12indicator TRUE,
measurementControlSysInfo {
 use_of_HCS hcs_not_used : {
  cellSelectQualityMeasure cpich_RSCP : {
   intraFreqMeasurementSysInfo {
     intraFregMeasurementID OMIT, -- default value
     intraFreqCellInfoSI_List {
      removedIntraFreqCellList OMIT, -- removeNoIntraFreqCells in SIB11 is not used and ignored by the UE
      newIntraFreqCellList {{
        intraFreqCellID p_ActiveCellInfo.cellId,
        cellInfo {
          cellIndividualOffset OMIT, -- default value
          referenceTimeDifferenceToCell OMIT,
          modeSpecificInfo fdd: {
           primary CPICH\_Info \ \{\ primary Scrambling Code \ p\_Active CellInfo.pri Scrm Code \ \},
           readSFN_Indicator FALSE
           tx_DiversityIndicator FALSE
         },
          cellSelectionReselectionInfo OMIT
        }
        intraFreqCellID p_IntraCellInfo2.cellId,
          cellIndividualOffset OMIT, -- default value
          referenceTimeDifferenceToCell OMIT,
          modeSpecificInfo fdd: {
           primaryCPICH_Info { primaryScramblingCode p_IntraCellInfo2.priScrmCode },
           readSFN_Indicator TRUE,
           tx_DiversityIndicator FALSE
         },
          cellSelectionReselectionInfo OMIT -- value same as the serving cell
        intraFreqCellID p_IntraCellInfo3.cellId,
          cellIndividualOffset OMIT, -- default value
          referenceTimeDifferenceToCell OMIT,
          modeSpecificInfo fdd: {
           primaryCPICH_Info { primaryScramblingCode p_IntraCellInfo3.priScrmCode },
           readSFN_Indicator TRUE.
           tx_DiversityIndicator FALSE
         },
          cellSelectionReselectionInfo OMIT -- value same as the serving cell
        }
     }},
     intraFreqMeasQuantity {
      filterCoefficient OMIT, -- default value
      modeSpecificInfo fdd : {
```

### **Constraint Value**

```
intraFreqMeasQuantity_FDD cpich_RSCP
},
reportingInfoForCellDCH {
intraFreqReportingQuantity {
  activeSetReportingQuantities {
   dummy noReport,
   cellIdentity_reportingIndicator TRUE,
   cellSynchronisationInfoReportingIndicator FALSE,
   modeSpecificInfo fdd: {
    cpich Ec N0 reportingIndicator FALSE,
    cpich_RSCP_reportingIndicator TRUE,
    pathloss_reportingIndicator FALSE }
  monitoredSetReportingQuantities {
   dummy noReport,
   cellIdentity_reportingIndicator TRUE,
   cellSynchronisationInfoReportingIndicator TRUE,
   modeSpecificInfo fdd: {
     cpich_Ec_N0_reportingIndicator FALSE,
    cpich_RSCP_reportingIndicator TRUE,
    pathloss_reportingIndicator FALSE }
  }
}.
 measurementReportingMode {
  measurementReportTransferMode acknowledgedModeRLC,
  periodicalOrEventTrigger eventTrigger
 reportCriteria intraFreqReportingCriteria: {
  eventCriteriaList {{
     event e1a: {
     triggeringCondition monitoredSetCellsOnly,
      reportingRange 10, -- Actual value ReportingRange = IE value * 0.5
      reportDeactivationThreshold t2,
      reportingAmount ra4,
     reportingInterval ri4
    },
    hysteresis 0,
    timeToTrigger ttt640,
    reportingCellStatus withinActiveAndOrMonitoredUsedFreq: e3
     event e1b: {
     triggeringCondition activeSetCellsOnly,
      reportingRange 10, -- Actual value ReportingRange = IE value * 0.5
     forbiddenAffectCellList OMIT,
     w 1},
     hysteresis 0,
    timeToTrigger ttt640,
     reportingCellStatus withinActiveAndOrMonitoredUsedFreq: e3
     event e1c: {
     replacementActivationThreshold t3,
      reportingAmount ra4,
     reportingInterval ri4
    hysteresis 0,
    timeToTrigger ttt640,
     reportingCellStatus withinActiveAndOrMonitoredUsedFreq: e3
```

### **Constraint Value**

```
}}
 }
interFreqMeasurementSysInfo
 interFreqCellInfoSI_List {
  removedInterFreqCellList OMIT,
  newInterFreqCellList {
     interFreqCellID p InterCellInfo4.cellId,
     frequencyInfo p_InterCellInfo4.frequencyInfo,
     cellinfo {
      cellIndividualOffset OMIT, -- default value
      referenceTimeDifferenceToCell OMIT,
      modeSpecificInfo fdd : {
       primaryCPICH_Info { primaryScramblingCode p_InterCellInfo4.priScrmCode },
       readSFN_Indicator FALSE,
       tx_DiversityIndicator FALSE
      cellSelectionReselectionInfo OMIT -- value same as the serving cell
     interFreqCellID p_InterCellInfo5.cellId,
     frequencyInfo OMIT,
     cellInfo {
      cellIndividualOffset OMIT, -- default value
      referenceTimeDifferenceToCell OMIT,
      modeSpecificInfo fdd: {
       primaryCPICH_Info { primaryScramblingCode p_InterCellInfo5.priScrmCode },
       readSFN_Indicator FALSE,
       tx_DiversityIndicator FALSE
      },
      cellSelectionReselectionInfo OMIT -- value same as the serving cell
     interFreqCellID p_InterCellInfo6.cellId,
     frequencyInfo OMIT,
     cellInfo {
      cellIndividualOffset OMIT, -- dafault value
      referenceTimeDifferenceToCell OMIT,
      modeSpecificInfo fdd: {
       primaryCPICH_Info { primaryScramblingCode p_InterCellInfo6.priScrmCode },
       readSFN_Indicator FALSE,
       tx_DiversityIndicator FALSE
      cellSelectionReselectionInfo OMIT -- value same as the serving cell
     interFreqCellID p_InterCellInfo7.cellId,
     frequencyInfo OMIT,
     cellinfo {
      cellIndividualOffset OMIT, -- default value
      referenceTimeDifferenceToCell OMIT,
      modeSpecificInfo fdd: {
       primaryCPICH_Info { primaryScramblingCode p_InterCellInfo7.priScrmCode },
       readSFN_Indicator FALSE,
       tx_DiversityIndicator FALSE
```

### **Constraint Value**

```
cellSelectionReselectionInfo OMIT -- value same as the serving cell
         }
        },
         interFreqCellID p_InterCellInfo8.cellId,
         frequencyInfo OMIT,
         cellinfo {
          cellIndividualOffset OMIT, -- default value referenceTimeDifferenceToCell OMIT,
           modeSpecificInfo fdd : {
            primary CPICH\_Info\ \{\ primary Scrambling Code\ p\_Inter CellInfo\ 8.priScrmCode\ \},
            readSFN_Indicator FALSE,
            tx_DiversityIndicator FALSE
          cellSelectionReselectionInfo OMIT -- value same as the serving cell
   } }}
}}}
  -nonCriticalExtensions OMIT
```

**Constraint Name**: cb\_SIB11\_Freq3\_PLMN1Or2 ( p\_ActiveCellInfo, p\_IntraCellInfo2, p\_IntraCellInfo3,

p\_InterCellInfo4, p\_InterCellInfo5, p\_InterCellInfo6, p\_InterCellInfo7, p\_InterCellInfo8 :

CellInfoCfg)

Group

ASN1 Type : SysInfoType11

Derivation Path : Encoding Variation :

**Comments**: Default system information block type 11. To be used by cell D,E,F:

3 intra cells frequency of the same frequency5 inter cell frequency of the same frequency.

### **Constraint Value**

```
sib12indicator TRUE.
measurementControlSysInfo {
 use_of_HCS hcs_not_used : {
  cellSelectQualityMeasure cpich RSCP: {
   intraFreqMeasurementSysInfo {
     intraFreqMeasurementID OMIT, -- default value
     intraFreqCellInfoSI_List {
      removedIntraFreqCellList OMIT, -- removeNoIntraFreqCells in SIB11 is not used and ignored by the UE
      newIntraFreqCellList {{
        intraFreqCellID p_ActiveCellInfo.cellId,
        cellInfo {
         cellIndividualOffset OMIT, -- default value
          referenceTimeDifferenceToCell OMIT,
          modeSpecificInfo fdd: {
           primaryCPICH_Info { primaryScramblingCode p_ActiveCellInfo.priScrmCode },
           readSFN_Indicator FALSE,
           tx DiversityIndicator FALSE
         },
         cellSelectionReselectionInfo OMIT
        intraFreqCellID p_IntraCellInfo2.cellId,
        cellInfo {
         cellIndividualOffset OMIT, -- default value
          referenceTimeDifferenceToCell OMIT,
         modeSpecificInfo fdd : {
           primaryCPICH_Info { primaryScramblingCode p_IntraCellInfo2.priScrmCode },
           readSFN_Indicator TRUE,
           tx_DiversityIndicator FALSE
         cellSelectionReselectionInfo OMIT -- value same as the serving cell
        intraFreqCellID p_IntraCellInfo3.cellId,
        cellInfo {
         cellIndividualOffset OMIT, -- default value
          referenceTimeDifferenceToCell OMIT,
          modeSpecificInfo fdd: {
           primaryCPICH_Info { primaryScramblingCode p_IntraCellInfo3.priScrmCode },
           readSFN_Indicator TRUE,
           tx_DiversityIndicator FALSE
         cellSelectionReselectionInfo OMIT -- value same as the serving cell
     intraFreqMeasQuantity {
      filterCoefficient OMIT, -- default value
```

### **Constraint Value**

```
modeSpecificInfo fdd: {
  intraFreqMeasQuantity_FDD cpich_RSCP
}
},
reportingInfoForCellDCH {
 intraFreqReportingQuantity {
  activeSetReportingQuantities {
   dummy noReport,
   cellIdentity_reportingIndicator TRUE,
   cellSynchronisationInfoReportingIndicator FALSE,
   modeSpecificInfo fdd: {
    cpich_Ec_N0_reportingIndicator FALSE,
    cpich_RSCP_reportingIndicator TRUE,
    pathloss_reportingIndicator FALSE }
  monitoredSetReportingQuantities {
   dummy noReport,
   cellIdentity_reportingIndicator TRUE,
   cellSynchronisationInfoReportingIndicator TRUE,
   modeSpecificInfo fdd: {
    cpich_Ec_N0_reportingIndicator FALSE,
    cpich_RSCP_reportingIndicator TRUE,
    pathloss_reportingIndicator FALSE }
  }
},
 measurementReportingMode {
  measurementReportTransferMode acknowledgedModeRLC,
  periodicalOrEventTrigger eventTrigger
 reportCriteria intraFreqReportingCriteria : {
  eventCriteriaList {{
     event e1a: {
     triggeringCondition monitoredSetCellsOnly,
      reportingRange 10, -- Actual value ReportingRange = IE value * 0.5
     reportDeactivationThreshold t2,
      reportingAmount ra4,
     reportingInterval ri4
    hysteresis 0.
    timeToTrigger ttt640,
     reportingCellStatus withinActiveAndOrMonitoredUsedFreq: e3
    event e1b: {
     triggeringCondition activeSetCellsOnly,
      reportingRange 10, -- Actual value ReportingRange = IE value * 0.5
     forbiddenAffectCellList OMIT,
      w 1},
    hysteresis 0,
    timeToTrigger ttt640,
     reportingCellStatus withinActiveAndOrMonitoredUsedFreq: e3
     event e1c: {
     replacementActivationThreshold t3,
      reportingAmount ra4,
     reportingInterval ri4
    },
    hysteresis 0,
    timeToTrigger ttt640,
     reportingCellStatus withinActiveAndOrMonitoredUsedFreq: e3
```

### **Constraint Value**

```
}
  }}
interFreqMeasurementSysInfo
 interFreqCellInfoSI_List {
  removedInterFreqCellList OMIT,
  newInterFreqCellList {
    interFreqCellID p_InterCellInfo4.cellId,
    frequencyInfo p_InterCellInfo4.frequencyInfo,
    cellInfo {
      cellIndividualOffset OMIT, -- default value
      referenceTimeDifferenceToCell OMIT,
      modeSpecificInfo fdd: {
       primaryCPICH_Info { primaryScramblingCode p_InterCellInfo4.priScrmCode },
       readSFN_Indicator FALSE,
       tx_DiversityIndicator FALSE
     },
      cellSelectionReselectionInfo OMIT -- value same as the serving cell
    interFreqCellID p_InterCellInfo5.cellId,
    frequencyInfo OMIT,
    cellInfo {
      cellIndividualOffset OMIT, -- default value
      referenceTimeDifferenceToCell OMIT,
      modeSpecificInfo fdd : {
       primaryCPICH_Info { primaryScramblingCode p_InterCellInfo5.priScrmCode },
       readSFN_Indicator FALSE,
       tx_DiversityIndicator FALSE
      cellSelectionReselectionInfo OMIT -- value same as the serving cell
    interFreqCellID p InterCellInfo6.cellId,
    frequencyInfo OMIT,
    cellinfo {
      cellIndividualOffset OMIT, -- dafault value
      referenceTimeDifferenceToCell OMIT,
      modeSpecificInfo fdd: {
       primaryCPICH_Info { primaryScramblingCode p_InterCellInfo6.priScrmCode },
       readSFN_Indicator FALSE
       tx_DiversityIndicator FALSE
      },
      cellSelectionReselectionInfo OMIT -- value same as the serving cell
    interFreqCellID p_InterCellInfo7.cellId,
    frequencyInfo p_InterCellInfo7.frequencyInfo,
    cellInfo {
      cellIndividualOffset OMIT, -- default value
      referenceTimeDifferenceToCell OMIT,
      modeSpecificInfo fdd: {
       primary CPICH\_Info \ \{\ primary Scrambling Code \ p\_Inter CellInfo 7.pri Scrm Code \ \},
       readSFN_Indicator FALSE,
       tx_DiversityIndicator FALSE
```

# ASN.1 Type Constraint Declaration Constraint Value

```
},
cellSelectionReselectionInfo OMIT — value same as the serving cell
}
},
{
interFreqCellID p_InterCellInfo8.cellId,
frequencyInfo OMIT,
cellInfo {
cellIndividualOffset OMIT, — default value
referenceTimeDifferenceToCell OMIT,
modeSpecificInfo fdd: {
primaryCPICH_Info { primaryScramblingCode p_InterCellInfo8.priScrmCode },
readSFN_Indicator FALSE,
tx_DiversityIndicator FALSE
},
cellSelectionReselectionInfo OMIT — value same as the serving cell
}
}
}
}
}
}

on On CriticalExtensions OMIT
}
```

 $\textbf{Constraint Name} \hspace{0.3cm} : \hspace{0.3cm} \text{cb\_SIB11\_Freq3\_PLMN3 (p\_ActiveCellInfo, p\_IntraCellInfo2, p\_InterCellInfo3, p\_InterCellInfo4, p$ 

p\_InterCellInfo5, p\_InterCellInfo6, p\_InterCellInfo7, p\_InterCellInfo8 : CellInfoCfg )

Group

ASN1 Type : SysInfoType11

Derivation Path : Encoding Variation :

Comments : Default system information block type 11. To be used by cell D,E,F:

3 intra cells frequency of the same frequency5 inter cell frequency of the same frequency.

### **Constraint Value**

```
sib12indicator TRUE,
measurementControlSysInfo {
 use_of_HCS hcs_not_used : {
  cellSelectQualityMeasure cpich_RSCP: {
   intraFreqMeasurementSysInfo {
     intraFreqMeasurementID OMIT, -- default value
     intraFreqCellInfoSI_List {
      removedIntraFreqCellList OMIT, -- removeNoIntraFreqCells in SIB11 is not used and ignored by the UE
      newIntraFreqCellList {{
        intraFreqCellID p_ActiveCellInfo.cellId,
        cellInfo {
          cellIndividualOffset OMIT, -- default value
          referenceTimeDifferenceToCell OMIT,
          modeSpecificInfo fdd: {
           primary CPICH\_Info \ \{\ primary Scrambling Code \ p\_Active CellInfo.pri Scrm Code \ \},
           readSFN_Indicator FALSE
           tx_DiversityIndicator FALSE
         },
         cellSelectionReselectionInfo OMIT
        }
        intraFreqCellID p_IntraCellInfo2.cellId,
        cellInfo {
         cellIndividualOffset OMIT, -- default value
         referenceTimeDifferenceToCell OMIT,
         modeSpecificInfo fdd: {
           primaryCPICH_Info { primaryScramblingCode p_IntraCellInfo2.priScrmCode },
           readSFN_Indicator TRUE,
           tx_DiversityIndicator FALSE
         },
         cellSelectionReselectionInfo OMIT -- value same as the serving cell
     intraFreqMeasQuantity {
      filterCoefficient OMIT, -- default value
      modeSpecificInfo fdd: {
       intraFreqMeasQuantity_FDD cpich_RSCP
     reportingInfoForCellDCH {
      intraFreqReportingQuantity {
       activeSetReportingQuantities {
        dummy noReport,
        cellIdentity_reportingIndicator TRUE,
        cellSynchronisationInfoReportingIndicator FALSE,
        modeSpecificInfo fdd: {
         cpich_Ec_N0_reportingIndicator FALSE,
         cpich_RSCP_reportingIndicator TRUE,
         pathloss_reportingIndicator FALSE }
```

### **Constraint Value**

```
monitoredSetReportingQuantities {
    dummy noReport,
    cellIdentity_reportingIndicator TRUE,
    cellSynchronisationInfoReportingIndicator TRUE,
    modeSpecificInfo fdd: {
      cpich_Ec_N0_reportingIndicator FALSE,
      cpich_RSCP_reportingIndicator TRUE,
      pathloss_reportingIndicator FALSE }
  measurementReportingMode {
   measurementReportTransferMode acknowledgedModeRLC,
   periodicalOrEventTrigger eventTrigger
  reportCriteria intraFreqReportingCriteria: {
   eventCriteriaList {{
      event e1a : {
       triggeringCondition monitoredSetCellsOnly,
       reportingRange 10, -- Actual value ReportingRange = IE value * 0.5
       reportDeactivationThreshold t2,
       reportingAmount ra4,
       reportingInterval ri4
      hysteresis 0,
      timeToTrigger ttt640,
      reportingCellStatus withinActiveAndOrMonitoredUsedFreq: e3
      event e1b: {
       triggeringCondition activeSetCellsOnly,
       reportingRange 10, -- Actual value ReportingRange = IE value * 0.5
       forbiddenAffectCellList OMIT,
       w 1},
      hysteresis 0,
      timeToTrigger ttt640,
      reportingCellStatus withinActiveAndOrMonitoredUsedFreq: e3
      event e1c: {
       replacementActivationThreshold t3,
       reportingAmount ra4,
       reportingInterval ri4
      hysteresis 0,
      timeToTrigger ttt640,
      reportingCellStatus withinActiveAndOrMonitoredUsedFreq: e3
  }}
interFreqMeasurementSysInfo
 interFreqCellInfoSI List {
  removedInterFreqCellList OMIT,
  newInterFreqCellList {
    interFreqCellID p_InterCellInfo3.cellId,
    frequencyInfo p_InterCellInfo3.frequencyInfo,
    cellInfo {
```

#### **Constraint Value**

```
cellIndividualOffset OMIT, -- default value
 referenceTimeDifferenceToCell OMIT,
 modeSpecificInfo fdd: {
  primaryCPICH_Info { primaryScramblingCode p_InterCellInfo3.priScrmCode },
  readSFN_Indicator FALSE.
  tx_DiversityIndicator FALSE
 },
 cellSelectionReselectionInfo OMIT -- value same as the serving cell
interFreqCellID p_InterCellInfo4.cellId,
frequencyInfo OMIT,
cellInfo {
 cellIndividualOffset OMIT, -- default value
 referenceTimeDifferenceToCell OMIT,
 modeSpecificInfo fdd: {
  primaryCPICH_Info { primaryScramblingCode p_InterCellInfo4.priScrmCode },
  readSFN_Indicator FALSE,
  tx_DiversityIndicator FALSE
},
 cellSelectionReselectionInfo OMIT -- value same as the serving cell
interFreqCellID p_InterCellInfo5.cellId,
frequencyInfo OMIT,
cellInfo {
 cellIndividualOffset OMIT, -- default value
 referenceTimeDifferenceToCell OMIT,
 modeSpecificInfo fdd : {
  primaryCPICH_Info { primaryScramblingCode p_InterCellInfo5.priScrmCode },
  readSFN_Indicator FALSE,
  tx_DiversityIndicator FALSE
 cellSelectionReselectionInfo OMIT -- value same as the serving cell
interFreqCellID p InterCellInfo6.cellId,
frequencyInfo p_InterCellInfo6.frequencyInfo,
cellinfo {
 cellIndividualOffset OMIT, -- dafault value
 referenceTimeDifferenceToCell OMIT,
 modeSpecificInfo fdd: {
  primaryCPICH_Info { primaryScramblingCode p_InterCellInfo6.priScrmCode },
  readSFN_Indicator FALSE
  tx_DiversityIndicator FALSE
 },
 cellSelectionReselectionInfo OMIT -- value same as the serving cell
interFreqCellID p_InterCellInfo7.cellId,
frequencyInfo OMIT,
cellInfo {
 cellIndividualOffset OMIT, -- default value
 referenceTimeDifferenceToCell OMIT,
 modeSpecificInfo fdd: {
  primary CPICH\_Info \ \{\ primary Scrambling Code\ p\_Inter CellInfo 7.pri Scrm Code\ \},
  readSFN_Indicator FALSE,
  tx_DiversityIndicator FALSE
```

Continued on next page

```
ASN.1 Type Constraint Declaration
                                                    Constraint Value
          cellSelectionReselectionInfo OMIT -- value same as the serving cell
         interFreqCellID p_InterCellInfo8.cellId,
         frequencyInfo OMIT,
         cellinfo {
           cellIndividualOffset OMIT, -- default value
          referenceTimeDifferenceToCell OMIT,
           modeSpecificInfo fdd: {
           primaryCPICH_Info { primaryScramblingCode p_InterCellInfo8.priScrmCode },
           readSFN_Indicator FALSE,
           tx_DiversityIndicator FALSE
          cellSelectionReselectionInfo OMIT -- value same as the serving cell
    } }}
 }}}
 — nonCriticalExtensions OMIT
Detailed Comments:
```

Constraint Name : cb\_SIB12\_Def

Group :

**ASN1 Type** : SysInfoType12

Derivation Path : Encoding Variation :

Comments : Default system information block type 12, used in connected mode. To be used by cell A,B,C,G and

H:

5 intra cells frequency of the same frequency
3 inter cell frequency of the same frequency.

# Constraint Value

```
{
    measurementControlSysInfo {
        use_of_HCS hcs_not_used : {
        cellSelectQualityMeasure cpich_RSCP : {
            intraFreqMeasurementSysInfo OMIT,
            interFreqMeasurementSysInfo OMIT
        },
        interRATMeasurementSysInfo OMIT
    }
} -- nonCriticalExtensions OMIT
}
```

**Detailed Comments**: Similar to c\_SIB11\_def except that "detectedSetReportingQuantities" is not present and "timeToTrigger" = 0

Constraint Name : cb\_SIB12\_Freq2

Group :

**ASN1 Type** : SysInfoType12

Derivation Path : Encoding Variation :

Comments : Default system information block type 12, used in connected mode. To be used by cell D,E,F:

- 3 intra cells frequency of the same frequency- 5 inter cell frequency of the same frequency.

#### **Constraint Value**

```
{
  measurementControlSysInfo {
    use_of_HCS hcs_not_used : {
    cellSelectQualityMeasure cpich_RSCP : {
        intraFreqMeasurementSysInfo OMIT,
        interFreqMeasurementSysInfo OMIT
    },
    interRATMeasurementSysInfo OMIT
    }
} --nonCriticalExtensions OMIT
}
```

 $\textbf{Detailed Comments} \ : \ Similar \ to \ c\_SIB11\_def \ except \ that \ "detectedSetReportingQuantities" \ is \ not \ present \ and$ 

"timeToTrigger" = 0

Constraint Name : cb\_SIB1\_Def ( p\_CellInfo : CellInfoCfg )

Group :

**ASN1 Type** : SysInfoType1

Derivation Path : Encoding Variation : Comments :

#### **Constraint Value**

```
cn_CommonGSM_MAP_NAS_SysInfo p_CellInfo.lac,
cn_DomainSysInfoList {{cn_DomainIdentity ps_domain,
  cn_Type gsm_MAP: o_OctetstringConcat ( p_CellInfo.rac, p_CellInfo.nmo ),
  cn\_DRX\_CycleLengthCoeff\ p\_CellInfo.dRX\_CycleLength.cN\_PS\_DRX\_CycleLength
 {cn_DomainIdentity cs_domain,
  cn_Type gsm_MAP: o_OctetstringConcat ( p_CellInfo.t3212, o_IntToOct ( p_CellInfo.attFlag,1) ),
  cn_DRX_CycleLengthCoeff p_CellInfo.dRX_CycleLength.cN_CS_DRX_CycleLength
},
ue_ConnTimersAndConstants {
t_301 OMIT,
 n_301 OMIT,
 t_302 OMIT,
 n_302 OMIT,
 t_304 OMIT,
 n_304 OMIT,
 t_305 OMIT,
 t_307 OMIT,
 t_308 OMIT,
 t 309 OMIT,
 t_310 OMIT,
 n_310 OMIT,
 t_311 OMIT,
 t_312 OMIT,
 n_312 OMIT,
 t_313 OMIT,
 n_313 OMIT,
 t_314 OMIT,
 t_315 OMIT,
 n_315 OMIT,
 t_316 OMIT,
 t_317 OMIT
ue_IdleTimersAndConstants {
 t_300 ms4000,
 n_300 tsc_N300,
 t_312 10,
 n_312 s1
v3a0NonCriticalExtensions OMIT
```

Constraint Name : cb\_SIB3\_DefUTRAN ( p\_CellInfoCfg : CellInfoCfg )

Group :

**ASN1 Type** : SysInfoType3

Derivation Path : Encoding Variation :

Comments : Default system information block type 3 for UTRAN only

#### **Constraint Value**

```
sib4indicator TRUE,
cellIdentity INT_TO_BIT ( p_CellInfoCfg.cellId , 28 ) ,
cellSelectReselectInfo {
 mappingInfo OMIT,
 cellSelectQualityMeasure cpich_RSCP: NULL,
 modeSpecificInfo fdd: {
  s_Intrasearch 8, -- IE value * 2
  s_Intersearch 8, -- IE value * 2
  s_SearchHCS OMIT,
  rat_List OMIT,
  q_QualMin -24,
  q_RxlevMin -40 -- (IE value * 2) + 1
 q_Hyst_I_S 1, -- (IE value*2)
 t_Reselection_S 0,
 hcs_ServingCellInformation OMIT,
 maxAllowedUL_TX_Power 21
cellAccessRestriction {
 cellBarred notBarred: NULL,
 cellReservedForOperatorUse notReserved,
 cellReservationExtension notReserved,
 accessClassBarredList { notBarred,
  notBarred.
  notBarred,
  notBarred.
  notBarred,
  notBarred

    nonCriticalExtensions OMIT
```

Constraint Name : cb\_SIB3\_DefUTRAN\_GERAN ( p\_CellInfoCfg : CellInfoCfg )

Group :

**ASN1 Type** : SysInfoType3

Derivation Path : Encoding Variation :

Comments : Default system information block type 3 for UTRAN/GERAN

#### **Constraint Value**

```
sib4indicator TRUE,
cellIdentity INT_TO_BIT (p_CellInfoCfg.cellId ,28) ,
cellSelectReselectInfo {
 mappingInfo OMIT,
 cellSelectQualityMeasure cpich_RSCP: NULL,
 modeSpecificInfo fdd: {
  s_Intrasearch 8, -- IE value * 2
  s_Intersearch 8, -- IE value * 2
  s_SearchHCS OMIT,
  rat_List {{
    rat_Identifier gsm,
    s_SearchRAT -16,
    s_HCS_RAT OMIT,
    s_Limit_SearchRAT 0
  q_QualMin -24,
  q_RxlevMin -40 -- (IE value * 2) + 1
 q_Hyst_I_S 1, -- (IE value*2)
 t_Reselection_S 0,
 hcs ServingCellInformation OMIT,
 maxAllowedUL_TX_Power 21
cellAccessRestriction {
 cellBarred notBarred: NULL,
 cellReservedForOperatorUse notReserved,
 cellReservationExtension notReserved,
 accessClassBarredList { notBarred,
  notBarred,
  notBarred,
  notBarred.
  notBarred,
  notBarred,
  notBarred.
  notBarred,
  notBarred.
  notBarred,
  notBarred,
  notBarred,
  notBarred,
  notBarred,
  notBarred,
  notBarred

    nonCriticalExtensions OMIT
```

Constraint Name : cb\_SIB4\_DefUTRAN ( p\_CellInfoCfg : CellInfoCfg )

Group :

ASN1 Type : SysInfoType4

Derivation Path : Encoding Variation :

**Comments**: Default system information block type 4 for UTRAN only, used in connected mode.

#### **Constraint Value**

```
cellIdentity INT_TO_BIT (p_CellInfoCfg.cellId ,28) ,
cellSelectReselectInfo {
 mappingInfo OMIT,
 cellSelectQualityMeasure cpich_RSCP: NULL,
 modeSpecificInfo fdd : {
  s_Intrasearch 8, -- IE value * 2
  s_Intersearch 8, -- IE value * 2
  s_SearchHCS OMIT,
  rat_List OMIT,
  q_QualMin -24,
  q_RxlevMin -40 -- (IE value * 2) + 1
 q_Hyst_I_S 1, -- (IE value*2)
 t_Reselection_S 0,
 hcs\_Serving CellIn formation\ OMIT,
 maxAllowedUL_TX_Power 21
cellAccessRestriction {
 cellBarred notBarred: NULL,
 cellReservedForOperatorUse notReserved,
 cellReservationExtension notReserved,
 accessClassBarredList OMIT

    nonCriticalExtensions OMIT
```

Constraint Name : cb\_SIB4\_DefUTRAN\_GERAN ( p\_CellInfoCfg : CellInfoCfg )

Group :

**ASN1 Type** : SysInfoType4

Derivation Path : Encoding Variation :

**Comments**: Default system information block type 4 for UTRAN/GERAN, used in connected mode.

#### **Constraint Value**

```
cellIdentity INT_TO_BIT (p_CellInfoCfg.cellId ,28) ,
cellSelectReselectInfo {
 mappingInfo OMIT,
 cellSelectQualityMeasure cpich_RSCP: NULL,
 modeSpecificInfo fdd : {
  s_Intrasearch 8, -- IE value * 2
  s_Intersearch 8, -- IE value * 2
  s SearchHCS OMIT,
  rat_List {{
    rat_Identifier gsm,
     s_SearchRAT -16,
    s_HCS_RAT OMIT,
     s_Limit_SearchRAT 0
  }},
  q_QualMin -24,
  q_RxlevMin -40 -- (IE value * 2) + 1
 q_Hyst_I_S 1, -- (IE value*2)
 t_Reselection_S 0,
 hcs_ServingCellInformation OMIT,
 maxAllowedUL_TX_Power 21
cellAccessRestriction {
 cellBarred notBarred: NULL,
 cell Reserved For Operator Use\ not Reserved,
 cellReservationExtension notReserved,
 accessClassBarredList OMIT

    nonCriticalExtensions OMIT
```

Constraint Name : cb\_SIB5\_Def ( p\_CellInfo : CellInfoCfg )

Group :

**ASN1 Type** : SysInfoType5

Derivation Path : Encoding Variation :

**Comments**: Default system information block type 5

#### **Constraint Value**

```
sib6indicator TRUE,
pich_PowerOffset p_CellInfo.powerPICH,
modeSpecificInfo fdd: {
 aich_PowerOffset p_CellInfo.powerAICH
primaryCCPCH_Info OMIT,
prach_SystemInformationList {{
  prach_RACH_Info {
   modeSpecificInfo fdd: {
    availableSignatures tsc_PRACH1_Signatures,
    availableSF tsc_PRACH1_SF,
    preamble Scrambling Code Word Number\ tsc\_PRACH1\_ScrC,
    puncturingLimit pl1,
    availableSubChannelNumbers '11111111111'B
  transportChannelIdentity tsc_RACH1,
  rach_TransportFormatSet commonTransChTFS: c_RACH_TFS_UE,
  rach_TFCS normalTFCI_Signalling : complete : {
   ctfcSize ctfc2Bit : {{
     ctfc2 0,
     powerOffsetInformation { gainFactorInformation computedGainFactors : 0,
       powerOffsetPp_m 0
    { ctfc2 1,
     powerOffsetInformation {
       gainFactorInformation signalledGainFactors : {
        modeSpecificInfo fdd: {
         gainFactorBetaC 11
        gainFactorBetaD 15,
        referenceTFC_ID 0 },
       powerOffsetPp_m 0
  }},
  prach_Partitioning fdd: {{
    accessServiceClass_FDD OMIT
   },
    accessServiceClass_FDD {
     availableSignatureStartIndex 0,
     availableSignatureEndIndex 7,
     assignedSubChannelNumber '1111'B
    accessServiceClass_FDD OMIT
    accessServiceClass_FDD {
     availableSignatureStartIndex 0,
     availableSignatureEndIndex 7,
```

Continued on next page

#### **Constraint Value**

```
assignedSubChannelNumber '1111'B
    }
   },
    accessServiceClass_FDD OMIT
    accessServiceClass_FDD {
     availableSignatureStartIndex 0,
     availableSignatureEndIndex 7,
     assignedSubChannelNumber '1111'B
    accessServiceClass_FDD OMIT
    accessServiceClass_FDD {
     availableSignatureStartIndex 0,
     availableSignatureEndIndex 7,
     assignedSubChannelNumber '1111'B
  }},
  persistenceScalingFactorList { psf0_9, psf0_9, psf0_9, psf0_9, psf0_9, psf0_9 },
  ac_To_ASC_MappingTable { 6, 5, 4, 3, 2, 1, 0 },
  modeSpecificInfo fdd: {
   primaryCPICH_TX_Power 31,
   constantValue -10,
   prach_PowerOffset {
    powerRampStep 3, -- db
    preambleRetransMax 4
   rach_TransmissionParameters {
    mmax 2,
    nb01Min 3,
    nb01Max 10
   aich_Info {
    channelisationCode256 tsc_AICH1_ChC,
    sttd Indicator FALSE,
    aich_TransmissionTiming e0
  }
sCCPCH_SystemInformationList {{
  secondaryCCPCH_Info {
   modeSpecificInfo fdd: {
    dummy1 mayBeUsed, -- mandatory ie
    secondaryScramblingCode OMIT,
    sttd_Indicator FALSE,
    sf_AndCodeNumber tsc_S_CCPCH1_ChC,
    pilotSymbolExistence FALSE,
    tfci Existence TRUE,
    positionFixedOrFlexible flexible,
    timingOffset 0
  tfcs normalTFCI_Signalling : complete: {ctfcSize ctfc4Bit : {
    {ctfc4 0 }, {ctfc4 1 }, {ctfc4 2 }, {ctfc4 3 }, {ctfc4 4}, {ctfc4 5 }, {ctfc4 6 }, {ctfc4 8}}},
  fach_PCH_InformationList { {
    transportFormatSet commonTransChTFS: c_PCH_TFS_UE,
    transportChannelIdentity tsc_PCH1, -- PCH
```

Continued on next page

```
ASN.1 Type Constraint Declaration
                                               Constraint Value
    ctch_Indicator FALSE
    transportFormatSet commonTransChTFS: c_FACH_TFS_UE,
    transportChannelIdentity tsc_FACH1, -- FACH
    ctch_Indicator FALSE
    transportFormatSet commonTransChTFS: c_FACH_TFS_PS_UE,
    transportChannelIdentity tsc_FACH2, -- FACH
    ctch Indicator FALSE
  pich_Info fdd :{
   channelisationCode256 tsc_PICH1_ChC,
   pi_CountPerFrame e18,
   sttd_Indicator FALSE
}},
cbs_DRX_Level1Information OMIT
-- nonCriticalExtensions OMIT
```

Constraint Name : cb\_SIB6\_Def ( p\_CellInfo : CellInfoCfg )

Group :

**Detailed Comments:** 

ASN1 Type : SysInfoType6

Derivation Path : Encoding Variation :

**Comments**: Default system information block type 6, used in connected mode.

## **Constraint Value**

```
{
    pich_PowerOffset p_CellInfo.powerPICH,
    modeSpecificInfo fdd : {
        aich_PowerOffset p_CellInfo.powerAICH
    },
    primaryCCPCH_Info OMIT,
    prach_SystemInformationList OMIT,
    sCCPCH_SystemInformationList OMIT,
    cbs_DRX_Level1Information OMIT
}
```

Detailed Comments: Similar to cb\_SIB5\_Def, except "AC-to-ASC mapping table" not present

# **ASN.1 Type Constraint Declaration Constraint Name** : cb\_TrChInfoRACH1 Group **ASN1 Type** : TrCHInfo **Derivation Path Encoding Variation:** Comments **Constraint Value** ulconnectedTrCHList { { trchid tsc\_RACH1, transportChannelInfo c\_RACH\_TFS ulTFCS c\_TFCS\_Cmpl0\_1\_Rx, -- sent to SS dlconnectedTrCHList OMIT, dITFCS OMIT

```
ASN.1 Type Constraint Declaration
```

**Constraint Name**: cb\_TrLogMappingRACH2

Group

**Detailed Comments:** 

**ASN1 Type** : TrCH\_LogCHMappingList1

Derivation Path : Encoding Variation : Comments :

#### **Constraint Value**

# **ASN.1 Type Constraint Declaration Constraint Name** : cb\_UL\_AM\_RLC Group **ASN1 Type** : UL\_AM\_RLC\_Mode **Derivation Path Encoding Variation:** Comments **Constraint Value** transmissionRLC\_Discard noDiscard: dat15, transmissionWindowSize tw128, timerRST tr500, max\_RST rst4, pollingInfo { timerPollProhibit tpp200, timerPoll tp200, poll\_PDU OMIT, poll\_SDU sdu1, lastTransmissionPDU\_Poll TRUE, lastRetransmissionPDU\_Poll TRUE, pollWindow pw99, timerPollPeriodic OMIT }

```
ASN.1 Type Constraint Declaration
Constraint Name
                 : cb_UL_DPCH_Info (p_SprdFct: SpreadingFactor; p_PuncLimit: PuncturingLimit;
                    p_UL_ScramblingCode : UL_ScramblingCode )
Group
ASN1 Type
                  : UL_DPCH_Info
Derivation Path
Encoding Variation:
Comments
                                                Constraint Value
 ul_DPCH_PowerControlInfo fdd:{
  dpcch_PowerOffset tsc_DPCCH_PowerOffset,
  pc_Preamble 1,
  sRB_delay 7,
  powerControlAlgorithm algorithm1: tsc_TpcStepSize
 modeSpecificInfo fdd :{
  scramblingCodeType longSC,
  scramblingCode p_UL_ScramblingCode,
  numberOfDPDCH OMIT,
  spreadingFactor p_SprdFct,
  tfci_Existence TRUE,
  numberOfFBI_Bits OMIT,
  puncturingLimit p_PuncLimit
Detailed Comments:
```

Constraint Name : cd\_DL\_AM\_RLC\_SRB

Group :

ASN1 Type : DL\_AM\_RLC\_Mode

Derivation Path : cb\_DL\_AM\_RLC.

Encoding Variation:
Comments:

**Constraint Value** 

REPLACE receivingWindowSize BY rw32

**Detailed Comments:** 

**ASN.1 Type Constraint Declaration** 

Constraint Name : cd\_DL\_CommonInformationDCH\_DPCH\_Offset (p\_Sf: SF512\_AndPilot )

Group :

**ASN1 Type** : DL\_CommonInformation

 $\begin{tabular}{lll} \textbf{Derivation Path} & : c\_DL\_CommonInformationDCH\_DPCH\_Offset. \\ \end{tabular}$ 

Encoding Variation:
Comments:

**Constraint Value** 

REPLACE dl\_DPCH\_InfoCommon.modeSpecificInfo.fdd.positionFixedOrFlexible BY fixed,

REPLACE dl\_DPCH\_InfoCommon.modeSpecificInfo.fdd.tfci\_Existence BY FALSE

**Detailed Comments:** 

**ASN.1 Type Constraint Declaration** 

Constraint Name : cd\_UL\_AM\_RLC\_SRB

Group :

ASN1 Type : UL\_AM\_RLC\_Mode Derivation Path : cb\_UL\_AM\_RLC.

Encoding Variation : Comments :

**Constraint Value** 

REPLACE transmissionWindowSize BY tw32,

REPLACE max\_RST BY rst1

Constraint Name : cs\_CipheringModeCmdOn ( p\_CipheringAlgorithm : CipheringAlgorithm )

Group :

ASN1 Type : CipheringModeCommand

Derivation Path : Encoding Variation : Comments :

#### **Constraint Value**

startRestart : p\_CipheringAlgorithm

**Detailed Comments:** 

# **ASN.1 Type Constraint Declaration**

Constraint Name : cs\_IntegrityCheckInfo0

Group :

**ASN1 Type** : IntegrityCheckInfo

Derivation Path : Encoding Variation : Comments :

# **Constraint Value**

{
 messageAuthenticationCode tsc\_MessAuthCode,
 rrc\_MessageSequenceNumber tsc\_MSN
}

**Detailed Comments:** 

# **ASN.1 Type Constraint Declaration**

**Constraint Name** : cs\_IntegrityProtectModify\_P(p1,p2,p3,p4,p5 : RRC\_MessageSequenceNumber)

Group

**ASN1 Type** : IntegrityProtectionModeInfo

Derivation Path : Encoding Variation : Comments :

#### **Constraint Value**

```
{
integrityProtectionModeCommand modify : {
    dl_IntegrityProtActivationInfo {
        rrc_MessageSequenceNumberList {p1,p2,p3,p4,p5 } -- fixed reasonnable value
    }
},
integrityProtectionAlgorithm uia1
```

# ASN.1 Type Constraint Declaration Constraint Name : cs\_IntegrityProtectStart ( p\_Integrityprotnumber: BITSTRING ) Group : ASN1 Type : IntegrityProtectionModeInfo Derivation Path : Encoding Variation : Comments : Constraint Value { integrityProtectionModeCommand startIntegrityProtection :{ integrityProtlnitNumber p\_Integrityprotnumber }

}

**Detailed Comments:** 

integrityProtectionAlgorithm uia1

# **ASN.1 Type Constraint Declaration**

Constraint Name : cs\_Null\_CipheringModeCommand

Group :

ASN1 Type : CipheringModeCommand

Derivation Path : Encoding Variation : Comments :

**Constraint Value** 

dummy: NULL

**Detailed Comments:** 

## **ASN.1 Type Constraint Declaration**

Constraint Name : cs\_RB\_ActTimeInfoList20 ( p\_RLC\_SN20 : RLC\_SequenceNumber )

Group

ASN1 Type : RB\_ActivationTimeInfoList

Derivation Path : Encoding Variation : Comments :

**Constraint Value** 

```
ASN.1 Type Constraint Declaration
Constraint Name
                  : cs_RB_ActTimeInfoListSRBs ( p_RLC_SN1, p_RLC_SN2, p_RLC_SN3, p_RLC_SN4 :
                    RLC_SequenceNumber)
Group
ASN1 Type
                  : RB_ActivationTimeInfoList
Derivation Path
Encoding Variation:
Comments
                                               Constraint Value
 c_RB_ActTimeInfo (tsc_RB1, p_RLC_SN1),
 c_RB_ActTimeInfo ( tsc_RB2, p_RLC_SN2 ) ,
 c\_RB\_ActTimeInfo\ (\ tsc\_RB3,\ p\_RLC\_SN3\ ),
 c_RB_ActTimeInfo ( tsc_RB4, p_RLC_SN4 ) }
Detailed Comments:
```

```
ASN.1 Type Constraint Declaration
Constraint Name
               : cs_RB_ActTimeInfoListSRBs_20 ( p_RLC_SN1, p_RLC_SN2, p_RLC_SN3, p_RLC_SN4,
                   p_RLC_SN20 : RLC_SequenceNumber)
Group
ASN1 Type
                 : RB_ActivationTimeInfoList
Derivation Path
Encoding Variation:
Comments
                                             Constraint Value
c_RB_ActTimeInfo (tsc_RB1, p_RLC_SN1),
c_RB_ActTimeInfo (tsc_RB2, p_RLC_SN2),
c_RB_ActTimeInfo (tsc_RB3, p_RLC_SN3),
c_RB_ActTimeInfo (tsc_RB4, p_RLC_SN4),
c_RB_ActTimeInfo (tsc_RB20, p_RLC_SN20)
Detailed Comments:
```

```
ASN.1 Type Constraint Declaration
                 : cs_RB_ActTimeInfoListSRBs_20_21 ( p_RLC_SN1, p_RLC_SN2, p_RLC_SN3, p_RLC_SN4,
Constraint Name
                   p_RLC_SN20, p_RLC_SN21 : RLC_SequenceNumber)
Group
ASN1 Type
                  : RB_ActivationTimeInfoList
Derivation Path
Encoding Variation:
Comments
                                               Constraint Value
 c_RB_ActTimeInfo (tsc_RB1, p_RLC_SN1),
 c_RB_ActTimeInfo ( tsc_RB2, p_RLC_SN2 ) ,
 c\_RB\_ActTimeInfo\ (\ tsc\_RB3,\ p\_RLC\_SN3\ ),
 c_RB_ActTimeInfo ( tsc_RB4, p_RLC_SN4 ),
 c_RB_ActTimeInfo (tsc_RB20, p_RLC_SN20),
 c_RB_ActTimeInfo (tsc_RB21, p_RLC_SN21)
Detailed Comments:
```

```
ASN.1 Type Constraint Declaration
Constraint Name : cs_RB_ActTimeInfoListSRBs_20_22 ( p_RLC_SN1, p_RLC_SN2, p_RLC_SN3, p_RLC_SN4,
                   p_RLC_SN20, p_RLC_SN22 : RLC_SequenceNumber)
Group
ASN1 Type
                 : RB_ActivationTimeInfoList
Derivation Path
Encoding Variation:
Comments
                                             Constraint Value
 c_RB_ActTimeInfo (tsc_RB1, p_RLC_SN1),
 c_RB_ActTimeInfo (tsc_RB2, p_RLC_SN2),
 c_RB_ActTimeInfo (tsc_RB3, p_RLC_SN3),
 c_RB_ActTimeInfo (tsc_RB4, p_RLC_SN4),
 c_RB_ActTimeInfo ( tsc_RB20, p_RLC_SN20 ),
 c_RB_ActTimeInfo ( tsc_RB22, p_RLC_SN22 )
Detailed Comments:
```

 $\begin{array}{ll} \textbf{Constraint Name} & : cs_RB\_ActTimeInfoListSRBs\_21 \ ( \ p\_RLC\_SN1, \ p\_RLC\_SN2, \ p\_RLC\_SN3, \ p\_RLC\_SN4, \\ & p\_RLC\_SN21 : RLC\_SequenceNumber) \end{array}$ 

Group

ASN1 Type : RB\_ActivationTimeInfoList

**Derivation Path Encoding Variation:** Comments

# **Constraint Value**

```
c\_RB\_ActTimeInfo\ (\ tsc\_RB1,\ p\_RLC\_SN1\ )\ ,
 \begin{array}{l} c\_RB\_ActTimeInfo~(~tsc\_RB2,~p\_RLC\_SN2~)~,\\ c\_RB\_ActTimeInfo~(~tsc\_RB3,~p\_RLC\_SN3~), \end{array} 
c\_RB\_ActTimeInfo\ (\ tsc\_RB4,\ p\_RLC\_SN4\ ),
c_RB_ActTimeInfo (tsc_RB21, p_RLC_SN21)
```

# **ASN.1 Type Constraint Declaration Constraint Name** : cs\_RRC\_SecModeCmdCiphInt ( p\_RRC\_Ti : RRC\_TransactionIdentifier; p\_CipheringModeCommand: CipheringModeCommand; p\_RB\_ActivationTimeInfoList : RB\_ActivationTimeInfoList ; p\_ActTimeDPCH : INTEGER; p\_cn\_domain : CN\_DomainIdentity; p\_integrityMode : IntegrityProtectionModeInfo; p\_SecurityCapability:BITSTRING; p\_SystemSpecCap: InterRAT\_UE\_SecurityCapList ) Group **ASN1 Type** : SecurityModeCommand **Derivation Path Encoding Variation:** Comments

#### **Constraint Value**

```
r3
:
{
securityModeCommand_r3
{
rrc_TransactionIdentifier p_RRC_Ti,
securityCapability
{
cipheringAlgorithmCap p_SecurityCapability,
integrityProtectionAlgorithmCap tsc_IntegrProtAlgCap
},
cipheringModeInfo
{
cipheringModeCommand p_CipheringModeCommand,
activationTimeForDPCH p_ActTimeDPCH,
rb_DL_CiphActivationTimeInfo p_RB_ActivationTimeInfoList
},
integrityProtectionModeInfo p_integrityMode,
cn_DomainIdentity p_cn_domain,
ue_SystemSpecificSecurityCap p_SystemSpecCap
},
laterNonCriticalExtensions OMIT
}
```

```
ASN.1 Type Constraint Declaration
Constraint Name
                  : cs_RRC_SecModeCmdInt (p_RRC_Ti: RRC_TransactionIdentifier; p_cn_domain:
                    CN_DomainIdentity; p_integrityMode : IntegrityProtectionModeInfo;
                    p_SecurityCapability:BITSTRING;
                    p_SystemSpecCap: InterRAT_UE_SecurityCapList )
Group
ASN1 Type
                   : SecurityModeCommand
Derivation Path
Encoding Variation:
Comments
                                                 Constraint Value
r3
 securityModeCommand_r3
  rrc_TransactionIdentifier p_RRC_Ti,
  securityCapability
   cipheringAlgorithmCap p_SecurityCapability,
   integrityProtectionAlgorithmCap tsc_IntegrProtAlgCap
  cipheringModeInfo OMIT,
  integrityProtectionModeInfo p_integrityMode,
  cn_DomainIdentity p_cn_domain,
  ue_SystemSpecificSecurityCap p_SystemSpecCap
 laterNonCriticalExtensions OMIT
```

```
ASN.1 Type Constraint Declaration

Constraint Name : cs_UE_SysSpecCap( p_SysSpecCap : BITSTRING)

Group :
ASN1 Type : InterRAT_UE_SecurityCapList

Derivation Path :
Encoding Variation :
Comments :

Constraint Value

{ gsm :
    {
        gsmSecurityCapability p_SysSpecCap
}}

Detailed Comments :
```

Constraint Name: car\_DataReqRAB(p\_RB\_Identity: SS\_RB\_Identity; p\_PDU: PDU)

Group

**ASP Type** : RLC\_TR\_TestDataInd

Derivation Path :

Comments : This constraint is used to receive a data PDU using the default RAB for RLC

Parameters:

p\_PDU: The RLC data PDU to be transmitted.

Parameter Name	Parameter Value	Comments
cellId	tsc_CellDedicated	
rB_ld	p_RB_Identity	
data	p_PDU	
Potailed Comments :		

Detailed Comments:

# **ASP Constraint Declaration**

Constraint Name: cas\_DataReqRAB(p\_RB\_Identity: SS\_RB\_Identity; p\_PDU: PDU)

Group

**ASP Type** : RLC\_TR\_TestDataReq

Derivation Path :

Comments : This constraint is used to send a data PDU using the default RAB for RLC

testing.

Parameters:

p\_PDU: The RLC data PDU to be transmitted.

Parameter Name	Parameter Value	Comments
cellId	tsc_CellDedicated	
rB_ld	p_RB_Identity	
data	p_PDU	
Potailed Comments :		

Detailed Comments :

## **ASP Constraint Declaration**

Constraint Name: cas\_DataReqRB0(p\_RB\_Identity: SS\_RB\_Identity; p\_PDU: PDU)

Group

**ASP Type** : RLC\_TR\_TestDataReq

Derivation Path :

Comments : This constraint is used to send a data PDU using the default RAB for RLC

testing.

Parameters:

p\_PDU: The RLC data PDU to be transmitted.

Parameter Name	Parameter Value	Comments
cellId	tsc_DefaultCellId	
rB_ld	p_RB_Identity	
data	p_PDU	
Date the 10 comments		

Constraint Name: car\_DataIndHiPriNAS(p\_Rb\_Id: SS\_RB\_Identity; p\_PDU: PDU)

Group :

**ASP Type** : RLC\_TR\_TestDataInd

Derivation Path :

**Comments**: This constraint is used to receive a data PDU using the High priority NAS SRB.

Parameters:

p\_PDU: The RLC data PDU to be received.

Parameter Name	Parameter Value	Comments
cellid	tsc_CellDedicated	
rB_ld	p_Rb_ld	
data	p_PDU	
Detailed Comments :		

# **ASP Constraint Declaration**

Constraint Name : cas\_DataReqHiPriNAS(p\_RB\_Identity : SS\_RB\_Identity; p\_PDU: PDU )

Group :

ASP Type : RLC\_TR\_TestDataReq

Derivation Path :

Comments : This constraint is used to send a data PDU using the default RAB for RLC

testing.

Parameters:

p\_PDU: The RLC data PDU to be transmitted.

Parameter Name	Parameter Value	Comments
cellId	tsc_CellDedicated	
rB_ld	p_RB_Identity	
data	p_PDU	

Constraint Name: car\_InitDirectTransfer\_MAC (p\_CellId: INTEGER; p\_Rb: SS\_RB\_Identity; p\_Domain:

SS\_CN\_DomainIdentity; p\_Pdu : PDU )

Group :

ASP Type : RRC\_DataInd

Derivation Path :

Comments : The ASP is used to indicate the receipt of the NAS PDU message using acknowledged operation

(NAS <- RRC).

Parameter Name	Parameter Value	Comments
cellid	p_CellId	
rB_ld	p_Rb	
ch	_	GERAN only
sapld	_	GERAN only
cN_Domain	p_Domain	
start	?	
msg	p_Pdu	

**Detailed Comments:** 

**ASP Constraint Declaration** 

Constraint Name : ca\_AT\_CmdCnf

Group :

**ASP Type** : AT\_CmdCnf

Derivation Path :

**Comments**: The ASP is used get a positive result only for a requested command to the UT (UT ->LT).

Parameter Name	Parameter Value	Comments
result	TRUE IF_PRESENT	
resultString	tsc_AT_ResultOK IF_PRESENT	
sMS_BlockMode	_	Defined for future development

**Detailed Comments:** 

# **ASP Constraint Declaration**

Constraint Name : ca\_AT\_CmdReq ( p\_Cmd : IA5String )

Group :

**ASP Type** : AT\_CmdReq

Derivation Path :

**Comments**: The ASP is used to request a command to the UT (LT ->UT).

Parameter Name	Parameter Value	Comments
cmd	p_Cmd	
sMS_BlockMode	_	Defined for future development
Detailed Comments :		

Constraint Name : ca\_DataReq (p\_CellId: INTEGER; p\_Rb: SS\_RB\_Identity; p\_Pdu: PDU)

Group :

ASP Type : RRC\_DataReq

Derivation Path :

Comments : The ASP is used to request the transmission of the NAS PDU message using acknowledged

operation (NAS -> RRC).

Parameter Name	Parameter Value	Comments
cellId	p_CellId	
rB_ld	p_Rb	
ch	_	GERAN only
sapld	_	GERAN only
cN_Domain	tsc_SS_CS_Domain	
msg	p_Pdu	

**Detailed Comments:** 

**ASP Constraint Declaration** 

Constraint Name: ca\_MMI\_CmdCnf

Group :

**ASP Type** : MMI\_CmdCnf

Derivation Path :

Comments : The ASP is used get the result of a requested MMI command to the UT (UT ->LT).

Parameter Name	Parameter Value	Comments
result	TRUE	
resultString	*	

**Detailed Comments:** 

**ASP Constraint Declaration** 

Constraint Name: ca\_MMI\_CmdReq (p\_Cmd: IA5String)

Group

**ASP Type** : MMI\_CmdReq

Derivation Path :

**Comments**: The ASP is used to request a MMI command to the UT (LT ->UT).

Parameter Name	Parameter Value	Comments
cmd	p_Cmd	command line

 $\textbf{Constraint Name} \hspace{0.2cm} \textbf{:} \hspace{0.2cm} ca\_PS\_DataReq \hspace{0.2cm} (\hspace{0.1cm} p\_CellId : INTEGER; \hspace{0.1cm} p\_Rb : SS\_RB\_Identity \hspace{0.1cm} ; \hspace{0.1cm} p\_Pdu : PDU \hspace{0.1cm} )$ 

Group :

ASP Type : RRC\_DataReq

Derivation Path : Comments :

Parameter Name	Parameter Value	Comments
cellId	p_CellId	
rB_ld	p_Rb	
ch	_	GERAN only
sapld	_	GERAN only
cN_Domain	tsc_SS_PS_Domain	
msg	p_Pdu	

**Detailed Comments:** 

# **ASP Constraint Declaration**

 $\textbf{Constraint Name} \hspace{0.2cm} \textbf{:} \hspace{0.2cm} car\_InitDirectTransfer \hspace{0.2cm} (p\_CellId: \hspace{0.2cm} INTEGER; \hspace{0.2cm} p\_Rb: SS\_RB\_Identity; \hspace{0.2cm} p\_Pdu: PDU \hspace{0.2cm})$ 

Group :

ASP Type : RRC\_DataInd

Derivation Path :

**Comments**: The ASP is used to indicate the receipt of the NAS PDU message using acknowledged operation

(NAS <- RRC).

Parameter Name	Parameter Value	Comments
cellid	p_CellId	
rB_ld	p_Rb	
ch	_	GERAN only
sapld	_	GERAN only
cN_Domain	tsc_SS_CS_Domain	
start	?	
msg	p_Pdu	
Detailed Comments :		

Constraint Name: car\_PS\_InitDirectTransfer (p\_CellId: INTEGER; p\_Rb :SS\_RB\_Identity; p\_Pdu : PDU )

Group :

ASP Type : RRC\_DataInd

Derivation Path :

Comments : The ASP is used to indicate the receipt of the NAS PDU message using acknowledged operation

(NAS <- RRC).

Parameter Name	Parameter Value	Comments
cellid	p_CellId	
rB_ld	p_Rb	
ch	-	GERAN only
sapld	_	GERAN only
cN_Domain	tsc_SS_PS_Domain	
start	?	
msg	p_Pdu	

**Detailed Comments:** 

**ASP Constraint Declaration** 

Constraint Name: car\_PS\_UplinkDirectTransfer (p\_CellId: INTEGER; p\_Rb:SS\_RB\_Identity; p\_Pdu: PDU)

Group :

ASP Type : RRC\_DataInd

Derivation Path :

Comments : The ASP is used to indicate the receipt of the NAS PDU message using acknowledged operation

(NAS <- RRC).

Parameter Name	Parameter Value	Comments
cellId	p_CellId	
rB_ld	p_Rb	
ch	-	GERAN only
sapld	_	GERAN only
cN_Domain	tsc_SS_PS_Domain	
start	-	
msg	p_Pdu	

**Detailed Comments:** 

**ASP Constraint Declaration** 

Constraint Name: car\_RLC\_AM\_DataInd( p\_CellId: INTEGER; p\_SS\_RB\_Identity: SS\_RB\_Identity; p\_PDU: PDU )

Group :

ASP Type : RLC\_AM\_TestDataInd

Derivation Path :

**Comments**: This constraint is used to receive a data PDU for RB test cases

Parameter Name	Parameter Value	Comments
cellid	p_CellId	
rB_ld	p_SS_RB_Identity	
data	p_PDU	
Detailed Comments :		

Constraint Name: car\_StatusInd ( p\_RB\_Id: SS\_RB\_Identity )

Group :

ASP Type : RLC\_TR\_TestDataInd

Derivation Path :

Comments : This constraint is used to receive a STATUS PDU with the given super fields, and using the given RB

ld.

Any padding octets present are ignored.

Parameters:

p\_RB\_ld: The identifier for the RB to be used for reception of data. This is expected to be one of the

following values, depending on the RLC configuration being tested.

tsc\_RB\_AM\_7\_RLC, tsc\_RB\_UM\_7\_RLC, tsc\_RB\_AM\_15\_RLC, tsc\_RB\_UM\_15\_RLC

p\_SuperFields: The super fields expected to be included in the STATUS PDU.

Parameter Name	Parameter Value	Comments
cellid	tsc_CellDedicated	
rB_ld	p_RB_ld	
data	cr_StatusAny	
Detailed Comments :		

#### Detailed Comments:

#### **ASP Constraint Declaration**

Constraint Name: car\_UplinkDirectTransfer (p\_CellId: INTEGER; p\_Rb: SS\_RB\_Identity; p\_Pdu: PDU)

Group :

ASP Type : RRC\_DataInd

Derivation Path :

Comments : The ASP is used to indicate the receipt of the NAS PDU message using acknowledged operation

(NAS <- RRC).

Parameter Name	Parameter Value	Comments
cellId	p_CellId	
rB_ld	p_Rb	
ch	_	GERAN only
sapld	_	GERAN only
cN_Domain	tsc_SS_CS_Domain	
start	_	
msg	p_Pdu	

Constraint Name: cas\_RLC\_AM\_DataReq(p\_CellId: INTEGER; p\_SS\_RB\_Identity: SS\_RB\_Identity; p\_PDU: PDU)

Group :

ASP Type : RLC\_AM\_TestDataReq

Derivation Path :

**Comments**: This constraint is used to send a data PDU fro RB test cases.

Parameter Name	Parameter Value	Comments
cellId	p_CellId	
rB_ld	p_SS_RB_Identity	
data	p_PDU	
data	p_PDU	

**Detailed Comments:** 

# **ASN.1 ASP Constraint Declaration**

Constraint Name: ca\_RB\_DL\_TM\_Info(p\_CellId: INTEGER; p\_RB\_Id: INTEGER; p\_PayloadSize: INTEGER;

p\_LogChMapping : RB\_LogCH\_Mapping )

Group :

**ASP Type** : CRLC\_Config\_REQ

Derivation Path : Comments :

#### **Constraint Value**

```
{
  cellId p_CellId,
  routingInfo rB_Identity: p_RB_Id,
  ratType fdd,
  configMessage setup : {
    sS_rlc_Info {
       sS_ul_RLC_Mode OMIT,
       sS_dl_RLC_Mode {
            dl_PayloadSize p_PayloadSize,
            dl_RLCModeInfo ul_TM_RLC_Mode :{
                 segmentationIndication FALSE
            }
        }},
    rB_LogCH_Mapping p_LogChMapping
    }
}
```

#### **ASN.1 ASP Constraint Declaration**

Constraint Name: ca\_RB\_AM\_Info\_RAB\_T\_PollOmit(p\_CellId: INTEGER; p\_RB\_Id: INTEGER;p\_TimerPollProhbt

:TimerPollProhibit; p\_Timer\_poll: TimerPoll; p\_PollSDU: Poll\_SDU; p\_PollWindw: PollWindow;

p\_LogChMapping: RB\_LogCH\_Mapping; p\_PayLoad: INTEGER)

Group :

ASP Type : CRLC\_Config\_REQ

Derivation Path :

Comments : Used to setup AM RLC entity

#### **Constraint Value**

```
{
  cellId p_CellId,
  routingInfo rB_Identity: p_RB_Id,
  ratType fdd,
  configMessage setup : {
    sS_rlc_Info { sS_ul_RLC_Mode dl_AM_RLC_Mode :cb_DL_AM_RLC,
    sS_dl_RLC_Mode {
       dl_PayloadSize p_PayLoad,
       dl_RLCModeInfo ul_AM_RLC_Mode : cd_UL_AM_RLC_T_PollOmit
    }
  },
  rB_LogCH_Mapping p_LogChMapping
}
```

#### **Detailed Comments:**

#### **ASN.1 ASP Constraint Declaration**

Constraint Name: cas\_MeasurementControl (

p\_CellId: INTEGER; p\_RB\_Id: SS\_RB\_Identity;

p\_PDU: DL\_DCCH\_Message

Group :

ASP Type : RLC\_AM\_DATA\_REQ

Derivation Path :

**Comments**: to send a Measurement Control PDU in AM mode

#### **Constraint Value**

```
{
  cellId p_CellId,
  routingInfo rB_Identity: p_RB_Id,
  confirmationRequest noConfirmationRequest: NULL,
  aM_message dL_DCCH_Message : p_PDU
```

```
ASN.1 ASP Constraint Declaration
Constraint Name : cas_TFC_ControlAM(
                   p_CellId: INTEGER;
                   p_RB_ld: INTEGER;
                   p_PDU: DL_DCCH_Message
Group
ASP Type
                : RLC_AM_DATA_REQ
Derivation Path
Comments
                                              Constraint Value
 cellId p_CellId,
 routingInfo rB_Identity: p_RB_Id,
 confirmationRequest noConfirmationRequest: NULL,
 aM_message dL_DCCH_Message : p_PDU
Detailed Comments:
```

```
ASN.1 ASP Constraint Declaration

Constraint Name : cas_AICH_AckModeSet_REQ(p_CellId, p_PhyChId : INTEGER; p_Mode : AICH_Mode )

Group :
ASP Type : CPHY_AICH_AckModeSet_REQ

Derivation Path :
Comments :

Constraint Value

{
    cellId p_CellId,
    routingInfo physicalChannelIdentity : p_PhyChId,
    ratType fdd,
    aICH_Mode p_Mode
}

Detailed Comments :
```

```
ASN.1 ASP Constraint Declaration

Constraint Name : car_AICH_AckModeSet_CNF(p_CellId, p_PhyChId : INTEGER)

Group :
ASP Type : CPHY_AICH_AckModeSet_CNF

Derivation Path :
Comments :

Constraint Value

{
    cellId p_CellId,
    routingInfo physicalChannelIdentity : p_PhyChId
}

Detailed Comments :
```

```
ASN.1 ASP Constraint Declaration

Constraint Name: cas_PRACH_Measurement_REQ(p_CellId, p_PhyChId: INTEGER; p_MeasMode: PRACH_MeasurementInd)

Group: RASP Type: CPHY_PRACH_Measurement_REQ
Derivation Path: Comments: Constraint Value

Comments: Constraint Value

{ cellId p_CellId, routingInfo physicalChannelIdentity: p_PhyChId, ratType fdd, pRACH_MeasurementInd p_MeasMode } PhyChId, PRACH_MeasurementInd p_MeasMode }

Detailed Comments: Cas_PRACH_Measurement_REQ(p_CellId, p_PhyChId, ratType fdd, pRACH_MeasurementInd p_MeasMode })
```

ASN.1 ASP Constraint Declaration

Constraint Name : car\_PRACH\_Measurement\_CNF(p\_CellId, p\_PhyChId : INTEGER)

Group :
ASP Type : CPHY\_PRACH\_Measurement\_CNF

Derivation Path :
Comments :

Constraint Value

{
 cellId p\_CellId,
 routingInfo physicalChannelIdentity : p\_PhyChId
}

Detailed Comments :

ASN.1 ASP Constraint Declaration

Constraint Name : car\_PRACH\_Measurement\_Report\_IND(p\_CellId, p\_PhyChId : INTEGER; p\_MeasRep : PRACH\_MeasurementReport)

Group :
ASP Type : CPHY\_PRACH\_Measurement\_Report\_IND

Derivation Path :
Comments :

Constraint Value

{
 cellId p\_CellId,
 routingInfo physicalChannelIdentity : p\_PhyChId,
 ratType fdd,
 measurementReport p\_MeasRep
}

Detailed Comments :

```
ASN.1 ASP Constraint Declaration
Constraint Name: cas_RB_Reconfigure(
                 p_CellId: INTEGER;
                 p_RB_Id: INTEGER;
                 p_Pdu: DL_DCCH_Message)
Group
ASP Type
                : RLC_AM_DATA_REQ
Derivation Path
Comments
                                              Constraint Value
 cellId p_CellId,
 routingInfo rB_Identity: p_RB_Id,
 confirmationRequest noConfirmationRequest : NULL,
 aM_message dL_DCCH_Message : p_Pdu
Detailed Comments:
```

# **ASN.1 ASP Constraint Declaration** Constraint Name : ca\_AichInfo( p\_CellId: INTEGER; p\_PhyChld: INTEGER; p\_AICH\_Info: AICH\_Info; p\_TxPower: AICH\_PowerOffset) Group **ASP Type** : CPHY\_RL\_Setup\_REQ **Derivation Path** Comments **Constraint Value** cellId p\_CellId, routingInfo physicalChannelIdentity: p\_PhyChld, ratType fdd, setupMessage { physicalChannelInfo alCHInfo : { aichinfo p\_AICH\_Info, dl\_TxPower p\_TxPower } **Detailed Comments:** The following are fixed in this constraint (34.108): transmission diversity is off,

speading factor is set to 256, AICH timing scheme is 0

```
ASN.1 ASP Constraint Declaration
Constraint Name: ca_BCH_InfoActNow (p_CellId: INTEGER)
Group
ASP Type
                  : CPHY_TrCH_Config_REQ
Derivation Path
Comments
                 : For FDD mode only
                                                   Constraint Value
 cellid p_Cellid,
 routingInfo physicalChannelIdentity: tsc_P_CCPCH,
 ratType fdd.
 trchConfigType nonDch: NULL,
 configMessage {
  activationTime activateNow: NULL,
  ulconnectedTrCHList OMIT,
  ulTFCS OMIT,
  dlconnectedTrCHList {{
    trchid tsc_BCH1,
    dl_TransportChannelType bch,
    transportChannelInfo {
     tti tti20 : {{tb_Size 246,
        numberOfTbSizeList {one : NULL},
        logicalChannelList configured: NULL}},
     semistaticTF_Information {
      channelCodingType convolutional :half,
      rateMatchingAttribute 1,
       crc_Size crc16
    }
  dITFCS c_TFCS_CmpI0 ( c_PowerOffsetInfoBelow64k )
Detailed Comments: For BCH transport channel the following parameters are fixed by core spec.(25.212 and 25.302):
                       TTI = 20 \text{ ms};
                      TransportBlocks = 1;
                      transport block size = 246 bits;
                      coding = convolutional;
                      coding rate = 1/2;
                      CRCsize = 16;
                      RateMatching = 1 (this parameter is not relevant to BCH, value can be any number between 1 to
```

```
ASN.1 ASP Constraint Declaration

Constraint Name : ca_CellCfgCnf(p_CellId : INTEGER)

Group :
ASP Type : CPHY_Cell_Config_CNF

Derivation Path :
Comments :

Constraint Value

{
    cellId p_CellId
}

Detailed Comments :
```

#### **ASN.1 ASP Constraint Declaration**

 $\begin{tabular}{ll} \textbf{Constraint Name} &: ca\_CellCfgReq(p\_CellId:INTEGER; p\_Tcell:INTEGER; p\_FreqInfo:FrequencyInfo; p\_PriScmCode:INTEGER; p\_DL\_TxAttenLevel:INTEGER; p\_SfnOffset:INTEGER; p\_totalCellPower:INTEGER; p\_totalCell$ 

CellTxPowerLevel)

Group

: CPHY\_Cell\_Config\_REQ **ASP Type** 

**Derivation Path** Comments

## **Constraint Value**

```
cellid p_Cellid,
tcell p_Tcell,
sfnOffset p_SfnOffset,
frequencyInfo p_FreqInfo,
primaryScramblingCode_SS p_PriScmCode,
cellTxPowerLevel p_totalCellPower,
dLTxAttenuationLevel p_DL_TxAttenLevel
```

#### **Detailed Comments:**

#### **ASN.1 ASP Constraint Declaration**

Constraint Name: ca\_CMAC\_CfgCnf (p\_CellId: INTEGER; p\_PhyChId: INTEGER)

Group

**ASP Type** : CMAC\_Config\_CNF

**Derivation Path** Comments

# **Constraint Value**

cellid p\_Cellid,

routingInfo physicalChannelIdentity: p\_PhyChId

Constraint Name: ca\_CMAC\_CfgInfo(p\_CellId: INTEGER; p\_PhyChId: INTEGER; p\_UEInfo: UE\_Info; p\_TrCHInfo: TrCHInfo; p\_TrCH\_LogCHMapping: TrCH\_LogCHMappingList1)

Group

: CMAC\_Config\_REQ **ASP Type** 

**Derivation Path** Comments

### **Constraint Value**

```
cellId p_CellId,
routingInfo physicalChannelIdentity: p_PhyChld,
ratType fdd,
configMessage setup: {
 activationTime activateNow: NULL,
 uE_Info p_UEInfo,
 trCHInfo p_TrCHInfo,
 trCH_LogCHMapping p_TrCH_LogCHMapping
```

### **Detailed Comments:**

### **ASN.1 ASP Constraint Declaration**

**Constraint Name**: ca\_CMAC\_CipherActCnf(p\_CellId: INTEGER; p\_PhyChId: INTEGER)

Group

**ASP Type** : CMAC\_Ciphering\_Activate\_CNF

**Derivation Path** Comments

### **Constraint Value**

cellId p\_CellId, routingInfo physicalChannelIdentity: p\_PhyChld

```
ASN.1 ASP Constraint Declaration
Constraint Name: ca_CMAC_DL_CipherActReq (p_CellId: INTEGER; p_PhyChld: INTEGER; p_CipherMode:
                  CipheringModeCommand; p_ActTimeDPCH: INTEGER;p_IncrDcr : Increment_Mode)
Group
ASP Type
                : CMAC_Ciphering_Activate_REQ
Derivation Path
Comments
                                                Constraint Value
 cellId p_CellId,
 routingInfo physicalChannelIdentity: p_PhyChld,
 ratType fdd,
 cn_DomainIdentity cs_domain, -- the domain is hard coded as no TM RAB in PS domain
 cipheringModeInfo
  ciphering Mode Command \ p\_Cipher Mode,
  activationTimeForDPCH p_ActTimeDPCH,
  rb\_DL\_CiphActivationTimeInfo\ OMIT
 incHFN p_IncrDcr
```

```
ASN.1 ASP Constraint Declaration

Constraint Name : ca_CMAC_PagingCfgCnf(p_CellId: INTEGER; p_PhysicalChannelIdentity: PhysicalChannelIdentity )

Group :
ASP Type : CMAC_PAGING_Config_CNF
Derivation Path :
Comments :

Constraint Value

{
    cellId p_CellId,
    routingInfo physicalChannelIdentity: p_PhysicalChannelIdentity
}

Detailed Comments :
```

```
ASN.1 ASP Constraint Declaration
Constraint Name: ca_CMAC_PagingCfgReq(
                  p_CellId: INTEGER;
                  p_PhysicalChannelIdentity: PhysicalChannelIdentity;
                  p_RatType: RatType;
                  p_Pdu: CmacPagingConfigReq
Group
ASP Type
                 : CMAC_PAGING_Config_REQ
Derivation Path
Comments
                                                Constraint Value
 cellid p_Cellid,
 routing Info\ physical Channell dentity:\ p\_Physical Channell dentity,
 ratType p_RatType,
 configMessage p_Pdu
Detailed Comments:
```

```
ASN.1 ASP Constraint Declaration
Constraint Name: ca_CMAC_ReconfigInfo(p_CellId: INTEGER; p_PhyChId: INTEGER; p_UEInfo: UE_Info;
                  p_TrCHInfo: TrCHInfo; p_TrCH_LogCHMapping: TrCH_LogCHMappingList1; p_ActivationTime:
                  ActivationTime)
Group
ASP Type
                 : CMAC_Config_REQ
Derivation Path
Comments
                                                Constraint Value
 cellId p_CellId,
 routingInfo physicalChannelIdentity: p_PhyChld,
 ratType fdd,
 configMessage reconfigure: {
  activationTime activationCFN: p_ActivationTime,
  uE_Info p_UEInfo,
  trCHInfo p_TrCHInfo,
  trCH_LogCHMapping p_TrCH_LogCHMapping
Detailed Comments:
```

### **ASN.1 ASP Constraint Declaration** Constraint Name: ca\_CMAC\_ReconfigInfoActNow (p\_CellId: INTEGER; p\_PhyChId: INTEGER; p\_UEInfo: UE\_Info; p\_TrCHInfo: TrCHInfo; p\_TrCH\_LogCHMapping: TrCH\_LogCHMappingList1) Group **ASP Type** : CMAC\_Config\_REQ **Derivation Path** Comments **Constraint Value** cellId p\_CellId, routingInfo physicalChannelIdentity: p\_PhyChld, ratType fdd, configMessage reconfigure: { activationTime activateNow: NULL, uE\_Info p\_UEInfo, trCHInfo p\_TrCHInfo, trCH\_LogCHMapping p\_TrCH\_LogCHMapping

### **Detailed Comments:**

### ASN.1 ASP Constraint Declaration Constraint Name : ca\_CMAC\_SecurityModeCfgCnf (p\_CellId: INTEGER) Group : ASP Type : CMAC\_SecurityMode\_Config\_CNF Derivation Path : Comments : Constraint Value { cellId p\_CellId }

Constraint Name: ca\_CMAC\_SecurityModeCfgReq (p\_CellId: INTEGER; p\_Domain: CN\_DomainIdentity; p\_Hfn: HyperFrameNumber; p\_KC: KeyCiphering; p\_IK:IntegrityKey; p\_GSM\_ck : GSM\_CipheringKey )

Group

**ASP Type** : CMAC\_SecurityMode\_Config\_REQ

**Derivation Path** Comments

### **Constraint Value**

```
cellId p_CellId,
macCipheringInfo
 cn_DomainIdentity p_Domain,
 startValue p_Hfn,
 cipheringKey p_KC,
 integrityKey p_IK,
 gsmCipheringKey p_GSM_ck
```

### **Detailed Comments:**

### **ASN.1 ASP Constraint Declaration**

Constraint Name: ca\_CMAC\_UL\_CipherActReq (p\_CellId: INTEGER; p\_PhyChld: INTEGER; p\_CipherMode:

CipheringModeCommand; p\_ActTimeDPCH: INTEGER;p\_IncrDcr : Increment\_Mode)

Group

**ASP Type** : CMAC\_Ciphering\_Activate\_REQ

**Derivation Path** Comments

### **Constraint Value**

```
cellId p_CellId,
routingInfo physicalChannelIdentity: p_PhyChld,
ratType fdd,
cn_DomainIdentity cs_domain, -- domain hard coded as no TM RAB in PS Domain
cipheringModeInfo
 cipheringModeCommand p_CipherMode,
 activationTimeForDPCH p_ActTimeDPCH,
 rb_DL_CiphActivationTimeInfo OMIT
incHFN p_IncrDcr
```

Constraint Name: ca\_CPHY\_Cell\_Release\_CNF(

p\_CellId: INTEGER)

Group

ASP Type : CPHY\_Cell\_Release\_CNF

Derivation Path :

Comments : 1. This Primitive with "Soft\_Reset" flag ON gives a common known starting point/state of SS for a

test case. The SS performs the following whenever it receives this primitive with "Soft\_Reset" flag

ON:Releases all configured Channels and cells (if any) irrespective of Cell ID list IE.

2. Releases the associated Memory Buffers (if any).

3. Cancels all active timers (if any) With "Soft Reset" flag OFF:

1. Releases cells listed in IE Cell\_ID\_List and associated configured Channels (if any)

2. Releases the Memory Buffers(if any) associated with Cells listed in IE Cell\_ID\_List

3. Cancels all active timers (if any) associated with Cells listed in IE Cell\_ID\_List.

### **Constraint Value**

```
{
    soft_Reset FALSE,
    cell_ID_List { p_CellId }
}
```

### **Detailed Comments:**

### **ASN.1 ASP Constraint Declaration**

Constraint Name: ca\_CPHY\_Cell\_Release\_REQ(

p\_CellId: INTEGER)

Group

**ASP Type** : CPHY\_Cell\_Release\_REQ

Derivation Path :

Comments : 1. This Primitive with "Soft\_Reset" flag ON gives a common known starting point/state of SS for a

 $test\ case.\ The\ SS\ performs\ the\ following\ whenever\ it\ receives\ this\ primitive\ with\ "Soft\_Reset"\ flag$ 

ON:Releases all configured Channels and cells (if any) irrespective of Cell ID list IE.

2. Releases the associated Memory Buffers (if any).

3. Cancels all active timers (if any) With "Soft\_Reset" flag OFF:

1. Releases cells listed in IE Cell\_ID\_List and associated configured Channels (if any)

2. Releases the Memory Buffers(if any) associated with Cells listed in IE Cell\_ID\_List

3. Cancels all active timers (if any) associated with Cells listed in IE Cell\_ID\_List.

### Constraint Value

```
{
    soft_Reset FALSE,
    cell_ID_List { p_CellId }
```

```
ASN.1 ASP Constraint Declaration

Constraint Name : ca_CRLC_CfgCnf(p_CellId: INTEGER; p_RB_Id: INTEGER)

Group :

ASP Type : CRLC_Config_CNF

Derivation Path :

Comments :

Constraint Value

{
    cellId p_CellId,
    routingInfo rB_Identity: p_RB_Id
    }

Detailed Comments :
```

```
ASN.1 ASP Constraint Declaration

Constraint Name : ca_CRLC_CipherActCnf(p_CellId: INTEGER )

Group :
ASP Type : CRLC_Ciphering_Activate_CNF

Derivation Path :
Comments :

Constraint Value

{
    cellId p_CellId
  }

Detailed Comments :
```

```
ASN.1 ASP Constraint Declaration
\begin{tabular}{ll} \textbf{Constraint Name} & : ca\_CRLC\_DL\_CipherActReq(p\_CellId: INTEGER; p\_CN\_Domain: CN\_DomainIdentity; p\_RB\_Id: INTEGER; p\_CipherMode: CipheringModeCommand; p\_N: RLC\_SequenceNumber; p\_IncMode: RLC\_SequenceNumber; p\_N: RLC\_SequenceNumber; 
                                                                                               RLC_IncMode
Group
ASP Type
                                                                                       : CRLC_Ciphering_Activate_REQ
Derivation Path
Comments
                                                                                                                                                                                                                                                       Constraint Value
     cellid p_Cellid,
     ratType fdd,
     cn_DomainIdentity p_CN_Domain,
       ciphActivationInfo cipheringModeInfo:
           ciphering Mode Command \ p\_Cipher Mode,
           activationTimeForDPCH OMIT,
           rb_DL_CiphActivationTimeInfo
                 c_RB_ActTimeInfo(p_RB_Id, p_N)
     incHFN p_IncMode
Detailed Comments:
```

# ASN.1 ASP Constraint Declaration Constraint Name : ca\_CRLC\_DL\_IntegrityActivateReq(p\_CellId: INTEGER; p\_Domain : CN\_DomainIdentity;p\_IntegrityProtectionModeInfo : IntegrityProtectionModeInfo ) Group : ASP Type : CRLC\_Integrity\_Activate\_REQ Derivation Path : Comments : Constraint Value { cellId p\_CellId, cn\_DomainIdentity p\_Domain, integrityActivationInfo integrityProtectionModeInfo : p\_IntegrityProtectionModeInfo } Detailed Comments :

ASN.1 ASP Constraint Declaration

Constraint Name : ca\_CRLC\_IntegrityActivateCnf(p\_CellId: INTEGER)

Group :
ASP Type : CRLC\_Integrity\_Activate\_CNF

Derivation Path :
Comments :

Constraint Value

{
 cellId p\_CellId
}

Detailed Comments :

ASN.1 ASP Constraint Declaration

Constraint Name : ca\_CRLC\_RB\_RelReq ( p\_CellId: INTEGER; p\_RB\_Id: INTEGER )

Group :

ASP Type : CRLC\_Config\_REQ

Derivation Path :

Comments :

Constraint Value

{
 cellId p\_CellId,
 routingInfo rB\_Identity: p\_RB\_Id,
 ratType fdd,
 configMessage release : NULL
}

Detailed Comments :

ASN.1 ASP Constraint Declaration

Constraint Name : ca\_CRLC\_SecurityModeCfgCnf(p\_CellId: INTEGER)

Group :
ASP Type : CRLC\_SecurityMode\_Config\_CNF

Derivation Path :
Comments :

Constraint Value

{
 cellId p\_CellId
}

Detailed Comments :

```
ASN.1 ASP Constraint Declaration
Constraint Name: ca_CRLC_SecurityModeCfgReq(p_CellId: INTEGER; p_Domain: CN_DomainIdentity; p_Hfn:
                  HyperFrameNumber; p_KC: KeyCiphering; p_lk: IntegrityKey; p_GSM_ck: GSM_CipheringKey)
Group
                : CRLC_SecurityMode_Config_REQ
ASP Type
Derivation Path
Comments
                                               Constraint Value
 cellId p_CellId,
 rlcSecurityInfo
  cn_DomainIdentity p_Domain,
  startValue p_Hfn,
  cipheringKey p_KC,
  integrityKey p_lk,
  gsmCipheringKey p_GSM_ck
```

```
ASN.1 ASP Constraint Declaration

Constraint Name : ca_CRLC_SetRRC_MSN_CNF (p_CellID :INTEGER ; p_RBID : INTEGER )

Group :
ASP Type : CRLC_SetRRC_MessageSN_CNF

Derivation Path :
Comments :

Constraint Value

{
    cellId p_CellID,
    routingInfo rB_Identity : p_RBID
}

Detailed Comments :
```

```
ASN.1 ASP Constraint Declaration

Constraint Name : ca_CRLC_UL_CipherActReq (p_CellId: INTEGER; p_CN_Domain: CN_DomainIdentity; p_RB_ActivationTimeInfoList: RB_ActivationTimeInfoList;p_IncMode: RLC_IncMode
)

Group :

ASP Type : CRLC_Ciphering_Activate_REQ

Derivation Path :
Comments :

Constraint Value

{
    cellIld p_CellId, ratType fdd, cn_DomainIdentity p_CN_Domain, ciphActivationInfor b_UL_CipheringActivationTimeInfo: p_RB_ActivationTimeInfoList, incHFN p_IncMode
}

Detailed Comments :
```

# ASN.1 ASP Constraint Declaration Constraint Name : ca\_CRLC\_UL\_IntegrityActivateReq ( p\_CellId: INTEGER ; p\_Domain : CN\_DomainIdentity; p\_IntegrityProtActivationInfo : IntegrityProtActivationInfoList ) Group : ASP Type : CRLC\_Integrity\_Activate\_REQ Derivation Path : Comments : Constraint Value { cellId p\_CellId, cn\_DomainIdentity p\_Domain , integrityActivationInfo ul\_IntegProtActivationInfo : p\_IntegrityProtActivationInfo } Detailed Comments :

Constraint Name: ca\_DCH\_148\_TTI\_10\_DL\_InfoActNow (p\_CellId: INTEGER; p\_PhyChId: INTEGER)

Group :

**ASP Type** : CPHY\_TrCH\_Config\_REQ

Derivation Path :

Comments: For FDD mode only. The configuration is defined in TS 34.123-1 cl. 6.10.2.4.1.3

### **Constraint Value**

```
{
  cellId p_CellId,
  routingInfo physicalChannelIdentity: p_PhyChId,
  ratType fdd,
  trchConfigType c_TrChConfigTypeDCH_NoSHO,
  configMessage {
    activationTime activateNow : NULL,
    dIconnectedTrCHList {{
       trchid tsc_DL_DCH5,
       dl_TransportChannelType dch,
       transportChannelInfo c_DCH_148_TTI_10_TFS
    }},
    dITFCS c_TFCS_CmpI0_1_Tx ( c_PowerOffsetInfoBelow64k )
}
```

**Detailed Comments**: For DCH1 transport channel the following parameters are fixed by core spec.

TTI = 10 ms;

two transport formats: TransportBlocks = 1, TB size = 148 bits; TansportBlock = 0, Size = 148.

rlc\_Size = RLC PDU SIZE = 144 bits.

coding = convolutional; coding rate = 1/3; CRCsize = 16; RateMatching = 192

```
ASN.1 ASP Constraint Declaration
Constraint Name: ca_DCH_148_TTI_10_UL_InfoActNow (p_CellId: INTEGER; p_PhyChId: INTEGER)
Group
ASP Type
                 : CPHY_TrCH_Config_REQ
Derivation Path
Comments
                 : For FDD mode only. The configuration is defined in TS 34.123-1 cl. 6.10.2.4.1.3
                                                  Constraint Value
 cellid p_Cellid,
 routingInfo physicalChannelIdentity: p_PhyChld,
 ratType fdd.
 trchConfigType c_TrChConfigTypeDCH_NoSHO,
 configMessage {
  activationTime activateNow: NULL,
  ulconnectedTrCHList {{
    trchid tsc_UL_DCH5,
    ul_TransportChannelType dch,
    transportChannelInfo c_DCH_148_TTI_10_TFS
  ulTFCS c_TFCS_Cmpl0_1_Rx
}
Detailed Comments: For DCH1 transport channel the following parameters are fixed by core spec.:
                      TTI = 10 \text{ ms};
                      two transport formats: TransportBlocks = 1, TB size = 148 bits; TansportBlock = 0, Size = 148.
                      rlc_Size = RLC PDU Size = 144 bits.
                      coding = convolutional;
```

coding rate = 1/3; CRCsize = 16; RateMatching = 192

```
ASN.1 ASP Constraint Declaration

Constraint Name : ca_DL_CRLC_SetRRC_MSN_REQ (p_CellID :INTEGER; p_RBID : INTEGER; p_DL_MSN : RRC_SequenceNumber )

Group : ASP Type : CRLC_SetRRC_MessageSN_REQ

Derivation Path : Comments :

Comments : Constraint Value

{
    cellId p_CellID,
    routingInfo rB_Identity : p_RBID,
    count_I_LSB_UL OMIT,
    count_I_LSB_DL p_DL_MSN
}

Detailed Comments :
```

Constraint Name: ca\_DL\_DPCH\_Info(p\_CellId: INTEGER; p\_PhyChId: INTEGER; p\_DL\_DPCHInfo: DL\_DPCHInfo)

Group :

ASP Type : CPHY\_RL\_Setup\_REQ

Derivation Path :

**Comments**: To setup down link physical channel DPCH.

```
Constraint Value
```

```
{
  cellId p_CellId,
  routingInfo physicalChannelIdentity: p_PhyChId,
  ratType fdd,
  setupMessage {
    physicalChannelInfo dPCHInfo : {
       dl_DPCHInfo p_DL_DPCHInfo
    }
  }
}
```

### **Detailed Comments:**

### **ASN.1 ASP Constraint Declaration**

**Constraint Name**: ca\_DL\_DPCH\_ModifyInfo(p\_CellId: INTEGER; p\_PhyChId: INTEGER; p\_DL\_DPCHInfo:

DL\_DPCHInfo; p\_ActivationTime : ActivationTime)

Group

**ASP Type** : CPHY\_RL\_Modify\_REQ

Derivation Path :

**Comments**: To modify down link physical channel DPCH.

### **Constraint Value**

```
{
  cellId p_CellId,
  routingInfo physicalChannelIdentity: p_PhyChId,
  ratType fdd,
  modifyMessage {
    activationTime activationCFN : p_ActivationTime,
    physicalChannelInfo dPCHInfo : {
    dI_DPCHInfo p_DL_DPCHInfo
  }
}
```

```
ASN.1 ASP Constraint Declaration

Constraint Name : ca_OutOfSyncInd ( p_PhysicalChannelIdentity : PhysicalChannelIdentity )

Group :

ASP Type : CPHY_Out_of_Sync_IND

Derivation Path :

Comments :

Constraint Value

{
    cellId ?,
    routingInfo physicalChannelIdentity: p_PhysicalChannelIdentity
}

Detailed Comments :
```

```
ASN.1 ASP Constraint Declaration
Constraint Name: ca_pCCPCH_Info(p_CellId: INTEGER; p_TxPower: DL_TxPower)
Group
ASP Type
                : CPHY_RL_Setup_REQ
Derivation Path :
Comments
                : For FDD mode only
                                               Constraint Value
{ cellId p_CellId,
 routingInfo physicalChannelIdentity: tsc_P_CCPCH,
 ratType fdd,
 setupMessage {
  physicalChannelInfo primaryCCPCHInfo : {
   sttd_Indicator FALSE,
   dl_TxPower p_TxPower
 }
```

**Detailed Comments**: PhysycalChannelIdentity for p-CCPCH is fixed as tsc\_pCCPCH;

```
ASN.1 ASP Constraint Declaration
```

Constraint Name: ca\_PCH\_2\_FACH\_InfoActNow (p\_CellId: INTEGER; p\_PhyChId: INTEGER)

Group :

**ASP Type** : CPHY\_TrCH\_Config\_REQ

Derivation Path :

Comments : For FDD mode only (PS)

```
Constraint Value
```

```
cellid p_Cellid,
 routingInfo physicalChannelIdentity: p_PhyChld,
 ratType fdd,
 trchConfigType nonDch: NULL,
 configMessage {
  activationTime activateNow: NULL,
  ulconnectedTrCHList OMIT,
  ulTFCS OMIT,
  dlconnectedTrCHList {
   { trchid tsc_PCH1,
    dl_TransportChannelType pch,
    transportChannelInfo c_PCH_TFS},
   { trchid tsc_FACH1,
    dl_TransportChannelType fach,
    transportChannelInfo c_FACH_TFS},
   { trchid tsc_FACH2,
    dl_TransportChannelType fach,
    transportChannelInfo c_FACH_TFS_PS} },
  dITFCS c_TFCS_CmpIFACH_Tx ( c_PowerOffsetInfoBelow64k )
Detailed Comments: For PCH transport channel the following parameters are fixed by core spec.(34.108 cl.
                       6.10.2.4.3):
                       TTI = 10 \text{ ms}:
                       two transport formats: TransportBlocks = 0, TB size = 240 bits; and TransportBlocks = 1, TB size =
                       240 bits:
                       coding = convolutional;
                       coding rate = 1/2;
```

```
CRCsize = 16:
RateMatching = 210
For FACH1 transport channel the following parameters are fixed by core spec.(34.108 cl.
6.10.2.4.3.2):
TTI = 10 \text{ ms};
two transport formats: TransportBlocks = 0, TB size = 360 bits; TransportBlocks = 1, TB size = 360
bits;
coding = turbo;
CRCsize = 16;
RateMatching = 110
For FACH2 transport channel the following parameters are fixed by core spec.(34.108 cl.
6.10.2.4.3):
TTI = 10 ms;
three transport formats: TransportBlocks = 0, TB size = 168 bits; TransportBlocks = 1, TB size =
168 bits; and TransportBlocks = 2, TB size = 168 bits
coding = convolutional;
coding rate = 1/2;
CRCsize = 16;
RateMatching = 210
```

```
ASN.1 ASP Constraint Declaration
Constraint Name: ca_pCPICH_Info(p_CellId: INTEGER; p_TxPower: DL_TxPower_PCPICH)
Group
ASP Type
                : CPHY_RL_Setup_REQ
Derivation Path :
Comments
                : For FDD mode only
                                               Constraint Value
 cellid p_Cellid,
 routingInfo physicalChannelIdentity: tsc_P_CPICH,
 ratType fdd.
 setupMessage {
  physicalChannelInfo primaryCPICHInfo:{
   dl_TxPower_PCPICH p_TxPower,
   txdiversityIndicator FALSE
}
Detailed Comments: PhysycalChannelIdentity for p-CPICH is fixed as tsc_pCPICH;
```

```
ASN.1 ASP Constraint Declaration

Constraint Name : ca_PHY_RelCnf ( p_CellId : INTEGER; p_PhyChId: INTEGER )

Group :
ASP Type : CPHY_TrCH_Release_CNF

Derivation Path :
Comments : To confirm to release tthe Radio Link

Constraint Value

{
    cellId p_CellId,
    routingInfo physicalChannelIdentity: p_PhyChId
}

Detailed Comments :
```

```
ASN.1 ASP Constraint Declaration

Constraint Name : ca_PHY_RelReqDCH_NoSHO ( p_CellId : INTEGER; p_PhyChId: INTEGER )

Group :
ASP Type : CPHY_TrCH_Release_REQ
Derivation Path :
Comments :

Constraint Value

{
    cellId p_CellId,
    routingInfo physicalChannelIdentity: p_PhyChId,
    trchConfigType dch : normal
}
Detailed Comments :
```

```
ASN.1 ASP Constraint Declaration

Constraint Name : ca_PHY_RelReqNonDch ( p_CellId : INTEGER; p_PhyChId: INTEGER )

Group :

ASP Type : CPHY_TrCH_Release_REQ

Derivation Path :

Comments :

Constraint Value

{
    cellId p_CellId,
    routingInfo physicalChannelIdentity: p_PhyChId,
    trchConfigType nonDch: NULL
}

Detailed Comments :
```

```
ASN.1 ASP Constraint Declaration
Constraint Name: ca_PICH_Info(p_CellId: INTEGER; p_PICH_Info: PICH_Info; p_TxPower:
                  PICH_PowerOffset;p_SCCPCH_Ass: INTEGER)
Group
ASP Type
                 : CPHY_RL_Setup_REQ
Derivation Path
Comments
                 : For FDD mode only
                                                Constraint Value
 cellId p_CellId,
 routingInfo physicalChannelIdentity: tsc_PICH1,
 ratType fdd,
 setupMessage {
  physicalChannelInfo pICHInfo : {
   pichinfo p_PICH_Info,
   dl_TxPower p_TxPower,
   sccpchId_associated p_SCCPCH_Ass
Detailed Comments: Value of PI per frame is fixed to 18 (34.108)
                     Value of sndScramCode can be 2 (34.108)
```

```
ASN.1 ASP Constraint Declaration
Constraint Name: ca_PRACH_Info(
                  p_CellId: INTEGER;
                  p_PhyChld: INTEGER;
                  p_Signatures:AvailableSignatures;
                  p_PreScramCodeWord: PreambleScramblingCodeWordNumber;
                  p_PuncLimit: PuncturingLimit;
                  p_SF_PRACH: SF_PRACH;
                  p_SubChNum: AvailableSubChannelNumbers
Group
ASP Type
                 : CPHY_RL_Setup_REQ
Derivation Path
Comments
                                               Constraint Value
 cellId p_CellId,
 routingInfo physicalChannelIdentity: p_PhyChld,
 ratType fdd,
 setupMessage {
  physicalChannelInfo pRACHInfo :{
   fdd_tdd fdd : {
    preambleSignature p_Signatures,
    spreadingFactorForDataPart p_SF_PRACH,
    preambleScramblingCode p_PreScramCodeWord,
    puncturingLimit p_PuncLimit,
    accessSlot p_SubChNum
Detailed Comments:
```

```
ASN.1 ASP Constraint Declaration
Constraint Name: ca_pSCH_Info(p_CellId: INTEGER; p_TxPower: DL_TxPower)
Group
ASP Type
                 : CPHY_RL_Setup_REQ
Derivation Path :
Comments
                : For FDD mode only
                                                Constraint Value
 cellid p_Cellid,
 routingInfo physicalChannelIdentity: tsc_P_SCH,
 ratType fdd,
 setupMessage {
  physicalChannelInfo primarySCHInfo: {
   tstdIndicator FALSE,
   dl_TxPower p_TxPower
Detailed Comments: PhysycalChannelIdentity for p–SCH is fixed as tsc_pSCH;
```

Constraint Name: ca\_RB\_AM\_Info\_RAB(p\_CellId: INTEGER; p\_RB\_Id: INTEGER;p\_TimerPollProhbt

:TimerPollProhibit; p\_Timer\_poll: TimerPoll; p\_PollSDU: Poll\_SDU; p\_PollWindw: PollWindow;

p\_LogChMapping : RB\_LogCH\_Mapping; p\_PayLoad : INTEGER)

Group :

**ASP Type** : CRLC\_Config\_REQ

Derivation Path :

Comments : Used to setup AM RLC entity

### **Constraint Value**

### **Detailed Comments:**

### **ASN.1 ASP Constraint Declaration**

Constraint Name: ca\_RB\_AM\_Info\_SRB(p\_CellId: INTEGER; p\_RB\_Id: INTEGER;p\_TimerPollProhbt

:TimerPollProhibit; p\_Timer\_poll: TimerPoll; p\_PollSDU: Poll\_SDU; p\_PollWindw: PollWindow;

p\_LogChMapping : RB\_LogCH\_Mapping; p\_PayLoad : INTEGER)

Group :

**ASP Type** : CRLC\_Config\_REQ

Derivation Path :

Comments : Used to setup AM RLC entity

### **Constraint Value**

```
{
cellId p_CellId,
routingInfo rB_Identity: p_RB_Id,
ratType fdd,
configMessage setup : {
    sS_rlc_Info {    sS_ul_RLC_Mode dl_AM_RLC_Mode :cd_DL_AM_RLC_SRB,
        sS_dl_RLC_Mode {
        dl_PayloadSize p_PayLoad,
        dl_RLCModeInfo ul_AM_RLC_Mode : cd_UL_AM_RLC_SRB
    }
    },
    rB_LogCH_Mapping p_LogChMapping
}
```

```
ASN.1 ASP Constraint Declaration
\textbf{Constraint Name} \hspace{0.1cm} : \hspace{0.1cm} ca\_RB\_BCCH\_Info(p\_CellId: INTEGER; p\_RB\_Id: INTEGER; p\_LogChMapping: line (a) and (b) and (c) are constraint (b) and (c) are constraint (c) and (c) are constraint (c) and (c) are constraint (c) are constraint (c) and (c) are constraint (c
                                                                                            RB_LogCH_Mapping)
Group
ASP Type
                                                                                  : CRLC_Config_REQ
Derivation Path
Comments
                                                                                                                                                                                                                                              Constraint Value
     cellId p_CellId,
     routingInfo rB_Identity: p_RB_Id,
     ratType fdd,
     configMessage setup : {
           sS_rlc_Info { sS_dl_RLC_Mode {
                     dl_PayloadSize 246,
                     dl_RLCModeInfo ul_TM_RLC_Mode :{
                           segmentationIndication FALSE
               }
          rB_LogCH_Mapping p_LogChMapping
Detailed Comments: dl_PayloadSize = TB_Size
```

```
ASN.1 ASP Constraint Declaration
Constraint Name: ca_RB_PCCH_Info(p_CellId: INTEGER; p_RB_Id: INTEGER; p_LogChMapping:
                  RB_LogCH_Mapping)
Group
ASP Type
                : CRLC_Config_REQ
Derivation Path
Comments
                                               Constraint Value
 cellId p_CellId,
 routingInfo rB_Identity: p_RB_Id,
 ratType fdd,
 configMessage setup : {
  sS_rlc_Info { sS_dl_RLC_Mode {
    dl_PayloadSize 240,
    dl_RLCModeInfo ul_TM_RLC_Mode :{
     segmentationIndication FALSE
  rB_LogCH_Mapping p_LogChMapping
Detailed Comments: dl_PayloadSize = TB_Sze
```

Constraint Name: ca\_RB\_TM\_DL\_InfoNoSeg(p\_CellId: INTEGER; p\_RB\_Id: INTEGER; p\_PayloadSize: INTEGER;

p\_LogChMapping : RB\_LogCH\_Mapping )

Group :

ASP Type : CRLC\_Config\_REQ

Derivation Path : Comments :

### **Constraint Value**

**Detailed Comments:** 

### **ASN.1 ASP Constraint Declaration**

Constraint Name: ca\_RB\_TM\_Info(p\_CellId: INTEGER; p\_RB\_Id: INTEGER; p\_PayloadSize: INTEGER;

 $p\_LogChMapping: RB\_LogCH\_Mapping\ )$ 

Group

ASP Type : CRLC\_Config\_REQ

Derivation Path : Comments :

### **Constraint Value**

```
{
  cellId p_CellId,
  routingInfo rB_Identity: p_RB_Id,
  ratType fdd,
  configMessage setup : {
    sS_rlc_Info { sS_ul_RLC_Mode dl_TM_RLC_Mode :{
        segmentationIndication FALSE
    },
    sS_dl_RLC_Mode {
        dl_PayloadSize p_PayloadSize,
        dl_RLCModeInfo ul_TM_RLC_Mode :{
        segmentationIndication FALSE
    }
}},
    rB_LogCH_Mapping p_LogChMapping
}
```

### **ASN.1 ASP Constraint Declaration** Constraint Name: ca\_RB\_TM\_UL\_Info(p\_CellId: INTEGER; p\_RB\_Id: INTEGER;p\_PayloadSize: INTEGER; p\_LogChMapping : RB\_LogCH\_Mapping) Group **ASP Type** : CRLC\_Config\_REQ **Derivation Path** Comments **Constraint Value** cellId p\_CellId, routingInfo rB\_Identity: p\_RB\_Id, ratType fdd, configMessage setup : { sS\_rlc\_Info { sS\_ul\_RLC\_Mode dl\_TM\_RLC\_Mode :{ segmentationIndication FALSE sS\_dl\_RLC\_Mode { dl\_PayloadSize p\_PayloadSize, dl\_RLCModeInfo ul\_TM\_RLC\_Mode :{ segmentationIndication FALSE

### Detailed Comments:

```
ASN.1 ASP Constraint Declaration
```

 $\textbf{Constraint Name} \hspace{0.2cm} \textbf{:} \hspace{0.2cm} \text{ca} \hspace{0.2cm} \text{RB} \hspace{0.2cm} \text{UM} \hspace{0.2cm} \text{DL} \hspace{0.2cm} \text{Info} (\text{p} \hspace{0.2cm} \text{CellId: INTEGER; p} \hspace{0.2cm} \text{RB} \hspace{0.2cm} \text{Id: INTEGER; p} \hspace{0.2cm} \text{LogChMapping: } \hspace{0.2cm} \text{Chapping: } \hspace{0.2cm} \text{$ 

RB\_LogCH\_Mapping)

Group :

**ASP Type** : CRLC\_Config\_REQ

rB\_LogCH\_Mapping p\_LogChMapping

Derivation Path : Comments :

### **Constraint Value**

```
{
cellId p_CellId,
routingInfo rB_Identity: p_RB_Id,
ratType fdd,
configMessage setup : {
    sS_rlc_Info { sS_dI_RLC_Mode {
        dl_PayloadSize 152,
        dl_RLCModeInfo ul_UM_RLC_Mode : {
            transmissionRLC_Discard timerBasedNoExplicit : dt100
        }
    }
    rB_LogCH_Mapping p_LogChMapping
}

Detailed Comments :
```

### **ASN.1 ASP Constraint Declaration** Constraint Name: ca\_RB\_UM\_Info(p\_CellId: INTEGER; p\_RB\_Id: INTEGER; p\_LogChMapping: RB\_LogCH\_Mapping) Group **ASP Type** : CRLC\_Config\_REQ **Derivation Path** Comments : Used to setup UM RLC entity **Constraint Value** cellId p\_CellId, routingInfo rB\_Identity: p\_RB\_Id, ratType fdd, configMessage setup : { sS\_rlc\_Info { sS\_ul\_RLC\_Mode dl\_UM\_RLC\_Mode :NULL, sS\_dl\_RLC\_Mode{ dl\_PayloadSize 136, dl\_RLCModeInfo ul\_UM\_RLC\_Mode: { transmissionRLC\_Discard timerBasedNoExplicit: dt100 rB\_LogCH\_Mapping p\_LogChMapping

**Detailed Comments**: dl\_PayloadSize = TB\_Size - 12 = 136

### **ASN.1 ASP Constraint Declaration** Constraint Name: ca\_RB\_UM\_ReconfInfo (p\_CellId: INTEGER; p\_RB\_Id: INTEGER; p\_LogChMapping: RB\_LogCH\_Mapping) Group **ASP Type** : CRLC\_Config\_REQ **Derivation Path** Comments : Used to setup UM RLC entity **Constraint Value** cellid p\_Cellid, routingInfo rB\_Identity: p\_RB\_Id, ratType fdd, configMessage reconfigure : { sS\_rlc\_Info { sS\_ul\_RLC\_Mode dl\_UM\_RLC\_Mode :NULL, sS\_dl\_RLC\_Mode{ dl\_PayloadSize 136, $dl\_RLCModeInfo\ ul\_UM\_RLC\_Mode: \{$ transmissionRLC\_Discard timerBasedNoExplicit: dt100 rB\_LogCH\_Mapping p\_LogChMapping **Detailed Comments**: dl\_PayloadSize = TB\_Size - 12 = 136

ASN.1 ASP Constraint Declaration

Constraint Name : ca\_RL\_RelCnf (p\_CellId : INTEGER; p\_PhyCH : PhysicalChannelIdentity)
Group :
ASP Type : CPHY\_RL\_Release\_CNF
Derivation Path :
Comments : To confirm that a specified physical channel has been released

Constraint Value

{
 cellId p\_CellId,
 routingInfo physicalChannelIdentity : p\_PhyCH
}
Detailed Comments :

```
ASN.1 ASP Constraint Declaration

Constraint Name : ca_RL_RelReq(p_CellId : INTEGER; p_PhyCH : PhysicalChannelIdentity)

Group :

ASP Type : CPHY_RL_Release_REQ

Derivation Path :

Comments : To release the specified physical channel.

Constraint Value

{
    cellId p_CellId,
    routingInfo physicalChannelIdentity : p_PhyCH
}

Detailed Comments :
```

```
ASN.1 ASP Constraint Declaration
Constraint Name: ca_sCCPCH_Info (p_CellId: INTEGER; p_PhyChId: INTEGER; p_SndScramCode: INTEGER;
                  p_ChannelizationCode: SF256_AndCodeNumber;
                  p_SlotFormat: SCCPCHSlotFormat;
                  p_TxPower : DL_TxPower;
                  p_Timing: INTEGER )
Group
ASP Type
                : CPHY_RL_Setup_REQ
Derivation Path :
Comments
                : For FDD mode only,
                                               Constraint Value
 cellid p_Cellid,
 routingInfo physicalChannelIdentity: p_PhyChId,
 ratType fdd,
 setupMessage {
  physicalChannelInfo secondaryCCPCHInfo : {
   scramblingCode p_SndScramCode,
   dl_ChannelizationCode p_ChannelizationCode,
   sCCPCHSlotFormat p_SlotFormat,
   timingOffset p_Timing,
   positionFixedOrFlexible flexible,
   sttd_Indicator FALSE,
   dl_TxPower p_TxPower,
   powerOffsetOfTFCI_PO1 tsc_sCCPCH_PowerOffsetTFCI,
   powerOffsetOfPILOT_PO3 tsc_sCCPCH_PowerOffsetPILOT
}
Detailed Comments:
```

```
ASN.1 ASP Constraint Declaration
\textbf{Constraint Name} \ : \ ca\_SchedulLater(p\_CellId: INTEGER; p\_REP: INTEGER; p\_POS: INTEGER; p\_Timing: later (p\_CellId: INTEGER; p\_REP: INTEGER; 
                                                                                                         BCCH_ModificationTime)
Group
                                                                                              : CMAC_SYSINFO_Config_REQ
ASP Type
Derivation Path :
Comments
                                                                                              : scheduling information for system information change at the frame = p_Timing.
                                                                                                                                                                                                                                                                                  Constraint Value
     cellId p_CellId,
     routingInfo rB_Identity: tsc_RB_BCCH,
     ratType fdd,
     configMessage {
           sg_REP p_REP,
sg_POS p_POS,
           bcch_ModificationTime p_Timing
```

**Detailed Comments**: ?? for MIB

```
ASN.1 ASP Constraint Declaration
```

Constraint Name: ca\_SchedulNow(p\_CellId: INTEGER; p\_REP: INTEGER; p\_POS: INTEGER)

Group :

**ASP Type** : CMAC\_SYSINFO\_Config\_REQ

Derivation Path :

**Comments**: scheduling information for immediately change

### **Constraint Value**

```
{
  cellId p_CellId,
  routingInfo rB_Identity : tsc_RB_BCCH,
  ratType fdd,
  configMessage {
    sg_REP p_REP,
    sg_POS p_POS,
    bcch_ModificationTime OMIT
  }
```

Detailed Comments: ?? for MIB

```
ASN.1 ASP Constraint Declaration
Constraint Name: ca_sSCH_Info(p_CellId: INTEGER; p_TxPower: DL_TxPower)
Group
ASP Type
                : CPHY_RL_Setup_REQ
Derivation Path :
Comments
                : For FDD mode only
                                                Constraint Value
 cellid p_Cellid,
 routingInfo physicalChannelIdentity: tsc_S_SCH,
 ratType fdd,
 setupMessage {
  physicalChannelInfo secondarySCHInfo : {
   tstdIndicator FALSE,
   dl_TxPower p_TxPower
}
Detailed Comments: PhysycalChannelIdentity for s-SCH is fixed as tsc_sSCH;
```

```
ASN.1 ASP Constraint Declaration

Constraint Name : ca_SyncInd (p_PhysicalChannelIdentity : PhysicalChannelIdentity)
Group :
ASP Type : CPHY_Sync_IND
Derivation Path :
Comments :

Constraint Value

{
    cellId ?,
    routingInfo physicalChannelIdentity: p_PhysicalChannelIdentity
}
Detailed Comments :
```

```
ASN.1 ASP Constraint Declaration

Constraint Name : ca_SysInfoCfgCnf(p_CellId: INTEGER; p_RB_Identity: SS_RB_Identity)

Group :
ASP Type : CMAC_SYSINFO_Config_CNF

Derivation Path :
Comments :

Constraint Value

{
    cellId p_CellId,
    routingInfo rB_Identity : p_RB_Identity
}

Detailed Comments :
```

## ASN.1 ASP Constraint Declaration Constraint Name : ca\_TR\_DataReq(p\_CellId : INTEGER; p\_RB : SS\_RB\_Identity ; p\_Message : BCCH\_BCH\_Message) Group : ASP Type : RLC\_TR\_DATA\_REQ Derivation Path : Comments : Constraint Value { cellId p\_CellId, routingInfo rB\_Identity : p\_RB, tM\_message bCCH\_BCH\_Message : p\_Message } Detailed Comments :

### ASN.1 ASP Constraint Declaration Constraint Name : ca\_TrChCfgCnf(p\_CellId: INTEGER; p\_PhyChId: INTEGER) Group : ASP Type : CPHY\_TrCH\_Config\_CNF Derivation Path : Comments : Constraint Value { cellId p\_CellId, routingInfo physicalChannelIdentity: p\_PhyChId } Detailed Comments :

Constraint Name: ca\_UL\_DPCH\_Info(p\_CellId: INTEGER; p\_PhyChId: INTEGER; p\_UL\_DPCHInfo:

UL\_DPCH\_Info)

Group :

**ASP Type** : CPHY\_RL\_Setup\_REQ

Derivation Path :

**Comments**: To setup uplink physical channel DPCH.

### **Constraint Value**

```
{
    cellId p_CellId,
    routingInfo physicalChannelIdentity: p_PhyChId,
    ratType fdd,
    setupMessage {
        physicalChannelInfo dPCHInfo : {
            ul_DPCHInfo p_UL_DPCHInfo
        }
    }
```

### **Detailed Comments:**

### **ASN.1 ASP Constraint Declaration**

Constraint Name: ca\_UL\_DPCH\_ModifyInfo(p\_CellId: INTEGER; p\_PhyChId: INTEGER; p\_UL\_DPCHInfo:

UL\_DPCH\_Info; p\_ActivationTime : ActivationTime)

Group :

**ASP Type** : CPHY\_RL\_Modify\_REQ

Derivation Path :

**Comments**: To setup uplink physical channel DPDCH.

### **Constraint Value**

```
cellId p_CellId,
routingInfo physicalChannelIdentity: p_PhyChId,
ratType fdd,
modifyMessage {
   activationTime activationCFN : p_ActivationTime,
   physicalChannelInfo dPCHInfo : {
    ul_DPCHInfo p_UL_DPCHInfo
   }
}
```

**Constraint Name**: cab\_RACH\_InfoActNow (p\_CellId: INTEGER; p\_PhyChId: INTEGER)

Group :

ASP Type : CPHY\_TrCH\_Config\_REQ

Derivation Path :

**Comments**: For FDD mode only

```
Constraint Value
```

```
{
cellId p_CellId,
routingInfo physicalChannelIdentity: p_PhyChId,
ratType fdd,
trchConfigType nonDch: NULL,
configMessage {
    activationTime activateNow : NULL,
    ulconnectedTrCHList {{
        trchid tsc_RACH1,
        ul_TransportChannelType rach,
        transportChannelInfo c_RACH_TFS
    }},
ulTFCS c_TFCS_Cmpl0_1_Rx,
dlconnectedTrCHList OMIT,
dlTFCS OMIT
    }
}
```

Detailed Comments: For RACH transport channel the following parameters are fixed by core spec. (34.108 cl.

6.10.2.4.4): TTI = 20 ms;

two transport format: TransportBlocks = 1, TB size = 168 bits and TransportBlocks = 1, TB size =

360 bits;

coding = convolutional; coding rate = 1/2; CRCsize = 16; RateMatching = 1

### **ASN.1 ASP Constraint Declaration**

Constraint Name: cad\_RB\_UM\_ReconfInfo(p\_CellId: INTEGER; p\_RB\_Id: INTEGER; p\_LogChMapping:

RB\_LogCH\_Mapping)

Group :

ASP Type : CRLC\_Config\_REQ

Derivation Path : ca\_RB\_UM\_ReconfInfo.

Comments : Used to setup UM RLC entity for 120 RLC size

**Constraint Value** 

REPLACE configMessage.reconfigure.sS\_rlc\_Info.sS\_dl\_RLC\_Mode.dl\_PayloadSize BY 120

Detailed Comments: dl\_PayloadSize = TB\_Size - 12 = 136 -16 ( U-RNTI -C-RNTI = 32-16 =16) ==>120

```
ASN.1 ASP Constraint Declaration

Constraint Name : car_CRLC_IntegrityFail
Group :
ASP Type : CRLC_Integrity_Failure_IND
Derivation Path :
Comments :

Constraint Value

{
    cellId ?,
    routingInfo ?,
    failureCause codeNotMatched
}

Detailed Comments :
```

```
ASN.1 ASP Constraint Declaration

Constraint Name : car_CRLC_RRC_MessageSN_CNF(p_CellId, p_RBID : INTEGER )

Group :
ASP Type : CRLC_RRC_MessageSN_CNF

Derivation Path :
Comments :

Constraint Value

{
    cellId p_CellId,
    routingInfor rB_Identity : p_RBID,
    count_I_MSB_UL ?,
    count_I_LSB_UL ?,
    count_I_MSB_DL ?,
    count_I_MSB_DL ?,
    count_I_LSB_DL ?
}
Detailed Comments :
```

```
ASN.1 ASP Constraint Declaration

Constraint Name : car_GetFrameNum (p_CellId: INTEGER; p_PhysicalChannelIdentity: PhysicalChannelIdentity)

Group :

ASP Type : CPHY_Frame_Number_CNF

Derivation Path :
Comments :

Constraint Value

{
    cellId p_CellId,
    routingInfo physicalChannelIdentity : p_PhysicalChannelIdentity,
    frameNumber ?
}

Detailed Comments :
```

```
ASN.1 ASP Constraint Declaration

Constraint Name : car_GetRLC_SeqNum(p_CellId: INTEGER; p_RB_Id: INTEGER)

Group :
ASP Type : CRLC_SequenceNumber_CNF

Derivation Path :
Comments :

Constraint Value

{
    cellId p_CellId,
    routingInfo rB_Identity: p_RB_Id,
    count_C_MSB_UL?,
    count_C_LSB_UL?,
    count_C_LSB_DL?,
    count_C_LSB_DL?
}

Detailed Comments :
```

```
ASN.1 ASP Constraint Declaration

Constraint Name : car_IniCnf
Group :
ASP Type : CPHY_Ini_CNF
Derivation Path :
Comments : Confirm the test initialisation

Constraint Value

{
    confirmation NULL
}
Detailed Comments :
```

```
ASN.1 ASP Constraint Declaration
Constraint Name: car_MeasRepAM (
                 p_CellId : INTEGER;
                 p_RB: INTEGER;
                 p_Pdu: UL_DCCH_Message
Group
ASP Type
               : RLC_AM_DATA_IND
Derivation Path
               :
Comments
                                             Constraint Value
cellId p_CellId,
routingInfo rB_Identity: p_RB,
integrityResult?,
aM_message uL_DCCH_Message : p_Pdu
Detailed Comments:
```

```
ASN.1 ASP Constraint Declaration
Constraint Name : car_MeasRepUM(
                 p_CellId: INTEGER;
                 p_RB: INTEGER;
                 p_Pdu: UL_DCCH_Message )
Group
ASP Type
               : RLC_UM_DATA_IND
Derivation Path
Comments
                                             Constraint Value
 cellId p_CellId,
routingInfo rB_Identity: p_RB,
integrityResult?,
uM_message uL_DCCH_Message : p_Pdu
Detailed Comments:
```

```
ASN.1 ASP Constraint Declaration
Constraint Name: car_RB_ReconfCmpl(
                    p_CellId: INTEGER;
                    p_RouteInfo : INTEGER;
                    p_PDU: UL_DCCH_Message
Group
ASP Type
                : RLC_AM_DATA_IND
Derivation Path
Comments
                                              Constraint Value
 cellId p_CellId,
 routingInfo rB_Identity: p_RouteInfo,
 integrityResult?,
 aM_message uL_DCCH_Message : p_PDU
Detailed Comments:
```

```
ASN.1 ASP Constraint Declaration
Constraint Name: car_RB_SetUpCmpl(
                 p_CellId: INTEGER;
                 p_RB:INTEGER;
                 p_Pdu: UL_DCCH_Message
Group
ASP Type
                : RLC_AM_DATA_IND
Derivation Path :
Comments
                                             Constraint Value
cellid p_Cellid,
routingInfo rB_Identity: p_RB,
integrityResult?,
aM_message uL_DCCH_Message : p_Pdu
Detailed Comments:
```

```
ASN.1 ASP Constraint Declaration

Constraint Name : car_ResumeRB(p_CellId: INTEGER; p_RB_Id: INTEGER)

Group :

ASP Type : CRLC_Resume_CNF

Derivation Path :

Comments :

Constraint Value

{
    cellId p_CellId,
    routingInfo rB_Identity: p_RB_Id
}

Detailed Comments :
```

```
ASN.1 ASP Constraint Declaration

Constraint Name : car_RRC_ConnRelCmpl(p_CellId: INTEGER; p_RB_Id: INTEGER; p_Pdu: UL_DCCH_Message)

Group :

ASP Type : RLC_AM_DATA_IND

Derivation Path :

Comments :

Constraint Value

{
    cellId p_CellId,
    routingInfo rB_Identity: p_RB_Id,
    integrityResult ?,
    aM_message ul_DCCH_Message : p_Pdu
}

Detailed Comments :
```

```
ASN.1 ASP Constraint Declaration

Constraint Name : car_RRC_ConnRelCmplUM(p_CellId: INTEGER; p_RB_Id: INTEGER; p_Pdu:UL_DCCH_Message)

Group :

ASP Type : RLC_UM_DATA_IND

Derivation Path :

Comments :

Constraint Value

{
    cellId p_CellId,
    routingInfo rB_Identity: p_RB_Id,
    integrityResult ?,
    uM_message uL_DCCH_Message : p_Pdu
}

Detailed Comments :
```

```
ASN.1 ASP Constraint Declaration

Constraint Name : car_RRC_ConnReq(p_CellId: INTEGER; p_RB_Id: SS_RB_Identity; p_Pdu: UL_CCCH_Message)

Group :

ASP Type : RLC_TR_DATA_IND

Derivation Path :

Comments :

Constraint Value

{
    cellId p_CellId,
    routingInfo rB_Identity: p_RB_Id,
    tM_message uL_CCCH_Message : p_Pdu
}

Detailed Comments :
```

```
ASN.1 ASP Constraint Declaration

Constraint Name : car_RRC_ConnSetupCmpl(p_CellId: INTEGER; p_RB_Id: INTEGER; p_Pdu: UL_DCCH_Message)
Group :
ASP Type : RLC_AM_DATA_IND
Derivation Path :
Comments :

Constraint Value

{
    cellId p_CellId,
    routingInfo rB_Identity: p_RB_Id,
    integrityResult ?,
    aM_message uL_DCCH_Message : p_Pdu
}
Detailed Comments :
```

```
ASN.1 ASP Constraint Declaration
Constraint Name : car_RRC_SecModeCmpl(
                 p_CellId: INTEGER;
                 p_RB : INTEGER ;
                 p_Pdu: UL_DCCH_Message
Group
ASP Type
                : RLC_AM_DATA_IND
Derivation Path
Comments
                :
                                              Constraint Value
 cellId p_CellId,
 routingInfo rB_Identity: p_RB,
 integrityResult?,
 aM_message uL_DCCH_Message : p_Pdu
Detailed Comments:
```

```
ASN.1 ASP Constraint Declaration
Constraint Name: car_RRC_SecModeFail(
                   p_CellId: INTEGER;
                   p\_RB: INTEGER;
                   p_Pdu: UL_DCCH_Message)
Group
ASP Type
                : RLC_AM_DATA_IND
Derivation Path
Comments
                :
                                              Constraint Value
 cellId p_CellId,
 routingInfo rB_Identity: p_RB ,
 integrityResult?,
 aM_message uL_DCCH_Message : p_Pdu
Detailed Comments:
```

```
ASN.1 ASP Constraint Declaration
Constraint Name: car_RRC_SigConnRelInd(
                 p_CellId: INTEGER;
                 p_RB: INTEGER;
                  p_PDU: UL_DCCH_Message
Group
ASP Type
                : RLC_AM_DATA_IND
Derivation Path
Comments
                                              Constraint Value
 cellId p_CellId,
 routingInfo rB_Identity : p_RB ,
 integrityResult?,
 aM_message uL_DCCH_Message : p_PDU
Detailed Comments:
```

```
ASN.1 ASP Constraint Declaration
Constraint Name: car_RRC_Status(
                   p_CellId: INTEGER;
                   p_RBId:INTEGER;
                   p_Pdu: UL_DCCH_Message)
Group
ASP Type
               : RLC_AM_DATA_IND
Derivation Path :
Comments
                :
                                              Constraint Value
 cellId p_CellId,
 routingInfo rB_Identity: p_RBId,
 integrityResult?,
 aM_message uL_DCCH_Message : p_Pdu
Detailed Comments:
```

```
ASN.1 ASP Constraint Declaration

Constraint Name : car_SuspendRB ( p_CellId: INTEGER; p_RB_Id: INTEGER )

Group :
ASP Type : CRLC_Suspend_CNF

Derivation Path :
Comments :

Constraint Value

{
    cellId p_CellId,
    routingInfo rB_Identity: p_RB_Id,
    vt ?
}

Detailed Comments :
```

```
ASN.1 ASP Constraint Declaration

Constraint Name : cas_CRLC_RRC_MessageSN_REQ(p_CellId, p_RBID : INTEGER )

Group :
ASP Type : CRLC_RRC_MessageSN_REQ

Derivation Path :
Comments :

Constraint Value

{
    cellId p_CellId,
    routingInfo rB_Identity : p_RBID
}

Detailed Comments :
```

# ASN.1 ASP Constraint Declaration Constraint Name : cas\_GetFrameNum (p\_CellId: INTEGER; p\_PhysicalChannelIdentity: PhysicalChannelIdentity) Group : ASP Type : CPHY\_Frame\_Number\_REQ Derivation Path : Comments : Constraint Value { cellId p\_CellId, routingInfo physicalChannelIdentity: p\_PhysicalChannelIdentity

**Detailed Comments:** 

## ASN.1 ASP Constraint Declaration

Constraint Name: cas\_GetRLC\_SeqNum(p\_CellId: INTEGER; p\_RB\_Id: INTEGER)

Group :

**ASP Type** : CRLC\_SequenceNumber\_REQ

Derivation Path : Comments :

**Constraint Value** 

{
 cellId p\_CellId,
 routingInfo rB\_Identity: p\_RB\_Id

**Detailed Comments:** 

### **ASN.1 ASP Constraint Declaration**

Constraint Name: cas\_InitReqDef

Group :

**ASP Type** : CPHY\_Ini\_REQ

Derivation Path :

**Comments** : Request to initialise the test

**Constraint Value** 

defaultRadioEnvironment

## ASN.1 ASP Constraint Declaration Constraint Name : cas\_InitReqNonDef Group : ASP Type : CPHY\_Ini\_REQ Derivation Path : Comments : Request to initialise the test Constraint Value

Detailed Comments :

**Detailed Comments:** 

Constraint Name : cas\_MAC\_Rel (p\_CellId: INTEGER; p\_PhyChId: INTEGER)

Group :
ASP Type : CMAC\_Config\_REQ

Derivation Path :
Comments :

Constraint Value

{
cellId p\_CellId, routingInfo physicalChannelIdentity: p\_PhyChId, ratType fdd, configMessage release : NULL
}

**ASN.1 ASP Constraint Declaration** Constraint Name: cas\_PagingType1( p\_CellId: INTEGER; p\_RB\_Id: SS\_RB\_Identity; p\_Pdu: PCCH\_Message Group **ASP Type** : RLC\_TR\_DATA\_REQ **Derivation Path** : Comments **Constraint Value** cellId p\_CellId, routingInfo rB\_Identity: p\_RB\_Id, tM\_message pCCH\_Message : p\_Pdu **Detailed Comments:** 

```
ASN.1 ASP Constraint Declaration
Constraint Name: cas_RB_SetUpAM(
                 p_CellId: INTEGER;
                 p_RB_Id: INTEGER;
                 p_Pdu: DL_DCCH_Message
Group
ASP Type
                : RLC_AM_DATA_REQ
Derivation Path
Comments
                                              Constraint Value
 cellId p_CellId,
 routingInfo rB_Identity : p_RB_Id,
 confirmationRequest noConfirmationRequest : NULL,
 aM_message dL_DCCH_Message : p_Pdu
Detailed Comments:
```

```
ASN.1 ASP Constraint Declaration
Constraint Name: cas_RB_SetUpAM_WithCnf(
                 p_CellId: INTEGER;
                 p_RB_ld: INTEGER;
                 p_Mui : Mui;
                 p_Pdu: DL_DCCH_Message
Group
ASP Type
                : RLC_AM_DATA_REQ
Derivation Path
Comments
                                              Constraint Value
 cellId p_CellId,
 routingInfo rB_Identity: p_RB_Id,
 confirmationRequest confirmationRequested: p_Mui,
 aM_message dL_DCCH_Message : p_Pdu
Detailed Comments:
```

```
ASN.1 ASP Constraint Declaration

Constraint Name : cas_ResumeRB(p_CellId: INTEGER; p_RB_Id: INTEGER)

Group :
ASP Type : CRLC_Resume_REQ

Derivation Path :
Comments :

Constraint Value

{
    cellId p_CellId,
    routingInfo rB_Identity: p_RB_Id
}

Detailed Comments :
```

```
ASN.1 ASP Constraint Declaration

Constraint Name : cas_RLC_SuspendRB(p_CellId: INTEGER; p_RB_Id: INTEGER; p_RLC_SeqNum: RLC_SequenceNumber)

Group :
ASP Type : CRLC_Suspend_REQ
Derivation Path :
Comments :

Constraint Value

{
    cellId p_CellId, routingInfo rB_Identity: p_RB_Id, n p_RLC_SeqNum
}
Detailed Comments :
```

```
ASN.1 ASP Constraint Declaration

Constraint Name : cas_RRC_ConnRelCCCH(p_CellId: INTEGER; p_RB_Id: INTEGER; p_Pdu: DL_CCCH_Message)

Group :

ASP Type : RLC_UM_DATA_REQ

Derivation Path :

Comments :

Constraint Value

{
    cellId p_CellId,
    routingInfo rB_Identity: p_RB_Id,
    uM_message dL_CCCH_Message : p_Pdu,
    specialLI TRUE
}

Detailed Comments :
```

```
ASN.1 ASP Constraint Declaration

Constraint Name : cas_RRC_ConnRelDCCH(p_CellId: INTEGER; p_RB_Id: INTEGER; p_Pdu : DL_DCCH_Message)

Group :
ASP Type : RLC_UM_DATA_REQ

Derivation Path :
Comments :

Constraint Value

{
    cellId p_CellId,
    routingInfo rB_Identity: p_RB_Id,
    uM_message dL_DCCH_Message : p_Pdu,
    specialILI FALSE
}

Detailed Comments :
```

```
ASN.1 ASP Constraint Declaration

Constraint Name : cas_RRC_ConnSetup(p_CellId: INTEGER; p_RB_Id: INTEGER; p_Pdu: DL_CCCH_Message)

Group :
ASP Type : RLC_UM_DATA_REQ
Derivation Path :
Comments :

Constraint Value

{
    cellId p_CellId,
    routingInfo rB_Identity: p_RB_Id,
    uM_message dL_CCCH_Message : p_Pdu,
    specialLI TRUE
}

Detailed Comments :
```

```
ASN.1 ASP Constraint Declaration

Constraint Name : cas_RRC_SecModeCmd(p_CellId: INTEGER; p_RB_Id: INTEGER; p_Pdu: DL_DCCH_Message)

Group :
ASP Type : RLC_AM_DATA_REQ

Derivation Path :
Comments :

Constraint Value

{
    cellId p_CellId,
    routingInfo rB_Identity: p_RB_Id,
    confirmationRequest noConfirmationRequest : NULL,
    aM_message dL_DCCH_Message : p_Pdu
}

Detailed Comments :
```

Constraint Name : cr\_ServiceRequestAny

Group :

PDU Type : SERVICEREQUEST

Derivation Path : Encoding Rule Name : Encoding Variation : Comments :

Field Name	Field Value	Field Encoding	Comments
skipIndicator	'0000'B		
gMMProtocolDiscriminator	tsc_GMM_PD		
msgType	'00001100'B		
serviceType	?		
ciphKeySeqNo	?		
ptmsi	c_MobileIdPTMSI_lv(?)		
pDP_ContextStatus	*		
	·	·	·

**Detailed Comments:** 

### **PDU Constraint Declaration**

Constraint Name : cr\_PagingResponseAny

Group :

PDU Type : PAGINGRESPONSE

Derivation Path :
Encoding Rule Name :
Encoding Variation :
Comments :

Field Name	Field Value	Field Encoding	Comments
skipIndicator	'0000'B		Skip Indicator M BITSTRING [4]
rRProtocolDiscriminator	'0110'B		RR Protocol Discriminator M BITSTRING [4]
msgType	'??100111'B		Message Type (1) M BITSTRING [8]
spare4	'0000'B		Spare half octet M BITSTRING [4]
ciphKeySeqNum	?		Ciphering Key Sequence Number M BITSTRING [4]
mSClsmk2	c_MS_Clsmk2_Any_lv		Mobile Station Classmark 2 M MSClsmk2 (4 octets)
mobileId	?		Mobile Identity LV M MobileId (2–10 octets)
Detailed Comments :			

Constraint Name : cr\_StatusAnyPad

Group :

PDU Type : RLC\_STATUS\_PDU

Derivation Path : Encoding Rule Name : Encoding Variation :

Comments : This constraint is used to receive an AM STATUS PDU containing the given SUFI

list. Any padding included is ignored.

Parameters:

p\_SuperFields: The SUFI list to be received.

Field Name	Field Value	Field Encoding	Comments
dC_Field	tsc_DC_ControlPDU		
type	tsc_PDU_TypeStatus		
superFields	_		
superFieldsRec	?		4
padding	*		

**Detailed Comments:** 

### **PDU Constraint Declaration**

Constraint Name : cs\_StatusAndPad( p\_SuperFields: SuperFields; p\_NumHalfOctetsPadding: INTEGER )

Group :

PDU Type : RLC\_STATUS\_PDU

Derivation Path : Encoding Rule Name : Encoding Variation :

**Comments**: This constraint is used to send an AM STATUS PDU containing the given

superfields.

Parameters: p\_SuperFields:

The super-fields to be included in the STATUS PDU.

 $p\_PaddingSizeHalfOctets:$ 

The number of half octets to be added at the end of the PDU. In general, this parameter will contain the value ( $2 * tcv_PU_Size$ ) – ( $p_SuperFields size + 1$ )

NOTE: SUFI list size = p\_Superfields size + 1 half octet (for D/C field and Type)

Field Name	Field Value	Field Encoding	Comments		
dC_Field	tsc_DC_ControlPDU		1 bit		
type	tsc_PDU_TypeStatus		3 bits		
superFields	p_SuperFields				
superFieldsRec	_				
padding	INT_TO_BIT( 0, (p_NumHalfOctetsPadding * 4) )				

Constraint Name : cs\_AMD\_LIsAndPad(p\_SN: INTEGER;p\_Poll: PollingBit; p\_LIs: LenInds;

p\_Data:AM\_Data;p\_NumofBitsPadding: INTEGER )

Group :

PDU Type : MAC\_AMD\_PDU

Derivation Path : Encoding Rule Name : Encoding Variation :

Comments : This constraint is used to send an AM PDU containing data and a length

indicator group, and padding.

Parameters: p\_SN:

An integer containing the next sequence number to be transmitted. This parameter is used in a call to INT\_TO\_BIT, so a value must be provided.

p\_Poll:

The value of the Poll bit. This parameter must be one of the following values:

tsc\_P\_Poll, tsc\_P\_NoPoll.

p\_Lls:

The length indicator group to be used in the PDU. This field must contain at

least one LI.

p\_Data:

The data to be included in the PDU.

p\_NumHalfOctetsPadding:

The number of half octets of padding to be included at the end of the PDU. It is the callers responsibility to ensure that the LI group size + the data size

+ the padding size is exactly equal to the current PU size.

Field Name	Field Value	Field Encoding	Comments
dcField	tsc_DC_AMDPDU		
seqNum	INT_TO_BIT( p_SN, tsc_AM_SN_Size )		
pollingBit	p_Poll		
headerExt	tsc_HE_LI_AndE_Bit		
lenInds	p_Lls		
data	p_Data		
piggybackedStatus	_		
padding	INT_TO_BIT( 0, p_NumofBitsPadding )		

**Constraint Name** : c\_MAC\_PDU\_TCTF( p\_TCTF: TCTF; p\_Data: PDU)

Group :

PDU Type : MAC\_PDU

Derivation Path : Encoding Rule Name : Encoding Variation :

Comments : This PDU is used to send MAC PDU's with various values for the TCTF field.

Ref 3G TS 25.321 clause 9.1.2

The same constraint can be used for uplink and downlink, since the appropriate TCTF field can be provided as a parameter, and all other fields are the same.

Field Name	Field Value	Field Encoding	Comments
tctf	p_TCTF		
ueldType	tsc_UE_ldTypeC_RNTI		
ueld	tsc_CRNTI		
ctField	tsc_CT_LoCh3		
data	p_Data		

Detailed Comments: The user of this constraint is responsible for ensuring that the MAC header +

data is the correct length to fit exactly in one transport block.

This PDU will be received by the UE, and routed to the third logical channel mapped to RACH.

(High priority NAS SRB)

### **PDU Constraint Declaration**

Constraint Name : cs\_MAC\_PDU\_CT( p\_CT\_Field: CT\_Field; p\_Data: PDU)

Group :

PDU Type : MAC\_PDU

Derivation Path : Encoding Rule Name : Encoding Variation :

Comments : This PDU is used to send a MAC PDU on a DCCH mapped to FACH with the given value

for the CT field. Separate constraints are provided for uplink and downlink

since the TCTF field value is different for sending and receiving.

Ref 3G TS 25.321 clause 9.1.2

Parameters p\_CT\_Field

The CT field value to be used in the transmitted MAC PDU.

p\_Data

The MAC SDU to be used in the transmitted MAC PDU.

NOTE: The user of this constraint is responsible for ensuring that the MAC header + data is the correct length to fit exactly in one transport block.

Field Name	Field Value	Field Encoding	Comments
tctf	tsc_DCCH_OnFACH_FDD		
ueldType	tsc_UE_ldTypeC_RNTI		
ueld	tsc_CRNTI		
ctField	p_CT_Field		
data	p_Data		
		_	·

Constraint Name : cs\_MAC\_PDU\_UE\_IdType( p\_UE\_IdType: UE\_IdType: p\_Data: PDU;p\_Ue\_Id : UE\_Id )

Group :

PDU Type : MAC\_PDU

Derivation Path : Encoding Rule Name : Encoding Variation :

Comments : This PDU is used to send a MAC PDU on a DCCH mapped to FACH with the given value

for the UE-Id type field. Separate constraints are provided for uplink and downlink

since the TCTF field value is different for sending and receiving.

Ref 3G TS 25.321 clause 9.1.2

Parameters p\_UE\_IdType

The UE-Id type field value to be used in the transmitted MAC PDU.

p\_Data

The MAC SDU to be used in the transmitted MAC PDU.

NOTE: The user of this constraint is responsible for ensuring that the MAC header + data is the correct length to fit exactly in one transport block.

Field Name	Field Value	Field Encoding	Comments
tctf	tsc_DCCH_OnFACH_FDD		
ueldType	p_UE_ldType		
ueld	p_Ue_ld		
ctField	tsc_CT_LoCh3		
data	p_Data		

Constraint Name : cs\_MAC\_PDU\_UE\_Id( p\_UE\_Id: UE\_Id; p\_Data: PDU )

Group :

PDU Type : MAC\_PDU

Derivation Path : Encoding Rule Name : Encoding Variation :

Comments : This PDU is used to send a MAC PDU on a DCCH mapped to FACH with the given value

for the UE-Id field. Separate constraints are provided for uplink and downlink

since the TCTF field value is different for sending and receiving.

Ref 3G TS 25.321 clause 9.1.2

Parameters p\_UE\_Id

The UE-Id field value to be used in the transmitted MAC PDU.

p\_Data

The MAC SDU to be used in the transmitted MAC PDU.

NOTE: The user of this constraint is responsible for ensuring that the MAC header + data is the correct length to fit exactly in one transport block.

Field Name	Field Value	Field Encoding	Comments
tctf	tsc_DCCH_OnFACH_FDD		
ueldType	tsc_UE_IdTypeC_RNTI		
ueld	p_UE_ld		
ctField	tsc_CT_LoCh3		
data	p_Data		

Constraint Name : cs\_MAC\_PDU\_Def( p\_Data: PDU)

Group

PDU Type : MAC\_PDU

Derivation Path : Encoding Rule Name : Encoding Variation :

Comments : This PDU is used to send a MAC PDU on DCCH 3 mapped to FACH with the default

field values. Separate constraints are provided for uplink and downlink since the

TCTF field value is different for sending and receiving.

Ref 3G TS 25.321 clause 9.1.2

Parameters p\_Data

The MAC SDU to be used in the transmitted MAC PDU.

NOTE: The user of this constraint is responsible for ensuring that the MAC header + data is the correct length to fit exactly in one transport block.

Field Name	Field Value	Field Encoding	Comments	
tctf	tsc_DCCH_OnFACH_FDD			
ueldType	tsc_UE_ldTypeU_RNTI			
ueld	tsc_CRNTI		o_OctToBit( px_TMSI_Def )	
ctField	tsc_CT_LoCh3			
data	p_Data			

Constraint Name : c\_MAC\_PDU\_CT\_DCH( p\_CT\_Field: CT\_Field; p\_Data: PDU )

Group :

PDU Type : MAC\_PDU

Derivation Path : Encoding Rule Name : Encoding Variation :

Comments : This PDU is used to send a MAC PDU on a DCCH mapped to FACH with the given value

for the CT field. Separate constraints are provided for uplink and downlink

since the TCTF field value is different for sending and receiving.

Ref 3G TS 25.321 clause 9.1.2

Parameters p\_CT\_Field

The CT field value to be used in the transmitted MAC PDU.

p\_Data

The MAC SDU to be used in the transmitted MAC PDU.

NOTE: The user of this constraint is responsible for ensuring that the MAC header + data is the correct length to fit exactly in one transport block.

Field Name	Field Value	Field Encoding	Comments
tctf	_		
ueldType	_		
ueld	_		
ctField	p_CT_Field		
data	p_Data		

**Detailed Comments:** 

### **PDU Constraint Declaration**

Constraint Name : cs\_MAC\_PDU\_Send\_STATUS\_Def( p\_Data: RLC\_STATUS\_PDU )

Group :

PDU Type : MAC\_PDU

Derivation Path : Encoding Rule Name : Encoding Variation :

Comments : This PDU is used to SendMAC PDU's on DCCH 3 mapped to FACH using the default

field values. Separate constraints are provided for uplink and downlink since the TCTF

field value is different for sending and receiving.

Ref 3G TS 25.321 clause 9.1.2

Parameters p\_Data

The expected MAC SDU in the received MAC PDU.

Field Name	Field Value	Field Encoding	Comments
tctf	tsc_DCCH_OnFACH_FDD		
ueldType	tsc_UE_ldTypeC_RNTI		
ueld	tsc_CRNTI		
ctField	tsc_CT_LoCh3		
data	p_Data		
Datailed Comments :	-	·	-

**Constraint Name** : cr\_MAC\_PDU\_RCV\_STATUS\_TCTF( p\_TCTF: TCTF; p\_Data: RLC\_STATUS\_PDU )

Group :

PDU Type : MAC\_PDU\_RCV\_STATUS

Derivation Path : Encoding Rule Name : Encoding Variation :

Comments : This PDU is used to send MAC PDU's with various values for the TCTF field.

Ref 3G TS 25.321 clause 9.1.2

The same constraint can be used for uplink and downlink, since the appropriate TCTF field can be provided as a parameter, and all other fields are the same.

Field Name	Field Value	Field Encoding	Comments
tctf	p_TCTF		
ueIdType	tsc_UE_ldTypeC_RNTI		
ueld	tsc_CRNTI		
ctField	tsc_CT_LoCh3		
data	p_Data		

**Detailed Comments**: The user of this constraint is responsible for ensuring that the MAC header +

data is the correct length to fit exactly in one transport block.

This PDU will be received by the UE, and routed to the third logical channel mapped to RACH.

(High priority NAS SRB)

Constraint Name : c\_MAC\_PDU\_CT\_RCV\_STATUS\_DCH( p\_CT\_Field: CT\_Field: p\_Data: RLC\_STATUS\_PDU )

Group :

PDU Type : MAC\_PDU\_RCV\_STATUS

Derivation Path : Encoding Rule Name : Encoding Variation :

Comments : This PDU is used to send a MAC PDU on a DCCH mapped to FACH with the given value

for the CT field. Separate constraints are provided for uplink and downlink

since the TCTF field value is different for sending and receiving.

Ref 3G TS 25.321 clause 9.1.2

Parameters p\_CT\_Field

The CT field value to be used in the transmitted MAC PDU.

p\_Data

The MAC SDU to be used in the transmitted MAC PDU.

NOTE: The user of this constraint is responsible for ensuring that the MAC header + data is the correct length to fit exactly in one transport block.

Field Name	Field Value	Field Encoding	Comments
tctf	-		
ueldType	_		
ueld	_		
ctField	p_CT_Field		
data	p_Data		

Constraint Name : c\_UMD(p\_SN: INTEGER; p\_Data: MAC\_UM\_Data )

Group :

PDU Type : MAC\_UMD\_PDU

Derivation Path : Encoding Rule Name : Encoding Variation :

**Comments**: This constraint is used to represent a UM PDU containing data, no length

indicators, and no padding.

Parameters: p\_SN:

An integer containing the next sequence number to be transmitted or received. This parameter is used in a call to INT\_TO\_BIT, so a value must be provided.

p\_Data:

The data to be included in the PDU. It is the callers responsibility to ensure

that the data size is exactly equal to the current PU size.

Field Name	Field Value	Field Encoding	Comments
seqNum	INT_TO_BIT( p_SN, tsc_UM_SN_Size )		
eBit	tsc_E_Data		
lenInds	_		
data	p_Data		
padding	_		

Constraint Name : c\_UMD\_LIs(p\_SN: INTEGER; p\_LIs: LenInds; p\_Data: MAC\_UM\_Data )

Group :

PDU Type : MAC\_UMD\_PDU

Derivation Path : Encoding Rule Name : Encoding Variation :

Comments : This constraint is used to represent a UM PDU containing data and a length

indicator group, and no padding.

Parameters: p\_SN:

An integer containing the next sequence number to be transmitted or received. This parameter is used in a call to INT\_TO\_BIT, so a value must be provided.

p\_Lls:

The length indicator group to be used in the PDU. This field must contain at

least one LI.

p\_Data:

The data to be included in the PDU. It is the callers responsibility to ensure that the data size + the LI group size is exactly equal to the current PU size.

Field Name	Field Value	Field Encoding	Comments
seqNum	INT_TO_BIT( p_SN, tsc_UM_SN_Size )		
eBit	tsc_E_LI_AndE_Bit		
lenInds	p_Lls		
data	p_Data		
padding	_		
			·

Constraint Name : c\_UMD\_LlsAndPad(p\_SN: INTEGER; p\_Lls: LenInds;

p\_Data:MAC\_UM\_Data;p\_NumofBitsPadding: INTEGER )

Group

PDU Type : MAC\_UMD\_PDU

Derivation Path : Encoding Rule Name : Encoding Variation :

Comments : This constraint is used to represent a UM PDU containing data, a length

indicator group, and padding.

Parameters: p\_SN:

An integer containing the next sequence number to be transmitted or received. This parameter is used in a call to INT\_TO\_BIT, so a value must be provided.

p Lls:

The length indicator group to be used in the PDU. This field must contain at least one LI, and at least one LI indicating that the rest of the PDU contains

p\_Data:

The data to be included in the PDU.

p\_NumHalfOctetsPadding:

The number of half octets padding to be included in the PDU. It is the users responsibility to ensure that the LI group size + the data size + the padding size is exactly equal to the current PU size. This parameter is used in a call

to INT\_TO\_BIT, so a value must be provided.

Field Name	Field Value	Field Encoding	Comments
seqNum	INT_TO_BIT( p_SN, tsc_UM_SN_Size )		
eBit	tsc_E_LI_AndE_Bit		
lenInds	p_Lls		
data	p_Data		
padding	INT_TO_BIT( 0, p_NumofBitsPadding )		

Constraint Name : c\_MAC\_PDU\_CCCH\_TCTF( p\_TCTF: TCTF )

Group :

PDU Type : MAC\_PDU

Derivation Path : Encoding Rule Name : Encoding Variation :

Comments : This PDU is used to send MAC PDU's with various values for the TCTF field.

Ref 3G TS 25.321 clause 9.1.2

The same constraint can be used for uplink and downlink, since the appropriate TCTF field can be provided as a parameter, and all other fields are the same.

Field Name	Field Value	Field Encoding	Comments
tctf	p_TCTF		
ueldType	_		
ueld	_		
ctField	_		
data	_		

Detailed Comments: The user of this constraint is responsible for ensuring that the MAC header +

data is the correct length to fit exactly in one transport block.

This PDU will be received by the UE, and routed to the third logical channel mapped to RACH.

(High priority NAS SRB)

### **PDU Constraint Declaration**

Constraint Name : c\_ActivateRB\_TestMode

Group :

PDU Type : ACTIVATERBTESTMODE

Derivation Path :
Encoding Rule Name :
Encoding Variation :
Comments :

Field Name	Field Value	Field Encoding	Comments
skipIndicator	'0000'B		
tCProtocolDiscriminator	'1111'B		
msgType	'01000100'B		

Constraint Name : c\_ActivateRB\_TestModeCmpl

Group :

PDU Type : ACTIVATERBTESTMODECOMPLETE

Derivation Path :
Encoding Rule Name :
Encoding Variation :
Comments :

Field Name	Field Value	Field Encoding	Comments
skipIndicator	'0000'B		
tCProtocolDiscriminator	'1111'B		
msgType	'01000101'B		

**Detailed Comments:** 

### **PDU Constraint Declaration**

Constraint Name : c\_AuthFailAny

Group :

PDU Type : AUTHENTICATIONFAILURE

Derivation Path : Encoding Rule Name : Encoding Variation : Comments :

Field Name	Field Value	Field Encoding	Comments
skipIndicator	'0000'B		
mMProtocolDiscriminator	'0101'B		
msgType	'??011100'B		
rejCau	?		
authFailParam	c_AuthFailParamAny IF_PRESENT		

Constraint Name : c\_AuthReq(p\_KeySeq: KeySeq; p\_RAND: MM\_RAND; p\_AUTN: AUTN)

Group :

PDU Type : AUTHENTICATIONREQUEST

Derivation Path : Encoding Rule Name : Encoding Variation : Comments :

Field Name	Field Value	Field Encoding	Comments
skipIndicator	'0000'B		
mMProtocolDiscriminator	'0101'B		
msgType	'00010010'B		
spare4	'0000'B		
ciphKeySeqNum	c_CiphKeySeqNum(p_KeyS eq)		
rAND	p_RAND		
aUTN	p_AUTN		

**Detailed Comments:** 

### **PDU Constraint Declaration**

Constraint Name : c\_AuthRspAnyExt

Group :

PDU Type : AUTHENTICATIONRESPONSE

Derivation Path : Encoding Rule Name : Encoding Variation :

**Comments**: Any Authentication Response containing the Authentication Response Extension IE

•				
Field Name	Field Value	Field Encoding	Comments	
skipIndicator	'0000'B			
mMProtocolDiscriminator	'0101'B			
msgType	'??010100'B			
authRsp	?			
authRspExt	c_AuthRspExtAny			
	_		_	

Constraint Name : c\_AuthRspAnyNoExt

Group :

PDU Type : AUTHENTICATIONRESPONSE

Derivation Path : Encoding Rule Name : Encoding Variation :

Comments : Any Authentication Response NOT containing the Authentication Response Extension IE

Field Name	Field Value	Field Encoding	Comments
skipIndicator	'0000'B		
mMProtocolDiscriminator	'0101'B		
msgType	'??010100'B		
authRsp	?		
authRspExt	-		

**Detailed Comments:** 

**PDU Constraint Declaration** 

**Constraint Name** : c\_CloseUE\_TestLoop(p\_UE\_TestLoopMode: UE\_TestLoopMode;

p\_UE\_TestLoopMode1LB\_Setup: UE\_TestLoopMode1LB\_Setup)

Group :

PDU Type : CLOSEUETESTLOOP

Derivation Path :
Encoding Rule Name :
Encoding Variation :
Comments :

Field Name	Field Value	Field Encoding	Comments
skipIndicator	'0000'B		
tCProtocolDiscriminator	'1111'B		
msgType	'01000000'B		
uE_TestLoopMode	p_UE_TestLoopMode		
uE_TestLoopMode1LB_Setu p	p_UE_TestLoopMode1LB_ Setup		

Constraint Name : c\_CloseUE\_TestLoopCmpl

Group :

PDU Type : CLOSEUETESTLOOPCOMPLETE

Derivation Path :
Encoding Rule Name :
Encoding Variation :
Comments :

Field Name	Field Value	Field Encoding	Comments
skipIndicator	'0000'B		
tCProtocolDiscriminator	'1111'B		
msgType	'01000001'B		

**Detailed Comments:** 

**PDU Constraint Declaration** 

Constraint Name : c\_DeactivateRB\_TestMode

Group :

PDU Type : DEACTIVATERBTESTMODE

Derivation Path : Encoding Rule Name : Encoding Variation : Comments :

Field Name	Field Value	Field Encoding	Comments
skipIndicator	'0000'B		
tCProtocolDiscriminator	'1111'B		
msgType	'01000110'B		
Data la LO anno anto		•	

**Detailed Comments:** 

### **PDU Constraint Declaration**

Constraint Name : c\_DeactivateRB\_TestModeCmpl

Group :

PDU Type : DEACTIVATERBTESTMODECOMPLETE

Derivation Path :
Encoding Rule Name :
Encoding Variation :
Comments :

Field Name	Field Value	Field Encoding	Comments
skipIndicator	'0000'B		
tCProtocolDiscriminator	'1111'B		
msgType	'01000111'B		

**Constraint Name** :  $c\_LocUpdAcpTMSI$  (  $p\_MCC$ : HEXSTRING;  $p\_MNC$ : HEXSTRING;  $p\_LAC$ : OCTETSTRING )

Group

PDU Type : LOCATIONUPDATINGACCEPT

**Derivation Path Encoding Rule Name: Encoding Variation**: Comments

Field Name	Field Value	Field Encoding	Comments
skipIndicator	'0000'B		
mMProtocolDiscriminator	'0101'B		
msgType	'00000010'B		
locAreald	c_LocAreald_v(p_MCC, p_MNC, p_LAC)		
mobileId	c_MobileIdTMSI_Def		
followOnProceed	'10100001'B		
cTSPerm	'10100010'B		
equivalentPLMN	_		
emergNumList	_		

### **PDU Constraint Declaration**

**Constraint Name** : c\_LocUpdAcpTMSI\_E\_PLMN ( p\_MCC: HEXSTRING; p\_MNC: HEXSTRING; p\_LAC:

OCTETSTRING; p\_ePLMN : PLMN\_List )

Group

**PDU Type** : LOCATIONUPDATINGACCEPT

**Derivation Path Encoding Rule Name: Encoding Variation**: Comments

Field Name	Field Value	Field Encoding	Comments
skipIndicator	'0000'B		
mMProtocolDiscriminator	'0101'B		
msgType	'00000010'B		
locAreald	c_LocAreald_v(p_MCC, p_MNC, p_LAC)		
mobileId	c_MobileIdTMSI_Def		
followOnProceed	'10100001'B		
cTSPerm	'10100010'B		
equivalentPLMN	p_ePLMN		
emergNumList	-		

Constraint Name : c\_PagRsp ( p\_KeySeq: KeySeq; p\_MobileId: MS\_Identity\_Iv)

Group :

PDU Type : PAGINGRESPONSE

Derivation Path :
Encoding Rule Name :
Encoding Variation :
Comments :

Field Name	Field Value	Field Encoding	Comments
skipIndicator	'0000'B		
rRProtocolDiscriminator	'0110'B		
msgType	'??100111'B		
spare4	'0000'B		
ciphKeySeqNum	c_CiphKeySeqNum(p_KeyS eq)		
mSClsmk2	c_MS_Clsmk2_Any_lv		
mobileId	p_MobileId		
Detailed Comments :			

PDU Constraint Declaration

Constraint Name : c\_TMSI\_ReallocCmpl

Group :

PDU Type : TMSIREALLOCATIONCOMPLETE

Derivation Path : Encoding Rule Name : Encoding Variation : Comments :

Field Name	Field Value	Field Encoding	Comments
skipIndicator	'0000'B		Skip Indicator
mMProtocolDiscriminator	'0101'B		MM Protocol Discriminator
msgType	'??011011'B		Message Type
Detailed Comments :			

### **PDU Constraint Declaration**

Constraint Name : c\_TrD\_Data ( p\_DataBitstring : BITSTRING )

Group :

PDU Type : TrD\_PDU

Derivation Path : Encoding Rule Name : Encoding Variation : Comments :

Field Name	Field Value	Field Encoding	Comments
data	p_DataBitstring		

 $\textbf{Constraint Name} \qquad : \ \text{cb\_LocUpdReqAny} \ \ ( \ p\_KeySeq : KeySeq ) \\$ 

Group :

PDU Type : LOCATIONUPDATINGREQUEST

Derivation Path :
Encoding Rule Name :
Encoding Variation :
Comments :

Field Name	Field Value	Field Encoding	Comments
skipIndicator	'0000'B		
mMProtocolDiscriminator	'0101'B		
msgType	'??001000'B		
ciphKeySeqNum	c_CiphKeySeqNum( p_KeySeq)		
locUpdType	c_LocUpdTypeAny		
locAreald	c_LocArealdAny_v		
mSClsmk1	c_MS_Clsmk1_Any		
mobileId	c_MobileIdAny_lv		
mSClsmk2	c_MS_Clsmk2_Any IF_PRESENT		

### **PDU Constraint Declaration**

Constraint Name : cbr\_Deact\_PDP\_ContextReq\_MO(p\_SM\_Cause: SM\_Cause\_v)

Group

PDU Type : DEACTIVATEPDPCONTEXTREQUEST

Derivation Path : Encoding Rule Name : Encoding Variation :

Comments : Deactivate PDP Context Request

n <=> ue 24.008, 9.5.14

Field Name	Field Value	Field Encoding	Comments
ti	cr_TI_Any		
sM_ProtocolDiscriminator	tsc_SMPD		
msgType	'01000110'B		
sM_Cause	p_SM_Cause		
tearDwnInd	cr_TearDwnInd_tv IF_PRESENT		
protocolConfOpts	cr_ProtoCfgOptAny IF_PRESENT		

**Constraint Name** 

Group

: ROUTINGAREAUPDATEREQUEST PDU Type

**Derivation Path Encoding Rule Name: Encoding Variation**: Comments

Field Name	Field Value	Field Encoding	Comments
skipIndicator	'0000'B		
gMMProtocolDiscriminator	tsc_GMM_PD		
msgType	'00001000'B		
gprsCiphKeySeqNo	c_CiphKeySeqNum(p_KeyS eq)		
updateType	p_UpdateType		
oldRAI	p_RAI		
msRadioAccessCap	c_MS_RadioAccessCapAny _lv		
oldPTMSI_Signature	c_PTMSI_SignatureAny IF_PRESENT		
readyTimer	cr_GPRS_TimerAny IF_PRESENT		
drxParameter	cr_DRXparamter_tv_Any IF_PRESENT		
tmsiStatus	c_TMSI_StatusAny IF_PRESENT		
ptmsi	c_MobileIdPTMSI_Any IF_PRESENT		
msnetworkcap	cr_MS_NetworkCap_tlv_An y IF_PRESENT		
pDP_ContextStatus	cr_PDP_ContextStatusAny IF_PRESENT		
pS_LCS_Capability	cr_PS_LCS_CapabilityAny IF_PRESENT		

Constraint Name : cr\_ActPDP\_ContextReqMO\_Any

Group :

PDU Type : ACTIVATEPDPCONTEXTREQUESTul

Derivation Path : Encoding Rule Name : Encoding Variation :

Comments : Activate PDP Context Request

ue -> n

3GPP 24.008, 9.5.1

Field Name	Field Value	Field Encoding	Comments
ti	cr_TI_Any		
sM_ProtocolDiscriminator	tsc_SMPD		
msgType	'01000001'B		
requestedNSAPI	cr_NSAPI_v		
requestedLLC_SAPI	cr_LLC_SAPI_v		
			This has to be set to Not Assigned by UE in UMTS domain.
requestedQoS	cr_QualityOfService_lv_Any		
pDP_Address	cr_StaticPDP_AddressAny		
accessPtName	cr_AccessPtNameAny IF_PRESENT		The GGSN logical name or the external packet data network logical name
protocolConfOpts	cr_ProtoCfgOptAny IF_PRESENT		

	_		
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FDU	COUSIL	nnı Dec	ialalion

Constraint Name : cr\_AttachComplete

Group :

PDU Type : ATTACHCOMPLETE

Derivation Path : Encoding Rule Name : Encoding Variation : Comments :

Field Name	Field Value	Field Encoding	Comments
skipIndicator	'0000'B		
gMMProtocolDiscriminator	tsc_GMM_PD		
msgType	'00000011'B		

**Constraint Name** : cr\_AttachReq (p\_AttachType : AttachType; p\_MobId : MS\_Identity\_Iv; p\_RAI : RAI\_v;

p\_KeySeq : KeySeq )

Group

PDU Type : ATTACHREQUEST

**Derivation Path Encoding Rule Name: Encoding Variation**: Comments

Field Name	Field Value	Field Encoding	Comments
skipIndicator	'0000'B		
gMMProtocolDiscriminator	tsc_GMM_PD		
msgType	'00000001'B		
msNetworkCap	cr_MS_NetworkCapAss_lv		
gprsCiphKeySeqNo	c_CiphKeySeqNum(p_KeyS eq)		
attachType	p_AttachType		
drxParameter	c_DRX_ParamterAny		
ptmsiORimsi	p_MobId		
oldRAI	p_RAI		
msRadioAccessCap	c_MS_RadioAccessCapAny _lv		
oldPTMSI_Signature	c_PTMSI_SignatureAny IF_PRESENT		
readyTimer	c_GPRS_TimerAny IF_PRESENT		
tmsiStatus	c_TMSI_StatusAny IF_PRESENT		
pS_LCS_Capability	cr_PS_LCS_CapabilityAny IF_PRESENT		
Detailed Comments :	•		

### **PDU Constraint Declaration**

Constraint Name : cr\_AuthAndCiphFailureAny

Group

PDU Type : AUTHENTICATION\_AND\_CIPHERING\_FAILURE

**Derivation Path Encoding Rule Name: Encoding Variation**: Comments

Field Name	Field Value	Field Encoding	Comments
skipIndicator	'0000'B		
gMMProtocolDiscriminator	tsc_GMM_PD		
msgType	'00011100'B		
gmmCause	?		
authFailurePar	c_AuthFailParamGmmAny IF_PRESENT		
Detailed Comments :			

 $\textbf{Constraint Name} \qquad \textbf{:} \ \, \text{cr\_AuthAndCiphRsp(} \ p\_authRsp : AuthRsp\_tv; \ p\_authRspExt : AuthRspExt)$ 

Group :

PDU Type : AUTHENTICATIONANDCIPHERINGRESPONSE

Derivation Path :
Encoding Rule Name :
Encoding Variation :
Comments :

Field Value	Field Encoding	Comments
'0000'B		
tsc_GMM_PD		
'00010011'B		
'0000'B		
?		Should be the one sent in the auth request
p_authRsp		Authentication RES
_		No IMEISV requested
p_authRspExt		Authentication paramter AUTN, a UMTS challenge is requested
	'0000'B tsc_GMM_PD '00010011'B '0000'B ? p_authRsp	'0000'B tsc_GMM_PD '00010011'B '0000'B ? p_authRsp -

### **PDU Constraint Declaration**

Constraint Name : cr\_DetachRequest\_MO

Group :

PDU Type : DETACHREQUESTMO

Derivation Path : Encoding Rule Name : Encoding Variation :

Comments : 3GPP 24.008 V3.6.0 clause 9.4.5.2 (Mobile originating detach, GMM message)

Field Name	Field Value	Field Encoding	Comments
skipIndicator	'0000'B		Skip Indicator
gMMProtocolDiscriminator	tsc_GMM_PD		GMM Protocol Discriminator
msgType	'00000101'B		Message Type
spare4	'0000'B		M
detachType	c_DetachTypeReAttNotRequ iredGPRS		М
ptmsi	c_MobileIdPTMSI_Any IF_PRESENT		0
ptmsiSignature	c_PTMSI_Signature_tlv(?) IF_PRESENT		0

**Constraint Name** : cr\_ServiceRequest (p\_sType : ServiceType\_v; p\_PTMSI : MS\_Identity\_lv; p\_KeySeq : KeySeq)

Group :

PDU Type : SERVICEREQUEST

Derivation Path :
Encoding Rule Name :
Encoding Variation :
Comments :

Field Name	Field Value	Field Encoding	Comments
skipIndicator	'0000'B		
gMMProtocolDiscriminator	tsc_GMM_PD		
msgType	'00001100'B		
serviceType	p_sType		
ciphKeySeqNo	c_CiphKeySeqNum(p_KeyS eq)		
ptmsi	p_PTMSI		
pDP_ContextStatus	cr_PDP_ContextStatusAny IF_PRESENT		

Constraint Name : cr\_SetupMO\_Any

Group :

PDU Type : SETUPul
Derivation Path :

Derivation Path : Encoding Rule Name : Encoding Variation :

Comments : CC SETUP n <- ue

Field Name	Field Value	Field Encoding	Comments
ti	cr_TI_MO		
cC_ProtocolDiscriminator	'0011'B		
msgType	'??000101'B		
repeatInd	c_RepeatIndAny IF_PRESENT		
bcap1	cr_BcapAnyMO		
bcap2	cr_BcapAnyMO IF_PRESENT		
facility	cr_Facility_Any IF_PRESENT		
cgps	cr_CGPS_Any IF_PRESENT		
cdpn	cr_CDPN_Any		
cdps	cr_CDPS_Any IF_PRESENT		
llcRepeatInd	c_RepeatIndAny IF_PRESENT		
Ilc1	cr_LLC_Any IF_PRESENT		
Ilc2	cr_LLC_Any IF_PRESENT		
hlcRepeatInd	c_RepeatIndAny IF_PRESENT		
hlc1	cr_HLC_Any IF_PRESENT		
hlc2	cr_HLC_Any IF_PRESENT		
userUser	cr_UserUserAny IF_PRESENT		
sS_VersionInd	cr_SS_VersionIndAny IF_PRESENT		
cLIR_Suppression	'10100001'B IF_PRESENT		
cLIR_Invocation	'10100010'B IF_PRESENT		
cC_Capabilities	cr_CC_CapabilitiesAny IF_PRESENT		
facilityCCBS_AdvRecall	cr_FacilityAdvRecall IF_PRESENT		
facilityCCBS_RecallAlign	cr_FacilityAdvRecall IF_PRESENT		
streamld	cr_StreamIdAny IF_PRESENT		
supportedCodecs	cr_CodecListAny IF_PRESENT		
Detailed Comments :			

**Constraint Name** : cr\_StatusAny

Group

**PDU Type** : STATUS\_PDU

**Derivation Path Encoding Rule Name: Encoding Variation**:

: This constraint is used to receive an AM STATUS PDU containing the given SUFI list. Any padding included is ignored. Comments

Field Name	Field Value	Field Encoding	Comments
dC_Field	tsc_DC_ControlPDU		
type	tsc_PDU_TypeStatus		
superFieldsTx	ОМІТ		
superFieldsAndPadRx	?		
paddingTx	OMIT		

: cs\_AttachAcc ( p\_attachRes : AttachResult; p\_RAI : RAI\_v; p\_PTMSIsig : PTMSI\_Signature; p\_PTMSI : GMM\_MS\_IdentityPTMSI; p\_TMSI : GMM\_MS\_Identity ) **Constraint Name** 

Group

PDU Type : ATTACHACCEPT

**Derivation Path Encoding Rule Name: Encoding Variation**: Comments

Field Name	Field Value	Field Encoding	Comments
skipIndicator	'0000'B		
gMMProtocolDiscriminator	tsc_GMM_PD		
msgType	'00000010'B		
forceToStandby	c_ForceToStandby('000'B)		Force to standby not indicated
attachResult	p_attachRes		
periodicRAupdateTimer	c_GPRS_Timer_v('111'B, '00000'B)		Timer deactivated
radioPrioTOM8	c_RadioPriority2('000'B)		Lowest
radioPrioSMS	c_RadioPriority('100'B)		Lowest
rai	p_RAI		
ptmsiSignature	p_PTMSIsig		
negReadyTimer	-		
allocatedPTMSI	p_PTMSI		
msIdentity	p_TMSI		Only required in PS/CS combined procedures
gmmCause	-		
t3302Value	-		
cellNotification	-		
equivalentPLMN	-		
ntwFeatureSupport	-		
emergNumList	_		

: cs\_AttachAccE\_PLMN ( p\_attachRes : AttachResult; p\_RAI : RAI\_v; p\_PTMSIsig : PTMSI\_Signature; p\_PTMSI : GMM\_MS\_IdentityPTMSI; p\_TMSI : GMM\_MS\_Identity; p\_ePLMN : PLMN\_List ) **Constraint Name** 

Group

**PDU Type** : ATTACHACCEPT

**Derivation Path Encoding Rule Name: Encoding Variation**: Comments

Field Name	Field Value	Field Encoding	Comments
skipIndicator	'0000'B		
gMMProtocolDiscriminator	tsc_GMM_PD		
msgType	'0000010'B		
forceToStandby	c_ForceToStandby('000'B)		Force to standby not indicated
attachResult	p_attachRes		
periodicRAupdateTimer	c_GPRS_Timer_v('111'B, '00000'B)		Timer deactivated
radioPrioTOM8	c_RadioPriority2('000'B)		Lowest
radioPrioSMS	c_RadioPriority('100'B)		Lowest
rai	p_RAI		
ptmsiSignature	p_PTMSIsig		
negReadyTimer	-		
allocatedPTMSI	p_PTMSI		
msIdentity	p_TMSI		Only required in PS/CS combined procedures
gmmCause	-		
t3302Value	-		
cellNotification	-		
equivalentPLMN	p_ePLMN		
ntwFeatureSupport	-		
emergNumList	_		

Constraint Name : cs\_AttachRej( p\_cause : RejCau )

Group :

PDU Type : ATTACHREJECT

Derivation Path :
Encoding Rule Name :
Encoding Variation :
Comments :

Field Name	Field Value	Field Encoding	Comments
skipIndicator	'0000'B		
gMMProtocolDiscriminator	tsc_GMM_PD		
msgType	'00000100'B		
gmmCause	p_cause		
t3302Value	-		

**Detailed Comments:** 

# **PDU Constraint Declaration**

 $\textbf{Constraint Name} \qquad \textbf{:} \ \, \text{cs\_AuthAndCiphReq(p\_rand: AuthenticationParamterRAND; p\_ckNo: CiphKeySeqNum\_tv;} \\$ 

p\_autn : GMM\_AUTN)

Group

PDU Type : AUTHENTICATIONANDCIPHERINGREQUEST

Derivation Path : Encoding Rule Name : Encoding Variation : Comments :

Field Name	Field Value	Field Encoding	Comments
skipIndicator	'0000'B		
gMMProtocolDiscriminator	tsc_GMM_PD		
msgType	'00010010'B		
imeisvReq	cb_IMEISV_Request('000'B )		IMEISV not requested
ciphAlgorithm	c_CiphAlgorithm(px_Cipher Alg)		GPRS encryption algorithm GEA/1
acRefNo	c_AC_RefNum3		Use any reference value
forceToStandby	c_ForceToStandby('000'B)		Force to standby not indicated
authRand	p_rand		Authentication paramter RAND
gprsCiphKeySeqNo	p_ckNo		GPRS ciphering key sequence number
aUTN	p_autn		Authentication paramter AUTN, an UMTS challenge is requested
Detailed Comments :			•

```
ASN.1 PDU Constraint Declaration
Constraint Name
                    : cr_RRC_MeasRepTV
Group
PDU Type
                    : UL_DCCH_Message
Derivation Path
Encoding Rule Name:
Encoding Variation
Comments
                                                Constraint Value
{ integrityCheckInfo *,
 message measurementReport :
  measurementIdentity 2,
  measured Results\ traffic Volume Measured Results List:
    rb_Identity ?,
    rlc_BuffersPayload?,
    averageRLC_BufferPayload OMIT,
    varianceOfRLC_BufferPayload OMIT
  measuredResultsOnRACH OMIT,
  additionalMeasuredResults OMIT,
  eventResults OMIT,
  v390nonCriticalExtensions *
Detailed Comments:
```

```
ASN.1 PDU Constraint Declaration
Constraint Name
                    : cs_MeasurementControlTrafficVolumeRelease (
                      p_IntegrityInfo: IntegrityCheckInfo;
                      p_RRC_TI: RRC_TransactionIdentifier)
Group
PDU Type
                    : DL_DCCH_Message
Derivation Path
Encoding Rule Name: PER_Unaligned
Encoding Variation:
Comments
                    : Measurement control to report periodically 2 reports on Transport Channel 1
                                                Constraint Value
 integrityCheckInfo p_IntegrityInfo,
 message measurementControl: r3:{
  measurementControl_r3 {
   rrc_TransactionIdentifier p_RRC_TI,
   measurementIdentity 2,
   measurementCommand release: NULL,
   measurementReportingMode OMIT,
   additionalMeasurementList OMIT,
   dpch_CompressedModeStatusInfo OMIT
  v390nonCriticalExtensions OMIT
Detailed Comments:
```

**Constraint Name** : cs\_MeasurementControlTrafficVolumeSetup (

p\_IntegrityInfo : IntegrityCheckInfo ; p\_RRC\_TI: RRC\_TransactionIdentifier)

Group

PDU Type : DL\_DCCH\_Message

Derivation Path :

Encoding Rule Name: PER\_Unaligned

**Encoding Variation**:

Comments : Measurement control to report periodically 2 reports on Transport Channel 1

#### **Constraint Value**

```
integrityCheckInfo p_IntegrityInfo,
message measurementControl: r3:{
 measurementControl_r3 {
  rrc_TransactionIdentifier p_RRC_TI,
  measurementIdentity 2,
  measurementCommand setup: trafficVolumeMeasurement:
   trafficVolumeMeasurementObjectList { dch: tsc UL DCH1 },
   trafficVolumeMeasQuantity rlc_BufferPayload : NULL,
   trafficVolumeReportingQuantity {
    rlc_RB_BufferPayload TRUE,
    rlc_RB_BufferPayloadAverage FALSE,
    rlc_RB_BufferPayloadVariance FALSE
   measurementValidity { ue_State cell_DCH } ,
   reportCriteria periodicalReportingCriteria:
    reportingAmount ra8,
    reportingInterval ril0_25
  },
  measurementReportingMode
   measurementReportTransferMode acknowledgedModeRLC,
   periodicalOrEventTrigger periodical
  additionalMeasurementList OMIT,
  dpch_CompressedModeStatusInfo OMIT
 v390nonCriticalExtensions OMIT
```

```
ASN.1 PDU Constraint Declaration
Constraint Name
                    : cs_TransportFormatCombCtrl (
                      p_IntegrityCheckInfo: IntegrityCheckInfo;
                      p_RRC_Ti : RRC_TransactionIdentifier;
                      p_TFC : TFC_Subset )
Group
PDU Type
                    : DL_DCCH_Message
Derivation Path
Encoding Rule Name:
Encoding Variation:
Comments
                    : Transport Format Combination Control message used to restrict the UL TFCIs
                                                 Constraint Value
{ integrityCheckInfo p_IntegrityCheckInfo ,
 message\ transport Format Combination Control:
  rrc_TransactionIdentifier p_RRC_Ti,
  modeSpecificInfo fdd: NULL,
  dpch_TFCS_InUplink p_TFC,
  tfc_ControlDuration OMIT,
  laterNonCriticalExtensions OMIT
Detailed Comments:
```

# **ASN.1 PDU Constraint Declaration Constraint Name** : cr\_RRC\_Status\_MAC\_NoInteg Group **PDU Type** : UL\_DCCH\_Message **Derivation Path Encoding Rule Name: Encoding Variation**: Comments : Ref sec 8.1.9.3a of 25.331 **Constraint Value** integrityCheckInfo OMIT, -- As MAC test cases will be run with Integrity and Ciphering off message rrcStatus: protocolErrorInformation $diagnostics Type\ type 1: message Not Compatible With Receiver State:$ rrc\_TransactionIdentifier 1, --Hard coded value in Pre Coded Dummy downlink Direct Transfer Message receivedMessageType downlinkDirectTransfer **Detailed Comments:**

```
ASN.1 PDU Constraint Declaration
Constraint Name
                    : cs_RB_ReconfigFACH_PS_MAC (
                         p_IntegrityInfo: IntegrityCheckInfo;
                        p_RRC_Ti: RRC_TransactionIdentifier;
                        p_Activetime:
                                         ActivationTime;
                        p_FreqInfo:
                                          FrequencyInfo;
                        p_PrimaryScramblingCode: PrimaryScramblingCode
Group
PDU Type
                    : DL_DCCH_Message
Derivation Path
Encoding Rule Name:
Encoding Variation
Comments
                    : Defined in TS 34.123-1 annex A condition A.6 with MAC Priority for RAB assignd as 1.
                                                 Constraint Value
 integrityCheckInfo p_IntegrityInfo,
 message radioBearerReconfiguration: r3:{
  radioBearerReconfiguration_r3{
   rrc TransactionIdentifier p RRC Ti,
   integrityProtectionModeInfo OMIT,
   cipheringModeInfo OMIT,
   activationTime p_Activetime,
   new_U_RNTI OMIT,
   new_C_RNTI OMIT,
   rrc_StateIndicator cell_FACH,
   utran_DRX_CycleLengthCoeff OMIT,
   cn_InformationInfo OMIT,
   ura_Identity OMIT,
   rab_InformationReconfigList OMIT,
   rb_InformationReconfigList c_RB_InfoReconfigList20_MAC,
   rb_InformationAffectedList OMIT,
   ul CommonTransChInfo OMIT.
   ul_deletedTransChInfoList OMIT,
   ul_AddReconfTransChInfoList OMIT,
   modeSpecificTransChInfo fdd:{
    cpch_SetID OMIT,
    addReconfTransChDRAC_Info OMIT
   dl_CommonTransChInfo OMIT,
   dl_DeletedTransChInfoList OMIT,
   dl_AddReconfTransChInfoList OMIT,
   frequencyInfo p_FreqInfo,
   maxAllowedUL_TX_Power tsc_MaxAllowPwr,
   ul_ChannelRequirement OMIT,
   modeSpecificPhysChInfo fdd:{
    dl_PDSCH_Information OMIT
   dl CommonInformation OMIT.
   dl_InformationPerRL_List c_DL_InfoPerRL_DCH_OrFACH_ToFACH_PS_MAC(p_PrimaryScramblingCode)
```

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**Constraint Name** : cdr\_108\_RRC\_ConnReq\_MAC (p\_EstCause: EstablishmentCause)

Group :

PDU Type : UL\_CCCH\_Message

Derivation Path : cbr\_108\_RRC\_ConnReq.

Encoding Rule Name : Encoding Variation : Comments :

# **Constraint Value**

```
REPLACE message.rrcConnectionRequest.initialUE_Identity BY
( imsi : ?,
tmsi_and_LAI:
 tmsi o_ConvertTMSI(px_TMSI_Def),
  plmn_Identity
   mcc {0,0,1},
   mnc {0,1}
  lac '0000000000000001'B
p_TMSI_and_RAI:
 p_TMSI o_ConvertPTMSI(px_PTMSI_Def),
rai
  lai
   plmn_Identity
    mcc {0,0,1},
    mnc {0,1}
   lac '000000000000001'B
  rac '00000101'B
```

```
Constraint Name : cds_MAC_RB_SetUpFACH_PS (
```

p\_Integrityinfo: IntegrityCheckInfo; p\_RRC\_Ti:RRC\_TransactionIdentifier;

p\_RAB\_Id : BITSTRING; p\_NewC\_RNTI : C\_RNTI

)

Group :

PDU Type : DL\_DCCH\_Message

**Derivation Path**: cbs\_108\_RB\_SetUpFACH\_PS.

Encoding Rule Name : Encoding Variation :

Comments: to be used in test case tc\_7\_1\_2\_4a. Modified MAC logical channel priority and timer Poll disabled

#### **Constraint Value**

#### REPLACE

message.radioBearerSetup\_r3.radioBearerSetup\_r3.rab\_InformationSetupList.[0].rb\_InformationSetupList.[0].rb\_MappingInfo.[0].ul\_LogicalChannelMappings.oneLogicalChannel.mac\_LogicalChannelPriority BY 8,

message.radioBearerSetup\_r3.radioBearerSetup\_r3.rab\_InformationSetupList.[0].rb\_InformationSetupList.[0].rlc\_InfoChoi ce.rlc\_Info.ul\_RLC\_Mode.ul\_AM\_RLC\_Mode.pollingInfo.timerPoll BY OMIT

**Detailed Comments:** 

# **ASN.1 PDU Constraint Declaration**

Constraint Name : cds\_RRC\_ConnSetupDCH\_NoCapEnq

. cu

p\_InitUEId: InitialUE\_Identity;

p\_RRC\_Ti: RRC\_TransactionIdentifier; p\_PrmbScrmCode: PrimaryScramblingCode;

p\_U\_RNTI\_New: U\_RNTI;

p\_UL\_ScramblingCode : UL\_ScramblingCode

)

Group

PDU Type : DL\_CCCH\_Message

**Derivation Path**: cbs\_108\_RRC\_ConnSetupDCH.

Encoding Rule Name:
Encoding Variation:
Comments:

# **Constraint Value**

REPLACE message.rrcConnectionSetup\_r3.rrcConnectionSetup\_r3.capabilityUpdateRequirement BY OMIT

```
Constraint Name : cds_RRC_ConnSetupFACH_NoCapEnq
```

p\_InitUEId: InitialUE\_Identity;
p\_RRC\_Ti: RRC\_TransactionIdentifier;
p\_PrmbScrmCode: PrimaryScramblingCode;
p\_II\_RNTI\_New:\_II\_RNTI:

p\_U\_RNTI\_New : U\_RNTI; p\_CRNTI\_New : C\_RNTI;

p\_UL\_ScramblingCode : UL\_ScramblingCode

Group :

PDU Type : DL\_CCCH\_Message

**Derivation Path**: cbs\_108\_RRC\_ConnSetupFACH.

Encoding Rule Name:
Encoding Variation:
Comments:

**Constraint Value** 

REPLACE message.rrcConnectionSetup\_r3.rrcConnectionSetup\_r3.capabilityUpdateRequirement BY OMIT

```
ASN.1 PDU Constraint Declaration
Constraint Name
                     : cbr_108_RB_SetUpCmpl
                        p_RRC_Ti: RRC_TransactionIdentifier;
                        p_Count_C_ActivationTime : ActivationTime;
                        p\_RB\_ActivationTimeInfoList: RB\_ActivationTimeInfoList
Group
PDU Type
                     : UL_DCCH_Message
Derivation Path
Encoding Rule Name:
Encoding Variation:
Comments
                     : Defined in TS 34.108 clause 9.
                       p_Count_C_ActivationTime : The presence of this IE depends on the following 2 factors: (a)
                       There exists RB(s) mapped to RLC-TM and (b) UE is transiting to CELL_DCH state after the
                       RB establishment procedure. Else, this IE is absent
                       p_RB_ActivationTimeInfoList: If ciphering is not activated in RADIO BEARER SETUP message,
                       this IE must be absent. Else, SS checks this IE for the presence of activation times of all ciphered
                       uplink RLC-UM and RLC-AM RBs
                                                   Constraint Value
 integrityCheckInfo *,
 message radioBearerSetupComplete : {
  rrc_TransactionIdentifier p_RRC_Ti,
  ul_IntegProtActivationInfo *,
  ul_TimingAdvance *,
  start_Value ?,
  count_C_ActivationTime p_Count_C_ActivationTime,
  rb_UL_CiphActivationTimeInfo p_RB_ActivationTimeInfoList,
  ul_CounterSynchronisationInfo *,
  laterNonCriticalExtensions *
```

```
ASN.1 PDU Constraint Declaration
Constraint Name
                    : cbr_108_RRC_ConnRelCmpl ( p_RRC_Ti: RRC_TransactionIdentifier)
Group
PDU Type
                    : UL_DCCH_Message
Derivation Path
Encoding Rule Name:
Encoding Variation:
Comments
                    : Defined in TS 34.108 clause 9.
                                                 Constraint Value
{ integrityCheckInfo *,
 message rrcConnectionReleaseComplete : {
  rrc_TransactionIdentifier p_RRC_Ti,
  errorIndication *,
  laterNonCriticalExtensions *
Detailed Comments:
```

```
ASN.1 PDU Constraint Declaration
Constraint Name
                    : cbr_108_RRC_ConnReq (p_EstCause: EstablishmentCause)
Group
PDU Type
                    : UL_CCCH_Message
Derivation Path
Encoding Rule Name:
Encoding Variation
Comments
                    : Defined in TS 34.108 clause 9.
                                                Constraint Value
{ integrityCheckInfo OMIT,
 message rrcConnectionRequest:
  initialUE_Identity (imsi:?, tmsi_and_LAI:?, p_TMSI_and_RAI:?, imei:?),
  establishmentCause p_EstCause,
  protocolErrorIndicator noError,
  measuredResultsOnRACH *,
  v3d0NonCriticalExtensions *
Detailed Comments:
```

```
ASN.1 PDU Constraint Declaration
Constraint Name
                    : cbr_108_RRC_SecModeCmpl
                      (p_RRC_Ti: RRC_TransactionIdentifier;
                       p_RB_ActivationTimeInfoList : RB_ActivationTimeInfoList
Group
PDU Type
                    : UL_DCCH_Message
Derivation Path
Encoding Rule Name:
Encoding Variation:
Comments
                    : Defined in TS 34.108 clause 9.
                                                 Constraint Value
{ integrityCheckInfo *,
 message securityModeComplete : {
  rrc_TransactionIdentifier p_RRC_Ti,
  ul_IntegProtActivationInfo *
  rb_UL_CiphActivationTimeInfo p_RB_ActivationTimeInfoList,
  laterNonCriticalExtensions *
Detailed Comments:
```

# **ASN.1 PDU Constraint Declaration Constraint Name** : cbs\_108\_RB\_SetUpFACH\_PS ( p\_Integrityinfo: IntegrityCheckInfo; p\_RRC\_Ti : RRC\_TransactionIdentifier; p\_RAB\_Id: BITSTRING; p\_NewC\_RNTI: C\_RNTI Group **PDU Type** : DL\_DCCH\_Message **Derivation Path Encoding Rule Name: Encoding Variation**: Comments : Defined in TS 34.123-1 annex A condition A.6 **Constraint Value** integrityCheckInfo p\_Integrityinfo, message radioBearerSetup: r3: { radioBearerSetup\_r3 { rrc\_TransactionIdentifier p\_RRC\_Ti, integrityProtectionModeInfo OMIT. cipheringModeInfo OMIT, activationTime OMIT, new\_U\_RNTI OMIT, $new\_C\_RNTI p\_NewC\_RNTI$ , rrc\_StateIndicator cell\_FACH, utran\_DRX\_CycleLengthCoeff OMIT, cn\_InformationInfo OMIT, srb\_InformationSetupList OMIT, rab\_InformationSetupList c\_RAB\_InfoListFACH\_PS ( useT315, p\_RAB\_Id, c\_RLC\_InfoAM\_Def), rb\_InformationAffectedList OMIT , ul\_CommonTransChInfo c\_UL\_CommTrChInfoDCH\_PS\_64k, ul\_deletedTransChInfoList OMIT, ul\_AddReconfTransChInfoList c\_UL\_AddReconfTransChInfoListDCH\_PS\_64k, modeSpecificTransChInfo fdd:{ cpch\_SetID OMIT, addReconfTransChDRAC Info OMIT dl\_DeletedTransChInfoList OMIT, dl\_AddReconfTransChInfoList c\_DL\_AddReconfTransChInfoListDCH\_PS\_64k, frequencyInfo OMIT, maxAllowedUL\_TX\_Power OMIT, ul\_ChannelRequirement OMIT, modeSpecificPhysChInfo fdd:{ dl\_PDSCH\_Information OMIT dl\_CommonInformation OMIT, dl\_InformationPerRL\_List OMIT v3a0NonCriticalExtensions { radioBearerSetup\_v3a0ext { new\_DSCH\_RNTI OMIT },

# **Detailed Comments:**

}

laterNonCriticalExtensions OMIT

# **ASN.1 PDU Constraint Declaration Constraint Name** : cbs\_108\_RRC\_ConnSetupDCH p\_InitUEId: InitialUE\_Identity; RRC\_TransactionIdentifier; p\_RRC\_Ti: p\_PrmbScrmCode: PrimaryScramblingCode; p\_U\_RNTI\_New: U\_RNTI; p\_UL\_ScramblingCode: UL\_ScramblingCode Group **PDU Type** : DL\_CCCH\_Message **Derivation Path Encoding Rule Name: Encoding Variation** Comments : Defined in TS 34.108 clause 9. **Constraint Value** integrityCheckInfo OMIT, message rrcConnectionSetup: r3: rrcConnectionSetup\_r3 -- RRCConnectionSetup\_r3\_IEs initialUE\_Identity p\_InitUEId, rrc\_TransactionIdentifier p\_RRC\_Ti, activationTime OMIT new\_U\_RNTI p\_U\_RNTI\_New, new\_c\_RNTI OMIT, rrc\_StateIndicator cell\_DCH, utran\_DRX\_CycleLengthCoeff 9, capabilityUpdateRequirement { ue\_RadioCapabilityFDDUpdateRequirement TRUE, ue RadioCapabilityTDDUpdateRequirement FALSE, systemSpecificCapUpdateReqList {gsm} srb InformationSetupList { c\_SRB\_InfoSetupUM\_DCH (tsc\_UL\_DCCH1, tsc\_UL\_MAC\_Prt1, tsc\_UL\_MAC\_Prt1, tsc\_DL\_DCCH1), c\_SRB\_InfoSetupAM\_DCH (tsc\_UL\_DCCH2, tsc\_UL\_MAC\_Prt2, tsc\_UL\_MAC\_Prt2, tsc\_DL\_DCCH2), c\_SRB\_InfoSetupAM\_DCH (tsc\_UL\_DCCH3, tsc\_UL\_MAC\_Prt3, tsc\_UL\_MAC\_Prt3, tsc\_DL\_DCCH3), c\_SRB\_InfoSetupAM\_DCH (tsc\_UL\_DCCH4, tsc\_UL\_MAC\_Prt4, tsc\_UL\_MAC\_Prt4, tsc\_DL\_DCCH4) ul\_CommonTransChInfo c\_UL\_CommTrChInfoDCCH\_13\_6k, ul\_AddReconfTransChInfoList c\_UL\_AddReconfTransChInfoListDCCH\_13\_6k, dl\_CommonTransChInfo c\_DL\_CommonTransChInfoSameAsUL dl\_AddReconfTransChInfoList c\_DL\_AddReconfTransChInfoListDCCH\_SRB, frequencyInfo OMIT. maxAllowedUL\_TX\_Power OMIT, ul\_ChannelRequirement ul\_DPCH\_Info: c\_UL\_DPCH\_13\_6\_StandAlone ( p\_UL\_ScramblingCode ), dl\_CommonInformation cd\_DL\_CommonInformationDCH\_DPCH\_Offset ( tsc\_DL\_DPCH1\_SFP\_SRB ). dl\_InformationPerRL\_List c\_DL\_InfoPerRL\_DPCH\_Offset (p\_PrmbScrmCode, tsc\_DL\_DPCH1\_2ndScrC, tsc\_DL\_DPCH1\_ChC\_SRB) laterNonCriticalExtensions OMIT

Detailed Comments :

}

# **ASN.1 PDU Constraint Declaration Constraint Name** : cbs\_108\_RRC\_ConnSetupFACH p\_InitUEId: InitialUE\_Identity; p\_RRC\_Ti: RRC\_TransactionIdentifier; p\_PrmbScrmCode: PrimaryScramblingCode; p\_U\_RNTI\_New : U\_RNTI; p\_CRNTI\_New: C\_RNTI; p\_UL\_ScramblingCode : UL\_ScramblingCode Group **PDU Type** : DL\_CCCH\_Message **Derivation Path Encoding Rule Name: Encoding Variation** Comments : Defined in TS 34.123-1 annex A **Constraint Value** integrityCheckInfo OMIT, message rrcConnectionSetup: rrcConnectionSetup\_r3 -- RRCConnectionSetup\_r3\_IEs initialUE\_Identity p\_InitUEId, rrc\_TransactionIdentifier p\_RRC\_Ti, activationTime OMIT, new\_U\_RNTI p\_U\_RNTI\_New, new\_c\_RNTI p\_CRNTI\_New, rrc\_StateIndicator cell\_FACH utran\_DRX\_CycleLengthCoeff 9, capabilityUpdateRequirement { ue\_RadioCapabilityFDDUpdateRequirement TRUE, ue\_RadioCapabilityTDDUpdateRequirement FALSE, systemSpecificCapUpdateReqList {gsm} srb\_InformationSetupList { c\_SRB\_InfoSetupUM\_FACH (tsc\_RB1, tsc\_UL\_DCCH1, tsc\_UL\_MAC\_Prt1, tsc\_UL\_MAC\_Prt1, tsc\_DL\_DCCH1), c\_SRB\_InfoSetupAM\_FACH (tsc\_RB2,tsc\_UL\_DCCH2, tsc\_UL\_MAC\_Prt2, tsc\_UL\_MAC\_Prt2, tsc\_DL\_DCCH2), c\_SRB\_InfoSetupAM\_FACH (tsc\_RB3, tsc\_UL\_DCCH3, tsc\_UL\_MAC\_Prt3, tsc\_UL\_MAC\_Prt3, tsc\_DL\_DCCH3), c\_SRB\_InfoSetupAM\_FACH (tsc\_RB4, tsc\_UL\_DCCH4, tsc\_UL\_MAC\_Prt4, tsc\_UL\_MAC\_Prt4, tsc\_DL\_DCCH4) ul\_CommonTransChInfo c\_UL\_CommTrChInfoDCCH\_13\_6k, ul\_AddReconfTransChInfoList c\_UL\_AddReconfTransChInfoListDCCH\_3\_4k, dl CommonTransChInfo c DL CommonTransChInfoSameAsUL. $dl\_AddReconfTransChInfoList\,c\_DL\_AddReconfTransChInfoListDCCH\_SRB,$ frequencyInfo OMIT, maxAllowedUL\_TX\_Power OMIT, ul\_ChannelRequirement OMIT, dl CommonInformation OMIT, dl\_InformationPerRL\_List OMIT laterNonCriticalExtensions OMIT

#### **Detailed Comments:**

}

```
ASN.1 PDU Constraint Declaration
Constraint Name
                                                                                       : cr_108_RB_ReconfCmpl
                                                                                                  p_RRC_Ti : RRC_TransactionIdentifier;
                                                                                                  p_Count_C_ActivationTime : ActivationTime
Group
PDU Type
                                                                                      : UL_DCCH_Message
Derivation Path
Encoding Rule Name:
Encoding Variation:
Comments
                                                                                       : Defined in 34.123-1 annex A
                                                                                                                                                                                                               Constraint Value
    integrityCheckInfo *,
    message\ radio Bearer Reconfiguration Complete: \{\ -- Radio Bearer Reconfiguration Complete\ :\ \{\ -- Radio Bearer Reconfiguration\ Complete\ :\ \{\ -- Radio\ Bearer\ Reconfiguration\ Complete\ :\ \{\ -- Radio\
         rrc_TransactionIdentifier p_RRC_Ti,
         ul_IntegProtActivationInfo *,
         ul_TimingAdvance *,
         count_C_ActivationTime p_Count_C_ActivationTime,
         rb_UL_CiphActivationTimeInfo OMIT,
         laterNonCriticalExtensions *
Detailed Comments:
```

```
ASN.1 PDU Constraint Declaration
Constraint Name
                    : cr_108_RRC_ConnSetupCmpl ( p_RRC_Ti : RRC_TransactionIdentifier; p_STARTList :
                      STARTList)
Group
PDU Type
                    : UL_DCCH_Message
Derivation Path
Encoding Rule Name:
Encoding Variation:
Comments
                    : Defined in TS 34.108 clause 9.
                                                Constraint Value
{ integrityCheckInfo OMIT,
 message rrcConnectionSetupComplete : {
  rrc TransactionIdentifier p RRC Ti,
  startList p_STARTList,
  ue_RadioAccessCapability *,
  ue_RATSpecificCapability *
  v370NonCriticalExtensions *
Detailed Comments:
```

```
ASN.1 PDU Constraint Declaration
Constraint Name
                    : cr\_108\_SecModeFail \ (p\_RRC\_Ti: RRC\_TransactionIdentifier; p\_FailureCauseWithProtErr: \\
                      FailureCauseWithProtErr)
Group
PDU Type
                    : UL_DCCH_Message
Derivation Path
Encoding Rule Name:
Encoding Variation:
Comments
                                                 Constraint Value
{ integrityCheckInfo * ,
 message securityModeFailure:
  rrc\_TransactionIdentifier\ p\_RRC\_Ti,
  failureCause p_FailureCauseWithProtErr,
  laterNonCriticalExtensions *
Detailed Comments:
```

```
ASN.1 PDU Constraint Declaration

Constraint Name : cr_RRC_MeasRep
Group :
PDU Type : UL_DCCH_Message
Derivation Path :
Encoding Rule Name :
Encoding Variation :
Comments :

Constraint Value

{ integrityCheckInfo *, message measurementReport : ? }
Detailed Comments :
```

Constraint Name : cr\_RRC\_RB\_SetUpCmplNoStartVal

( p\_RRC\_Ti : RRC\_TransactionIdentifier; p\_Count\_C\_ActivationTime : ActivationTime;

 $p\_RB\_Activation Time Info List: RB\_Activation Time Info List$ 

)

Group :

PDU Type : UL\_DCCH\_Message

Derivation Path : Encoding Rule Name : Encoding Variation :

**Comments** : START value is omitted

p\_Count\_C\_ActivationTime: The presence of this IE depends on the following 2 factors: (a) There exists RB(s) mapped to RLC-TM and (b) UE is transiting to CELL\_DCH state after the

RB establishment procedure. Else, this IE is absent

 $p\_RB\_ActivationTimeInfoList: If ciphering is not activated in RADIO BEARER SETUP message, this IE must be absent. Else, SS checks this IE for the presence of activation times of all ciphered$ 

uplink RLC-UM and RLC-AM RBs

#### **Constraint Value**

```
{
    integrityCheckInfo * ,
    message radioBearerSetupComplete : {
        rrc_TransactionIdentifier p_RRC_Ti,
        ul_IntegProtActivationInfo *,
        ul_TimingAdvance *,
        start_Value OMIT,
        count_C_ActivationTime p_Count_C_ActivationTime,
        rb_UL_CiphActivationTimeInfo p_RB_ActivationTimeInfoList,
        laterNonCriticalExtensions *
    }
```

```
ASN.1 PDU Constraint Declaration
Constraint Name
                    : cr_RRC_RrcConnReqAny
Group
PDU Type
                    : UL_CCCH_Message
Derivation Path
Encoding Rule Name:
Encoding Variation:
Comments
                                                  Constraint Value
{ integrityCheckInfo OMIT,
 message rrcConnectionRequest :
  initialUE_Identity?,
  establishmentCause ?,
  protocolErrorIndicator noError,
  measuredResultsOnRACH *, v3d0NonCriticalExtensions *
Detailed Comments:
```

```
ASN.1 PDU Constraint Declaration

Constraint Name : cr_RRC_RrcStatus
Group :
PDU Type : UL_DCCH_Message
Derivation Path :
Encoding Rule Name :
Encoding Variation :
Comments :

Constraint Value

{ integrityCheckInfo *, message rrcStatus : ? }
Detailed Comments :
```

```
ASN.1 PDU Constraint Declaration
Constraint Name
                   : cr_RRC_SigConnRelInd ( p_CN_Domain : CN_DomainIdentity)
Group
PDU Type
                    : UL_DCCH_Message
Derivation Path
Encoding Rule Name:
Encoding Variation
Comments
                                                Constraint Value
 integrityCheckInfo *,
 message\ signal ling Connection Release Indication:
  cn_DomainIdentity p_CN_Domain,
  laterNonCriticalExtensions *
Detailed Comments:
```

# **ASN.1 PDU Constraint Declaration Constraint Name** : cs\_108\_RRC\_ConnRelCCCH ( $p\_U\_rnti:\ U\_RNTI;$ p\_RRC\_Ti: RRC\_TransactionIdentifier) Group **PDU Type** : DL\_CCCH\_Message **Derivation Path Encoding Rule Name: Encoding Variation**: Comments : Defined in TS 34.108 clause 9. **Constraint Value** { integrityCheckInfo OMIT, message rrcConnectionRelease : r3 : rrcConnectionRelease\_CCCH\_r3 u\_RNTI p\_U\_rnti, rrcConnectionRelease rrc\_TransactionIdentifier p\_RRC\_Ti, n\_308 OMIT, releaseCause normalEvent laterNonCriticalExtensions OMIT **Detailed Comments:**

```
ASN.1 PDU Constraint Declaration
Constraint Name
                    : cs_108_RRC_ConnRelDCCH (
                        p_IntegrityCheckInfo : IntegrityCheckInfo;
                        p_RRC_Ti: RRC_TransactionIdentifier;
                        p_N308: INTEGER)
Group
PDU Type
                    : DL_DCCH_Message
Derivation Path
Encoding Rule Name:
Encoding Variation:
Comments
                    : Defined in TS 34.108 clause 9.
                                                Constraint Value
{ integrityCheckInfo p_IntegrityCheckInfo,
 message rrcConnectionRelease : r3 :
  rrcConnectionRelease_r3
   rrc_TransactionIdentifier p_RRC_Ti,
   n_308 p_N308,
   releaseCause normalEvent,
   rplmn_information OMIT
```

 $\textbf{Constraint Name} \qquad : \ cs\_108\_RRC\_SecModeCmd \ ( \quad p\_IntegrityCheckInfo : IntegrityCheckInfo; p\_SecModeCmd : \ ( \quad p\_IntegrityCheckInfo : IntegrityCheckInfo : p\_SecModeCmd : \ ( \quad p\_SecModeCmd :$ 

Security Mode Command)

Group

**Detailed Comments:** 

PDU Type : DL\_DCCH\_Message

laterNonCriticalExtensions OMIT

Derivation Path : Encoding Rule Name : Encoding Variation :

Comments : Defined in TS 34.108 clause 9.

Constraint Value

 $\ \ \{\ \, integrity CheckInfo\ p\_Integrity CheckInfo,$ 

message securityModeCommand : p\_SecModeCmd

```
ASN.1 PDU Constraint Declaration
Constraint Name
                   : cs_RRC_PagingType1_ModifySI(
                     p_mib_valuetag: MIB_ValueTag
Group
PDU Type
                    : PCCH_Message
Derivation Path
Encoding Rule Name:
Encoding Variation
Comments
                                               Constraint Value
 message pagingType1: { --PagingType1
  pagingRecordList OMIT,
  bcch_ModificationInfo {
   mib_ValueTag p_mib_valuetag,
   bcch_ModificationTime OMIT -- changed immediately
  laterNonCriticalExtensions OMIT
Detailed Comments:
```

: cs\_RRC\_PagingType1\_TMSI(p\_PagCause: PagingCause; p\_Tmsi:TMSI\_GSM\_MAP; p\_Domain: CN\_DomainIdentity) **Constraint Name** 

Group

PDU Type : PCCH\_Message

**Derivation Path Encoding Rule Name: Encoding Variation**: Comments

# **Constraint Value**

 $message\ paging Type 1:\ c\_Paging Type 1\_TMSI (p\_Pag Cause,\ p\_Tmsi,\ p\_Domain\ )$ 

# **ASN.1 PDU Constraint Declaration Constraint Name** : cs\_RRC\_RB\_SetUp ( p\_Integrityinfo: IntegrityCheckInfo; p\_RRC\_Ti : RRC\_TransactionIdentifier; p\_Activetime : ActivationTime; p\_RRCStateInd: RRC\_StateIndicator; p FregInfo: FrequencyInfo: RAB\_InformationSetupList; p\_Rablist: p\_UICommTrChInfo: UL\_CommonTransChInfo; p UIAddReconfTrChInfo: UL AddReconfTransChInfoList; p\_DICommTrChInfo: DL\_CommonTransChInfo; p\_DIAddReconfTrChInfo: DL\_AddReconfTransChInfoList; p\_DlInfoPerRI: DL\_InformationPerRL\_List; p\_DL\_CommonInformation: DL\_CommonInformation; p\_UL\_DPCH\_Info: UL\_DPCH\_Info; p\_RB\_InformationAffectedList : RB\_InformationAffectedList Group **PDU Type** : DL\_DCCH\_Message **Derivation Path Encoding Rule Name: Encoding Variation** Comments **Constraint Value** integrityCheckInfo p\_Integrityinfo, message radioBearerSetup: r3: { radioBearerSetup\_r3 { rrc\_TransactionIdentifier p\_RRC\_Ti, integrityProtectionModeInfo OMIT, cipheringModeInfo OMIT, activationTime p\_Activetime, new\_U\_RNTI OMIT, new\_C\_RNTI OMIT, rrc\_StateIndicator p\_RRCStateInd, utran DRX CycleLengthCoeff OMIT, cn\_InformationInfo OMIT, srb\_InformationSetupList OMIT, rab\_InformationSetupList p\_Rablist, $rb\_Information Affected List\ p\_RB\_Information Affected List\ ,$ ul\_CommonTransChInfo p\_UICommTrChInfo, ul\_deletedTransChInfoList OMIT, $ul\_AddReconfTransChInfoList\ p\_UlAddReconfTrChInfo,$ modeSpecificTransChInfo fdd:{ cpch\_SetID OMIT, addReconfTransChDRAC\_Info OMIT dl\_CommonTransChInfo p\_DlCommTrChInfo, dl DeletedTransChInfoList OMIT. dl\_AddReconfTransChInfoList p\_DIAddReconfTrChInfo, frequencyInfo p\_FreqInfo, maxAllowedUL\_TX\_Power tsc\_MaxAllowPwr, ul\_ChannelRequirement ul\_DPCH\_Info : p\_UL\_DPCH\_Info, modeSpecificPhysChInfo fdd:{ dl\_PDSCH\_Information OMIT dl\_CommonInformation p\_DL\_CommonInformation,

Continued on next page

dl\_InformationPerRL\_List p\_DlInfoPerRI

radioBearerSetup\_v3a0ext { new\_DSCH\_RNTI OMIT },

v3a0NonCriticalExtensions {

laterNonCriticalExtensions OMIT

```
ASN.1 PDU Constraint Declaration

Constraint Value

}

Detailed Comments:
```

```
ASN.1 PDU Constraint Declaration
Constraint Name
                    : cs_SIB_MsgCmpl(p_SIBType : SIB_Type; p_SIBData: SIB_Data_fixed)
Group
PDU Type
                    : BCCH_BCH_Message
Derivation Path
Encoding Rule Name:
Encoding Variation:
Comments
                    : System information message contains complete SIB/SB/MIB. The actual value of sfn_Prime shall
                     be filled in by lower layer before sent on air.
                                                Constraint Value
 message {
  sfn_Prime 0,
  payload completeSIB: {
   sib_Type p_SIBType,
   sib_Data_fixed p_SIBData }
Detailed Comments:
```

Constraint Name : cs\_SIB\_MsgCmplList1(p\_SIBType : SIB\_Type; p\_SIBData: SIB\_Data\_variable)

Group :

PDU Type : BCCH\_BCH\_Message

Derivation Path : Encoding Rule Name : Encoding Variation :

Comments : System information message contains complete SIB/SB/MIB. The actual value of sfn\_Prime shall

be filled in by lower layer before sent on air.

```
Constraint Value
```

```
{
  message {
    sfn_Prime 0,
    payload completeSIB_List : {{
       sib_Type p_SIBType,
       sib_Data_variable p_SIBData }}
}
```

Constraint Name : cs\_SIB\_MsgCmplList2(p\_SIBType1 : SIB\_Type; p\_SIBData1:SIB\_Data\_variable; p\_SIBType2

:SIB\_Type; p\_SIBData2: SIB\_Data\_variable)

Group :

PDU Type : BCCH\_BCH\_Message

Derivation Path : Encoding Rule Name : Encoding Variation :

Comments : System information message contains two complete SIB's. The actual value of sfn\_Prime shall be

filled in by lower layer before sent on air.

#### **Constraint Value**

```
{
  message {
    sfn_Prime 0,
    payload completeSIB_List : {{
      sib_Type p_SIBType1,
      sib_Data_variable p_SIBData1 },
    {
      sib_Type p_SIBType2,
      sib_Data_variable p_SIBData2 }}
}
```

# **Detailed Comments:**

# **ASN.1 PDU Constraint Declaration**

Constraint Name : cs\_SIB\_MsgFirst(p\_SIBType : SIB\_Type; p\_SegCount: INTEGER; p\_SIBData: SIB\_Data\_fixed)

Group :

PDU Type : BCCH\_BCH\_Message

Derivation Path : Encoding Rule Name : Encoding Variation :

**Comments**: The actual value of sfn\_Prime shall be filled in by lower layer before sent on air.

## **Constraint Value**

```
{
    message {
        sfn_Prime 0, -- place holder
        payload firstSegment : {
        sib_Type p_SIBType,
        seg_Count p_SegCount,
        sib_Data_fixed p_SIBData }
    }
```

Constraint Name : cs\_SIB\_MsgLast(p\_SIBType : SIB\_Type; p\_SegIndex : INTEGER; p\_SIBData: SIB\_Data\_fixed)

Group

PDU Type : BCCH\_BCH\_Message

Derivation Path : Encoding Rule Name : Encoding Variation :

Comments : The actual value of sfn\_Prime shall be filled in by lower layer before sent on air. this message

contains last segment which is 222 bits long.

# **Constraint Value**

```
{
  message {
    sfn_Prime 0,
    payload lastSegment : {
    sib_Type p_SIBType,
    segmentIndex p_SegIndex,
    sib_Data_fixed p_SIBData }
  }
}
```

#### **Detailed Comments:**

#### **ASN.1 PDU Constraint Declaration**

**Constraint Name** : cs\_SIB\_MsgLastShort(p\_SIBType : SIB\_Type; p\_SegIndex : INTEGER; p\_SIBData:

SIB\_Data\_variable)

Group

PDU Type : BCCH\_BCH\_Message

Derivation Path : Encoding Rule Name : Encoding Variation :

**Comments**: The actual value of sfn\_Prime shall be filled in by lower layer before sent on air. this message

contains last segment which is short than 215 bits.

#### **Constraint Value**

```
fmessage {
    sfn_Prime 0,
    payload lastSegmentShort : {
    sib_Type p_SIBType,
    segmentIndex p_SegIndex,
    sib_Data_variable p_SIBData }
}
```

Constraint Name : cs\_SIB\_MsgNoSegment

Group :

PDU Type : BCCH\_BCH\_Message

Derivation Path : Encoding Rule Name : Encoding Variation :

**Comments**: System information message contains no SIB, sent on the frame which there is no any

SIB/SB/MIB scheduled on. The actual value of sfn\_Prime shall be filled in by lower layer before

sent on air.

#### **Constraint Value**

```
{
    message {
        sfn_Prime 0,
        payload noSegment : NULL
    }
```

**Detailed Comments:** 

# **ASN.1 PDU Constraint Declaration**

Constraint Name : cs\_SIB\_MsgSubsequent(p\_SIBType : SIB\_Type; p\_SegIndex : INTEGER; p\_SIBData:

SIB\_Data\_fixed)

Group :

PDU Type : BCCH\_BCH\_Message

Derivation Path : Encoding Rule Name : Encoding Variation :

**Comments**: The actual value of sfn\_Prime shall be filled in by lower layer before sent on air.

# **Constraint Value**

```
{
    message {
        sfn_Prime 0,
        payload subsequentSegment : {
        sib_Type p_SIBType,
        segmentIndex p_SegIndex,
        sib_Data_fixed p_SIBData }
    }
```

Constraint Name : cs\_SysInfoChangeInd(

p\_mib\_valuetag: MIB\_ValueTag

)

Group

PDU Type : BCCH\_FACH\_Message

Derivation Path :

Encoding Rule Name: PER\_Unaligned

Encoding Variation : Comments :

#### **Constraint Value**

```
{
  message systemInformationChangeIndication : { --System Information Change Indication
  bcch_ModificationInfo {
    mib_ValueTag p_mib_valuetag,
    bcch_ModificationTime OMIT --0
  },
  laterNonCriticalExtensions OMIT
  }
}
```

# IV Dynamic Part

# **Test Case Dynamic Behaviour**

Test Case Name : tc\_7\_1\_1\_1

**Group** : MAC/MappingBetweenLoChAndTrCh/

Purpose : 1. To verify that the UE discards PDUs with reserved or incorrect values in the TCTF field.

2. To verify that the TCTF field is correctly applied when a CCCH is mapped to the RACH/FACH.

Configuration:

Default : MAC\_Default
Comments : Reference :

TS 25.321 clauses 9.2.1 and 9.2.1.4.

Selection Ref : AllUE

**Description**: CCCH mapped to RACH/FACH / Invalid TCTF

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		START t_Guard( 300 )			
2		+ts_GenericSetupProceduresToldleUpdate_CCC H			
3		+lt_TestBody			
4		+po_ConnectionAndSS_Rel( tsc_DefaultCellId)			
		lt_TestBody			
5	TBS	( tcv_TestBody := TRUE )			
6		+ts_RRC_PagType1_DefMAC( tsc_DefaultCellId)			Step 1
7		+ts_MAC_ReceiveRRC_ConnReqInDefaultCell AndInit			Step 2
8		+ts_SendRRC_ConnecSetup( c_MAC_PDU_CCCH_TCTF( tsc_Reserved1_OnFACH_FDD), (tsc_UM_CCCH_Payloadsize),8)			Step 5 Sent with incorrect TCTF '0100 0001'B
9		+ts_MAC_ReceiveRRC_ConnReqInDefault Cell			Step 6
10		+ts_SendRRC_ConnecSetup( c_MAC_PDU_CCCH_TCTF ( tsc_CTCH_OnFACH_FDD ), ( tsc_UM_CCCH_Payloadsize ) ,8)			Step 7 Sent with incorrect TCTF '1000 0000'B
11		+ts_MAC_ReceiveRRC_ConnReqInDefa ultCell			Step 8
12		+ts_SendRRC_ConnecSetup( c_MAC_PDU_CCCH_TCTF( tsc_Reserved2_OnFACH_FDD), (tsc_UM_CCCH_Payloadsize),8)			Step 9 Sent with incorrect TCTF "1000 0001'B
13		+ts_MAC_ReceiveRRC_ConnReqIn DefaultCell			Step 10

Continued on next page

		Test Case Dynamic	: Behaviour		
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
14		+ts_SendRRC_ConnecSetup( c_MAC_PDU_CCCH_TCTF ( tsc_CCCH_OnFACH_FDD), (tsc_UM_CCCH_Payloadsize ) ,8)			Step 13 Sent with correct TCTF '0100 0000'B
15		+ ts_SetCellCfg (tsc_DefaultCellId, cell_FACH_MAC_SRB0)			
16	TSP1	AM ? RLC_AM_DATA_IND	car_RRC_ConnSetupCmpl(t sc_CellDedicated, tsc_RB2,cr_108_RRC_Con nSetupCmpl (0, *))	(P)	Step 14
17		+lt_ReceiveIDT			
18	TBE	(tcv_TestBody := FALSE)			
		lt_ReceiveIDT			
19		[ tcv_CN_Domain = cs_domain ]			
20		Dc?RRC_DataInd	car_InitDirectTransfer_MAC (tsc_CellDedicated, tsc_RB3, tsc_SS_CS_Domain, cr_PagingResponseAny)		Receive the Initial direct Transfer Message for Paging Respons e
21		[ tcv_CN_Domain = ps_domain ]			
22		Dc?RRC_DataInd	car_InitDirectTransfer_MAC (tsc_CellDedicated, tsc_RB3, tsc_SS_PS_Domain, cr_ServiceRequestAny)		Receive the Initial direct Transfer Message for Service Request
Deta	iled Com	ments: 1. PAGE UE	1	1	

# **Test Case Dynamic Behaviour**

Test Case Name : tc\_7\_1\_1\_2

**Group** : MAC/MappingBetweenLoChAndTrCh/

Purpose : 1. To verify that the UE discards PDUs with reserved or incorrect values in the

TCTF field

2. To verify that the TCTF field, C/T field, UE-Id type and UE-Id field are correctly applied when a DTCH or DCCH is mapped to the RACH/FACH

Configuration :

Default : MAC\_Default Comments : Reference(s)

TS 25.321 clauses 9.2.1 and 9.2.1.1 c).

Selection Ref : AllUE

**Description**: DTCH or DCCH mapped to RACH/FACH / Invalid TCTF

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		START t_Guard( 300 )			
2		+ts_MAC_GenericSetupProceduresToBGP6_2Or 6_4			
3		+lt_TestBody			
4		+po_ConnectionAndSS_Rel( tsc_DefaultCellId)			
		lt_TestBody			
5	TBS	( tcv_TestBody := TRUE )			
6		+ts_SendDLDirectTransfer( tsc_RB_DCCH_FACH_MAC, c_MAC_PDU_TCTF( tsc_Reserved1_OnFACH_FDD, -), tsc_ExpectedPayloadSize-6,0)			2
7		+ts_MonitorUplinkSpecefiedTime (10)			3
8		+ts_SendDLDirectTransfer(tsc_RB_DCCH_F ACH_MAC, c_MAC_PDU_TCTF( tsc_DCCH_OnFACH_FDD, - ), tsc_ExpectedPayloadSize,0 )			4
9		+ts_ReceiveRRC_RLC_StatusPDU_FACH ( tsc_RB_DCCH_FACH_MAC, cr_SUFI_Params ( INT_TO_BIT (0,12) , INT_TO_BIT (0,12), *, *, ?, ?, ?, ) )			6
10		+ts_SendDLDirectTransfer(tsc_RB_DCC H_FACH_MAC, c_MAC_PDU_TCTF( tsc_Reserved3_OnFACH_FDD, -), tsc_ExpectedPayloadSize - 6,1)			2
11		+ts_MonitorUplinkSpecefiedTime (10)			3
12		+ts_SendDLDirectTransfer(tsc_RB_D CCH_FACH_MAC, c_MAC_PDU_TCTF( tsc_DCCH_OnFACH_FDD, -), tsc_ExpectedPayloadSize,1)			4
13		+ts_ReceiveRRC_RLC_StatusPDU_ FACH( tsc_RB_DCCH_FACH_MAC, cr_SUFI_Params(INT_TO_BIT (1,12), INT_TO_BIT (1,12),*,*,*,?, ?,?))			5

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	Test Case Dynamic Behaviour						
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments		
14		+ts_SendDLDirectTransfer(tsc_RB _DCCH_FACH_MAC,			2		
		c_MAC_PDU_TCTF(tsc_CTCH_O nFACH_FDD, - ), tsc_ExpectedPayloadSize - 6 ,2)					
15		+ts_MonitorUplinkSpecefiedTime (10)			3		
16		+ts_SendDLDirectTransfer(tsc_ RB_DCCH_FACH_MAC, c_MAC_PDU_TCTF( tsc_DCCH_OnFACH_FDD, - ),			4		
17		tsc_ExpectedPayloadSize,2)  +ts_ReceiveRRC_RLC_Status  PDU_FACH (  tsc_RB_DCCH_FACH_MAC,  cr_SUFI_Params (  INT_TO_BIT (2,12),  INT_TO_BIT (2,12), *, *, *, ?, ?,			5		
18		?)) +ts_SendDLDirectTransfer(t sc_RB_DCCH_FACH_MAC			2		
		c_MAC_PDU_TCTF( tsc_Reserved2_OnFACH_F DD, -), tsc_ExpectedPayloadSize - 6,3)					
19		+ts_MonitorUplinkSpecefi edTime (10)			3		
20		+ts_SendDLDirectTransf er(tsc_RB_DCCH_FAC H_MAC, c_MAC_PDU_TCTF( tsc_DCCH_OnFACH_F DD, -),			4		
		tsc_ExpectedPayloadSiz e,3)					
21		+ts_ReceiveRRC_RLC _StatusPDU_FACH ( tsc_RB_DCCH_FACH _MAC, cr_SUFI_Params ( INT_TO_BIT (3,12) , INT_TO_BIT (3,12), *,			5		
22		*, ?, ?, ?) ) +ts_SendDLDirectTra nsfer(tsc_RB_DCCH _FACH_MAC,			2		
		c_MAC_PDU_TCTF( tsc_Reserved4_OnF ACH_FDD, - ),					
		tsc_ExpectedPayload Size - 6,4)					

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	Test Case Dynamic Behaviour						
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments		
23		+ts_MonitorUplink SpecefiedTime (10)			3		
24		+ts_SendDLDirec tTransfer(tsc_RB _DCCH_FACH_ MAC,			4		
		c_MAC_PDU_TC TF( tsc_DCCH_OnFA CH_FDD, -),					
		tsc_ExpectedPayl oadSize,4)					
25		+ts_ReceiveRR C_RLC_Status PDU_FACH ( tsc_RB_DCCH _FACH_MAC, cr_SUFI_Param s (INT_TO_BIT (4,12), INT_TO_BIT (4,12), *, *, ?, ?, ?) )			5		
26	TBE	(tcv_TestBody := FALSE)					

Detailed Comments: 1. Receive PAGING RESPONSE in an RRC InitialDirectTransfer message on the high priority NAS AM DCCH and Acknowledge receipt of the AM RLC PDU with SN 0. (STEP 1)

> The paging response message is expected to fit into a single RLC PDU. This depends on the following:

- 1.1. The NAS PAGING RESPONSE message will be exactly 11 octets. This results from 7 octets of fixed length information, and since a TMSI is available, it shall be used as the mobile identity (4 octets)
- 1.3. The field measuredResultsOnRACH in InitialDirectTransfer will be omitted, because system information block 12 specifies that no measurement reports should be provided by the UE.
- 2. Send the dummy dl direct Transfer message with invalid MAC header (Step 2)
- 3. Monitor RACH for 10 seconds. If any activity test case fails. (Step 2a)
- 4 Send the dummy dl direct Transfer Message with correct MAC header (Step 3)
- 5. Receive RRC and RLC staus PDU's (Step 4 and 5)

**Test Case Name** : tc\_7\_1\_1\_3

**Group** : MAC/MappingBetweenLoChAndTrCh/

Purpose : 1. To verify that the UE discards PDUs with reserved or incorrect values in C/T

field.

2. To verify that the TCTF field, C/T field, UE-Id type and UE-Id field are correctly applied when a DTCH or DCCH is mapped to the RACH/FACH.

Configuration:

Default : MAC\_Default
Comments : Reference(s)

TS 25.321 clauses 9.2.1 and 9.2.1.1 c).

Selection Ref : AllUE

**Description**: DTCH or DCCH mapped to RACH/FACH / Invalid C/T Field

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		START t_Guard( 300 )			
2		+ts_MAC_GenericSetupProceduresToBGP6_2Or 6_4			
3		+lt_TestBody			
4		+po_ConnectionAndSS_Rel( tsc_DefaultCellId)			
		lt_TestBody			
5	TBS	( tcv_TestBody := TRUE )			
6		+ts_SendDLDirectTransfer( tsc_RB_DCCH_FACH_MAC, cs_MAC_PDU_CT(tsc_CT_LoCh8, -), tsc_ExpectedPayloadSize,0)			2
7		+ts_MonitorUplinkSpecefiedTime (10)			3
8		+ts_SendDLDirectTransfer(tsc_RB_DCCH_F ACH_MAC,			4
		cs_MAC_PDU_CT( tsc_CT_LoCh3, - ), tsc_ExpectedPayloadSize,0 )			
9		+ts_ReceiveRRC_RLC_StatusPDU_FACH ( tsc_RB_DCCH_FACH_MAC,     cr_SUFI_Params ( INT_TO_BIT (0,12) ,     INT_TO_BIT (0,12), *, *, ?, ?, ?) )			5
10		+ts_SendDLDirectTransfer(tsc_RB_DCC H_FACH_MAC, cs_MAC_PDU_CT( tsc_CT_Reserved, - ),			2
		tsc_ExpectedPayloadSize ,1 )			
11		+ts_MonitorUplinkSpecefiedTime (10)			3
12		+ts_SendDLDirectTransfer(tsc_RB_D CCH_FACH_MAC, cs_MAC_PDU_CT(tsc_CT_LoCh3, -), tsc_ExpectedPayloadSize,1)			4
13		+ts_ReceiveRRC_RLC_StatusPDU_ FACH ( tsc_RB_DCCH_FACH_MAC, cr_SUFI_Params (INT_TO_BIT (1,12), INT_TO_BIT (1,12), *, *, ?, ?, ?))			5
14	TBE	(tcv_TestBody := FALSE )			
	•			•	•

Detailed Comments: 1. Receive PAGING RESPONSE in an RRC InitialDirectTransfer message on the high

priority NAS AM DCCH.

# Detailed Comments : ...

The paging response message is expected to fit into a single RLC PDU. This

1. Receive PAGING RESPONSE in an RRC InitialDirectTransfer message on the high priority NAS AM DCCH and Acknowledge receipt of the AM RLC PDU with SN 0. (STEP 1)

The paging response message is expected to fit into a single RLC PDU. This depends on the following:

- 1.1. The NAS PAGING RESPONSE message will be exactly 11 octets. This results from 7 octets of fixed length information, and since a TMSI is available, it shall be used as the mobile identity (4 octets)
- 1.3. The field measuredResultsOnRACH in InitialDirectTransfer will be omitted, because system information block 12 specifies that no measurement reports should be provided by the UE.
- 2. Send the dummy dl direct Transfer message with invalid MAC header (Step 2)
- 3. Monitor RACH for 10 seconds. If any activity test case fails. (Step 2a)
- 4 Send the dummy dl direct Transfer Message with correct MAC header (Step 3)
- 5. Receive RRC and RLC staus PDU's (Step 4 and 5)

Test Case Name : tc\_7\_1\_1\_4

**Group** : MAC/MappingBetweenLoChAndTrCh/

Purpose : 1. To verify that the UE discards PDUs with reserved values in UE-Id type field

2. To verify that the TCTF field, C/T field, UE-Id type and UE-Id field are correctly applied when a DTCH or DCCH is mapped to the RACH/FACH

Configuration :

Default : MAC\_Default Comments : Reference(s)

TS 25.321 clauses 9.2.1 and 9.2.1.1 c).

Selection Ref : AllUE

**Description**: DTCH or DCCH mapped to RACH/FACH / Invalid UE ID Type Field

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		START t_Guard( 300 )			
2		+ts_MAC_GenericSetupProceduresToBGP6_2Or 6_4			
3		+lt_TestBody			
4		<pre>+po_ConnectionAndSS_Rel( tsc_DefaultCellId )</pre>			
		lt_TestBody			
5	TBS	( tcv_TestBody := TRUE )			
6		+ts_SendDLDirectTransfer( tsc_RB_DCCH_FACH_MAC,     cs_MAC_PDU_UE_IdType( tsc_UE_IdTypeReserved1,     -,tcv_CellInfoA.cRNTI),     tsc_ExpectedPayloadSize,0)			2
7		+ts_MonitorUplinkSpecefiedTime (10)			3
8		+ts_SendDLDirectTransfer(tsc_RB_DCCH_F ACH_MAC, cs_MAC_PDU_UE_IdType( tsc_UE_IdTypeC_RNTI, -, tcv_CellInfoA.cRNTI), tsc_ExpectedPayloadSize,0)			4
9		+ts_ReceiveRRC_RLC_StatusPDU_FACH ( tsc_RB_DCCH_FACH_MAC, cr_SUFI_Params ( INT_TO_BIT (0,12) , INT_TO_BIT (0,12), *, *, ?, ?, ?) )			5
10		+ts_SendDLDirectTransfer(tsc_RB_DCC H_FACH_MAC, cs_MAC_PDU_UE_IdType( tsc_UE_IdTypeReserved2, -, tcv_CellInfoA.cRNTI), tsc_ExpectedPayloadSize,1)			2
11		+ts_MonitorUplinkSpecefiedTime (10)			3
12		+ts_SendDLDirectTransfer(tsc_RB_D CCH_FACH_MAC, cs_MAC_PDU_UE_IdType( tsc_UE_IdTypeC_RNTI, -,tcv_CellInfoA.cRNTI), tsc_ExpectedPayloadSize,1)			4
13		+ts_ReceiveRRC_RLC_StatusPDU_ FACH ( tsc_RB_DCCH_FACH_MAC, cr_SUFI_Params ( INT_TO_BIT (1,12) , INT_TO_BIT (1,12), *, *, ?, ?, ?) )			5

	Test Case Dynamic Behaviour						
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments		
14	TBE	(tcv_TestBody := FALSE )					

Detailed Comments: 1. Receive PAGING RESPONSE in an RRC InitialDirectTransfer message on the high priority NAS AM DCCH and Acknowledge receipt of the AM RLC PDU with SN 0. (STEP 1)

> The paging response message is expected to fit into a single RLC PDU. This depends on the following:

- 1.1. The NAS PAGING RESPONSE message will be exactly 11 octets. This results from 7 octets of fixed length information, and since a TMSI is available, it shall be used as the mobile identity (4 octets)
- .3. The field measuredResultsOnRACH in InitialDirectTransfer will be omitted, because system information block 12 specifies that no measurement reports should be provided by the UE.
- 2. Send the dummy dl direct Transfer message with invalid MAC header (Step 2)
- 3. Monitor RACH for 10 seconds. If any activity test case fails. (Step 2a)
- 4 Send the dummy dl direct Transfer Message with correct MAC header (Step 3)
- 5. Receive RRC and RLC staus PDU's (Step 4 and 5)

Test Case Name : tc\_7\_1\_1\_5

Group : MAC/MappingBetweenLoChAndTrCh/

: 1. To verify that the UE ignores PDUs with UE-Ids that do not match the Id **Purpose** 

allocated to it.

2. To verify that the TCTF field, C/T field, UE-Id type and UE-Id field are correctly applied when a DTCH or DCCH is mapped to the RACH/FACH

Configuration

Default : MAC\_Default Comments : Reference(s)

TS 25.321 clauses 9.2.1 and 9.2.1.1 c).

**Selection Ref** 

Description : DTCH or DCCH mapped to RACH/FACH / Incorrect UE ID

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		START t_Guard( 300 )			
2		+ts_MAC_GenericSetupProceduresToBGP6_2Or 6_4			
3		+lt_TestBody			
4		+po_ConnectionAndSS_Rel( tsc_DefaultCellId)			
		lt_TestBody			
5	TBS	( tcv_TestBody := TRUE )			
6		+ts_SendDLDirectTransfer( tsc_RB_DCCH_FACH_MAC, cs_MAC_PDU_UE_Id( o_BitstringChange ( (o_BitstringChange( tcv_CellInfoA.cRNTI , 16, 15 )),16,14), - ), tsc_ExpectedPayloadSize,0 )			2
7		+ts_MonitorUplinkSpecefiedTime (10)			3
8		+ts_SendDLDirectTransfer(tsc_RB_DCCH_F ACH_MAC, cs_MAC_PDU_UE_Id( tcv_CellInfoA.cRNTI,-), tsc_ExpectedPayloadSize,0)			4
9		+ts_ReceiveRRC_RLC_StatusPDU_FACH ( tsc_RB_DCCH_FACH_MAC, cr_SUFI_Params( INT_TO_BIT (0,12) , INT_TO_BIT (0,12), *, *, ?, ?, ?) )			5
10	TBE	(tcv_TestBody := FALSE )			

Detailed Comments: 1. Receive PAGING RESPONSE in an RRC InitialDirectTransfer message on the high priority NAS AM DCCH and Acknowledge receipt of the AM RLC PDU with SN 0. (STEP 1)

> The paging response message is expected to fit into a single RLC PDU. This depends on the following:

- 1.1. The NAS PAGING RESPONSE message will be exactly 11 octets. This results from 7 octets of fixed length information, and since a TMSI is available, it shall be used as the mobile identity (4 octets)
- 1.3. The field measuredResultsOnRACH in InitialDirectTransfer will be omitted. because system information block 12 specifies that no measurement reports should be provided by the UE.
- 2. Send the dummy dl direct Transfer message with invalid MAC header (Step 2)
- 3. Monitor RACH for 10 seconds. If any activity test case fails. (Step 2a)
- 4 Send the dummy dl direct Transfer Message with correct MAC header (Step 3)
- 5. Receive RRC and RLC staus PDU's (Step 4 and 5)

Test Case Name : tc\_7\_1\_1\_8

**Group**: MAC/MappingBetweenLoChAndTrCh/

Purpose : 1. To verify that the UE discards PDUs with reserved or incorrect values in C/T

field.

2. To verify that the TCTF field, C/T field, UE-Id type and UE-Id field are correctly applied when a DTCH or DCCH is mapped to the RACH/FACH.

Configuration :

Default : MAC\_Default
Comments : Reference(s)

TS 25.321 clauses 9.2.1 and 9.2.1.1 b).

Selection Ref : AllUE

**Description**: DTCH or DCCH mapped to DCH / Invalid C/T Field

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		START t_Guard( 300 )			
2		+ts_GenericSetupProceduresToBGP6_1			
3		+lt_TestBody			
4		<pre>+po_ConnectionAndSS_Rel( tsc_DefaultCellId )</pre>			
		lt_TestBody			
5	TBS	( tcv_TestBody := TRUE )			
6		+ts_SendDLDirectTransfer( tsc_RB_DCCH_DCH_MAC, c_MAC_PDU_CT_DCH( tsc_CT_LoCh8, - ), tsc_ExpectedPayloadSize,0 )			2
7		+ts_MonitorUplinkSpecefiedTime (10)			3
8		<pre>+ts_SendDLDirectTransfer(tsc_RB_DCCH_ DCH_MAC,     c_MAC_PDU_CT_DCH( tsc_CT_LoCh3, - ),     tsc_ExpectedPayloadSize,0 )</pre>			4
9		+ts_ReceiveRRC_RLC_StatusPDU_DCH ( tsc_RB_DCCH_DCH_MAC, cr_SUFI_Params( INT_TO_BIT (0,12) , INT_TO_BIT (0,12), *, *, ?, ?, ?, ?) )			5
10		+ts_SendDLDirectTransfer(tsc_RB_DCC H_DCH_MAC, c_MAC_PDU_CT_DCH( tsc_CT_Reserved, - ), tsc_ExpectedPayloadSize ,1 )			2
11		+ts_MonitorUplinkSpecefiedTime (10)			3
12		+ts_SendDLDirectTransfer(tsc_RB_D CCH_DCH_MAC, c_MAC_PDU_CT_DCH( tsc_CT_LoCh3, -), tsc_ExpectedPayloadSize,1)			4
13		+ts_ReceiveRRC_RLC_StatusPDU_ DCH ( tsc_RB_DCCH_DCH_MAC, cr_SUFI_Params ( INT_TO_BIT (1,12) , INT_TO_BIT (1,12), *, *, ?, ?, ?) )			5
14	TBE	(tcv_TestBody := FALSE)			

**Detailed Comments**: 1. Receive PAGING RESPONSE in an RRC InitialDirectTransfer message on the high

priority NAS AM DCCH and Acknowledge receipt of the AM RLC PDU with SN 0. (STEP 1)

The paging response message is expected to fit into a single RLC PDU. This

# Detailed Comments : ...

depends on the following:

- 1.1. The NAS PAGING RESPONSE message will be exactly 11 octets. This results from 7 octets of fixed length information, and since a TMSI is available, it shall be used as the mobile identity (4 octets)
- 1.3. The field measuredResultsOnRACH in InitialDirectTransfer will be omitted, because system information block 12 specifies that no measurement reports should be provided by the UE.
- 2. Send the dummy dl direct Transfer message with invalid MAC header (Step 2)
- 3. Monitor RACH for 10 seconds. If any activity test case fails. (Step 2a)
- 4 Send the dummy dl direct Transfer Message with correct MAC header (Step 3)
- 5. Receive RRC and RLC staus PDU's (Step 4 and 5)

Test Case Name : tc\_7\_1\_2\_3\_1

Group : MAC/CorrectSelectionOfRACH\_Parameters/

Purpose : A1 the UE, initially:

- determines the ASC for the given Access Class (AC).

derives the available uplink access slots, in the next full access slot set, for the set of available
 RACH sub-channels within the given ASC with the help of TS 25.214, subclauses 6.1.1. and 6.1.2.

and randomly select one access slot among the ones previously determined.

- randomly select a new signature from the set of available signatures within the given ASC.

A2 the UE, when not receiving any reply from UTRAN:

- selects the next available access slot in the set of available RACH sub-channels within the given

ASC.

- randomly select a new signature from the set of available signatures within the given ASC.

- does not transmit on the PRACH resources specified in the BCH message SIB 5 after that the

physical random access procedure is terminated. A3 the UE, when detecting a negative acquisition indicator:

 ${\operatorname{\mathsf{-}}}$  does not transmit on the PRACH resources specified in the BCH message SIB 5 after that the

physical random access procedure is terminated.

A4 the UE, when detecting a positive acquisition indicator:

- transmits the random access message three or four uplink access slots after the uplink access slot

of the last transmitted preamble depending on the AICH transmission timing parameter.

- terminates the random access procedure

Configuration

Default : MAC\_Default

**Comments**: Correct Selection of RACH parameters

Selection Ref : FDD\_Mode

**Description**: Correct Selection of RACH parameters (FDD)

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		START t_Guard( 300 )			
2		[ px_CipheringOnOff = FALSE ]			
3		[ px_RAT =fdd ]			
4		+ ts_MMI_USIM_InsertTypeB			
5		+ts_RRC_InitVariables (cell_FACH)			
6		+ts_SS_CreateCellFACH( tsc_DefaultCellId)			
7		+ ts_SetTmpCellInfo(tsc_DefaultCellId)			
8		+ts_SendDefSysInfo( tsc_DefaultCellId)			
9		+ts_MAC_ModifySIB1_SIB5_And7( tsc_DefaultCellId, cd_SIB1_Def_N300(tcv_CellInfoA), cd_SIB5_MAC (tcv_CellInfoA), cd_SIB7_MAC_SIB5_DPL_1, tsc_Now)			
10		+ts_IdleUpdated ( tsc_DefaultCellId )			
11		+lt_TestBody			
12		+ ts_SetPRACH_Measurementmo deInDefaultCell ( stopMeas)			To Stop PRACH Measure ments
13		+po_ConnectionAndSS_Rel( tsc_DefaultCellId)			
14	TSE1	[ px_RAT = tdd ]		I	
15	TSE2	[TRUE]		1	
16	TSE3	[TRUE]		I	

	Test Case Dynamic Behaviour							
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments			
17 18	TBS	<pre>lt_TestBody ( tcv_TestBody := TRUE ) + ts_SetPRACH_MeasurementmodeInDefaultCell(s tartMeas)</pre>			To enable PRACH Measure Ment			
19		+ts_Set_AICH_ACKModeInDefaultCell( noAck )			Mode To configur e AICH for No Ack transfer			
20	TS1	+ts_RRC_PagType1_DefMAC( tsc_DefaultCellId)			Step 1			
21	TS2	+ ts_GetPRACH_PreambleMeasuremntReport InDefaultCell			Step 2			
22		[ ( 0 <= tcv_PRACH_PreambleSigUsed) AND ( tcv_PRACH_PreambleSigUsed <= 7) AND ( (tcv_PRACH_AccessSlotUsed = 0) OR (tcv_PRACH_AccessSlotUsed = 3) OR (tcv_PRACH_AccessSlotUsed = 6) OR (tcv_PRACH_AccessSlotUsed = 9) OR (tcv_PRACH_AccessSlotUsed = 12) ) ]						
23		( tcv_PRACH_ExpAccessSlot := ( (tcv_PRACH_AccessSlotUsed + 3) MOD 15), tcv_K :=4)						
24	TS3to 6	REPEAT It_GetPreambleMeasurement UNTIL [ tcv_K = 0 ]			Step 3-6			
25	TS7	START t_WaitS( tsc_WaitNoRACHTransmission)			Step 7			
26	T0.4.0	? TIMEOUT t_WaitS		(P)	0 "			
27	TS10	+ts_Set_AICH_ACKModeInDefa ultCell( negACK )			Configur e AICH for Negative Ack			
28	TS8	+ts_RRC_PagType1_DefMAC ( tsc_DefaultCellId)			Step 8			
29	TS9	+ ts_GetPRACH_PreambleMeas uremntReportInDefaultCell			Step 9			

		Test Case Dynamic Be	ehaviour		
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
30		[ ( 0 <= tcv_PRACH_PreambleSigU sed) AND ( tcv_PRACH_PreambleSigU sed <= 7) AND ( (tcv_PRACH_AccessSlotUs ed = 0) OR (tcv_PRACH_AccessSlotUs ed = 3) OR (tcv_PRACH_AccessSlotUs ed = 6) OR (tcv_PRACH_AccessSlotUs ed = 6) OR (tcv_PRACH_AccessSlotUs ed = 9) OR (tcv_PRACH_AccessSlotUs ed = 9) OR (tcv_PRACH_AccessSlotUs ed = 12) \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \			
31	TS11	ed = 12) )]  START t_WaitS ( tsc_WaitNoRACHTransmis sion)			Step 11
32		? TIMEOUT t_WaitS		(P)	
33	TS14	+ts_Set_AICH_ACKM odeInDefaultCeII( normal)			configur e AICH for normal operatio n
34	TS12	+ts_RRC_PagType1_ DefMAC ( tsc_DefaultCellId)			Step 12
35	TS13	+ ts_GetPRACH_Pre ambleMeasuremntR eportInDefaultCell			Step 13
36		[(0 <= tcv_PRACH_Prea mbleSigUsed) AND ( tcv_PRACH_Prea mbleSigUsed <= 7) AND ( (tcv_PRACH_Acc essSlotUsed = 0) OR (tcv_PRACH_Acc essSlotUsed = 3) OR (tcv_PRACH_Acc essSlotUsed = 6) OR (tcv_PRACH_Acc essSlotUsed = 6) OR (tcv_PRACH_Acc essSlotUsed = 9) OR (tcv_PRACH_Acc essSlotUsed = 9) OR (tcv_PRACH_Acc essSlotUsed = 12) )]			

		Test Case Dynamic	Behaviour		
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
37		( tcv_PRACH_Ex pAccessSlot := (  (tcv_PRACH_A ccessSlotUsed + 3) MOD 15), tcv_K := tcv_K			
38		-1) CPHY? CPHY_PRAC H_Measureme nt_Report_IN D ( tcv_PRACH_ AccessSlotUse d :=CPHY_PRA CH_Measurem ent_Report_I ND.measureme ntReport_used PRACH_Aces sSlot)	car_PRACH_Measurement_ Report_IND( tsc_DefaultCellId, tsc_PRACH1, ?)		
39		[( tcv_PRACH _AccessSlot Used = tcv_PRACH _ExpAccess Slot)]		(P)	
40		TM ? RLC_TR_D ATA_IND	car_RRC_ConnReq (tsc_DefaultCellId, tsc_RB0, cbr_108_RRC_ConnReq ( tcv_RRC_EstCauMT ))		Step 15
41		TM ? RLC_TR_DAT A_IND	car_RRC_ConnReq (tsc_DefaultCellId, tsc_RB0, cbr_108_RRC_ConnReq ( tcv_RRC_EstCauMT		If RACH dta comes ahead of PRACH Report Step 15

Test Case Dynamic Behaviour							
el	Behaviour Description	Constraints Ref	Verdict	Comments			
	CPHY? CPHY_PRA CH_Measure ment_Report _IND (	car_PRACH_Measurement_ Report_IND( tsc_DefaultCellId, tsc_PRACH1, ?)					
	_AccessSlot Used :=CPHY_PR ACH_Measu rement_Rep ort_IND.mea surementRep ort.usedPRA CH_AcessSl						
	[( tcv_PRAC H_AccessS lotUsed = tcv_PRAC H_ExpAcc		(P)				
	START t_WaitS ( tsc_Wait NoRACH			Step 16			
	? TIMEO UT t WaitS		(P)				
	nt_Rep ort_IN D.meas urement Report. usedPR						
	el	CPHY? CPHYPRA CH_Measure ment_Report _IND ( tov_PRACH _AccessSlot Used :=CPHY_PR ACH_Measure rement_Rep ort_IND.mea surementRep ort_usedPRA CH_AcessSl ot) [( tov_PRAC H_AccessSl ot)sed = tov_PRAC H_ExpAcc essSlot)] START t_WaitS ( tsc_Wait NoRACH Transmiss ion ) ? TIMEO UT t_WaitS CPHY ? CPHY_ PRACH _Measu rement _Report _IND ( tov_PRAC H_ExpAcc essSlot)] CPHY ? CPHY_ PRACH _Measu rement _Report_IND ( tov_PRAC H_ExpAcc UT t_WaitS CPHY ? CPHY_PRACH _Measu rement _Report_IND _D.meas urement Report_IN _D.meas urement Report_IN _D.meas urement Report_IN _D.meas urement Report_IN _D.meas urement _Report_IN _D.meas	CPHY ? CPHY_PRA CH_Measurement_Report_IND( tot_PRACH _AccessSlot Used				

		Test Case Dynamic	Behaviour		
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
48		CAN CEL t_Wai tS		F	If preamble received Test Case fails If signatur e or Access slot used is diferent from allowed to use
49		CPHY? CPHY_PRACH_Measure ment_Report_IND ( tcv_PRACH_AccessSlot Used :=CPHY_PRACH_Measu rement_Report_IND.mea surementReport.usedPR ACH_AcessSlot)	car_PRACH_Measurement_ Report_IND( tsc_DefaultCellId, tsc_PRACH1, ?)		FAIL
50		CANCEL t_WaitS		F	If preamble received Test Case fails
51		[TRUE]		F	If signatur e or Access slot used is diferent from allowed to use FAIL
52		CPHY? CPHY_PRACH_Measurement_Rep ort_IND (tcv_PRACH_AccessSlotUsed :=CPHY_PRACH_Measurement_R eport_IND.measurementReport.use dPRACH_AcessSlot)	car_PRACH_Measurement_ Report_IND( tsc_DefaultCellId, tsc_PRACH1, ?)		
53		CANCEL t_WaitS		F	If preamble received Test Case fails

	Test Case Dynamic Behaviour								
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments				
54		[TRUE]		F	If signatur e or Access slot used is diferent from allowed to use FAIL				
		lt_GetPreambleMeasurement							
55		+ ts_GetPRACH_PreambleMeasuremntReportInDefa ultCell							
56		[ ( 0 <= tcv_PRACH_PreambleSigUsed) AND ( tcv_PRACH_PreambleSigUsed <= 7) AND ( tcv_PRACH_AccessSlotUsed = tcv_PRACH_ExpAccessSlot) ]							
57		( tcv_PRACH_ExpAccessSlot := (   (tcv_PRACH_AccessSlotUsed + 3) MOD 15),   tcv_K := tcv_K -1)							
58		[TRUE]		F					
Deta	iled Com	ments:							

Test Case Name : tc\_7\_1\_2\_4a

Group : MAC/CorrectSelectionOfRACH\_Parameters/
Purpose : To verify that MAC selects ASC correctly.

Configuration :

Default : MAC\_Default

**Comments** : TS 25.321 clause 11.2.1

Selection Ref : RRC\_FDD\_PS

**Description**: Access Service class selection for RACH transmission

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		START t_Guard( 300 )			
2		[ px_CipheringOnOff = FALSE ]			
3		[ px_RAT =fdd ]			
4		+ts_RRC_InitVariablesPS ( cell_FACH )			
5		+ts_SS_CreateCellFACH (tsc_DefaultCellId )			
6		+ ts_SS_RB20_AM_PS_Rel_Cfg_NoTimer Poll			
7		+ts_SendDefSysInfo (tsc_DefaultCellId )			
8		+ts_IdleUpdated ( tsc_DefaultCellId )			
9		+ts_RRC_PagType1_DefMAC ( tsc_DefaultCellId)			
10		+ts_RRC_ConnEst( tsc_DefaultCellId, est_MT, tcv_RRC_EstCauMT)			
11		Dc?RRC_DataInd (tcv_CellIndInfo.start_PS:= RRC_DataInd.start)	car_PS_InitDirectTransfer ( tsc_CellDedicated, tsc_RB3, cr_ServiceRequest ( c_ServiceType_v(?), *,? ) )		SERVIC E REQUE ST
12		+ ts_RRC_Security( tsc_DefaultCellId, tcv_PS_AuthCK, tcv_PS_AuthIK, tcv_AuthKcGSM, FALSE, tcv_CN_Domain)			Do Security Procedu re to Initiate Integrity Protecti on if enabled by the PICS.
13		+ ts_TC_ActivateRB_TestMode ( tsc_DefaultCellId )			
14		( tcv_CellInfoA.cRNTI := '1010101010101010'B)			

		Test Case Dyna	mic Behaviour		
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
15		AM! RLC_AM_DATA_REQ	cas_RB_SetUpAM( tsc_CellDedicated, tsc_RB2, cds_MAC_RB_SetUpFACH _PS (  tcv_CellIndInfo.dl_Integrity CheckInfo, tcv_RRC_Ti, tcv_RAB_Id, tcv_CellInfoA.cRNTI ))		
16		+ ts_RRC_Delay (80)	"		
17		+ts_CMAC_New_RN _Reconf ( FALSE, tsc_CellA, tcv_CellInfoA.uRNTI	,		
18	TSP	+ ts_RRC_ReceiveR SetupCmpl ( tsc_DefaultCellId, cell_FACH_PS)			
19		+ ts_TC_CloseUE_ stLoop ( tsc_Cell tsc_UE_TestLoo ode1, c_UE_TestLoop! de1_LB_Setup ( 312, tsc_RB20)	A, pM Mo		
21		+It_LocalTest + ts_SetPRACI Measuremen deInDefaultC stopMeas)	tmo ell (		To Stop Prach Measure ment
22		+po_Conne onAndSS_f tsc_Default IId)	Rel(		
23	TSE1	[ px_RAT = tdd ]		ı	
24	TSE2	[TRUE]		1	
25	TSE3	[TRUE]		1	
26		It_LocalTest AM ! RLC_AM_TestDataReq	cas_RLC_AM_DataReq( tsc_CellDedicated, tsc_RB20, c_TrD_Data ( o_OctToBit(tsc_TestData10 B)) )		Step 1
27		AM ? RLC_AM_TestDataInd	car_RLC_AM_DataInd ( tsc_CellDedicated, tsc_RB20, c_TrD_Data (o_OctToBit(tsc_TestData3 9B)))		Step 1a Commm ent 1

		Test Case Dynamic	Behaviour		
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
28		+ts_SendModifiedSysInfo_Sib6( cd_SIB6_MAC_1ASC ( tcv_CellInfoA ), tsc_DefaultCellId )			Step 2
29		START t_WaitMS (tsc_WaitBeforePaging )			Wait for UE to take changes in System info.
30		? TIMEOUT t_WaitMS		(P)	
31		+ ts_SetPRACH_MeasurementmodeInDefau ItCell ( startMeas)			
32		AM ! RLC_AM_TestDataReq	cas_RLC_AM_DataReq( tsc_CellDedicated, tsc_RB20, c_TrD_Data (o_OctToBit(tsc_TestData1 0B)))		Step 3
33		+ ts_ReceiveLoopBackDataAndCheckAS C (tsc_RB20, '0010'B, c_TrD_Data (o_OctToBit(tsc_TestData39B)), OMIT )			Step 4
34		+ts_SendModifiedSysInfo_Sib6 ( cd_SIB6_MAC_4ASC ( tcv_CellInfoA ), tsc_DefaultCellId )			step 5
35		START t_WaitMS ( tsc_WaitBeforePaging)			Wait for UE to take changes in System
00		O TIMEOUT 4 M/s-MMO		(D)	info.
36		? TIMEOUT t_WaitMS AM ! RLC_AM_TestDataReq	cas_RLC_AM_DataReq( tsc_CellDedicated, tsc_RB20, c_TrD_Data (o_OctToBit(tsc_TestData1 0B_2) ))	(P)	Step 6
38		START t_WaitS ( tsc_WaitNoRACHTransmissio n )			Step 6a
39		? TIMEOUT t_WaitS		(P)	
40		+lt_RadioBeareReconfig			Step 7
41		AM ! RLC_AM_TestDataReq	cas_RLC_AM_DataReq( tsc_CellDedicated, tsc_RB20, c_TrD_Data( o_OctToBit(tsc_TestData10 B)) )		Step 8

		Test Case Dynamic	Behaviour		
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
42		+ ts_ReceiveLoopBackDa taAndCheckASC (tsc_RB20, '0001'B, c_TrD_Data (o_OctToBit(tsc_TestD ata39B_2)), c_TrD_Data (o_OctToBit(tsc_TestD ata39B_3))			Step 9
43		+ ts_GetPRACH_PreambleMe asuremntReportInDefaultCell			
44		CANCEL t_WaitS		F	If preamble received Test Case fails
		lt_RadioBeareReconfig			
45		AM!RLC_AM_DATA_REQ	cas_RB_Reconfigure( tsc_CellDedicated, tsc_RB2,		step 1 in prose;
			cs_RB_ReconfigFACH_PS_ MAC (		CELL_F
			tcv_CellIndInfo.dl_Integrity CheckInfo, tcv_RRC_Ti, OMIT,		UL:32k DL 32k status to CELL_F ACH
			tcv_CellInfoA.frequencyInfo		UL:32k DL:32k
			tcv_CellInfoA.priScrmCode ))		
46		(tcv_LP_DataReceived := FALSE , tcv_RBReconfCmplRecvd := FALSE)	"		step 3 in prose;
47		START t_WaitMS			
48	Loop1	CPHY? CPHY_PRACH_Measurement_Report_IND (tcv_PRACH_PreambleSigUsed :=CPHY_PRACH_Measurement_Report_IND .measurementReport.usedPRACH_Signature, tcv_PRACH_AccessSlotUsed :=CPHY_PRACH_Measurement_Report_IND .measurementReport.usedPRACH_AccessSlot )	car_PRACH_Measurement_ Report_IND( tsc_DefaultCellId, tsc_PRACH1, cs_PRACH_PreamMeasRep )		to receive Preambl e measure ment
49		[ ( 0 <= tcv_PRACH_PreambleSigUsed) AND ( tcv_PRACH_PreambleSigUsed <= 7) AND			
50		(tcv_PRACH_ExpAccessSlot := ( (tcv_PRACH_AccessSlotUsed + 3) MOD 15))			

		Test Case Dynamic	Behaviour		
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
51		CPHY? CPHY_PRACH_Measurement_Report_I ND [CPHY_PRACH_Measurement_Report_ IND.measurementReport.usedPRACH_A cessSlot = tcv_PRACH_ExpAccessSlot ]	car_PRACH_Measurement_ Report_IND( tsc_DefaultCellId, tsc_PRACH1, cs_PRACH_MsgMeasRep)		
52		AM ? RLC_AM_DATA_IND ( tcv_RBReconfCmplRecvd := TRUE)	car_RB_ReconfCmpl ( tsc_CellDedicated, tsc_RB2, cr_108_RB_ReconfCmpl ( tcv_RRC_Ti, OMIT))	(P)	
53		[ (tcv_LP_DataReceived = TRUE) AND ( tcv_RBReconfCmplRecvd = TRUE) ]			break loop
54		CANCEL t_WaitMS			
55		[TRUE]			
56		-> Loop1			
57		AM ? RLC_AM_TestDataInd (tcv_LP_DataReceived := TRUE)	car_RLC_AM_DataInd ( tsc_CellDedicated, tsc_RB20, c_TrD_Data (o_OctToBit(tsc_TestData3 9B_2)))	(P)	
58		[ (tcv_LP_DataReceived = TRUE) AND ( tcv_RBReconfCmplRecvd = TRUE) ]			break loop
59		CANCEL t_WaitMS			
60		[TRUE]			
61		-> Loop1			
62		AM ? RLC_AM_DATA_IND ( tcv_RBReconfCmplRecvd := TRUE)	car_RB_ReconfCmpl ( tsc_CellDedicated, tsc_RB2, cr_108_RB_ReconfCmpl ( tcv_RRC_Ti, OMIT))		
63		CPHY? CPHY_PRACH_Measurement_Report _IND [CPHY_PRACH_Measurement_Report _IND.measurementReport.usedPRACH _AcessSlot = tcv_PRACH_ExpAccessSlot]	car_PRACH_Measurement_ Report_IND( tsc_DefaultCellId, tsc_PRACH1, cs_PRACH_MsgMeasRep)	(P)	
64		[ (tcv_LP_DataReceived = TRUE) AND ( tcv_RBReconfCmplRecvd = TRUE) ]			break loop
65		CANCEL t_WaitMS			
66		[ TRUE]			
67		-> Loop1			
68		AM ? RLC_AM_TestDataInd (tcv_LP_DataReceived := TRUE)	car_RLC_AM_DataInd ( tsc_CellDedicated, tsc_RB20, c_TrD_Data (o_OctToBit(tsc_TestData3 9B_2)))		

	Test Case Dynamic Behaviour								
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments				
69		CPHY? CPHY_PRACH_Measurement_Report _IND [CPHY_PRACH_Measurement_Report _IND.measurementReport.usedPRACH _AcessSlot = tcv_PRACH_ExpAccessSlot]	car_PRACH_Measurement_ Report_IND( tsc_DefaultCellId, tsc_PRACH1, cs_PRACH_MsgMeasRep)	(P)					
70		[ (tcv_LP_DataReceived = TRUE) AND ( tcv_RBReconfCmplRecvd = TRUE) ]			break loop				
71		CANCEL t_WaitMS							
72		[TRUE]							
73		-> Loop1							
74		[TRUE]		(F)					
75	TSF1	? TIMEOUT t_WaitMS							
76		[ tcv_RBReconfCmplRecvd = TRUE]		(P)					
77		[TRUE]		(F)					

**Detailed Comments**: 1. with MLP =8, and Num ASC =7, ASC=7 and assignedSubChannelNumber = '1111'B, the reception of RLC loop back data is sufficient to prove it has ben received on correct ASC.

Test Case Name : tc\_7\_1\_3\_1

**Group**: MAC/PriorityHandlingBetweenDataFlowsOfOneUE/

Purpose : To verify that the UE Prioritises signalling to data on a lower priority logical channel

Configuration :

Selection Ref

Default : RRC\_Def1,RLC\_Default
Comments : TS 25.321 clause 11.4
25.301 clause 5.3.1.2

: AllUE

**Description**: Priority Handling between data flows of one UE

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		START t_Guard( 300 )			
2		[ px_CipheringOnOff = FALSE ]			
3		$[px_RAT = fdd]$			
4		+pr_GenericSetupProcedures			
5		<pre>+ts_RRC_SetUpRAB_UM_7_RLC ( tsc_DefaultCellId, tcv_RAB_Id, cbs_DefaultRLC_InfoUM)</pre>			Step 3–4
6		<pre>+pr_CloseUE_TestLoop( tsc_UL_SDU_Size7_1_3_1)</pre>			Step 5–6
7	TBS	( tcv_TestBody := TRUE )			
8		+lt_LocalTest			
9	TBE	(tcv_TestBody := FALSE )		(P)	
10		<pre>+ts_TC_DeactivateRB_TestMode( tsc_DefaultCellId)</pre>			
11		<pre>+po_ConnectionAndSS_Rel( tsc_DefaultCellId )</pre>			
12		$[px_RAT = tdd]$		1	
13		[TRUE]		1	
14		[TRUE]			
		It_LocalTest			
15		AM!RLC_AM_DATA_REQ	cas_TFC_ControlAM ( tsc_CellDedicated, tsc_RB2, cs_TransportFormatCombC trl (tcv_CellIndInfo.dl_Integrity CheckInfo, tcv_RRC_Ti, C_TFC_RestrictUE_0_1_2) )		Step 7
16		+ It_SendData			
17		+ It_ReceiveRLC_DataMeasurementReport			
		It_SendData			
18		AM!RLC_AM_DATA_REQ	cas_MeasurementControl (tsc_CellDedicated, tsc_RB2, cs_MeasurementControlTraf ficVolumeSetup (tcv_CellIndInfo.dl_Integrity CheckInfo, tcv_RRC_Ti) )		Transmit the Traffic Volume Measeur ement Control on DCH 1. Step 8

		Test Case Dynamic	Behaviour		
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
19		TM! TxMAC	cas_DataReqRAB(tsc_RB_ UM_7_RLC, c_UMD_LIs(0, c_LIs2_7BitLIs(39,tsc_LI7_ Padding), o_OctToBit(tsc_DataTx_7_ 1_3_1) ))		Step 9
20		It_ReceiveRLC_DataMeasurementReport [TRUE]			
21	Loop1	AM ? RLC_AM_DATA_IND	car_MeasRepAM (tsc_CellDedicated, tsc_RB2, cr_RRC_MeasRepTV		receive any measure ment reports before actual
22		GOTO Loop1			loop backed PDU receptio
23		TM ? RxMAC START t_WaitMS(500)	car_DataReqRAB(tsc_RB_U M_7_RLC, c_UMD(tcv_SQN_Received ,?))		First Uplink Loop Backed PDU, it will not have any LI and Padding
24		(tcv_SQN_Received := tcv_SQN_Received +1)			Increme nt sequenc e number
25		+lt_ReceiveRLC_DataMeasurementReportCo ntinue			
		It_ReceiveRLC_DataMeasurementReportContinue			
26 27 27	Loop2	TRUE ]  AM ? RLC_AM_DATA_IND CANCEL t_WaitMS  +lt_Clean	car_MeasRepAM (tsc_CellDedicated, tsc_RB2, cr_RRC_MeasRepTV	(P)	The Measure ment Report received within 500 ms of First UL Data
29		TM ? RxMAC	car_DataReqRAB(tsc_RB_U M_7_RLC, c_UMD(tcv_SQN_Received , ?))		Continu e receiving loop backed PDU's

		Test Case Dynamic	Behaviour		
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
30		(tcv_SQN_Received := tcv_SQN_Received +1)			Increme nt sequenc e number
31 32		GOTO Loop2 ? TIMEOUT t_WaitMS		(F)	Measure ment Report not transmit ted within 500 ms hence Fail
33		+lt_Clean			
34		It_Clean AM!RLC_AM_DATA_REQ	cas_MeasurementControl (tsc_CellDedicated, tsc_RB2, cs_MeasurementControlTraf ficVolumeRelease (tcv_CellIndInfo.dl_Integrity CheckInfo, tcv_RRC_Ti) )		Transmit the Traffic Volume Measeur ement Control to stop on DCH 1.
35	Loop3	TM ? RxMAC	car_DataReqRAB(tsc_RB_U M_7_RLC, c_UMD_LIs(24, c_LIs1_7BitLI (40) ,? ))	(P)	Last Loop backed PDU, with one LI 40 (320 Bits) and Sequenc e number 24 (i.e 25 PDU) received
36		TM ? RxMAC	car_DataReqRAB(tsc_RB_U M_7_RLC, c_UMD(tcv_SQN_Received , ?))		Continu e receiving loop backed PDU's
37		(tcv_SQN_Received := tcv_SQN_Received +1)			Increme nt sequenc e number
38 39		[ tcv_SQN_Received <= 24 ] GOTO Loop3			number

# Continued from previous page

	Test Case Dynamic Behaviour								
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments				
40		[ tcv_SQN_Received > 24 ]		(F)	Error occured in loop back PDU's				
Deta	iled Com	ments: 1. with MLP =8, and Num ASC =7, ASC=7 an reception of RLC loop back data is sufficient t 3. the 39 byte 312 bit PDU is transmitted. 312 this the first PDU to be transmitted on this RA 4.	o prove it has ben received on $cc$ + 2 Ll's(16) = 328 the payload s	orrect ASC.					

**Test Step Name**: ts\_MAC\_GenericSetupProceduresToBGP6\_2Or6\_4

Group : Preambles/

**Objective**: Initialise the system simulator, and perform the RRC connection establishment

procedure defined in 3G TS 34.108 clause 7.4.2.1 to bring the UE into state BGP

6\_2.

Default : RRC\_Def1

Comments : This preamble configures the system simulator for MAC testing, and

then performs the Generic setup procedures as defined in 3G TS 34.108.

Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		[ px_CipheringOnOff = FALSE ]			
2		[px_RAT =fdd]			
3		+ts_RRC_InitVariables (cell_FACH)			1
4		+ts_InitDummyDL_Transfer			
5		+ts_SS_CreateCellFACH( tsc_DefaultCellId)			2
6		+ts_SendDefSysInfo( tsc_DefaultCellId )			2
7		+ts_ldleUpdated ( tsc_DefaultCellId )			3
8		+lt_ReconfigureHiPriNAS_AsTranspare nt			
9		+ts_RRC_PagType1_DefMAC ( tsc_DefaultCellId)			4
10		+ts_RRC_ConnEstForMAC_RecIni TDirecTrans( tsc_DefaultCellId)			4
11		( tcv_ReceiveSigConnRelInd := TRUE )			
12	TSE1	[ px_RAT = tdd ]		1	5
13	TSE2	[TRUE]		1	6
14	TSE3	[TRUE]		1	7
		lt_ReconfigureHiPriNAS_AsTransparent			
15		+ts_CRLC_Rel( tsc_CellDedicated, tsc_RB3 )			9
16		CMAC ! CMAC_Config_REQ	ca_CMAC_ReconfigInfoAct Now( tsc_DefaultCellId, tsc_S_CCPCH1, c_UE_Info( tcv_TmpCellInfo.uRNTI, tcv_TmpCellInfo.cRNTI), c_TrChInfoPCH_FACH,		8
17		CMAC ? CMAC_Config_CNF	c_TrLogMapping_PchFach1 TransRB3) ca_CMAC_CfgCnf(tsc_DefaultCellId, tsc_S_CCPCH1)		

		Test Step Dynam	ic Behaviour		
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
18		CMAC ! CMAC_Config_REQ	ca_CMAC_ReconfigInfoAct Now( tsc_DefaultCellId, tsc_PRACH1, c_UE_Info( OMIT, tcv_TmpCellInfo.cRNTI), cb_TrChInfoRACH1,		8
			c_TrLogMapping_Rach1Tran sRB3)		
19		CMAC ? CMAC_Config_CNF	ca_CMAC_CfgCnf(tsc_Def aultCellId, tsc_PRACH1)		
20		CRLC ! CRLC_Config_REQ	ca_RB_TM_Info( tsc_CellDedicated,		9
			tsc_RB_DCCH_FACH_MA C, 168, { uLlogicalChannelIdentity tsc_UL_DCCH3, dLlogicalChannelIdentity tsc_DL_DCCH3 })		
21		CRLC ? CRLC_Config_CNF	ca_CRLC_CfgCnf( tsc_CellDedicated,  tsc_RB_DCCH_FACH_MA		
22		+ts_SetCellCfg ( tsc_DefaultCellId, cell_FACH_MAC_SRB_NoConn )	C)		

- **Detailed Comments**: 1. Initialise test case variables ready for system simulator configuration.
  - 2. Initialise system simulator with SRBs ready for RRC connection establishment on FACH. Start system information broadcast using the default system information messages.
  - 3. Perform idle updated procedure on FACH.
  - 4. Page UE, and complete mobile terminated RRC connection establishment on FACH. (Ref 3G TS 34.108 clause 7.1.2)
  - 5. Generic setup procedures for TDD are not implemented yet. This value of px\_RAT results in final inconclusive verdict
  - 6. Unexpected value of px\_RAT provided.
  - 7. This test must be performed with integrity off to ensure that the paging response message fits in a single RLC PDU.
  - 8. Reconfigure the MAC for SCCPCH and PRACH to set the macHeaderManipulation field to 'OmitMacHeader' for RB3. This allows the MAC header information to be specified by the TTCN for transmitted PDUs, and inspected by the TTCN for received PDUs.

NOTE: The 'reconfigure' option in CMAC\_Config\_REQ is still being discussed. It may be necessary in future to release the MAC layers for these physical channels, and then setup new MAC layers with transparent RB3.

9. Release the RLC entity for RB3, and setup a new RLC entity using transparent mode. This allows the RLC header information to be specified for transmitted

Detailed Comments : ...

PDUs, and inspected for received PDUs. This is required to support the transparent MAC configuration described above.

**Test Step Name**: ts\_GenericSetupProceduresToBGP6\_1

Group : Preambles/

**Objective**: Initialise the system simulator, and perform the RRC connection establishment

procedure defined in 3G TS 34.108 clause 7.4.2.1 to bring the UE into state BGP

6\_1.

Default : RRC\_Def1

**Comments**: This preamble configures the system simulator for MAC testing, and

then performs the Generic setup procedures as defined in 3G TS 34.108.

Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		[ px_CipheringOnOff = FALSE ]			
2		[ px_RAT =fdd ]			
3		+ts_RRC_InitVariables (cell_DCH)			1
4		+ts_InitDummyDL_Transfer			
5		+ts_SS_CreateCellDCH ( tsc_DefaultCellId )			2
6		+ts_SendDefSysInfo( tsc_DefaultCellId )			2
7		+ts_IdleUpdated ( tsc_DefaultCellId )			3
8		+lt_ReconfigureHiPriNAS_AsTranspare nt			
9		<pre>+ts_RRC_PagType1_DefMAC (     tsc_DefaultCellId)</pre>			4
10		+ts_RRC_ConnEstForMAC_RecIni TDirecTrans( tsc_DefaultCeIIId)			4
11		( tcv_ReceiveSigConnRelInd := TRUE )			
12	TSE1	[ px_RAT = tdd ]		1	5
13	TSE2	[TRUE]		1	6
14	TSE3	[TRUE]		1	7
		lt_ReconfigureHiPriNAS_AsTransparent			
15		+ts_CRLC_Rel( tsc_CellDedicated, tsc_RB3 )			9
16		CMAC ! CMAC_Config_REQ	ca_CMAC_ReconfigInfo( tsc_CellDedicated, tsc_DL_DPCH1, c_UE_Info( tcv_TmpCellInfo.uRNTI, tcv_TmpCellInfo.cRNTI),		8
			c_TrChInfoDL_13_6_Stand Alone,		
			c_TrLogMappingDL_4DCC H_TransRB3, 0)		
17		CMAC ? CMAC_Config_CNF	ca_CMAC_CfgCnf(tsc_Cell Dedicated, tsc_DL_DPCH1 )		

	Test Step Dynamic Behaviour							
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments			
18		CMAC ! CMAC_Config_REQ	ca_CMAC_ReconfigInfo( tsc_CellDedicated, tsc_UL_DPCH1, c_UE_Info( tcv_TmpCellInfo.uRNTI, tcv_TmpCellInfo.cRNTI),		8			
			c_TrChInfoUL_13_6_Stand Alone,					
			c_TrLogMappingUL_4DCC H_TransRB3, 0)					
19		CMAC ? CMAC_Config_CNF	ca_CMAC_CfgCnf(tsc_Cell Dedicated, tsc_UL_DPCH1)					
20		CRLC ! CRLC_Config_REQ	ca_RB_TM_Info( tsc_CellDedicated,		9			
			tsc_RB_DCCH_DCH_MAC , 148, {     uLlogicalChannelIdentity tsc_UL_DCCH3,     dLlogicalChannelIdentity tsc_DL_DCCH3 } )					
21		CRLC ? CRLC_Config_CNF	ca_CRLC_CfgCnf( tsc_CellDedicated,					
			tsc_RB_DCCH_DCH_MAC )					
22		<pre>+ts_SetCellCfg ( tsc_DefaultCellId, cell_DCH_MAC_SRB_NoConn )</pre>						

**Detailed Comments**: 1. Initialise test case variables ready for system simulator configuration.

- Initialise system simulator with SRBs ready for RRC connection establishment on FACH. Start system information broadcast using the default system information messages.
- 3. Perform idle updated procedure on FACH.
- 4. Page UE, and complete mobile terminated RRC connection establishment on FACH. (Ref 3G TS 34.108 clause 7.1.2)
- Generic setup procedures for TDD are not implemented yet. This value of px\_RAT results in final inconclusive verdict
- 6. Unexpected value of px\_RAT provided.
- 7. This test must be performed with integrity off to ensure that the paging response message fits in a single RLC PDU.
- Reconfigure the MAC for SCCPCH and PRACH to set the macHeaderManipulation field to 'OmitMacHeader' for RB3. This allows the MAC header information to be specified by the TTCN for transmitted PDUs, and inspected by the TTCN for received PDUs.

NOTE: The 'reconfigure' option in CMAC\_Config\_REQ is still being discussed. It may be necessary in future to release the MAC layers for these physical channels, and then setup new MAC layers with transparent RB3.

## Detailed Comments : ...

 Release the RLC entity for RB3, and setup a new RLC entity using transparent mode. This allows the RLC header information to be specified for transmitted PDUs, and inspected for received PDUs. This is required to support the transparent MAC configuration described above.

Test Step Name : ts\_GenericSetupProceduresToldleUpdate\_CCCH

Group : Preambles/

Objective : Initialise the system simulator, With a configuration of DL CCCH in TM mode with MAC configured

to not add MAC headers.

Default

Comments

: This preamble configures the system simulator for MAC testing, and then performs the Generic setup procedures as defined in 3G TS 34.108.

Description

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		[ px_CipheringOnOff = FALSE ]			
2		[px_RAT =fdd]			
3		+ts_RRC_InitVariables (cell_FACH)			1
4		+ts_SS_CreateCellFACH ( tsc_DefaultCellId )			2
5		+ts_SendDefSysInfo ( tsc_DefaultCellId )			2
6		+ts_IdleUpdated ( tsc_DefaultCellId )			3
7		+lt_ReconfigureDL_CCCH_AsTranspare nt			
8	TSE1	[ px_RAT = tdd ]		1	5
9	TSE2	[TRUE]		1	6
10	TSE3	[TRUE]		1	7
		It_ReconfigureDL_CCCH_AsTransparent			
11		+ts_CRLC_Rel( tsc_DefaultCellId, tsc_RB0)			9
12		CMAC ! CMAC_Config_REQ	ca_CMAC_ReconfigInfoAct Now( tsc_DefaultCellId,		8
			tsc_S_CCPCH1, c_UE_Info( tcv_TmpCellInfo.uRNTI, tcv_TmpCellInfo.cRNTI), c_TrChInfoPCH_FACH,		
			cd_TrLogMapping_PchFach 1TransRB0)		
13		CMAC ? CMAC_Config_CNF	ca_CMAC_CfgCnf ( tsc_DefaultCellId, tsc_S_CCPCH1 )		
14		CRLC! CRLC_Config_REQ	ca_RB_DL_TM_Info( tsc_DefaultCellId,		9
15		CRLC ? CRLC_Config_CNF	tsc_RB_CCCH_FACH_MA C, 168, { dLlogicalChannelIdentity tsc_DL_CCCH5 } ) ca_CRLC_CfgCnf(		
			tsc_DefaultCellId, tsc_RB_CCCH_FACH_MA C)		

	Test Step Dynamic Behaviour						
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments		
16		CRLC! CRLC_Config_REQ	ca_RB_TM_UL_Info(tsc_De faultCellId, tsc_RB0, 166, {uLlogicalChannelIdentity tsc_UL_CCCH5})		cofigure radio bearers (uplink): RB0 (TM + CCCH + RACH)		
17		CRLC ? CRLC_Config_CNF	ca_CRLC_CfgCnf(tsc_Defa ultCellId, tsc_RB0)				
18		<pre>+ts_SetCellCfg ( tsc_DefaultCellId, cell_FACH_MAC_SRB0_NoConn )</pre>					

### **Detailed Comments**: 1. Initialise test case variables ready for system simulator configuration.

- Initialise system simulator with SRBs ready for RRC connection establishment on FACH. Start system information broadcast using the default system information messages.
- 3. Perform idle updated procedure on FACH.
- Page UE, and complete mobile terminated RRC connection establishment on FACH. (Ref 3G TS 34.108 clause 7.1.2)
- Generic setup procedures for TDD are not implemented yet. This value of px\_RAT results in final inconclusive verdict
- 6. Unexpected value of px\_RAT provided.
- This test must be performed with integrity off to ensure that the paging response message fits in a single RLC PDU.
- Reconfigure the MAC for SCCPCH and PRACH to set the macHeaderManipulation field to 'OmitMacHeader' for RB3. This allows the MAC header information to be specified by the TTCN for transmitted PDUs, and inspected by the TTCN for received PDUs.

NOTE: The 'reconfigure' option in CMAC\_Config\_REQ is still being discussed. It may be necessary in future to release the MAC layers for these physical channels, and then setup new MAC layers with transparent RB3.

 Release the RLC entity for RB3, and setup a new RLC entity using transparent mode. This allows the RLC header information to be specified for transmitted PDUs, and inspected for received PDUs. This is required to support the transparent MAC configuration described above.

Test Step Name : ts\_SendModifiedSysInfo\_Sib6( p\_SIB: SysInfoType6; p\_CellId: INTEGER)

Group : Preambles/

**Objective**: To brodcast modified system infomation, with sib 6 Parametrised

Default : InitOtherwiseFail

Comments :

Description :

Label	Behaviour Description	Constraints Ref	Verdict	Comments
	[px_RAT = fdd]			
	+ts_SendSIB6(p_SIB, p_CellId, tsc_Now)			
	<pre>+ts_SendSB1_DefSchedul(tcv_SB1, p_CellId, tsc_Now)</pre>			
	+ts_SendMIB(tcv_MIB, p_CellId, tsc_Now)			
	+ts_SendPage1_ModifySI(p_CellId, tcv_MIB.mib_ValueTag)			
	$[px_RAT = tdd]$			
	[TRUE]		1	
	Label	<pre>[px_RAT = fdd]     +ts_SendSlB6(p_SlB,         p_CellId, tsc_Now)     +ts_SendSB1_DefSchedul(tcv_SB1, p_CellId,         tsc_Now)     +ts_SendMlB(tcv_MlB, p_CellId, tsc_Now)     +ts_SendPage1_ModifySl(p_CellId,         tcv_MlB.mib_ValueTag) [px_RAT = tdd]</pre>	[px_RAT = fdd]  +ts_SendSlB6(p_SlB,     p_CellId, tsc_Now)  +ts_SendSB1_DefSchedul(tcv_SB1, p_CellId,     tsc_Now)  +ts_SendMIB(tcv_MIB, p_CellId, tsc_Now)  +ts_SendPage1_ModifySI(p_CellId,     tcv_MIB.mib_ValueTag)  [px_RAT = tdd]	[px_RAT = fdd]  +ts_SendSlB6(p_SlB,     p_CellId, tsc_Now)  +ts_SendSB1_DefSchedul(tcv_SB1, p_CellId,     tsc_Now)  +ts_SendMlB(tcv_MlB, p_CellId, tsc_Now)  +ts_SendPage1_ModifySl(p_CellId,     tcv_MlB.mib_ValueTag)  [px_RAT = tdd]

**Detailed Comments:** 

## **Test Step Dynamic Behaviour**

Test Step Name : ts\_MAC\_ModifySIB1\_SIB5\_And7( p\_CellId: INTEGER; p\_SIB1 : SysInfoType1; p\_SIB5 :

 $SysInfoType5; p\_SIB7: SysInfoType7; p\_Timing: INTEGER)$ 

Group : Preambles/

**Objective**: To modify the the contents of SIB5 and SIB7.

Default : InitOtherwiseFail

Comments : 5 seconds shall be reserved for UE receiving and decoding the modified system information blocks

after calling this test Step after the SS broadcasting the new

Description :

Label	Behaviour Description	Constraints Ref	Verdict	Comments
	[px_RAT = fdd]			
	+ts_SendSIB1 ( p_SIB1, p_CellId, tsc_Now )			
	+ts_SendSIB5(p_SIB5, p_CellId, p_Timing)			
	+ts_SendSIB7(p_SIB7, p_CellId, p_Timing)			
	+ts_SendSB1_DefSchedul ( tcv_SB1, p_CellId, p_Timing)			
	+ts_SendMIB ( tcv_MIB, p_CellId, p_Timing )			
	+ts_SendPage1_ModifySI(p_CellId, tcv_MIB.mib_ValueTag)			
ERR1	[px_RAT = tdd]		1	
ERR2	[TRUE]		1	
	ERR1	[px_RAT = fdd]  +ts_SendSIB1 ( p_SIB1,	[px_RAT = fdd]  +ts_SendSlB1 ( p_SlB1,	[px_RAT = fdd] +ts_SendSlB1 ( p_SlB1,

**Detailed Comments:** 

Test Step Name : ts\_InitDummyDL\_Transfer

Group : Preambles/

Objective : To Initialise the Dummy DI Message to be sent based on the Domain of existing signalling connection

Default : RRC\_Def1

Comments : Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		[ tcv_CN_Domain = cs_domain ]			
2		( tcv_DummyDL_DirectTransferMsg := tsc_DummyDL_DirectTransferMsg_PS )			
3		[ tcv_CN_Domain = ps_domain ]			
4		<pre>( tcv_DummyDL_DirectTransferMsg := tsc_DummyDL_DirectTransferMsg_CS )</pre>			

**Detailed Comments:** 

# **Test Step Dynamic Behaviour**

Test Step Name : ts\_InitRRC\_ConnecSetup

Group : Preambles/

Objective : To Initialise the RRC Connection Setup PDU to be send depending on the domain of the UE

Default : RRC\_Def1

Comments : Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+ ts_SetTmpCellInfo ( tsc_DefaultCellId)			
2		(tcv_RRC_ConnecSetupMsg := o_PER_EncodeRRC_ConnSetup_MAC(cbs_108 _RRC_ConnSetupFACH (     tcv_InitialUE_Id,     tcv_RRC_Ti,     tcv_TmpCellInfo.priScrmCode ,     tcv_TmpCellInfo.uRNTI ,     tcv_TmpCellInfo.cRNTI,     tcv_TmpCellInfo.uL_ScramblingCode     )))			

**Detailed Comments:** 

Test Step Name : pr\_CloseUE\_TestLoop( p\_LB\_Size: INTEGER )

Group : Preambles/

Objective : Default :

Comments : This preamble is used to close the UE test loop mode, for the default cellId (tsc\_CellA), and the default

RB used forMAC testing.

Parameters:

p\_LB\_Size: The uplink RLC SDU size in bits. This value will be represented as a

14 bit value in the LB Setup IE, so the valid range is from 0..16383.

Test case variables affected:

tcv\_UE\_TestLoopClosed will be set to TRUE by this test step.

Description

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		[ tcv_CN_Domain = ps_domain ]			
2		+ts_TC_CloseUE_TestLoop( tsc_DefaultCellId, tsc_UE_TestLoopMode1, c_UE_TestLoopMode1_LB_Setup( p_LB_Size, tsc_RB20))			
3		[ tcv_CN_Domain = cs_domain ]			
4		+ts_TC_CloseUE_TestLoop( tsc_DefaultCellId, tsc_UE_TestLoopMode1, c_UE_TestLoopMode1_LB_Setup( p_LB_Size, tsc_RB10))			

**Detailed Comments:** 

Test Step Name : pr\_GenericSetupProcedures

Group : Preambles/

Objective

Default : RRC\_Def1

**Comments**: This preamble configures the system simulator for AM / UM testing, and

then performs the Generic setup procedures as defined in 3G TS 34.108.

Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		[ px_RAT =fdd ]			
2		+ts_InitVariables			1
3		+lt_InitRLC_Variables			9
4		+ts_SS_CreateCellDCH ( tsc_DefaultCellId )			
5		+ts_SendDefSysInfo( tsc_DefaultCellId )			
6		+ts_IdleUpdated ( tsc_DefaultCellId )			3
7		+ It_SendPaging			4
8		+ It_ReceiveResponseToPaging			5
9		+ ts_SS_SecurityDownloadStart ( tcv_CN_Domain, tcv_Start)			
10		+ts_TC_ActivateRB_TestMode( tsc_DefaultCellId)			6
11	TSE1	[ px_RAT = tdd ]		1	7
12	TSE2	[TRUE]		1	8
		lt_InitRLC_Variables			
13		[pc_PS AND ( px_CN_DomainTested = ps_domain)]			
14		(tcv_CN_Domain := ps_domain, tcv_RAB_Id := tsc_RAB_DefPS )			
15		[pc_CS AND ( px_CN_DomainTested = cs_domain)]			
16		(tcv_CN_Domain := cs_domain, tcv_RAB_Id := tsc_RAB_DefCS )			
17		[TRUE]		I	
		It_SendPaging			
18		[tcv_CN_Domain = ps_domain]			
19		+ts_RRC_ConnEst_DCH_MT_PTMSI( tsc_DefaultCellId, terminatingInteractiveCall, o_ConvertPTMSI(px_PTMSI_Def), terminatingInteractiveCall)			
20		[tcv_CN_Domain = cs_domain]			
21		+ts_RRC_ConnEst_DCH_MT_TMSI( tsc_DefaultCellId, terminatingConversationalCall, px_TMSI_Def, terminatingConversationalCall)			
22		[TRUE]		1	
		It_ReceiveResponseToPaging			
23		[tcv_CN_Domain = ps_domain]			

		Test Step Dynamic	Behaviour		
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
24		Dc ? RRC_DataInd (tcv_CellIndInfo.start_PS := RRC_DataInd.start )	car_PS_InitDirectTransfer (  tsc_CellDedicated, tsc_RB3, cr_ServiceRequest ( c_ServiceType_v(?), *, tcv_PS_KeySeq		SERVIC E REQUE ST
25		+ ts_RRC_Security (    tsc_DefaultCellId,    tcv_PS_AuthCK,    tcv_PS_AuthIK,    tcv_AuthKcGSM,    FALSE,    ps_domain)			SECURI TY MODE COMMA ND SECURI TY MODE COMPL ETE
26		[tcv_CN_Domain = cs_domain]			
27		Dc?RRC_DataInd ( tcv_CellIndInfo.start_CS := RRC_DataInd.start )	car_InitDirectTransfer(  tsc_CellDedicated, tsc_RB3, c_PagRsp( ?, c_MobileIdTMSI_lv))		5
28		+ ts_MM_Authentication( tsc_DefaultCellId)			Steps 6a-6b
29		+ts_RRC_Security ( tsc_DefaultCellId, tcv_AuthCK, tcv_AuthIK, tcv_AuthKcGSM, TRUE, cs_domain)			
30		[TRUE]		I	

**Detailed Comments**: 1. Initialise test case variables ready for system simulator configuration.

- 2. Initialise system simulator with SRBs ready for RRC connection establishment on DCH, with an additional RAB 5 mapped to a TM RLC entity. This RAB will be mapped to the appropriate UE RAB configured as AM or TM, and the RLC test case will create and verify the AM / UM headers.
- 3. Perform idle updated procedure on DCH.
- 4. Page UE, and complete mobile terminated RRC connection establishment on DCH. (Ref 3G TS 34.108 clause 7.1.2)
- 5. Paging response from UE.
- 6. Activate UE RB test mode (Ref 3G TS 34.109 clause 5.2.1)
- Generic setup procedures for TDD are not implemented yet. This value of px\_RAT results in final inconclusive verdict
- 8. Unexpected value of px\_RAT provided.
- 9. Initialize RLC specific variables depending on the doamin to be used

 $\textbf{Test Step Name} \hspace{0.2cm} : \hspace{0.1cm} ts\_SS\_RB20\_AM\_PS\_Rel\_Cfg\_NoTimerPoll \\$ 

Group : General/

Objective : Releases configured RB20, and reconfigures radio bearers : RB20. default values from 34.108 cl.

6.10.2.4.4 and 6.10.2.4.3.3 except for Timer Poll Omitted

Default : SS\_Def

Comments : CRLC is configured with cellId -1 (tsc\_CellDedicated)

Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+ ts_CRLC_Rel (tsc_CellDedicated, tsc_RB20)			
2		CRLC ! CRLC_Config_REQ	ca_RB_AM_Info_RAB_T_P ollOmit ( tsc_CellDedicated, tsc_RB20, tcv_TimerPollProhibit, OMIT, tcv_PollSDU, tcv_PollWindow, {uLlogicalChannelIdentity tsc_UL_DTCH1, dLlogicalChannelIdentity tsc_DL_DTCH1}, 320)		cofigure radio bearers : RB20 (AM + DTCH)
3		CRLC ? CRLC_Config_CNF	ca_CRLC_CfgCnf ( tsc_CellDedicated, tsc_RB20 )		

 $\textbf{Test Step Name} \quad : \ ts\_ReceiveRRC\_RLC\_StatusPDU\_DCH \ (p\_Rb\_Id : SS\_RB\_Identity; p\_SUFI\_Params : p\_SUFI\_$ 

SUFI\_Params)

Group : General/

Objective : To receive RRC Status PDU on RB2 and RLC Status on RB1 mapped on DCH. They can come in any

order.

Default : MAC\_Default

Comments : Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		AM ? RLC_AM_DATA_IND	car_RRC_Status( tsc_CellDedicated, tsc_RB2,		
			cr_RRC_Status_MAC_NoIn teg)		
2		TM ? RLC_TR_TestDataInd (tcv_StatusPDU := RLC_TR_TestDataInd.data)	car_DataIndHiPriNAS( p_Rb_ld, c_MAC_PDU_CT_RCV_ST ATUS_DCH( tsc_CT_LoCh3, cr_StatusAnyPad))		
3		( tcv_StatusMatchRes := o_SUFI_Handler( p_SUFI_Params, tcv_StatusPDU.data.superFieldsRec ))			
4		[ tcv_StatusMatchRes.result = TRUE]		(P)	
5		[TRUE]		(F)	
6		TM ? RLC_TR_TestDataInd ( tcv_StatusPDU := RLC_TR_TestDataInd.data)	car_DataIndHiPriNAS( p_Rb_ld, c_MAC_PDU_CT_RCV_ST ATUS_DCH( tsc_CT_LoCh3, cr_StatusAnyPad))		
7		AM ? RLC_AM_DATA_IND	car_RRC_Status( tsc_CellDedicated, tsc_RB2,  cr_RRC_Status_MAC_NoIn		
			teg)		
8		( tcv_StatusMatchRes := o_SUFI_Handler( p_SUFI_Params, tcv_StatusPDU.data.superFieldsRec ))			
9		[ tcv_StatusMatchRes.result = TRUE]		(P)	
10		[TRUE]		(F)	

 $\textbf{Test Step Name} \quad \textbf{:} \quad ts\_ReceiveRRC\_RLC\_StatusPDU\_FACH \ (p\_Rb\_Id: SS\_RB\_Identity; \ p\_SUFI\_Params: SS\_RB\_Identity; \ p\_SUFI\_$ 

SUFI\_Params)

Group : General/

Objective : To receive RRC Status PDU on RB2 and RLC Status on RB1 mapped on RACH. They can come in

any order.

Default : MAC\_Default

Comments : Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		AM ? RLC_AM_DATA_IND	car_RRC_Status( tsc_CellDedicated, tsc_RB2,		
			cr_RRC_Status_MAC_NoIn teg)		
2		TM ? RLC_TR_TestDataInd ( tcv_StatusPDU := RLC_TR_TestDataInd.data)	car_DataIndHiPriNAS( p_Rb_ld, cr_MAC_PDU_RCV_STAT US_TCTF(		
			tsc_DCCH_OnRACH_FDD,		
			cr_StatusAnyPad) )		
3		( tcv_StatusMatchRes := o_SUFI_Handler( p_SUFI_Params, tcv_StatusPDU.data.superFieldsRec ))			
4		[ tcv_StatusMatchRes.result = TRUE]		(P)	
5		[TRUE]		(F)	
6		TM ? RLC_TR_TestDataInd ( tcv_StatusPDU := RLC_TR_TestDataInd.data)	car_DataIndHiPriNAS( p_Rb_Id, cr_MAC_PDU_RCV_STAT US_TCTF(		
			tsc_DCCH_OnRACH_FDD,		
			cr_StatusAnyPad ) )		
7		AM ? RLC_AM_DATA_IND	car_RRC_Status( tsc_CellDedicated, tsc_RB2,		
			cr_RRC_Status_MAC_NoIn teg)		
8		( tcv_StatusMatchRes := o_SUFI_Handler( p_SUFI_Params, tcv_StatusPDU.data.superFieldsRec ))			
9		[ tcv_StatusMatchRes.result = TRUE]		(P)	
10		[TRUE]		(F)	

**Test Step Name**: ts\_SendDLDirectTransfer( p\_RB\_Identity : SS\_RB\_Identity;p\_MAC\_PDU:

MAC\_PDU;p\_SegmentLength: INTEGER; p\_RLC\_SN: INTEGER)

Group : General/

Objective : To Transmit the DLDirect Message to a invalid domain and a dummy NAS String, designed to fit in one

**RLC Segment** 

Default : MAC\_Default

Comments :
Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		( tcv_MAC_PDU := p_MAC_PDU )			
2		(tcv_MAC_PDU.data :=cs_AMD_LlsAndPad (     p_RLC_SN,     tsc_P_Poll,     c_Lls2_7BitLls (     tsc_DummyDL_DirectTransferLen,     tsc_Ll7_Padding     ),     tcv_DummyDL_DirectTransferMsg,     (p_SegmentLength - ((     tsc_DummyDL_DirectTransferLen +2)*8))     ))			1
3		TM ! TxMAC	cas_DataReqHiPriNAS( p_RB_Identity, tcv_MAC_PDU)		

Detailed Comments: 1. The RLC PDU is constructed from Lenth Indicators, Dummy downlink PDU and the Padding

### **Test Step Dynamic Behaviour**

**Test Step Name**: ts\_MonitorUplinkSpecefiedTime (p\_Time: INTEGER)

Group : General/

Objective : To check there is no uplink activity for specified amount of time in seconds

Default : MAC\_Default

Comments : Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		START t_WaitS (p_Time)			
2	TBS	AM ? RLC_AM_DATA_IND	car_RRC_Status( tsc_CellDedicated, ?,	(F)	
			cr_RRC_Status_MAC_NoIn teg)		
3		TM ? RLC_TR_TestDataInd ( tcv_StatusPDU := RLC_TR_TestDataInd.data)	car_DataIndHiPriNAS( ?, cr_MAC_PDU_RCV_STAT US_TCTF(	(F)	
			tsc_DCCH_OnRACH_FDD,		
			cr_StatusAnyPad ) )		
4		? TIMEOUT t_WaitS		(P)	

**Test Step Name**: ts\_Set\_AICH\_ACKModeInDefaultCell(p\_Mode: AICH\_Mode)

Group : General/

Objective : To configure the AICH in Default Cell A in the desired operating mode

1Normal

2.No Acknowledgement3. Negative acknowledgement

Default : MAC\_Default

Comments : Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		CPHY!CPHY_AICH_AckModeSet_REQ	cas_AICH_AckModeSet_RE Q( tsc_DefaultCellId, tsc_AICH1, p_Mode)		
2		CPHY ? CPHY_AICH_AckModeSet_CNF	car_AICH_AckModeSet_CN F( tsc_DefaultCellId, tsc_AICH1)		

**Detailed Comments:** 

# **Test Step Dynamic Behaviour**

Test Step Name : ts\_SetPRACH\_MeasurementmodeInDefaultCell(p\_MeasMode : PRACH\_MeasurementInd)

Group : General/

Objective : To Set the PRACH measurement mode in Default cell CELLA

Default : MAC\_Default

Comments : Description :

CPHY! CPHY_PRACH_Measurement_REQ	Nr	bel Behaviour Description Constraints Ref Verd	ct Comments
CNF( tsc_DefaultCellId,	1	REQ( tsc_DefaultCellId, tsc_PRACH1,	
tsc_PRACH1)	2		

 $\textbf{Test Step Name} \quad : \ ts\_GetPRACH\_PreambleMeasuremntReportInDefaultCell \\$ 

Group : General/

**Objective**: To Get the PRACH Preamble measurement Report on CPHY PCO

Default : MAC\_Default

Comments : Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		CPHY? CPHY_PRACH_Measurement_Report_IND (tcv_PRACH_PreambleSigUsed :=CPHY_PRACH_Measurement_Report_IND.meas urementReport.usedPRACH_Signature, tcv_PRACH_AccessSlotUsed :=CPHY_PRACH_Measurement_Report_IND.meas urementReport.usedPRACH_AccessSlot)	car_PRACH_Measurement_ Report_IND( tsc_DefaultCellId, tsc_PRACH1, cs_PRACH_PreamMeasRep )		

Test Step Name : ts\_GetRRC\_ConnecSetupSegment( p\_SegmentNumber, p\_SegmentLength, p\_MacHeadLen:

INTEGER)

Group : General/

Objective : Assign the requested segment of the pre-coded RRC Connection Setup message to

tcv\_RLC\_UM\_PDU.

Default : MAC\_Default

Comments : This test step is used to extract the requested segment from the pre-coded AUTHENTICATION

REQUEST message, based on the given segment size.

Parameters

p SegmentNumber

The required segment number, from 1 to 3 inclusive. The pre-coded AUTHENTICATION REQUEST message fits in 3 RLC PDUs when the payload size is 128. Any other

values of p\_SegmentNumber will result in a test case error.

p\_SegmentLength

The length of the segment to exctract. This value is used to extract the appropriate substring from the

pre-coded AUTHENTICATION REQUEST message stored in tsc\_AuthReq.

Test case variables affected

tcv\_RLC\_PDU will contain the requested segment of the AUTHENTICATION REQUEST message, including an RLC header with sequence number equal to (p\_SegmentNumber

**– 1** ).

Description

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		[ p_SegmentNumber = 1 ]			
2		<pre>( tcv_RLC_UM_PDU := c_UMD_LIs(     p_SegmentNumber - 1,     c_LIs1_7BitLI(         124),         o_BitstringXtract(         o_OctToBit ( tcv_RRC_ConnecSetupMsg),         tsc_RRC_ConnecSetupLen,         p_SegmentLength-8,         0     )     ) )</pre>			As this is the PDU with sequenc e number 0, sent, it is sent with the special length indicator of '111 1100'B i.e 124
3		[ ( p_SegmentNumber > 1 ) AND ( p_SegmentNumber < 6) ]			
4		<pre>( tcv_RLC_UM_PDU := c_UMD(     p_SegmentNumber - 1,         o_BitstringXtract(         o_OctToBit ( tcv_RRC_ConnecSetupMsg),         tsc_RRC_ConnecSetupLen,         p_SegmentLength,         (( ( p_SegmentNumber - 1 ) *         p_SegmentLength )-8)      )     ) )</pre>			
5		[ p_SegmentNumber = 6 ]			

		Test Step Dynamic	Behaviour		
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
6		( tcv_RLC_UM_PDU := c_UMD_LIsAndPad(     p_SegmentNumber - 1,     c_LIs2_7BitLIs(     17,     tsc_LI7_Padding ),     o_BitstringXtract(     o_OctToBit ( tcv_RRC_ConnecSetupMsg),     tsc_RRC_ConnecSetupLen,     (p_SegmentLength - 16-( 8 -     p_MacHeadLen )),     ((( p_SegmentNumber - 1 ) *     p_SegmentLength)-8)     ),     (8 - p_MacHeadLen ) )			
7	ERR1	[ (p_SegmentNumber > 6) OR ( p_SegmentNumber < 0 ) ]		I	1

**Detailed Comments**: 1. the hand codde RRC connection setup message will be always sufficient enough to fill in \$ RLC segments.

Test Step Name : ts\_SendRRC\_ConnecSetup( p\_MAC\_PDU: MAC\_PDU; p\_SegmentLength, p\_MacHeadLen:

INTEGER)

Group : General/

Objective : Send all 5 segments of the hand coded RRC Connection Setipt message using the

header information provided in the given MAC PDU.

Default : MAC\_Default Comments : Parameters

> p\_MAC\_PDU: Used to initialise all fields in tcv\_MAC\_PDU except for the data field, which is initialised to the appropriate RRC Connection setupsegment

during each iteration through the loop.

p\_SegmentLength: Used to determine how many bits will be used for each

segment of the RRC connection Setup. Normally this will be

tsc\_ExpectedPayloadSize, but other values may need to be used if the MAC

header is not the normal length.

Variables affected

tcv\_MAC\_PDU is used as a working variable by this test step.

Description

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		( tcv_RRC_ConnecSetupSegmentNum := 1 )			1
2		( tcv_MAC_PDU := p_MAC_PDU )			2
3		REPEAT It_SendRRC_ConnSetupSegment UNTIL [ tcv_RRC_ConnecSetupSegmentNum = 7 ]			1
		It_SendRRC_ConnSetupSegment			
4		[ tcv_RRC_ConnecSetupSegmentNum <= 6 ]			
5		+ts_GetRRC_ConnecSetupSegment ( tcv_RRC_ConnecSetupSegmentNum, p_SegmentLength, p_MacHeadLen)			3
6		( tcv_MAC_PDU.data := tcv_RLC_UM_PDU )			3
7		TM ! TxMAC	cas_DataReqRB0(tsc_RB_C CCH_FACH_MAC, tcv_MAC_PDU)		3
8		( tcv_RRC_ConnecSetupSegmentNum:= tcv_RRC_ConnecSetupSegmentNum + 1 )			4
9	ERR1	[TRUE]		1	5

- Detailed Comments: 1. tcv\_AuthReqSegmentNumber is used to iterate through the4 segments in the hand codedRRC connection setupt message. The variable is initialised to 1, and then all 4 segments are sent using the given MAC PDU header. tcv\_AuthRegSegmentNumber is incremented in the local tree It\_SendAuthReqSegment.
  - 2. Initialise tcv\_MAC\_PDU to use the given field values for the MAC PDU header. The data field will be updated each time through the loop to contain the next segment of the RRC Connection Setup message.
  - 3. Extract the next segment from the Authentication Request message, assign it to the data field of tcv MAC PDU, and transmit it on the high priority NAS AM DCCH. The third and final segment includes two length indicators. The first LI indicates the end of the RLC SDU, and the second LI indicates that the rest of the PDU is padding.
  - 4. Increment tcv\_RRC\_ConnecSetupSegmentNum ready to transmit the next segment.
  - 5. Iflt\_SendRRC\_ConnSetupSegment is used and tcv\_RRC\_ConnecSetupSegmentNum is greater than 3, a test case error has occured, and a final inconclusive verdict is assigned.

 $\textbf{Test Step Name} \quad : \ ts\_MAC\_ReceiveRRC\_ConnReqInDefaultCellAndInit$ 

Group : General/

**Objective**: To receive the RRc connection Request message from the Ue in the Default cell.

Default :
Comments :
Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		START t_WaitMS			wait timer with 13.5 seconds
2	TSP1	TM ? RLC_TR_DATA_IND (     tcv_InitialUE_Id :=     RLC_TR_DATA_IND.tM_message.uL_CCCH_M     essage.message.rrcConnectionRequest.initialUE_     Identity) CANCEL t_WaitMS	car_RRC_ConnReq (tsc_DefaultCellId , tsc_RB0, cdr_108_RRC_ConnReq_M AC ( tcv_RRC_EstCauMT ))	(P)	RRC connecti on received control transferr ed out of test step
3		+ts_InitRRC_ConnecSetup			
4		?TIMEOUT t_WaitMS		(F)	UE not respondi ng to Paging

Test Step Name : ts\_MAC\_ReceiveRRC\_ConnReqInDefaultCell

Group : General/

**Objective**: To receive the RRc connection Request message from the Ue in the Default cell.

Default :
Comments :
Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comment
2	TSP1	START t_WaitMS  TM ? RLC_TR_DATA_IND CANCEL t_WaitMS	car_RRC_ConnReq (tsc_DefaultCellId , tsc_RB0, cdr_108_RRC_ConnReq_M AC ( tcv_RRC_EstCauMT ))	(P)	wait timer with 13.5 seconds RRC connecti on received control transferr ed out of test step
3		AM ? RLC_AM_DATA_IND CANCEL t_WaitMS	car_RRC_ConnSetupCmpl ( tsc_CellDedicated, tsc_RB2, cr_108_RRC_ConnSetupC mpl (?,?))	(F)	RRC Connect ion Setup complete received, UE has not discarde d the previous sent invalid MAC PDU, hence fail
4 5		?TIMEOUT t_WaitMS  +ts_RRC_PagType1_DefMAC (     tsc_DefaultCellId)  START t_WaitMS			
6 7		TM ? RLC_TR_DATA_IND CANCEL t_WaitMS	car_RRC_ConnReq (tsc_DefaultCellId , tsc_RB0, cdr_108_RRC_ConnReq_M AC ( tcv_RRC_EstCauMT ))	(P)	RRC connecti on received control transferr ed out of test step
8	TSF2	?TIMEOUT t_WaitMS		I	UE not respondi ng to Paging

 $\begin{tabular}{ll} \textbf{Test Step Name} &: ts\_ReceiveLoopBackDataAndCheckASC (p\_RBId:INTEGER; p\_ASC: BITSTRING; p\_Data1, p\_Data2:PDU) \\ \end{tabular}$ 

Group : General/

Objective : To Receive the Loopbacked User Data by the Ue and check the validity of the Access slot and hence

the ASC selected by the UE.

Default : MAC\_PRACH\_MeasRecDef,MAC\_Default

Comments Description

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		(tcv_AccessServiceClass :=p_ASC)			
2		+lt_ReceiveData			
3		START t_Dly (200)			
4		? TIMEOUT t_Dly			
		It_ReceiveData			
5		[ p_ASC = '0010'B ]			
6		+ ts_GetPRACH_PreambleMeasuremntReportInDe faultCell			
7		[ ( 0 <= tcv_PRACH_PreambleSigUsed) AND ( tcv_PRACH_PreambleSigUsed <= 7) AND ( (tcv_PRACH_AccessSlotUsed = 1) OR (tcv_PRACH_AccessSlotUsed = 4) OR (tcv_PRACH_AccessSlotUsed = 7) OR (tcv_PRACH_AccessSlotUsed = 10) OR (tcv_PRACH_AccessSlotUsed = 13) ) ]			
8		( tcv_PRACH_ExpAccessSlot := ( (tcv_PRACH_AccessSlotUsed + 3) MOD 15) )			
9		CPHY? CPHY_PRACH_Measurement_Report_IND (tcv_PRACH_AccessSlotUsed := CPHY_PRACH_Measurement_Report_IND .measurementReport.usedPRACH_AcessSlo t)	car_PRACH_Measurement_ Report_IND( tsc_DefaultCellId, tsc_PRACH1, cs_PRACH_MsgMeasRep)		
10		[ ( tcv_PRACH_AccessSlotUsed = tcv_PRACH_ExpAccessSlot) ]			
11		AM ? RLC_AM_TestDataInd	car_RLC_AM_DataInd ( tsc_CellDedicated, p_RBId, p_Data1 )		
12		[ TRUE ]		( F)	If incorrect ACCES S class used
13		AM ? RLC_AM_TestDataInd	car_RLC_AM_DataInd ( tsc_CellDedicated, p_RBId, p_Data1 )		
14		CPHY? CPHY_PRACH_Measurement_Report_IN D (tcv_PRACH_AccessSlotUsed := CPHY_PRACH_Measurement_Report_IN D.measurementReport.usedPRACH_Acess Slot)	car_PRACH_Measurement_ Report_IND( tsc_DefaultCellId, tsc_PRACH1, cs_PRACH_MsgMeasRep)		
15		[ ( tcv_PRACH_AccessSlotUsed = tcv_PRACH_ExpAccessSlot) ]			

		Test Step Dynamic	Behaviour		
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
16 17		[TRUE]		(F)	If incorrect ACCES S class used
					incorrect ACCES S class used
18		[p_ASC = '0001'B]			
19		[tcv_LP_DataReceived = FALSE]			Loop Back of Data in step 6 not recived
20		+			Preambl
		ts_GetPRACH_PreambleMeasuremntReportIn DefaultCell			e measere
		Delaulicell			mnt received first.
21		[ ( 0 <= tcv_PRACH_PreambleSigUsed) AND ( tcv_PRACH_PreambleSigUsed <= 7) AND ( tcv_PRACH_AccessSlotUsed = 0) OR (tcv_PRACH_AccessSlotUsed = 3) OR (tcv_PRACH_AccessSlotUsed = 6) OR (tcv_PRACH_AccessSlotUsed = 9) OR (tcv_PRACH_AccessSlotUsed = 12) ) ]			
22		( tcv_PRACH_ExpAccessSlot := (   (tcv_PRACH_AccessSlotUsed + 3) MOD   15) )			
23		CPHY? CPHY_PRACH_Measurement_Report_IN D (tcv_PRACH_AccessSlotUsed := CPHY_PRACH_Measurement_Report_IN D.measurementReport.usedPRACH_Acess Slot)	car_PRACH_Measurement_ Report_IND( tsc_DefaultCellId, tsc_PRACH1, cs_PRACH_MsgMeasRep)		Data1, dat2 and Message measure ment any order but data1 will come before data 2 due to insequen ce delivery
24		[ ( tcv_PRACH_AccessSlotUsed = tcv_PRACH_ExpAccessSlot) ]			
25		AM ? RLC_AM_TestDataInd	car_RLC_AM_DataInd ( tsc_CellDedicated, p_RBId, p_Data1 )		
26		AM ? RLC_AM_TestDataInd	car_RLC_AM_DataInd ( tsc_CellDedicated, p_RBId, p_Data2)		

		Test Step Dynamic	Behaviour		
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
27		[TRUE]		( F)	If incorrect ACCES S class used
28		AM ? RLC_AM_TestDataInd	car_RLC_AM_DataInd ( tsc_CellDedicated, p_RBId, p_Data1 )		4004
29		CPHY? CPHY_PRACH_Measurement_Report_I ND (tcv_PRACH_AccessSlotUsed := CPHY_PRACH_Measurement_Report_I ND.measurementReport.usedPRACH_A cessSlot)	car_PRACH_Measurement_ Report_IND( tsc_DefaultCellId, tsc_PRACH1, cs_PRACH_MsgMeasRep)		
30		[ ( tcv_PRACH_AccessSlotUsed = tcv_PRACH_ExpAccessSlot) ]			
31		AM ? RLC_AM_TestDataInd	car_RLC_AM_DataInd ( tsc_CellDedicated, p_RBId, p_Data2)		
32		[TRUE]		( F)	If incorrect ACCES S class used
33		AM ? RLC_AM_TestDataInd	car_RLC_AM_DataInd ( tsc_CellDedicated, p_RBId, p_Data2)		doca
34		CPHY? CPHY_PRACH_Measurement_Report _IND (tcv_PRACH_AccessSlotUsed := CPHY_PRACH_Measurement_Report _IND.measurementReport.usedPRACH _AcessSlot)	car_PRACH_Measurement_ Report_IND( tsc_DefaultCellId, tsc_PRACH1, cs_PRACH_MsgMeasRep)		
35		[ ( tcv_PRACH_AccessSlotUsed = tcv_PRACH_ExpAccessSlot) ]			
36		[TRUE]		( F)	If incorrect ACCES S class used
37		[TRUE]		(F)	If incorrect ACCES S class used
38		[ tcv_LP_DataReceived = TRUE]			Loop Back of Data in step 6 already recieved

		Test Step Dynamic	Behaviour		
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
39		+ ts_GetPRACH_PreambleMeasuremntReportIn DefaultCell			Preambl e measere mnt received first.
40		[ ( 0 <= tcv_PRACH_PreambleSigUsed) AND ( tcv_PRACH_PreambleSigUsed <= 7) AND ( tcv_PRACH_AccessSlotUsed = 0) OR (tcv_PRACH_AccessSlotUsed = 3) OR (tcv_PRACH_AccessSlotUsed = 6) OR (tcv_PRACH_AccessSlotUsed = 6) OR (tcv_PRACH_AccessSlotUsed = 9) OR (tcv_PRACH_AccessSlotUsed = 12) ) ]			iii3t.
41		<pre>( tcv_PRACH_ExpAccessSlot := ( (tcv_PRACH_AccessSlotUsed + 3) MOD 15) )</pre>			
42		CPHY? CPHY_PRACH_Measurement_Report_IND  (tcv_PRACH_AccessSlotUsed := CPHY_PRACH_Measurement_Report_IND.measurementReport.usedPRACH_AcessSlot)	car_PRACH_Measurement_ Report_IND( tsc_DefaultCellId, tsc_PRACH1, cs_PRACH_MsgMeasRep)		Data1, dat2 and Message measure ment any order but data1 will come before data 2 due to insequen ce delivery
44		<pre>[ ( tcv_PRACH_AccessSlotUsed = tcv_PRACH_ExpAccessSlot) ] AM ? RLC_AM_TestDataInd</pre>	car_RLC_AM_DataInd ( tsc_CellDedicated, p_RBId,		
45		[TRUE]	p_Data2)	( F)	If incorrect ACCES S class used
46		AM ? RLC_AM_TestDataInd	car_RLC_AM_DataInd ( tsc_CellDedicated, p_RBId, p_Data2)		uscu
47		CPHY? CPHY_PRACH_Measurement_Report_I ND (tcv_PRACH_AccessSlotUsed := CPHY_PRACH_Measurement_Report_I ND.measurementReport.usedPRACH_A cessSlot)	car_PRACH_Measurement_ Report_IND( tsc_DefaultCellId, tsc_PRACH1, cs_PRACH_MsgMeasRep)		
48		[ ( tcv_PRACH_AccessSlotUsed = tcv_PRACH_ExpAccessSlot) ]			

## Continued from previous page

	Test Step Dynamic Behaviour							
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments			
49 50		[TRUE]		(F)	If incorrect ACCES S class used If incorrect ACCES S class used used			
51		[TRUE]		(1)				
Deta	iled Com	ments :			•			

**Test Step Name**: ts\_RRC\_ConnEstForMAC\_RecIniTDirecTrans(

p\_CellId: INTEGER

)

Group : RRC\_Steps/

Objective : To execute the RRC connection establishment Procedure and to receive the Service request or Paging

response NAS message

Default : RRC\_Def1

Comments : This test step is identical to the test step ts\_RRC\_ConnEst except that the RRC

connection setup message has been modified to enable Timer\_Status\_Periodic for RB3. This timer is used for MAC testing such that the UE will provide STATUS reports regularly even if it has not received any RLC PDUs (because they have

been discarded by the MAC layer due to invalid MAC headers).

The generic Step to establish RRC Connection and bring UE to CELL\_FACH or CELL\_DCH state. In this Step , 4Signalling Radio Bearers with 3.4kbps DL & UL

is setup (RB# 1, 2, 3,4)

Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+ ts_SetTmpCellInfo ( p_CellId )			
2		TM ? RLC_TR_DATA_IND (     tcv_InitialUE_Id :=     RLC_TR_DATA_IND.tM_message.uL_CCCH_M     essage.message.rrcConnectionRequest.initialUE_     Identity)	car_RRC_ConnReq ( tsc_DefaultCellId, tsc_RB0, cbr_108_RRC_ConnReq( tcv_RRC_EstCauMT))		
3		+lt_Send_ConnSetUp			
4		+lt_ReceiveRRC_ConnCmplAndPagRespOrS ervReq			
		lt_Send_ConnSetUp			
5		[ (tcv_TmpCellInfo.cellConfig = cell_FACH_MAC_SRB_NoConn ) ]			
6		UM!RLC_UM_DATA_REQ	cas_RRC_ConnSetup( p_CellId, tsc_RB0, cds_RRC_ConnSetupFACH _NoCapEnq (		
7		+ ts_SetCellCfg ( p_CellId, cell_FACH_MAC_SRB )			
8		[ ( tcv_TmpCellInfo.cellConfig = cell_DCH_MAC_SRB_NoConn ) ]			

		Test Step Dynamic	Behaviour		
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
9		UM!RLC_UM_DATA_REQ	cas_RRC_ConnSetup( p_CellId, tsc_RB0, cds_RRC_ConnSetupDCH_ NoCapEnq ( tcv_InitialUE_Id, tcv_RRC_Ti,		
			tcv_TmpCellInfo.priScrmCo de , tcv_TmpCellInfo.uRNTI ,		
			tcv_TmpCellInfo.uL_Scrambl ingCode )		
10		+ ts_SetCellCfg ( p_CellId, cell_DCH_MAC_SRB )			
11	ERR	[ TRUE ]  It_ReceiveRRC_ConnCmplAndPagRespOrServReq		1	2.
12		(tcv_MAC_Counter :=0)			
13		[ (tcv_TmpCellInfo.cellConfig = cell_FACH_MAC_SRB ) ]			
14	Rcv1	AM ? RLC_AM_DATA_IND	car_RRC_ConnSetupCmpl ( tsc_CellDedicated, tsc_RB2, cr_108_RRC_ConnSetupC mpl(tcv_RRC_Ti, *))	(P)	
15		START t_WaitMS(5000)			Start a timer of 5 seconds to receive the First Paging respons e or service
16		+ It_ReceiveSegments_FACH			request Segment
17		TM ? RxMAC	car_DataIndHiPriNAS( tsc_RB_DCCH_FACH_MA C,		Receive first segment
			c_MAC_PDU_TCTF(		Joginon
			tsc_DCCH_OnRACH_FDD,		
			?))		
18		+lt_Updatecounter			1

		Test Step Dynam	nic Behaviour		
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
19		TM ! TxMAC	cas_DataReqHiPriNAS( tsc_RB_DCCH_FACH_MA C,  cs_MAC_PDU_Send_STAT US_Def( cs_StatusAndPad( cs_SF_Ack( tcv_MAC_Counter ), 31 ) )		
			)		
20 21		GOTO Rcv1 [(tcv_TmpCellInfo.cellConfig = cell_DCH_MAC_SRB)]			
22	Rcv2	AM ? RLC_AM_DATA_IND	car_RRC_ConnSetupCmpl ( tsc_CellDedicated, tsc_RB2, cr_108_RRC_ConnSetupC mpl(tcv_RRC_Ti, * ))	(P)	
23		START t_WaitMS(5000)			Start a timer of 5 seconds to receive the First Paging respons e or service request Segment
24		+ It_ReceiveSegments_DCH			Segment
25		TM ? RxMAC	car_DataIndHiPriNAS( tsc_RB_DCCH_DCH_MAC , c_MAC_PDU_CT_DCH( tsc_CT_LoCh3, ?))		
26		+lt_Updatecounter	. , ,		1
27		TM!TxMAC	cas_DataReqHiPriNAS( tsc_RB_DCCH_DCH_MAC ,  c_MAC_PDU_CT_RCV_ST ATUS_DCH( tsc_CT_LoCh3,     cs_StatusAndPad(     cs_SF_Ack( tcv_MAC_Counter ),31 ) ) )		
28		GOTO Rcv2			
29	ERR	[TRUE]		1	
30		It_Updatecounter [tcv_MAC_Counter < px_NumOfSegInPagResOrServReq]			
31		(tcv_MAC_Counter := tcv_MAC_Counter+1)			
32		[TRUE]			

		Test Step Dynar	nic Behaviour		
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
		It_ReceiveSegments_FACH			
33		[TRUE]			
34	Next1	TM ? RxMAC CANCEL t_WaitMS	car_DataIndHiPriNAS( tsc_RB_DCCH_FACH_MA C,		
			c_MAC_PDU_TCTF(		
			tsc_DCCH_OnRACH_FDD,		
			?))		
35		+lt_Updatecounter			1
36		[tcv_MAC_Counter = px_NumOfSegInPagResOrServReq]		(P)	
37		TM!TxMAC	cas_DataReqHiPriNAS( tsc_RB_DCCH_FACH_MA C,		
			cs_MAC_PDU_Send_STAT US_Def(     cs_StatusAndPad(     cs_SF_Ack(     tcv_MAC_Counter ), 31 ) )		
38		START t_WaitMS (tsc_WaitNextRLC_Segment+100)			100 ms more to check for all retransm issions
39		GOTO Next1			
40		[TRUE]			
41		START t_WaitMS (tsc_WaitNextRLC_Segment)			
42		GOTO Next1			
43		? TIMEOUT t_WaitMS			
44		[tcv_MAC_Counter = px_NumOfSegInPagResOrServReq]		(P)	
45		[TRUE]  It_ReceiveSegments_DCH		(F)	
46		[TRUE]			
47	Next2	TM ? RxMAC CANCEL t_WaitMS	car_DataIndHiPriNAS( tsc_RB_DCCH_DCH_MAC		
			c_MAC_PDU_CT_DCH( tsc_CT_LoCh3, ?))		
48		+ It_Updatecounter			
49		[tcv_MAC_Counter = px_NumOfSegInPagResOrServReq ]		(P)	

	Test Step Dynamic Behaviour							
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments			
50		TM ! TxMAC	cas_DataReqHiPriNAS( tsc_RB_DCCH_DCH_MAC ,  c_MAC_PDU_CT_RCV_ST ATUS_DCH( tsc_CT_LoCh3, cs_StatusAndPad( cs_SF_Ack( tcv_MAC_Counter ),31 ) )					
51		START t_WaitMS (tsc_WaitNextRLC_Segment+100)						
52		GOTO Next2						
53		[TRUE]						
54		START t_WaitMS (tsc_WaitNextRLC_Segment)						
55		GOTO Next2						
56		? TIMEOUT t_WaitMS						
57		[tcv_MAC_Counter = px_NumOfSegInPagResOrServReq ]		(P)				
58		[TRUE]		(F)				

**Detailed Comments**: 1. Update the cell configuration

2. This step is only intended for use by the MAC layer, for tests to be performed in Cell FACH

state.

## **Test Step Dynamic Behaviour**

Test Step Name : ts\_MMI\_USIM\_InsertTypeB

Group : MAC\_UT\_Steps/

Objective : To make the operator insert the USIM card of type B

**Default**: UT\_OtherwiseFail

Comments : Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments			
1		Ut! MMI_CmdReq	ca_MMI_CmdReq ( "Please insert the USIM card of type B into the UE")					
2		Ut ? MMI_CmdCnf	ca_MMI_CmdCnf					
Deta	Detailed Comments :							

Test Step Name : ts\_AssignCN\_Domain
Group : BasicM\_General\_Steps/

Objective : To assign tcv\_CN\_Domain based on PICS and PIXIT values. This Steps is to be used by test cases

written for both cs and ps domains.

Default : SS\_Def

Comments : Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		[ pc_CS AND ( px_CN_DomainTested = cs_domain ) ]			
2		( tcv_CN_Domain := cs_domain )			
3		[ pc_PS AND ( px_CN_DomainTested = ps_domain ) ]			
4		( tcv_CN_Domain :=ps_domain )			
5		[TRUE]		1	

**Detailed Comments:** 

## **Test Step Dynamic Behaviour**

Test Step Name : ts\_CountConfiguredCell
Group : BasicM\_General\_Steps/

**Objective**: Assign tcv\_NumCfgCell to the number of cells already configured.

Default : SS\_Def

**Comments**: When a cell is configured, the corresponding receod.cellConfig is set to a different value than

cell\_NotConfigured

Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		( tcv_NumCfgCell := 0 )			
2		+ lt_CheckOneCell ( tcv_CellInfoA )			
3		+ lt_CheckOneCell ( tcv_CellInfoB )			
4		+ It_CheckOneCell ( tcv_CellInfoC )			
5		+ lt_CheckOneCell ( tcv_CellInfoD )			
6		+ lt_CheckOneCell ( tcv_CellInfoE )			
7		+ lt_CheckOneCell ( tcv_CellInfoF )			
8		+ lt_CheckOneCell ( tcv_CellInfoG )			
9		+ lt_CheckOneCell ( tcv_CellInfoH )			
		lt_CheckOneCell ( p_CellInfo : CellInfoCfg )			
10		[ p_CellInfo.cellConfig <> cell_NotConfigured ]			
11		( tcv_NumCfgCell := tcv_NumCfgCell + 1 )			
12		[ p_CellInfo.cellConfig = cell_NotConfigured ]			

**Test Step Name**: ts\_InitVariables

Group : BasicM\_General\_Steps/

**Objective**: Initialisation of the test case variables tcv\_CellInfoX, tcv\_SF\_Pilot and tcv\_SF512.

Default : SS\_Def

**Comments** : tcv\_CellInfoA, tcv\_CellInfoB, tcv\_CellInfoC, tcv\_CellInfoD, tcv\_CellInfoE and tcv\_CellInfoF :

contains the cell information used to configure SS.

tcv\_SF\_Pilot and tcv\_SF512 are assigned based on the capability of the UE.

Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+ lt_CalculateFrequencyInfo			
2		+lt_Init_SSInfo_CellA			
3		+lt_Init_SSInfo_CellB			
4		+lt_Init_SSInfo_CellC			
5		+lt_Init_SSInfo_CellD			
6		+lt_Init_SSInfo_CellE			
7		+lt_Init_SSInfo_CellF			
8		+lt_Init_SSInfo_CellG			
9		+lt_Init_SSInfo_CellH			
		lt_CalculateFrequencyInfo			
10		+ lt_CalculateFreqMid			
11		+ lt_CalculateFreqHigh			
12		+ lt_CalculateFreqLow			
		lt_CalculateFreqMid			
13		+ lt_CheckFreqSeperation(px_UARFCN_D_Mid, px_UARFCN_U_Mid)			
14		[NOT tcv_Res]			
15		( tcv_FreqInfoMid := c_FreqInfo ( px_UARFCN_U_Mid, px_UARFCN_D_Mid ))			
16		[tcv_Res]			
17		(tcv_FreqInfoMid := c_FreqInfo ( OMIT, px_UARFCN_D_Mid ))			Uplink UARFC N is OMITTE D when the distance of 190 MHz is used (distanc e of 950 in UARFC N)
		lt_CalculateFreqHigh			
18		+ It_CheckFreqSeperation(px_UARFCN_D_High, px_UARFCN_U_High)			
19		[ NOT tcv_Res ]			
20		( tcv_FreqInfoHigh := c_FreqInfo ( px_UARFCN_U_High, px_UARFCN_D_High ) )			
21		[ tcv_Res ]			

		Test Step Dynamic B	Behaviour		
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
22		( tcv_FreqInfoHigh := c_FreqInfo ( OMIT, px_UARFCN_D_High ))			Uplink UARFC N is OMITTE D when the distance of 190 MHz is used (distanc e of 950 in UARFC N)
23		lt_CalculateFreqLow + lt_CheckFreqSeperation( px_UARFCN_D_Low,			
23		px_UARFCN_U_Low )			
24		[NOT tcv_Res]			
25		( tcv_FreqInfoLow := c_FreqInfo (     px_UARFCN_U_Low, px_UARFCN_D_Low ) )			
26 27		[ tcv_Res ] ( tcv_FreqInfoLow := c_FreqInfo ( OMIT,			Uplink
		px_UARFCN_D_Low ))			UARFC N is OMITTE D when the distance of 190 MHz is used (distanc e of 950 in UARFC N)
		It_CheckFreqSeperation(p_UARFCN_D, p_UARFCN_U:INTEGER)			
28		[px_FDD_OperationBand = 1]			Operatio n Band 1 under test
29		[((p_UARFCN_D - p_UARFCN_U) = 950)]			Default seperati on
30 31		( tcv_Res := TRUE) [ TRUE]			Non default seperati on
32 33		( tcv_Res := FALSE) [px_FDD_OperationBand = 2]			Operatio n Band 2 under test

		Test Step Dynamic	Behaviour		
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
34		[((p_UARFCN_D - p_UARFCN_U) = 400)]			Default seperati on
35 36		(tcv_Res := TRUE) [TRUE]			Non default seperati on
37 38		( tcv_Res := FALSE) [px_FDD_OperationBand = 3]			Operatio n Band 3 under test
39		[((p_UARFCN_D - p_UARFCN_U) = 475)]			Default seperati on
40		( tcv_Res := TRUE)			
41		[TRUE]			Non default seperati on
42		( tcv_Res := FALSE)			
43		[(px_FDD_OperationBand = 5) OR (px_FDD_OperationBand = 6)]			Operatio n Band 5 0r 6 under test
44		[((p_UARFCN_D - p_UARFCN_U) = 225)]			Default seperati on
45		( tcv_Res := TRUE)			
46		[TRUE]			Non default seperati on
47		( tcv_Res := FALSE)			
48		[TRUE]			
		It_Init_SSInfo_CellA			
49		(tcv_CellInfoA := c_CellInfoDef ( tsc_CellA, px_PriScrmCode, tsc_URA_IdCellA, px_TCellA, tsc_SFN_OffsetA, tcv_FreqInfoMid , px_UL_ScramblingCode ))  It_Init_SSInfo_CellB			1.
50		(tcv_CellInfoB := c_CellInfoDef (			2.
30		tsc_CellB, ( ( px_PriScrmCode + 50 ) MOD 512) ,  tsc_URA_IdCellB, px_TCellB, tsc_SFN_OffsetB, tcv_FreqInfoMid , ((px_UL_ScramblingCode			۷.
		+1000) MOD 16777216) ))			
		lt_Init_SSInfo_CellC			

		Test Step Dynamic E	Behaviour		
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
51		(tcv_CellInfoC := c_CellInfoDef ( tsc_CellC, ((px_PriScrmCode + 100) MOD 512), tsc_URA_IdCellC, px_TCellC, tsc_SFN_OffsetC, tcv_FreqInfoMid, ((px_UL_ScramblingCode +2000) MOD 16777216)))			3.
		lt_Init_SSInfo_CellD			
52		(tcv_CellInfoD := c_CellInfoDef ( tsc_CellD, ((px_PriScrmCode + 150) MOD 512), tsc_URA_IdCellD, px_TCellD, tsc_SFN_OffsetD, tcv_FreqInfoHigh, ((px_UL_ScramblingCode +3000) MOD 16777216)))			4.
		lt_Init_SSInfo_CellE			
53		(tcv_CellInfoE := c_CellInfoDef ( tsc_CellE, ((px_PriScrmCode + 200) MOD 512), tsc_URA_ldCellE, px_TCellE,tsc_SFN_OffsetE, tcv_FreqInfoHigh, ((px_UL_ScramblingCode +4000) MOD 16777216)))			5.
		lt_Init_SSInfo_CellF			
54		(tcv_CellInfoF := c_CellInfoDef ( tsc_CellF, ((px_PriScrmCode + 250) MOD 512), tsc_URA_IdCellF, px_TCellF, tsc_SFN_OffsetF, tcv_FreqInfoHigh , ((px_UL_ScramblingCode +5000) MOD 16777216) ))			6.
		lt_Init_SSInfo_CellG			
55		(tcv_CellInfoG := c_CellInfoDef ( tsc_CellG, ((px_PriScrmCode + 300) MOD 512), tsc_URA_IdCellG, px_TCellG, tsc_SFN_OffsetG, tcv_FreqInfoMid , ((px_UL_ScramblingCode +6000) MOD 16777216) ))			
		It_Init_SSInfo_CellH			
56		(tcv_CellInfoH := c_CellInfoDef ( tsc_CellH, ((px_PriScrmCode + 350) MOD 512), tsc_URA_IdCellH, px_TCellH, tsc_SFN_OffsetH, tcv_FreqInfoMid , ((px_UL_ScramblingCode +7000) MOD 16777216) ))			

- **Detailed Comments**: 1. The primary scrambling code of cell A is equal to the pixit value
  - 2. The primary scrmabling code of cell B is equal to the pixit value + 50
  - 3. The primary scrmabling code of cell B is equal to the pixit value + 100
  - 4. Cell A and D do not have the same frequency, the primary scrambling code of cell D is equal to the one of cell A
  - 5. Cell B and E do not have the same frequency, the primary scrambling code of cell E is equal to the one of cell B
  - 6. Cell C and F do not have the same frequency, the primary scrambling code of cell F is equal to the one of cell C

Test Step Name : ts\_NAS\_Delay(p\_Dly: INTEGER)

Group : BasicM\_General\_Steps/
Objective : Realization of a Delay
Default : NAS\_OtherwiseFail

Comments : Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		START t_Dly(p_Dly)			
2		?TIMEOUT t_Dly			

**Detailed Comments:** 

## **Test Step Dynamic Behaviour**

Test Step Name : ts\_RRC\_Delay ( p\_Dly: INTEGER )

Group : BasicM\_General\_Steps/
Objective : Realization of a Delay

Default : RRC\_Def1

Comments : Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		START t_Dly(p_Dly)			
2		?TIMEOUT t_Dly			

**Detailed Comments:** 

## **Test Step Dynamic Behaviour**

**Test Step Name**: ts\_RRC\_InitVariables( p\_CellToBeCreated : CellToBeCreated )

Group : BasicM\_General\_Steps/

**Objective**: Initialisation of Testcase and Testsuite variables for RRC testcases

Default : RRC\_Def1

Comments :
Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+ts_AssignCN_Domain			
2		[ tcv_CN_Domain = cs_domain ]			
3		+ ts_RRC_InitVariablesCS			
4		[ tcv_CN_Domain = ps_domain ]			
5		+ ts_RRC_InitVariablesPS ( p_CellToBeCreated			
		)			
6	ERR1	[TRUE]		1	Program
					ming
					error

Test Step Name : ts\_RRC\_InitVariablesCS
Group : BasicM\_General\_Steps/

**Objective**: Initialisation of Testcase and Testsuite variables for RRC testcases

Default : RRC\_Def1

Comments : Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+ts_InitVariables			
2		( tcv_CN_Domain := cs_domain, tcv_RAB_Id := tsc_RAB_DefCS )			
3		+ It_RRC_InitServVarCS			
		It_RRC_InitServVarCS			
4		[ ( px_RRC_CS_ServTested = speech ) AND pc_Conversational ]			
5		( tcv_RRC_RAB_Type := cell_DCH_Speech, tcv_RRC_PagingCau := terminatingConversationalCall, tcv_RRC_EstCauMO := originatingConversationalCall, tcv_RRC_EstCauMT := terminatingConversationalCall)			
6		[ ( px_RRC_CS_ServTested = conversational_64k ) AND pc_Conversational ]			
7		(tcv_RRC_RAB_Type := cell_DCH_64kCS_RAB_SRB, tcv_RRC_PagingCau := terminatingConversationalCall, tcv_RRC_EstCauMO := originatingConversationalCall, tcv_RRC_EstCauMT := terminatingConversationalCall)			
8		[ ( px_RRC_CS_ServTested = streaming_57_6k ) AND pc_Streaming ]			
9		(tcv_RRC_RAB_Type := cell_DCH_57_6kCS_RAB_SRB, tcv_RRC_PagingCau := terminatingStreamingCall, tcv_RRC_EstCauMO := originatingConversationalCall, tcv_RRC_EstCauMT := terminatingStreamingCall)			
10	ERR1	[TRUE]		I	Program ming or paramet er error

 $\textbf{Test Step Name} \quad : \ ts\_RRC\_InitVariablesPS \ ( \ p\_CellToBeCreated \ : \ CellToBeCreated \ )$ 

Group : BasicM\_General\_Steps/

Objective : Initialisation of Testcase variables for RRC testcases in the PS\_domain

Default : RRC\_Def1

Comments : Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+ts_InitVariables			
2		( tcv_CN_Domain := ps_domain, tcv_RAB_Id := tsc_RAB_DefPS )			
3		[ p_CellToBeCreated = cell_FACH ]			1.
4		( tcv_RRC_RAB_Type := cell_FACH_PS )			
5		+ lt_RRC_InitServVarPS			
6		[ p_CellToBeCreated = cell_DCH ]			
7		( tcv_RRC_RAB_Type := cell_DCH_64kPS_RAB_SRB)			
8		+ lt_RRC_InitServVarPS			
		It_RRC_InitServVarPS			
9		[ pc_Interactive AND ( px_RRC_PS_ServTested = ps_Interactive) ]			
10		(tcv_RRC_PagingCau := terminatingInteractiveCall, tcv_RRC_EstCauMO := originatingInteractiveCall, tcv_RRC_EstCauMT := terminatingInteractiveCall)			
11		[ pc_Background AND ( px_RRC_PS_ServTested = ps_Background) ]			
12		(tcv_RRC_PagingCau := terminatingBackgroundCall, tcv_RRC_EstCauMO := originatingBackgroundCall, tcv_RRC_EstCauMT := terminatingBackgroundCall)			
13	ERR1	[ TRUE]		I	Paramet er error

Detailed Comments: 1. In the ps\_domain with a cell\_FACH configuration, the RAB configuration to be used is

cell\_FACH\_PS

Test Step Name : ts\_SaveCellInfo ( p\_CellId : INTEGER )

Group : BasicM\_General\_Steps/

**Objective**: To save in the variable dedicated to the cell p\_CellID, the value contained in tcv\_TmpCellInfo.

Default : SS\_Def

Comments : Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		[ p_CellId = tsc_CellA]			
2		( tcv_CellInfoA := tcv_TmpCellInfo)			
3		[ p_CellId = tsc_CellB]			
4		( tcv_CellInfoB:= tcv_TmpCellInfo)			
5		[ p_CellId = tsc_CellC]			
6		( tcv_CellInfoC:= tcv_TmpCellInfo)			
7		[ p_CellId = tsc_CelID]			
8		( tcv_CellInfoD:= tcv_TmpCellInfo)			
9		[ p_CellId = tsc_CellE]			
10		( tcv_CellInfoE := tcv_TmpCellInfo)			
11		[ p_CellId = tsc_CellF]			
12		( tcv_CellInfoF := tcv_TmpCellInfo)			
13		[ p_CellId = tsc_CelIG]			
14		( tcv_CellInfoG := tcv_TmpCellInfo)			
15		[ p_CellId = tsc_CelIH]			
16		( tcv_CellInfoH := tcv_TmpCellInfo)			
17		[TRUE]		I	program ming error
Deta	iled Com	iments :		•	•

# **Test Step Dynamic Behaviour**

 $\textbf{Test Step Name} \quad : \ ts\_SetCellCfg \ ( \ p\_CellId : INTEGER \ ; \ p\_CellConfig : RB\_ConfigType \ )$ 

**Group**: BasicM\_General\_Steps/

**Objective**: To assign the field cellConfig of the cell given as parameter to the value 'p\_CellConfig'.

(tcv\_CellInfo[p\_CellId] := p\_CellConfig)

Default : SS\_Def

Comments :

Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments	
1		+ ts_SetTmpCellInfo (p_CellId)				
2		( tcv_TmpCellInfo.cellConfig := p_CellConfig )				
3		+ ts_SaveCellInfo (p_CellId)				
Doto	Patrilled Comments :					

 $\textbf{Test Step Name} \quad : \ \, ts\_SetTmpCellInfo \ \, (p\_CellId : INTEGER \, )$ 

Group : BasicM\_General\_Steps/

Objective : To Set global variable tcv\_TmpCellInfo to the table corresponding to given cell

Default : SS\_Def

**Comments**: This Step helps the programmer when he/she needs to access cell information in a generic test Step.

Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		[p_CellId = tsc_CellA]			
2		( tcv_TmpCellInfo := tcv_CellInfoA )			
3		[p_CellId = tsc_CellB]			
4		( tcv_TmpCellInfo := tcv_CellInfoB )			
5		[p_CellId = tsc_CellC]			
6		( tcv_TmpCellInfo := tcv_CellInfoC )			
7		[p_CellId = tsc_CellD]			
8		( tcv_TmpCellInfo := tcv_CellInfoD )			
9		[p_CellId = tsc_CellE]			
10		( tcv_TmpCellInfo := tcv_CellInfoE )			
11		[p_CellId = tsc_CellF]			
12		( tcv_TmpCellInfo := tcv_CellInfoF )			
13		[p_CellId = tsc_CellG]			
14		( tcv_TmpCellInfo := tcv_CellInfoG )			
15		[p_CellId = tsc_CellH]			
16		( tcv_TmpCellInfo := tcv_CellInfoH )			
17	ERR	[TRUE]		I	Fatal error
Deta	iled Com	iments :			1

Test Step Name : ts\_GMM\_Authentication ( p\_CellId : INTEGER )

Group : BasicM\_MM\_GMM\_Steps/

**Objective**: Generate authentication paramters and run the GMM Authentication procedure

Default : NAS\_OtherwiseFail

Comments : Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+ts_GMM_AuthenticationInit			Comput e all relevant authenti cation paramet ers.
2		Dc ! RRC_DataReq	ca_PS_DataReq(tsc_CellDe dicated , tsc_RB3, cs_AuthAndCiphReq ( c_GMM_AuthRAND(tcv_Au thRAND), c_GMM_KeySeq_tv(tcv_PS_KeySeq), c_GMM_AuthAUTN(tcv_Au thAUTN) ))		AUTHE NTICATI ON AND CIPHER ING REQUE ST using relevant PS keys compute d before.
3		Dc ? RRC_DataInd ( tcv_TmpAuthAndCiphRspPDU := RRC_DataInd.msg, tcv_AuthRsp := tcv_TmpAuthAndCiphRspPDU.authRsp.value, tcv_AuthRspExt := tcv_TmpAuthAndCiphRspPDU.authRspExt )	car_PS_UplinkDirectTransfe r ( tsc_CellDedicated , tsc_RB3, cr_AuthAndCiphRsp (c_AuthRspAny_tv,c_AuthC iphRspExtAny) )		AUTHE NTICATI ON AND CIPHER ING RESPO NSE including both Authenti cation Respons e paramter s (RES and RES ext)
4		(tcv_Res := o_AuthRspChk( tcv_AuthRsp, tcv_AuthRspExt, tcv_AuthK, tcv_AuthRAND, TRUE))			Verify that the received Authenti cation Respons e paramter s match expecte d respons e.
5	TSF1	[tcv_Res = FALSE]		(F)	-

	Test Step Dynamic Behaviour						
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments		
6 7	TSP1	[tcv_Res = TRUE]  Dc ? RRC_DataInd ( tcv_TmpAuthAndCiphRspPDU := RRC_DataInd.msg, tcv_AuthRsp := tcv_TmpAuthAndCiphRspPDU.authRsp.value )	car_PS_UplinkDirectTransfe r ( tsc_CellDedicated , tsc_RB3, cr_AuthAndCiphRsp (c_AuthRspAny_tv, -) )	(P)	AUTHE NTICATI ON AND CIPHER ING RESPO NSE including only one Authenti cation Respons		
8	TSF2	(tcv_Res := o_AuthRspChk( tcv_AuthRsp, _, tcv_AuthK, tcv_AuthRAND, FALSE))			e paramter s (RES) Verify that the received Authenti cation Respons e paramter s match expecte d respons e.		
10	TSP2	[tcv_Res = FALSE] [tcv_Res = TRUE] Dc ? RRC_DataInd	car_PS_UplinkDirectTransfe r ( tsc_CellDedicated , tsc_RB3, cr_AuthAndCiphFailureAny )	(F) (P) I	AUTHE NTICATI ON AND CIPHER ING Failure, then stop executio n by assignin g INCON CLUSIV E verdict as this might be a USIM issue.		

**Detailed Comments :** See 3GPP 24.008 / 4.7, 3GPP 33.102 / 6.3 and 3GPP 34.108 / 8 (for the computation of

authentication paramters

for Test USIM)

See also the detailed description in test Step ts\_MM\_Authentication, on which this test Step is

based.

Test Step Name : ts\_GMM\_AuthenticationInit
Group : BasicM\_MM\_GMM\_Steps/

**Objective**: Computation of variables related to the Authentication and Key Agreement

procedure for PS domain

Default : NAS\_OtherwiseFail

**Comments**: Based on TS 34.108 cl. 8.1.2 and TS 33.102 cl.s 6.3 and 6.8.1.2

Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+lt_IncrementCiphKeySeqNum			
2		+lt_AuthCalcAUTN			1. Calculati on of AUTN needed for Authenti cation Request
3		+lt_AuthCalcUMTS_Others			2. Calculati on of other authenti cation informati on needed (IK, CK, XRES)
4		+lt_AuthCalcKcGSM			3. Calculati on of Kc GSM, using IK and CK
		It_IncrementCiphKeySeqNum			
5		[tcv_PS_KeySeq = '000'B]			
6		(tcv_PS_KeySeq := '001'B)			
7		[tcv_PS_KeySeq = '001'B]			
8		(tcv_PS_KeySeq := '010'B)			
9		[tcv_PS_KeySeq = '010'B]			
10		(tcv_PS_KeySeq := '011'B)			
11		[tcv_PS_KeySeq = '011'B]			
12		(tcv_PS_KeySeq := '100'B)			
13		[tcv_PS_KeySeq = '100'B]			
14		(tcv_PS_KeySeq := '101'B)			
15		[tcv_PS_KeySeq = '101'B]			
16		(tcv_PS_KeySeq := '110'B)			
17		[TRUE]			
18		(tcv_PS_KeySeq := '000'B)			
		lt_AuthCalcAUTN			

	Test Step Dynamic Behaviour						
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments		
19		(tcv_AuthXDOUT := o_BitstringXOR( tcv_AuthRAND, tcv_AuthK, 128))			XDOUT := RAND XOR K		
20		(tcv_AuthCDOUT := o_BitstringConcat( tsv_AuthSQN, tcv_AuthAMF, 48, 16))			CDOUT := SQN    AMF		
21		(tcv_AuthXDOUT_Half := o_BitstringXtract( tcv_AuthXDOUT, 128, 64, 0))			XDOUT _half := 64 bits of XDOUT starting from offset 0		
22		(tcv_AuthAK := o_BitstringXtract( tcv_AuthXDOUT, 128, 48, 24))			AK := 48 bits of XDOUT starting from offset 24		
23		(tcv_AuthAUTN_1 := o_BitstringXOR( tsv_AuthSQN, tcv_AuthAK, 48))			AUTN1 := SQN XOR AK		
24		(tcv_AuthMAC := o_BitstringXOR( tcv_AuthXDOUT_Half, tcv_AuthCDOUT, 64))			MAC := XDOUT _half XOR CDOUT		
25		(tcv_AuthAUTN_2 := o_BitstringConcat( tcv_AuthAMF, tcv_AuthMAC, 16, 64))			AUTN2 := AMF    MAC		
26		(tcv_AuthAUTN :=     o_BitstringConcat(     tcv_AuthAUTN_1,     tcv_AuthAUTN_2,     48,     80))			AUTN := AUTN1    AUTN2		
27		It_AuthCalcUMTS_Others (tcv_PS_AuthIK := o_BitstringXtract( tcv_AuthXDOUT, 128, 128, 16))			IK := 128 bits of XDOUT starting from offset 16 (wrappin g)		

	Test Step Dynamic Behaviour						
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments		
28		(tcv_PS_AuthCK := o_BitstringXtract( tcv_AuthXDOUT, 128, 128, 8))			CK := 128 bits of XDOUT starting from offset 8 (wrappin g)		
29		<pre>(tcv_AuthXRES := o_BitstringXtract( tcv_AuthXDOUT, 128, (tcv_AuthN + 1), 0))</pre>			XRES := (n+1) bits of XDOUT starting from offset 0		
30		It_AuthCalcKcGSM  (tcv_AuthCK_1 := o_BitstringXtract( tcv_PS_AuthCK, 128, 64, 0))			CK1 := 64 bits of CK starting from offset 0		
31		(tcv_AuthCK_2 := o_BitstringXtract( tcv_PS_AuthCK, 128, 64, 64))			CK2 := 64 bits of CK starting from offset 64		
32		(tcv_AuthIK_1 := o_BitstringXtract( tcv_PS_AuthIK, 128, 64, 0))			IK1 := 64 bits of IK starting from offset 0		
33		(tcv_AuthIK_2 := o_BitstringXtract( tcv_PS_AuthIK, 128, 64, 64))			IK2 := 64 bits of IK starting from offset 64		
34		<pre>(tcv_AuthCK_XOR :=   o_BitstringXOR(   tcv_AuthCK_1,   tcv_AuthCK_2, 64))</pre>			CK_XO R := CK1 XOR CK2		
35		(tcv_AuthIK_XOR := o_BitstringXOR( tcv_AuthIK_1, tcv_AuthIK_2, 64))			IK_XOR := IK1 XOR IK2		

# Continued from previous page

	Test Step Dynamic Behaviour							
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments			
36		(tcv_AuthKcGSM := o_BitstringXOR( tcv_AuthCK_XOR, tcv_AuthIK_XOR, 64))			KcGSM := CK_XO R XOR IK_XOR (= CK1 XOR CK2 XOR IK1 XOR IK2)			
Deta	iled Com	ments: (see ts_MM_AuthenticationInit)						

Test Step Name : ts\_GMM\_IdleUpdated ( p\_CellId : INTEGER )

**Group**: BasicM\_MM\_GMM\_Steps/

**Objective**: Turn on UE and register for PS or combined PS/CS services.

Default : NAS\_OtherwiseFail
Comments : Initial conditions:

- Cell referenced by p\_CellId is configured and sending SysInfos on BCCH

- UE is switched off with a valid Test USIM inserted

Input paramters:

- p\_CellId referencing the Cell

Global paramters used:

- The SS will use global authentication paramters and keys which are generated in test Step

 $ts\_GMM\_Authentication:$ 

tcv\_AuthRAND, tcv\_KeySeq, tcv\_AuthAUTN, tcv\_AuthCK, tcv\_AuthIK, tcv\_AuthKcGSM.

- The SS will assign to the UE default values for P-TMSI, P-TMSI signature and

(in case of combined PS/IMSI attach) TMSI.

Description

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+ts_SetTmpCellInfo (p_CellId)			
2		[ (tcv_UE_OpMode = opModeA) AND (tcv_TmpCellInfo.nmo = tsc_NMO_I)]			If UE is in operation n mode A and network mode of operation is I, then run combined PS/CS
		. It felled by describ NIMO I			es.
3		+lt_IdleUpdated_NMO_I			
4		( tcv_Use_E_PLMN := FALSE)			Invalidat e the tcv_E_P LMN
5		[(tcv_UE_OpMode = opModeA) AND (tcv_TmpCellInfo.nmo = tsc_NMO_II)]			If UE is in operation mode A and network mode of operation is II, then run first CS and PS procedures independently
6		+lt_IdleUpdated_NMO_II			

		Test Step Dynamic	Behaviour		
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
7		( tcv_Use_E_PLMN := FALSE)			Invalidat e the tcv_E_P LMN
8		[tcv_UE_OpMode = opModeC]			If UE is in operatio n mode C, then run GMM procedur e (for PS only attach).
9		+lt_GMMOnly_IdleUpdated			
10		( tcv_Use_E_PLMN := FALSE)			Invalidat e the tcv_E_P LMN
11	ERR	[TRUE]		I	Program ming error
		It_IdleUpdated_NMO_I			
12		+ ts_MMI_UE_SwitchOn			
13		+ts_RRC_ConnEst( p_CellId, est_Reg, registration)			Establis h RRC connecti on
14		[pc_AutomaticAttachSwitchON = TRUE]			Perform combine d CS/PS procedur e
15		+lt_AttachRequest			ATTACH REQUE ST
16		+ts_GMM_Authentication ( p_CellId )			AUTHE NTICATI ON AND CIPHER ING REQUE ST AUTHE NTICATI ON AND CIPHER ING RESPO NSE

		Test Step Dynam	nic Behaviour		
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
17		+lt_SecurityMode			SECURI TY MODE COMMA ND SECURI TY MODE COMPL
18		+lt_AttachAccept			ETE ATTACH ACCEP T ATTACH COMPL ETE
19		+lt_RRC_ConnRel			RRC connecti on release
20		[pc_AutomaticAttachSwitchON = FALSE]			First perform Location Update procedur e, and then trigger UE via AT comman d to perform GPRS Attach
21		Dc?RRC_DataInd ( tcv_Start := RRC_DataInd.start )	car_InitDirectTransfer ( tsc_CellDedicated, tsc_RB3, cb_LocUpdReqAny(?))		Any Location Update request
22		<pre>+ ts_SS_SecurityDownloadStart ( cs_domain, tcv_Start ) +ts_MM_Authentication(p_CellId)</pre>			Authenti
24		+ts_RRC_Security ( p_CellId,     tcv_AuthCK,     tcv_AuthIK,     tcv_AuthKcGSM,     TRUE,     cs_domain)     + lt_LocUpdAcc			cation
26		+ It_RRC_ConnRel			Release RRC connecti on
27		START t_WaitS(1)			Wait 1 s to allow UE to relax

	Test Step Dynamic Behaviour							
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments			
28		?TIMEOUT t_WaitS						
29		START t_WaitS (60)						
30		+ts_AT_TriggerGMM_Attach			trigger UE to initiate GMM Attach after allowing the UE to decode Sys			
31		+ts_RRC_ConnEst( p_CellId, est_Reg, registration)			Infos Establis h RRC connecti on			
32		Dc ? RRC_DataInd ( tcv_TmpAttachReqPDU := RRC_DataInd.msg, tcv_TmpB3:=	car_PS_InitDirectTransfer (tsc_CellDedicated, tsc_RB3, cr_AttachReq (		ATTACH REQUE ST			
		tcv_TmpBs tcv_TmpAttachReqPDU.at tachType.type, tcv_Start := RRC_DataInd.start )CANCEL t_WaitS	c_Attachiveq ( c_AttachivpeAny, c_MobileIdAny_lv, c_RAI_Any_v, ?))		Extract Attach type requeste			
33		+			ľ			
55		ts_SS_SecurityDownloa dStart ( ps_domain, tcv_Start )						
34		+ts_GMM_Authenticati on ( p_CellId )			AUTHE NTICATI ON AND CIPHER ING REQUE ST AUTHE NTICATI ON AND CIPHER ING RESPO NSE			
35		+lt_SecurityMode			SECURI TY MODE COMMA ND SECURI TY MODE COMPL ETE			

	Test Step Dynamic Behaviour						
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments		
36		+lt_AttachAccept			ATTACH ACCEP T ATTACH COMPL		
37		+lt_RRC_ConnRe I			RRC connecti on release		
38		? TIMEOUT t_WaitS		F	IF UE doesent respond to Attach triggere d Fail the UE.		
39		+ ts_MMI_UE_SwitchOn					
40		+ts_RRC_ConnEst( p_CellId, est_Reg, registration)			Establis h RRC connecti on		
41		Dc?RRC_DataInd (tcv_Start := RRC_DataInd.start)	car_InitDirectTransfer ( tsc_CellDedicated, tsc_RB3, cb_LocUpdReqAny(?))		Any Location Update request		
42		(tcv_GMM_AttachExpect := TRUE, tcv_GMM_AttachRec := FALSE)			Set Flags in order to enable default handler to store ATTACH REQUE ST PDU in case it is sent during Location Update procedur e		
43		+ ts_SS_SecurityDownloadStart ( cs_domain, tcv_Start)					
44		+ts_MM_Authentication(p_CellId)			Authenti cation		
45		+ts_RRC_Security ( p_CellId, tcv_AuthCK, tcv_AuthIK, tcv_AuthKcGSM, TRUE, cs_domain)					
46		+ lt_LocUpdAcc					
47		+lt_HandleAttachRequest					

	Test Step Dynamic Behaviour						
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments		
48		+ts_GMM_Authentication ( p_CellId )			AUTHE NTICATI ON AND CIPHER ING REQUE ST AUTHE NTICATI ON AND CIPHER ING		
49		+lt_SecurityMode			RESPO NSE SECURI TY MODE COMMA ND SECURI TY MODE COMPL		
50		+lt_AttachAccept			ETE ATTACH ACCEP T ATTACH COMPL		
51		+lt_RRC_ConnRel			RRC connecti on release		
52		It_HandleAttachRequest (tcv_GMM_AttachExpect := FALSE)			Disable NAS default handler for ATTACH REQUE ST		
53		[ tcv_GMM_AttachRec = TRUE]			ATTACH REQUE ST was received and handled by NAS default handler		

	Test Step Dynamic Behaviour						
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments		
54		[NOT pc_AutomaticAttachSwitchON]			ATTACH REQUE ST was NOT yet received and the UE does not automati cally attach at switch on		
55		+lt_RRC_ConnRel			RRC connecti on release		
56		START t_WaitS ( 1 )			Wait 1 s to allow UE to relax		
57		?TIMEOUT t_WaitS					
58		START t_WaitS ( 60 )					
59		+ts_AT_TriggerGMM_Attach			Trigger UE to initiate GMM Attach after allowing the UE to decode Sys Infos		
60		+ts_RRC_ConnEst( p_CellId, est_Reg, registration)			Establis h RRC connecti on		
61		Dc ? RRC_DataInd ( tcv_TmpAttachReqPDU := RRC_DataInd.msg, tcv_TmpB3:= tcv_TmpAttachReqPDU.attachType.t ype, tcv_Start := RRC_DataInd.start )CANCEL t_WaitS	car_PS_InitDirectTransfer (tsc_CellDedicated, tsc_RB3, cr_AttachReq ( c_AttachTypeAny, c_MobileIdAny_Iv, c_RAI_Any_v, ?))		ATTACH REQUE ST - Extract Attach type requeste d		
62		+ ts_SS_SecurityDownloadStart ( ps_domain, tcv_Start )					
63		? TIMEOUT t_WaitS		F			

		Test Step Dynam	ic Behaviour		
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
64		[TRUE]			The UE did not send ATTACH REQUE ST but it should since it shall automati call switch attach at switch on
65 66		START t_WaitS(5) Dc?RRC_DataInd(	car_PS_InitDirectTransfer		ATTACH
		tcv_TmpAttachReqPDU := RRC_DataInd.msg, tcv_TmpB3:= tcv_TmpAttachReqPDU.attachType.type, tcv_Start := RRC_DataInd.start )CANCEL t_WaitS	(tsc_CellDedicated, tsc_RB3, cr_AttachReq ( c_AttachTypeAny, c_MobileIdAny_Iv, c_RAI_Any_v, ?))		REQUE ST – Extract Attach type requeste d
67		+ ts_SS_SecurityDownloadStart ( ps_domain, tcv_Start )			
68		? TIMEOUT t_WaitS			Now, if this event happens, then the UE didn't send an ATTACH REQUE ST yet. We give the UE a last chance: We release the connecti on and wait for the UE to autamtic ally start a connecti on and finally send an ATTACH REQUE ST

		Test Step Dynamic	Behaviour		
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
69		+It_RRC_ConnRel			RRC connecti on release
70 71		START t_WaitS ( 5 )  +ts_RRC_ConnEst( p_CellId, est_Reg, registration)			Establis h RRC connecti on
72		Dc ? RRC_DataInd ( tcv_TmpAttachReqPDU := RRC_DataInd.msg, tcv_TmpB3:= tcv_TmpAttachReqPDU.attachType.ty pe, tcv_Start := RRC_DataInd.start )CANCEL t_WaitS	car_PS_InitDirectTransfer (tsc_CellDedicated, tsc_RB3, cr_AttachReq ( c_AttachTypeAny, c_MobileIdAny_Iv, c_RAI_Any_v, ?))		ATTACH REQUE ST - Extract Attach type requeste d
73		+ ts_SS_SecurityDownloadStart ( ps_domain, tcv_Start )			
74 75 76		? TIMEOUT t_WaitS  It_GMMOnly_IdleUpdated + ts_MMI_UE_SwitchOn +It_GMMOnly_TriggerAttach		F	Here we finally FAIL the UE! [Note: Actually the timout will be handled by the default handler of ts_RRC _ConnE st]
77		+ts_RRC_ConnEst( p_CellId, est_Reg, registration)			Establis h RRC connecti on
78		+lt_AttachRequest			ATTACH REQUE ST

		Test Step Dynamic	Behaviour		
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
79		+ts_GMM_Authentication ( p_CellId )			AUTHE NTICATI ON AND CIPHER ING REQUE ST
					AUTHE NTICATI ON AND CIPHER ING RESPO NSE
80		+lt_SecurityMode			SECURI TY MODE COMMA ND SECURI TY MODE COMPL ETE
81		+lt_AttachAccept			ATTACH ACCEP T ATTACH COMPL ETE
82		+lt_RRC_ConnRel			RRC connecti on release
		lt_GMMOnly_TriggerAttach			
83		[NOT pc_AutomaticAttachSwitchON]			
84		+ts_NAS_Delay(tsc_TWaitSysInfo)			Allow UE to decode Sys Infos
85		+ts_AT_TriggerGMM_Attach			Trigger UE to initiate GMM Attach after allowing the UE to decode Sys Infos

	Test Step Dynamic Behaviour						
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments		
86		[TRUE]  It_AttachRequest			Do nothing: UE will automati cally attempt PS attach		
87		Dc ? RRC_DataInd ( tcv_TmpAttachReqPDU := RRC_DataInd.msg, tcv_TmpB3:= tcv_TmpAttachReqPDU.attachType.type, tcv_Start := RRC_DataInd.start )	car_PS_InitDirectTransfer (tsc_CellDedicated, tsc_RB3, cr_AttachReq ( c_AttachTypeAny, c_MobileIdAny_Iv, c_RAI_Any_v, ?))		ATTACH REQUE ST – Extract Attach type requeste d		
88		+ ts_SS_SecurityDownloadStart ( ps_domain, tcv_Start )  It_LocUpdAcc					
89		[tcv_Use_E_PLMN = FALSE]					
90		Dc!RRC_DataReq	ca_DataReq( tsc_CellDedicated, tsc_RB3, c_LocUpdAcpTMSI( tcv_TmpCellInfo.mcc, tcv_TmpCellInfo.mnc, tcv_TmpCellInfo.lac))		LOCATI ON UPDATI NG ACCEP T		
91		Dc?RRC_DataInd	car_UplinkDirectTransfer ( tsc_CellDedicated, tsc_RB3, c_TMSI_ReallocCmpl)		TMSI REALLO CATION COMPL ETE		
92		[TRUE]			[tcv_Us e_E_PL MN = TRUE]		
93		Dc!RRC_DataReq	ca_DataReq( tsc_CellDedicated, tsc_RB3, c_LocUpdAcpTMSI_E_PLM N ( tcv_TmpCellInfo.mcc, tcv_TmpCellInfo.mnc, tcv_TmpCellInfo.lac, tcv_E_PLMN ))		LOCATI ON UPDATI NG ACCEP T including 'equivale nt PLMN list'		
94		Dc?RRC_DataInd	car_UplinkDirectTransfer ( tsc_CellDedicated, tsc_RB3, c_TMSI_ReallocCmpl)		TMSI REALLO CATION COMPL ETE		
		It_SecurityMode					

	Test Step Dynamic Behaviour							
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments			
95		+ ts_RRC_Security ( p_CellId, tcv_PS_AuthCK, tcv_PS_AuthIK, tcv_AuthKcGSM, TRUE, ps_domain)			SECURI TY MODE COMMA ND SECURI TY MODE COMPL ETE			
		It_AttachAccept						
96		[ (tcv_UE_OpMode = opModeA ) AND (tcv_TmpCellInfo.nmo = tsc_NMO_I) ]			if UE is mode A and NMO II			
97		(tcv_AssignedTMSI :=px_TMSI_Def, tcv_AssignedPTMSI :=px_PTMSI_Def, tcv_Assigned_PTMSI_Sig := px_PTMSI_SigDef)			Use default values			
98		[tcv_Use_E_PLMN = FALSE]						
99		Dc ! RRC_DataReq	ca_PS_DataReq(tsc_CellDe dicated, tsc_RB3, cs_AttachAcc( c_GMM_AttachResult('011' B), c_RAI_v( tcv_TmpCellInfo.mcc, tcv_TmpCellInfo.lac, tcv_TmpCellInfo.rac), c_PTMSI_Signature (tcv_Assigned_PTMSI_Sig), c_MobileIdPTMSI (tcv_AssignedPTMSI), c_GMM_MobileIdTMSI (tcv_AssignedTMSI)))		ATTACH ACCEP T for combine d CS/PS  - Attach result 'GPRS/I MSI attached , - RAI default - P-TMSI signatur e - MobileId P-TMSI - defaut TMSI			
100		Dc ? RRC_DataInd	car_PS_UplinkDirectTransfe r ( tsc_CellDedicated, tsc_RB3, cr_AttachComplete)		ATTACH COMPL ETE			
101		[TRUE]			[tcv_Us e_E_PL MN = TRUE]			

	Test Step Dynamic Behaviour						
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments		
102		Dc ! RRC_DataReq	ca_PS_DataReq(tsc_CellDe dicated, tsc_RB3, cs_AttachAccE_PLMN( c_GMM_AttachResult('011' B), c_RAI_v(		ATTACH ACCEP T for combine d CS/PS		
			tcv_TmpCellInfo.mcc, tcv_TmpCellInfo.mnc, tcv_TmpCellInfo.lac, tcv_TmpCellInfo.rac), c_PTMSI_Signature		- Attach result 'GPRS/I MSI attached		
			(tcv_Assigned_PTMSI_Sig), c_MobileIdPTMSI (tcv_AssignedPTMSI), c_GMM_MobileIdTMSI		- RAI default		
			(tcv_AssignedTMSI), tcv_E_PLMN		P-TMSI signatur e		
					MobileId P-TMSI - defaut TMSI		
					equivale nt PLMN list		
103		Dc ? RRC_DataInd	car_PS_UplinkDirectTransfe r ( tsc_CellDedicated, tsc_RB3, cr_AttachComplete)		ATTACH COMPL ETE		
104		[TRUE]			If mode is C or if NMO is II		
105		( tcv_AssignedPTMSI := px_PTMSI_Def, tcv_Assigned_PTMSI_Sig := px_PTMSI_SigDef )			Use default values		
106 107		[tcv_Use_E_PLMN = FALSE]  Dc ! RRC_DataReq	ca_PS_DataReq(tsc_CellDe dicated, tsc_RB3, cs_AttachAcc( c_GMM_AttachResult('001' B),		ATTACH ACCEP T for PS only		
			c_RAI_v( tcv_TmpCellInfo.mcc, tcv_TmpCellInfo.mnc, tcv_TmpCellInfo.lac, tcv_TmpCellInfo.rac),		- Attach result 'GPRS attached		
			c_PTMSI_Signature (tcv_Assigned_PTMSI_Sig), c_MobileIdPTMSI (tcv_AssignedPTMSI),		- RAI default (RAI-1) - P-TMSI		
					-1 signatur e		
					_ MobileId		

	Test Step Dynamic Behaviour						
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments		
108		Dc ? RRC_DataInd [TRUE]	car_PS_UplinkDirectTransfe r ( tsc_CellDedicated, tsc_RB3, cr_AttachComplete)		P-TMSI -1 - omit TMSI ATTACH COMPL ETE [tcv_Us		
					e_E_PL MN = TRUE]		
110		Dc! RRC_DataReq	ca_PS_DataReq(tsc_CellDe dicated, tsc_RB3, cs_AttachAccE_PLMN( c_GMM_AttachResult('001' B), c_RAI_v( tcv_TmpCellInfo.mcc, tcv_TmpCellInfo.lac, tcv_TmpCellInfo.rac), c_PTMSI_Signature (tcv_Assigned_PTMSI_Sig), c_MobileIdPTMSI (tcv_AssignedPTMSI), -, tcv_E_PLMN ))		ATTACH ACCEP T for PS only  - Attach result 'GPRS attached ,  - RAI default (RAI-1) - P-TMSI -1 signatur e -		
					MobileId P-TMSI -1 - omit TMSI - equivale nt PLMN		
111		Dc ? RRC_DataInd	car_PS_UplinkDirectTransfe r ( tsc_CellDedicated, tsc_RB3, cr_AttachComplete)		list ATTACH COMPL ETE		
		lt_RRC_ConnRel			<u> </u>		

		Test Step Dynamic	Behaviour		
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
112		[ (tcv_TmpCellInfo.cellConfig = cell_FACH) OR   (tcv_TmpCellInfo.cellConfig =   cell_FACH_2SCCPCH_StandAlonePCH) OR   (tcv_TmpCellInfo.cellConfig =   cell_FACH_2_PRACH) OR   (tcv_TmpCellInfo.cellConfig =   cell_FACH_2_SCCPCH )OR   (tcv_TmpCellInfo.cellConfig =   cell_FACH_3_SCCPCH_4_FACH_Cnfg1 ) OR   (tcv_TmpCellInfo.cellConfig =   cell_FACH_3_SCCPCH_4_FACH_Cnfg2 )OR   (tcv_TmpCellInfo.cellConfig =   cell_FACH_3_SCCPCH_3_FACH_CTCH )OR   (tcv_TmpCellInfo.cellConfig =   cell_FACH_3_SCCPCH_3_FACH_2a_CTCH) OR   (tcv_TmpCellInfo.cellConfig =   cell_FACH_3_SCCPCH_StandAlonePCH_2a)OR   (tcv_TmpCellInfo.cellConfig =   cell_FACH_3_SCCPCH_4_FACH_2a_Cnfg1) OR   (tcv_TmpCellInfo.cellConfig =   cell_FACH_3_SCCPCH_4_FACH_2a_Cnfg1) OR   (tcv_TmpCellInfo.cellConfig =   cell_FACH_3_SCCPCH_4_FACH_2a_Cnfg1) OR   (tcv_TmpCellInfo.cellConfig =   cell_FACH_3_SCCPCH_4_FACH_2a_Cnfg2) ]			
113		+ ts_RRC_ConnRel ( p_CellId, cell_Fach_Dcch )			
114		[ tcv_TmpCellInfo.cellConfig <> cell_FACH ]			
115		+ ts_RRC_ConnRel ( p_CellId, cell_Dch )			

Detailed Comments : See 3GPP 24.008 / 4.7 and also 3GPP 34.108 / 7.2.2 (Registration on PS)

See also the detailed description in test Step ts\_MM\_IdleUpdated, on which this test Step is based.

Test Step Name : ts\_IdleUpdated (p\_CellId: INTEGER)

Group : BasicM\_MM\_GMM\_Steps/

Objective : To bring the UE into MM and/or GMM state Idle Updated

Default : NAS\_OtherwiseFail
Comments : Initial conditions:

- The UE is initially switched off

- The cell referred has been properly configured.

Note-1: The cell settings (like PLMN, LAC and RAC) used during the registration procedure are

extracted from cell info record in tcv\_CellInfoX

Note-2: If 'equivalent PLMN list' is to be used, please set global variable tcv\_Use\_E\_PLMN to TRUE

and accordingly initialise tcv\_E\_PLMN

Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		[pc_CS AND pc_PS]			both CS and PS supporte d and for testing
2		+ts_GMM_IdleUpdated ( p_CellId )			
3		[pc_CS]			CS supporte d and for testing
4		+ts_MM_IdleUpdated (p_CellId)			
5		[pc_PS]			PS supporte d and for testing
6		+ts_GMM_IdleUpdated ( p_CellId )			
7	ERR1	[TRUE]		1	

**Detailed Comments**: Parameter description:

\_\_\_\_\_

p\_CellIId Cell Identification INTEGER

Test Step Name: ts\_MM\_Authentication (p\_CellId: INTEGER)

Group : BasicM\_MM\_GMM\_Steps/ Objective : Normal authentication Default : NAS\_OtherwiseFail

Comments : To be used after the synchronization of the authentication in both SS and UE has been achieved.

Description

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+ts_MM_AuthenticationInit			1.
2		Dc!RRC_DataReq	ca_DataReq ( tsc_CellDedicated, tsc_RB3, c_AuthReq ( tcv_CS_KeySeq, tcv_AuthRAND, c_AUTN( tcv_AuthAUTN)))		Authenti cation Request
3		Dc?RRC_DataInd ( tcv_AuthRspPDU := RRC_DataInd.msg, tcv_AuthRsp := tcv_AuthRspPDU.authRsp, tcv_AuthRspExt := tcv_AuthRspPDU.authRspExt)	car_UplinkDirectTransfer ( tsc_CellDedicated, tsc_RB3, c_AuthRspAnyExt)		Authenti cation Respons e with extensio n
4		(tcv_Res := o_AuthRspChk ( tcv_AuthRsp, tcv_AuthRspExt, tcv_AuthK, tcv_AuthRAND, TRUE))			
5	TSF1	[tcv_Res = FALSE]		(F)	
6		[tcv_Res = TRUE]			
7		Dc?RRC_DataInd( tcv_AuthRspPDU:=RRC_DataInd.msg, tcv_AuthRsp:=tcv_AuthRspPDU.authRsp)	car_UplinkDirectTransfer ( tsc_CellDedicated, tsc_RB3, c_AuthRspAnyNoExt)		Authenti cation Respons e without extensio n
8		( tcv_Res := o_AuthRspChk ( tcv_AuthRsp, tcv_AuthRspExt, tcv_AuthK, tcv_AuthRAND, FALSE ) )			
9	TSF2	[tcv_Res = FALSE]		(F)	
10		[tcv_Res = TRUE]			
11	TSF3	Dc?RRC_DataInd	car_UplinkDirectTransfer ( tsc_CellDedicated, tsc_RB3, c_AuthFailAny)	(F)	2.

- Detailed Comments: Normal authentication to be used after the synchronization between SS and UE has been performed successfully.
  - 1. Authentication request is sent by the network. Key Sequence and RAND as provided by the corresponding variables tcv\_KeySeq and tcv\_AuthRAND.
  - 2. If the UE generates a response, this response may consist of 2 parts which have to be extracted from the received message.
  - 3. The response is checked against an expected response calculated using a test suite operation.
  - 4. If the comparison of expected and calculated response is not ok, then authentication fails.
  - 5. Otherwise authentication is granted.
  - 6. If the UE sends an Authentication Failure the authentication fails. Steps:

- Detailed Comments: ...

  1. Initialization of the authentication variables (see 34.108 cl. 8.1.2)

  2. Authentication Failure: should not happen because the synchronization has been done already

Test Step Name : ts\_MM\_AuthenticationInit
Group : BasicM\_MM\_GMM\_Steps/

**Objective**: Initialization of variables related to authentication.

**Default**: NAS\_OtherwiseFail

**Comments**: Based on TS 34.108 cl. 8.1.2 and TS 33.102 cl.s 6.3 and 6.8.1.2

Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+lt_IncrementCiphKeySeqNum			
2		+lt_AuthCalcAUTN			1.
3		+lt_AuthCalcUMTS_Others			Calculati on of AUTN needed for Authenti cation Request 2. Calculati on of other authenti
4		+lt_AuthCalcKcGSM			cation informati on needed (IK, CK, XRES) 3. Calculati on of Kc GSM, using IK and CK
		lt_IncrementCiphKeySeqNum			
5		[tcv_CS_KeySeq = '000'B]			
6		(tcv_CS_KeySeq := '001'B)			
7		[tcv_CS_KeySeq = '001'B]			
8		(tcv_CS_KeySeq := '010'B)			
9		[tcv_CS_KeySeq = '010'B]			
10		(tcv_CS_KeySeq := '011'B)			
11		[tcv_CS_KeySeq = '011'B]			
12		(tcv_CS_KeySeq := '100'B)			
13		[tcv_CS_KeySeq = '100'B]			
14		(tcv_CS_KeySeq := '101'B)			
15		[tcv_CS_KeySeq = '101'B]			
16		(tcv_CS_KeySeq := '110'B)			
17		[TRUE]			
18		(tcv_CS_KeySeq := '000'B)			
		It_AuthCalcAUTN			
19		tcv_AuthXDOUT := o_BitstringXOR( tcv_AuthRAND, tcv_AuthK,			XDOUT := RAND XOR K
		128))			

	Test Step Dynamic Behaviour							
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments			
20		<pre>(tcv_AuthCDOUT := o_BitstringConcat( tsv_AuthSQN, tcv_AuthAMF, 48,</pre>			CDOUT := SQN    AMF			
21		16)) (tcv_AuthXDOUT_Half :=			XDOUT			
		o_BitstringXtract( tcv_AuthXDOUT, 128, 64, 0))			_half := 64 bits of XDOUT starting from offset 0			
22		(tcv_AuthAK := o_BitstringXtract( tcv_AuthXDOUT, 128, 48, 24))			AK := 48 bits of XDOUT starting from offset 24			
23		<pre>(tcv_AuthAUTN_1 := o_BitstringXOR( tsv_AuthSQN, tcv_AuthAK, 48))</pre>			AUTN1 := SQN XOR AK			
24		<pre>(tcv_AuthMAC :=   o_BitstringXOR(   tcv_AuthXDOUT_Half,   tcv_AuthCDOUT,   64))</pre>			MAC := XDOUT _half XOR CDOUT			
25		(tcv_AuthAUTN_2 := o_BitstringConcat( tcv_AuthAMF, tcv_AuthMAC, 16, 64))			AUTN2 := AMF    MAC			
26		(tcv_AuthAUTN :=     o_BitstringConcat(     tcv_AuthAUTN_1,     tcv_AuthAUTN_2,     48,     80))  It_AuthCalcUMTS_Others			AUTN := AUTN1    AUTN2			
27		(tcv_AuthIK := o_BitstringXtract( tcv_AuthXDOUT, 128, 128, 16))			IK := 128 bits of XDOUT starting from offset 16 (wrappin g)			

	Test Step Dynamic Behaviour						
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments		
28		(tcv_AuthCK := o_BitstringXtract( tcv_AuthXDOUT, 128, 128, 8))			CK := 128 bits of XDOUT starting from offset 8 (wrappin g)		
29		(tcv_AuthXRES := o_BitstringXtract( tcv_AuthXDOUT, 128, (tcv_AuthN + 1), 0))			XRES := (n+1) bits of XDOUT starting from offset 0		
30		It_AuthCalcKcGSM  (tcv_AuthCK_1 := o_BitstringXtract( tcv_AuthCK, 128, 64, 0))			CK1 := 64 bits of CK starting from offset 0		
31		(tcv_AuthCK_2 := o_BitstringXtract( tcv_AuthCK, 128, 64, 64))			CK2 := 64 bits of CK starting from offset 64		
32		(tcv_AuthIK_1 := o_BitstringXtract( tcv_AuthIK, 128, 64, 0))			IK1 := 64 bits of IK starting from offset 0		
33		(tcv_AuthIK_2 := o_BitstringXtract( tcv_AuthIK, 128, 64, 64))			IK2 := 64 bits of IK starting from offset 64		
34		(tcv_AuthCK_XOR := o_BitstringXOR( tcv_AuthCK_1, tcv_AuthCK_2, 64))			CK_XO R := CK1 XOR CK2		
35		(tcv_AuthIK_XOR := o_BitstringXOR( tcv_AuthIK_1, tcv_AuthIK_2, 64))			IK_XOR := IK1 XOR IK2		

	Test Step Dynamic Behaviour							
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments			
36		(tcv_AuthKcGSM := o_BitstringXOR( tcv_AuthCK_XOR, tcv_AuthIK_XOR, 64))			KcGSM := CK_XO R XOR IK_XOR (= CK1 XOR CK2 XOR IK1 XOR IK2)			

**Detailed Comments**: Initialization of the variables needed for authentication. The calculation is done according to the

prescription of TS 34.108 cl. 8.1.2. and TS 33.102 cl. 6.8.1.2
The AUTN calculated is used as parameter of the Authentication Request.
CK, IK and Kc GSM are used by RRC.

XRES is used to check the RES contained in Authentication Response.

Test Step Name : ts\_MM\_IdleUpdated (p\_CellId: INTEGER)

Group : BasicM\_MM\_GMM\_Steps/

Objective : To bring the UE into MM state Idle Updated - CS mode, general case

**Default**: NAS\_OtherwiseFail

Comments : Before IdleUpdated can be used a Cell is to be created and System Information must be sent. This test

Step covers the general case: the UE has a valid TMSI.

Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+ts_SetTmpCellInfo (p_CellId)			Fetch SS_CellI nfo table correpo nding to the cell
2		+ts_MM_PwrOrUSIM_On(tsc_USIM_NeedRmv)			2. Activate the UE
3		START t_Dly (150000)			3. Supervis e the receptio n of the expecte d Location Updatin g Request
4		+ ts_RRC_ConnEst ( p_CellId, est_Reg, OMIT)			Connect ion Establis hment MO
5		Dc?RRC_DataInd ( tcv_Start := RRC_DataInd.start ) CANCEL t_Dly	car_InitDirectTransfer ( tsc_CellDedicated, tsc_RB3, cb_LocUpdReqAny(?))		4. Any Location Update request
6		+ ts_SS_SecurityDownloadStart ( cs_domain, tcv_Start )			
7		+ts_MM_Authentication(p_CellId)			4.1 Authenti cation
9		+ts_RRC_Security ( p_CellId,			

		Test Step Dynam	ic Behaviour		
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
10		Dc!RRC_DataReq	ca_DataReq( tsc_CellDedicated, tsc_RB3, c_LocUpdAcpTMSI( tcv_TmpCellInfo.mcc, tcv_TmpCellInfo.mnc, tcv_TmpCellInfo.lac))		4.2 Location Updatin g Accept without 'equivale nt PLMN list'
11		Dc?RRC_DataInd	car_UplinkDirectTransfer ( tsc_CellDedicated, tsc_RB3, c_TMSI_ReallocCmpl)		4.3 TMSI reallocati on complete
12		+ It_RRC_ConnRel			Connect ion Release
13		[TRUE]			[tcv_Us e_E_PL MN = TRUE]
14		Dc!RRC_DataReq	ca_DataReq( tsc_CellDedicated, tsc_RB3, c_LocUpdAcpTMSI_E_PLM N ( tcv_TmpCellInfo.mcc, tcv_TmpCellInfo.mnc, tcv_TmpCellInfo.lac, tcv_E_PLMN ))		4.2 Location Updatin g Accept including 'equivale nt PLMN list'
15		Dc?RRC_DataInd	car_UplinkDirectTransfer ( tsc_CellDedicated, tsc_RB3, c_TMSI_ReallocCmpl)		4.3 TMSI reallocati on complete
16		+ It_RRC_ConnRel			Connect ion Release
17	1	RRC_ConnRel /_Use_E_PLMN := FALSE)			De-initia lise the variable tcv_Use _E_PLM N

		Test Step Dynamic	Behaviour		
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
18		[ ( tcv_TmpCellInfo.cellConfig = cell_FACH) OR			
		( tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_3_FACH_CTCH )]			
19		+ ts_RRC_ConnRel ( p_CellId, cell_Fach_Dcch )			
20		[ tcv_TmpCellInfo.cellConfig <> cell_FACH ]			
21		+ ts_RRC_ConnRel ( p_CellId, cell_Dch )			

**Detailed Comments**: Parameter description:

\_\_\_\_\_

p\_CellIId Cell Identification INTEGER

#### Algorithm/Steps:

\_\_\_\_\_

- 1. UE is deactivated
- 2. UE is activated
- 3. Location registration is expected to happen within time TwaitLocUpdReq
- 4. The location registration is accepted, and a new TMSI the default TMSI used for testing is passed to the UE. The UE stores the newly provided TMSI.
- 4.1 Authentication with default values
- 4.2 Location Updating Accept with default TMSI and MNC, MCC, LAI
- 4.3 Completion of the TMSI reallocation procedure
- 5. If NO Location Updating Request is received, ie the timer supervising the receipt of the Location registration runs out, this is assumed to be due to the fact that the PLMN is in the forbidden list. In this case local test Step It\_RmvFbdnList is executed to clear this situation.
- 6. This should not happen, so the verdict is INCONCLUSIVE. Resources are to be released properly and automatic PLMN selection is to be restablished.

Test Step Name : ts\_MM\_PwrOrUSIM\_Off (p\_USIM\_Rmvd : BOOLEAN)

Group : BasicM\_MM\_GMM\_Steps/
Objective : Deactivation of the UE

Default : NAS\_OtherwiseFail

Comments : Depending upon UE's properties (USIM removal, switching off or powering off)

Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		[( p_USIM_Rmvd) AND			SIM
		(pc_USIM_Rmv)]			needs to
					be
					removed
2		+ts_MMI_USIM_Remove			remove
-		+t3_iviivii_OOiivi_rteriiove			SIM
					card
3		[pc_SwitchOnOff]			
4		+ts_MMI_UE_SwitchOff			switch
					off the
					UE
5		[TRUE]			
6		+ts_MMI_UE_PwrOff			power
					off the
					UE

**Detailed Comments**: There are 2 types of deactivation required for testing:

1. USIM removal or switching off or removal of the power source

2. Switching off or removal of the power source

Parameter p\_USIM\_Rmvd controls the variant to be applied:

1. tsc\_USIM\_NeedRmv(=TRUE): variant 1 is to be used, the USIM is to be removed if possible

Test Step Name: ts\_MM\_PwrOrUSIM\_On (p\_USIM\_Rmvd: BOOLEAN)

Group : BasicM\_MM\_GMM\_Steps/

Objective : Activation of the UE
Default : NAS\_OtherwiseFail

Comments : Depending upon the UE's properties (USIM insertion, switching on or powering on)

Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		[(p_USIM_Rmvd) AND (pc_USIM_Rmv)]			USIM has been removed
2		+ts_MMI_USIM_Insert			insert USIM card
3		[pc_SwitchOnOff]			
4		+ts_MMI_UE_SwitchOn			switch on the UE
5		[(((NOT p_USIM_Rmvd) OR (NOT pc_USIM_Rmv)) AND (NOT pc_SwitchOnOff))]			
6		+ts_MMI_UE_PwrOn			power on the UE

**Detailed Comments**: There are 2 types of activation required for testing:

1. USIM insertion or switching on or restoration of the power source

2. Switching on or restoration of the power source

Parameter p\_USIM\_Rmvd controls the variant to be applied:

1. tsc\_USIM\_NeedRmv(=TRUE): variant 1 is to be used, the USIM is to be inserted if possible

This test Step is the counterpart to  $ts\_MM\_PwrOrUSIM\_Off$  resp  $ts\_MM\_IMSI\_Detach$ .

Test Step Name : po\_ConnectionAndSS\_Rel ( p\_CellId : INTEGER )

Group : BasicM\_Postambles/

**Objective**: To release the existing RRC connection and release the channels that are configured in the SS.

Default : RRC\_Def1

Comments : Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+ ts_SetTmpCellInfo ( p_CellId )			
2		[ tcv_TmpCellInfo.cellConfig <> cell_NotConfigured ]			
3		+ It_Send_RRC_ConnectionRelease			
4		+ ts_SS_Rel ( p_CellId )			
5		[ tcv_TmpCellInfo.cellConfig = cell_NotConfigured ]		I	0.
		lt_Send_RRC_ConnectionRelease			
6		[ ( tcv_TmpCellInfo.cellConfig = cell_DCH_StandAloneSRB_NoConn ) OR ( tcv_TmpCellInfo.cellConfig = cell_FACH_NoConn ) OR ( tcv_TmpCellInfo.cellConfig = cell_FACH_BMC_NoConn ) OR ( tcv_TmpCellInfo.cellConfig = cell_FACH_BMC_NoConn ) OR ( tcv_TmpCellInfo.cellConfig = cell_NoDPCH ) OR			3.
		( tcv_TmpCellInfo.cellConfig = cell_FACH_NoDedicated) OR ( tcv_TmpCellInfo.cellConfig = cell_FACH_2_PRACH_NoConn) OR ( tcv_TmpCellInfo.cellConfig = cell_FACH_2_SCCPCH_NoConn ) OR ( tcv_TmpCellInfo.cellConfig = cell_FACH_2_SCCPCH_StandAlonePCH_NoConn ) OR ( tcv_TmpCellInfo.cellConfig = cell_FACH_2SCCPCH_StandAlonePCH_NoConn ) OR ( tcv_TmpCellInfo.cellConfig = cell_FACH_MAC_SRB_NoConn) OR ( tcv_TmpCellInfo.cellConfig = cell_DCH_MAC_SRB_NoConn) OR ( tcv_TmpCellInfo.cellConfig = cell_FACH_MAC_SRBO_NoConn ) OR ( tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_4_FACH_Cnfg1_NoCon n) OR ( tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_4_FACH_Cnfg2_NoCon n)OR ( tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_3_FACH_CTCH_NoCon n)OR ( tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_3_FACH_2a_CTCH_No Conn) OR ( tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_StandAlonePCH_2a_NoC onn)OR ( tcv_TmpCellInfo.cellConfig = cell_FACH_2SCCPCH_StandAlonePCH_2a_NoC onn)OR ( tcv_TmpCellInfo.cellConfig = cell_FACH_2SCCPCH_StandAlonePCH_2a_NoC onn)OR ( tcv_TmpCellInfo.cellConfig = cell_FACH_2SCCPCH_StandAlonePCH_2a_NoC onn)OR			
		cell_FACH_3_SCCPCH_4_FACH_2a_Cnfg1_No Conn) OR (tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_4_FACH_2a_Cnfg2_No			
		Conn)]			

	Test Step Dynamic Behaviour						
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments		
7		[TRUE]			4.		
8		[ (tcv_TmpCellInfo.cellConfig = cell_FACH ) OR (tcv_TmpCellInfo.cellConfig = cell_FACH_PS ) OR (tcv_TmpCellInfo.cellConfig = cell_FACH_BMC ) OR (tcv_TmpCellInfo.cellConfig = cell_FACH_BMC ) OR (tcv_TmpCellInfo.cellConfig = cell_FACH_2_PRACH ) OR (tcv_TmpCellInfo.cellConfig = cell_FACH_2_SCCPCH ) OR (tcv_TmpCellInfo.cellConfig = cell_FACH_MAC_SRB ) OR (tcv_TmpCellInfo.cellConfig = cell_FACH_MAC_SRBO ) OR (tcv_TmpCellInfo.cellConfig = cell_FACH_MAC_SRBO ) OR (tcv_TmpCellInfo.cellConfig = cell_FACH_2SCCPCH_StandAlonePCH)OR (tcv_TmpCellInfo.cellConfig = cell_FACH_2SCCPCH_StandAlonePCH_PS)OR (tcv_TmpCellInfo.cellConfig = cell_FACH_2SCCPCH_StandAlonePCH_PS)OR			1.		
		(tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_4_FACH_Cnfg2)OR (tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_3_FACH_CTCH)OR (tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_3_FACH_2a_CTCH) OR (tcv_TmpCellInfo.cellConfig = cell_FACH_2SCCPCH_StandAlonePCH_2a)OR (tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_4_FACH_2a_Cnfg1) OR (tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_4_FACH_2a_Cnfg1) OR (tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_4_FACH_2a_Cnfg2)O R (tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_4_FACH_2a_Cnfg2)O R (tcv_TmpCellInfo.cellConfig=cell_FACH_2SCCP CH_StandAlonePCH_PS_2a)]					
9		UM!RLC_UM_DATA_REQ	cas_RRC_ConnRelDCCH ( tsc_CellDedicated, tsc_RB1, cs_108_RRC_ConnRelDCC H(tcv_CellIndInfo.dl_Integri tyCheckInfo, tcv_RRC_Ti, OMIT ))				
10		AM?RLC_AM_DATA_IND	car_RRC_ConnRelCmpl ( tsc_CellDedicated, tsc_RB2, cbr_108_RRC_ConnRelCm pl (tcv_RRC_Ti))	(P)			
11		+ ts_RRC_Delay( tsc_DelayAfterRRC_ConnRel)					
12		[TRUE]			2.		

		Test Step Dynami	ic Behaviour		
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
13		( tcv_N308 := 1, tcv_K := 1 )			Maximu m number of retransm issions of the RRC CONNE CTION RELEAS E COMPL ETE
14		UM!RLC_UM_DATA_REQ	cas_RRC_ConnRelDCCH ( tsc_CellDedicated, tsc_RB1, cs_108_RRC_ConnRelDCC H(tcv_CellIndInfo.dl_Integri tyCheckInfo, tcv_RRC_Ti, tcv_N308))		message
15		UM?RLC_UM_DATA_IND	car_RRC_ConnRelCmplUM( tsc_CellDedicated, tsc_RB1, cbr_108_RRC_ConnRelCm pl (tcv_RRC_Ti))	(P)	
16		REPEAT It_RptRcvConnRel UNTIL [ tcv_K = (tcv_N308+1)]  It_RptRcvConnRel			UE sends RRC Connect ion Release Complet e for N308 times
17		START t_Dly			
18	TSF2	? TIMEOUT t_Dly		(F)	
19		( tcv_K := tcv_N308 + 1 )			To stop the loop
20	TSP2	UM?RLC_UM_DATA_IND ( tcv_K := tcv_K+1 ) CANCEL t_Dly	car_RRC_ConnRelCmplUM ( tsc_CellDedicated , tsc_RB1,	(P)	Retrans mission
			cbr_108_RRC_ConnRelCm pl ( tcv_RRC_Ti ) )		

**Detailed Comments**: 0. The cell has not been configured, it shall not be released 1. cell\_FACH state

2. cell\_DCH state3. No RRC connection is established

4. An RRC connection is established

Test Step Name : ts\_RRC\_SetUpRAB\_UM\_7\_RLC ( p\_CellId: INTEGER; p\_RAB\_Id : BITSTRING; p\_RLC\_Info :

RLC\_Info)

Group : BasicM\_RRC\_Steps/RRC\_RAB\_Steps/

Objective :

Default : RRC\_Def1

Comments : This test step performs an RB setup procedure to configure RB10 in the UE as a UM DTCH entity

that should use 7 bit length indicators. Reference 3G TS 34.108 clause 6.11.1.

The corresponding entity in the SS is configured as TM, but with an identical transport block size. The UM header information is specified in the TTCN for DL, and can be inspected by the TTCN for UL.

**Parameters** 

p\_CellId: The cell id to use for signalling, and configuration of the RB for testing.

p\_RAB\_Id: The RAB Id to be used within the RB SETUP message.

p\_RLC\_Info: The RLC configuration information to be used within the RB setup message for DTCH. This parameter is provided so that different configurations can be used to meet the requirements of

each specific test case.

Description

			1		
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+ ts_SetTmpCellInfo ( p_CellId )			
2		CPHY ! CPHY_Frame_Number_REQ	cas_GetFrameNum( p_CellId, tsc_DL_DPCH1)		
3		CPHY ? CPHY_Frame_Number_CNF (tcv_FrameNumber := CPHY_Frame_Number_CNF.frameNumber)	car_GetFrameNum( p_CellId, tsc_DL_DPCH1)		
4		( tcv_ActTime := (256 + tcv_FrameNumber – ( tcv_FrameNumber MOD 8 + 8)) MOD 256, tcv_TGCFN := (tcv_FrameNumber + (256 – 4)) MOD 256)			
5		+ It_SendRAB_SetupCS_OrPS			
6		AM ? RLC_AM_DATA_CNF	car_AM_DataMuiCnf (tsc_CellDedicated, tsc_RB2, tsc_Mui)		
7		+ts_SS_2DCH_Modify(     p_CellId,     c_DCH_336_148_UL_InfoRLC_UM(     tcv_ActTime),     c_DCH_336_148_DL_InfoRLC_UM(     tcv_ActTime),     c_TrChInfoUL_336_148_RLC_UM,     c_TrChInfoDL_336_148_RLC_UM,  c_TrLogMappingUL_4DCCH_1DTCH_     RLC(     tsc_RB_UM_7_RLC     ),  c_TrLogMappingDL_4DCCH_1DTCH_     RLC(     tsc_RB_UM_7_RLC     ),  tcv_ActTime,     cb_DL_DPCH_8K_RLC_7BitLI (     c_DL_CommonInformationRB_SetUp (			
		tsc_DL_DPCH1_SFP_RLC_7BitLI), tcv_TmpCellInfo.dl_DPCH_2ndScrCode ), cb_UL_DPCH_Info ( tsc_UL_DPDCH_SF_RLC_7BitLI, pl1, t			

		Test Step Dynamic	Behaviour		
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
		cv_TmpCellInfo.uL_ScramblingCode ) )			
8		+ts_SS_RB_TM_Cfg_RLC( 336, tsc_RB_UM_7_RLC)			
9	TSP	+ ts_RRC_ReceiveRB_SetupCmpl ( p_CellId , cell_RLC_DCH_UM_RAB_7Lis)			
10		+ ts_SetCellCfg ( p_CellId, cell_RLC_DCH_UM_RAB_7Lis )			
		It_SendRAB_SetupCS_OrPS			
11		[tcv_CN_Domain = cs_domain]			
12		AM!RLC_AM_DATA_REQ	cas_RB_SetUpAM_WithCnf ( tsc_CellDedicated, tsc_RB2, tsc_Mui, cs_RRC_RB_SetUp(		
			tcv_CellIndInfo.dl_Integrity CheckInfo,     tcv_RRC_Ti,     tcv_ActTime,     cell_DCH,     OMIT,     c_RAB_InfoListRLC(     p_RAB_Id,     p_RLC_Info,     cs_domain,     tsc_RB10     ),		
			c_UL_CommTrChInfoRLC_ 8K,		
			c_UL_AddReconfTransChIn foList7_RLC_UM,		
			c_DL_CommonTransChInfo SameAsUL,		
			c_DL_AddReconfTransChIn foListRLC, c_DL_InformationPerRL (tcv_TmpCellInfo.priScrmCo de, tsc_DL_DPCH1_ChC_RLC _7_BitLI, tcv_TmpCellInfo.dl_DPCH_2ndScrCode),		
			c_DL_CommonInformation RB_SetUp ( tsc_DL_DPCH1_SFP_RLC _7BitLI), cb_UL_DPCH_Info ( tsc_UL_DPDCH_SF_RLC_ 7BitLI, pl1, tcv_TmpCellInfo.uL_Scrambl ingCode ), OMIT		

Test Step Dynamic Behaviour						
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments	
			)			
			)			
13		[tcv_CN_Domain = ps_domain]				
14		AM!RLC_AM_DATA_REQ	cas_RB_SetUpAM_WithCnf			
			tsc_CellDedicated,			
			tsc_RB2,			
			tsc_Mui, cs_RRC_RB_SetUp(			
			cs_KKC_KB_Setop(			
			tcv_CellIndInfo.dl_Integrity			
			CheckInfo,			
			tcv_RRC_Ti, tcv_ActTime,			
			cell_DCH,			
			OMIT,			
			c_RAB_InfoListRLC(			
			p_RAB_Id, p_RLC_Info,			
			ps_domain,			
			tsc_RB20			
			),			
			c_UL_CommTrChInfoRLC_			
ļ			8K,			
			c_UL_AddReconfTransChIn foList7_RLC_UM,			
ļ						
			c_DL_CommonTransChInfo SameAsUL,			
			SameASOL,			
			c_DL_AddReconfTransChIn			
			foListRLC, c_DL_InformationPerRL			
			(tcv_TmpCellInfo.priScrmCo			
			de,			
			tsc_DL_DPCH1_ChC_RLC			
			_7_BitLI, tcv_TmpCellInfo.dl_DPCH_			
			2ndScrCode ),			
			c_DL_CommonInformation			
			RB_SetUp (			
			tsc_DL_DPCH1_SFP_RLC _7BitLI),			
			cb_UL_DPCH_Info (			
			tsc_UL_DPDCH_SF_RLC_			
			7BitLI, pl1,			
			tcv_TmpCellInfo.uL_Scrambl ingCode ),			
			OMIT			
ļ			)			
			)			

Test Step Name : ts\_RRC\_ConnEst (

p\_CellId: INTEGER; p\_MO\_Reg: RegOr\_MO;

p\_EstCause : EstablishmentCause

)

**Group**: BasicM\_RRC\_Steps/

**Objective**: The generic Step to establish RRC Connection and bring UE to CELL\_FACH or CELL\_DCH state.

Default : RRC\_DefConnEst

Comments: In this Step , 5 Signalling Radio Bearers with 3.4kbps DL & UL is setup (RB#0, 1, 2, 3,4)

Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+ts_SS_PrepareCellRRC_ConnEst ( p_CellId )			
2		+ ts_SetTmpCellInfo ( p_CellId )			
3		+lt_RcvConnReq			
4		+lt_Send_ConnSetUp			
5		+ ts_RRC_ReceiveConnSetupCmpl ( p_CellId)			
		lt_RcvConnReq			
6		[ p_MO_Reg = est_Reg ]			
7		TM ? RLC_TR_DATA_IND ( tcv_InitialUE_Id := RLC_TR_DATA_IND.tM_message.uL_CCCH_M essage.message.rrcConnectionRequest.initialUE_ Identity)	car_RRC_ConnReq (p_CellId, tsc_RB0, cbr_108_RRC_ConnReq ( registration ))		
8		[ ( p_MO_Reg = est_MO ) OR ( p_MO_Reg = est_MT ) ]			
9		TM ? RLC_TR_DATA_IND ( tcv_InitialUE_Id := RLC_TR_DATA_IND.tM_message.uL_CCCH_M essage.message.rrcConnectionRequest.initialUE_ Identity)	car_RRC_ConnReq (p_CellId, tsc_RB0, cbr_108_RRC_ConnReq ( p_EstCause		
		lt_Send_ConnSetUp			
10		[ (tcv_TmpCellInfo.cellConfig = cell_FACH_NoConn ) OR (tcv_TmpCellInfo.cellConfig = cell_FACH_BMC_NoConn ) OR (tcv_TmpCellInfo.cellConfig = cell_FACH_2_PRACH_NoConn ) OR (tcv_TmpCellInfo.cellConfig = cell_FACH_2_PRACH_NoConn ) OR (tcv_TmpCellInfo.cellConfig = cell_FACH_2_SCCPCH_NoConn ) OR (tcv_TmpCellInfo.cellConfig = cell_FACH_2SCCPCH_StandAlonePCH_NoConn ) OR (tcv_TmpCellInfo.cellConfig = cell_FACH_MAC_SRB_NoConn )OR (tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_4_FACH_Cnfg1_NoCon n ) OR (tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_4_FACH_Cnfg2_NoCon n )OR (tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_3_FACH_CTCH_NoCon n ) OR (tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_StandAlonePCH_2a_No Conn)OR (tcv_TmpCellInfo.cellConfig = cell_FACH_2SCCPCH_StandAlonePCH_2a_No Conn)OR (tcv_TmpCellInfo.cellConfig			

		Test Step Dynamic	Behaviour		
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
		oConn) OR ( tcv_TmpCellInfo.cellConfig =cell_FACH_3_SCCPCH_4_FACH_2a_Cnfg2_N oConn ) OR (tcv_TmpCellInfo.cellConfig =cell_FACH_3_SCCPCH_3_FACH_2a_CTCH_No Conn)]			
11		UM!RLC_UM_DATA_REQ	cas_RRC_ConnSetup( p_CellId, tsc_RB0, cbs_108_RRC_ConnSetupF ACH (		
			tcv_TmpCellInfo.uRNTI ,		
12		[ tcv_TmpCellInfo.cellConfig = cell_FACH_NoConn ]			
13		+ ts_SetCellCfg ( p_CellId, cell_FACH )			1.
14		[ tcv_TmpCellInfo.cellConfig = cell_FACH_BMC_NoConn ]			
15		+ ts_SetCellCfg ( p_CellId, cell_FACH_BMC )			1.
16		[ tcv_TmpCellInfo.cellConfig = cell_FACH_2_PRACH_NoConn ]			
17		+ ts_SetCellCfg ( p_CellId, cell_FACH_2_PRACH )			1.
18		[ tcv_TmpCellInfo.cellConfig = cell_FACH_2_SCCPCH_NoConn ]			
19		+ ts_SetCellCfg ( p_CellId, cell_FACH_2_SCCPCH )			1.
20		[ tcv_TmpCellInfo.cellConfig = cell_FACH_2SCCPCH_StandAlonePCH_NoC onn ]			
21		+ ts_SetCellCfg ( p_CellId, cell_FACH_2SCCPCH_StandAlonePCH )			
22		[ tcv_TmpCellInfo.cellConfig = cell_FACH_MAC_SRB_NoConn ]			
23		+ ts_SetCellCfg ( p_CellId, cell_FACH_MAC_SRB )			
24		[ tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_4_FACH_Cnfg1_No Conn ]			
25		+ ts_SetCellCfg ( p_CellId, cell_FACH_3_SCCPCH_4_FACH_Cnfg1 )			

	Test Step Dynamic Behaviour						
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments		
26		[ tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_4_FACH_Cnfg2_No Conn ]					
27		+ ts_SetCellCfg ( p_CellId, cell_FACH_3_SCCPCH_4_FACH_Cnfg2 )					
28		[ tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_3_FACH_CTCH_No Conn ]					
29		+ ts_SetCellCfg ( p_CellId, cell_FACH_3_SCCPCH_3_FACH_CTCH )					
30		[ tcv_TmpCellInfo.cellConfig = cell_FACH_2SCCPCH_StandAlonePCH_2a_N oConn ]					
31		+ ts_SetCellCfg ( p_CellId, cell_FACH_2SCCPCH_StandAlonePCH_2a )					
32		[ tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_4_FACH_2a_Cnfg1_NoConn ]					
33		+ ts_SetCellCfg ( p_CellId, cell_FACH_3_SCCPCH_4_FACH_2a_Cnfg1 )					
34		[ tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_4_FACH_2a_Cnfg2_NoConn ]					
35		+ ts_SetCellCfg ( p_CellId, cell_FACH_3_SCCPCH_4_FACH_2a_Cnfg2 )					
36		[ tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_3_FACH_2a_CTCH_NoConn ]					
37		+ ts_SetCellCfg ( p_CellId, cell_FACH_3_SCCPCH_3_FACH_2a_CTCH )					
38		[ ( tcv_TmpCellInfo.cellConfig = cell_DCH_StandAloneSRB_NoConn ) OR ( tcv_TmpCellInfo.cellConfig = cell_DCH_MAC_SRB_NoConn ) ]					
39		UM!RLC_UM_DATA_REQ	cas_RRC_ConnSetup( p_CellId, tsc_RB0, cbs_108_RRC_ConnSetup DCH ( tcv_InitialUE_Id, tcv_RRC_Ti,				
			tcv_TmpCellInfo.priScrmCo de ,				
			tcv_TmpCellInfo.uRNTI , tcv_TmpCellInfo.uL_Scrambl				
			ingCode				
40		[ tcv_TmpCellInfo.cellConfig = cell_DCH_StandAloneSRB_NoConn ]	,				

### Continued from previous page

	Test Step Dynamic Behaviour							
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments			
41		+ ts_SetCellCfg ( p_CellId, cell_DCH_StandAloneSRB)						
42		[ tcv_TmpCellInfo.cellConfig = cell_DCH_MAC_SRB_NoConn ]						
43		+ ts_SetCellCfg ( p_CellId, cell_DCH_MAC_SRB )						
44	ERR	[TRUE]		ı	2.			

Detailed Comments : 1. Update the cell configuration 2. A RRC connection has already been established.

 $\textbf{Test Step Name} \hspace{0.2cm} : \hspace{0.1cm} ts\_RRC\_ConnEst\_DCH\_MT\_PTMSI \hspace{0.1cm} ($ 

p\_CellId: INTEGER; p\_PagCause: PagingCause; p\_P\_tmsi:P\_TMSI\_GSM\_MAP; p\_EstCause: EstablishmentCause

)

**Group**: BasicM\_RRC\_Steps/

Objective : To bring the the UE into CELL\_DCH state with a MT call with Paging Type P\_TMSI

Default : RRC\_DefConnEst

Comments : Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+ts_SS_PrepareCellRRC_ConnEst (p_CellId)			
2		+ ts_SetTmpCellInfo ( p_CellId )			
3		+ts_RRC_Delay(tsc_WaitBeforePaging)			Give delay before paging type1
4		+ts_CMAC_Pag1_Cfg( p_CellId)			
5		TM!RLC_TR_DATA_REQ	cas_PagingType1 (     p_CellId,     tsc_RB_PCCH,  cs_RRC_PagingType1_PTM		
			SI (     p_PagCause,     p_P_tmsi,     tcv_CN_Domain     ) )		
6		TM ? RLC_TR_DATA_IND (tcv_InitialUE_Id := RLC_TR_DATA_IND.tM_message.uL_CC CH_Message.message.rrcConnectionRequ est.initialUE_Identity)	car_RRC_ConnReq (p_CellId, tsc_RB0, cbr_108_RRC_ConnReq (     p_EstCause ))		
7		UM!RLC_UM_DATA_REQ	cas_RRC_ConnSetup( p_CellId, tsc_RB0, cbs_108_RRC_ConnSetup DCH ( tcv_InitialUE_Id, tcv_RRC_Ti,  tcv_TmpCellInfo.priScrmCo		
			de , tcv_TmpCellInfo.uRNTI , tcv_TmpCellInfo.uL_Scrambl		
		At DDO David Co. 2 to 2 to 2	ingCode )		
8		+ts_RRC_ReceiveConnSetupCmpl ( p_CellId )			
9		+ ts_SetCellCfg(p_CellId, cell_DCH_StandAloneSRB)			1.

**Detailed Comments**: 1. Update the cell configuration

2. Download the START value to SS

 $\textbf{Test Step Name} \hspace{0.2cm} : \hspace{0.1cm} \text{ts\_RRC\_ConnEst\_DCH\_MT\_TMSI} \hspace{0.1cm} ($ 

p\_CellId: INTEGER;
p\_PagCause: PagingCause;
p\_Tmsi:OCTETSTRING;

p\_EstCause: EstablishmentCause)

**Group**: BasicM\_RRC\_Steps/

Objective : To bring the the UE into CELL\_DCH state with a MT call with Paging Type TMSI

Default : RRC\_DefConnEst

Comments : Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comment
1		+ts_SS_PrepareCellRRC_ConnEst ( p_CellId )			
2		+ ts_SetTmpCellInfo ( p_CellId )			
3		+ts_RRC_Delay(tsc_WaitBeforePaging)			Give delay before paging type1
4		+ts_CMAC_Pag1_Cfg( p_CellId )			
5		TM!RLC_TR_DATA_REQ	cas_PagingType1 ( p_CellId, tsc_RB_PCCH,		
			cs_RRC_PagingType1_TMSI ( p_PagCause, o_ConvertTMSI(p_Tmsi), tcv_CN_Domain ))		
6		TM ? RLC_TR_DATA_IND (tcv_InitialUE_Id := RLC_TR_DATA_IND.tM_message.uL_CC CH_Message.message.rrcConnectionRequ est.initialUE_Identity)	car_RRC_ConnReq (p_CellId, tsc_RB0, cbr_108_RRC_ConnReq ( p_EstCause		
7		UM!RLC_UM_DATA_REQ	cas_RRC_ConnSetup( p_CellId, tsc_RB0, cbs_108_RRC_ConnSetup DCH ( tcv_InitialUE_Id, tcv_RRC_Ti,		
			tcv_TmpCellInfo.priScrmCo de , tcv_TmpCellInfo.uRNTI ,		
			tcv_TmpCellInfo.uL_Scrambl ingCode )		
8		+ts_RRC_ReceiveConnSetupCmpl ( p_CellId )			
9		+ ts_SetCellCfg(p_CellId, cell_DCH_StandAloneSRB)			1.

Test Step Name : ts\_RRC\_ConnRel (

p\_CellId: INTEGER;

p\_RRC\_RelStatus : RRC\_Rel\_Status

)

Group : BasicM\_RRC\_Steps/

Objective : To bring the UE from state CELL\_DCH/ CELL\_FACH to idle state by releasing the RRC connection

Default : RRC\_Def1

Comments : Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+ ts_SetTmpCellInfo ( p_CellId )			
2		+ ts_RRC_Delay( tsc_DelayBeforeRRC_ConnRel)			
3		+ It_Send_RRC_ConnectionRelease			
4		+ It_RestartCRLC_ForNextConnection			
5		+ ts_SS_ResetSecurityKey			
		It_RestartCRLC_ForNextConnection			
6		[ tcv_TmpCellInfo.cellConfig = cell_DCH_StandAloneSRB ]			
7		+ ts_CRLC_RelReconfSRB ( p_CellId )			
8		+ ts_SetCellCfg(p_CellId, cell_DCH_StandAloneSRB_NoConn)			
9		[ ( tcv_TmpCellInfo.cellConfig = cell_FACH ) OR ( tcv_TmpCellInfo.cellConfig = cell_FACH_PS ) ]			
10		+ ts_CRLC_RelReconfSRB ( p_CellId )			
11		+ ts_SetCellCfg(p_CellId, cell_FACH_NoConn)			
12		[ tcv_TmpCellInfo.cellConfig = cell_FACH_BMC ]			
13		+ ts_CRLC_RelReconfSRB ( p_CellId )			
14		+ ts_SetCellCfg(p_CellId, cell_FACH_BMC_NoConn)			
15		[ tcv_TmpCellInfo.cellConfig = cell_FACH_2_PRACH]			
16		+ ts_CRLC_RelReconfSRB ( p_CellId )			
17		+ ts_SetCellCfg(p_CellId, cell_FACH_2_PRACH_NoConn)			
18		[ tcv_TmpCellInfo.cellConfig = cell_FACH_2_SCCPCH ]			
19		+ ts_CRLC_RelReconfSRB ( p_CellId )			
20		+ ts_SetCellCfg(p_CellId, cell_FACH_2_SCCPCH_NoConn)			
21		[ ( tcv_TmpCellInfo.cellConfig = cell_FACH_2SCCPCH_StandAlonePCH) OR ( tcv_TmpCellInfo.cellConfig = cell_FACH_2SCCPCH_StandAlonePCH_PS) ]			
22		+ ts_CRLC_RelReconfSRB ( p_CellId )			
23		+ ts_SetCellCfg ( p_CellId, cell_FACH_2SCCPCH_StandAlonePCH_NoC onn )			
24		[ tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_4_FACH_Cnfg1 ]			
25		+ ts_CRLC_RelReconfSRB ( p_CellId )			

	Test Step Dynamic Behaviour						
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments		
26		+ ts_SetCellCfg ( p_CellId, cell_FACH_3_SCCPCH_4_FACH_Cnfg1_No Conn )					
27		[ tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_4_FACH_Cnfg2 ]					
28		+ ts_CRLC_RelReconfSRB ( p_CellId )					
29		+ ts_SetCellCfg ( p_CellId, cell_FACH_3_SCCPCH_4_FACH_Cnfg2_No Conn )					
30		[ tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_3_FACH_CTCH ]					
31		+ ts_CRLC_RelReconfSRB ( p_CellId )					
32		+ ts_SetCellCfg ( p_CellId, cell_FACH_3_SCCPCH_3_FACH_CTCH_No Conn )					
33		[(tcv_TmpCellInfo.cellConfig = cell_FACH_2SCCPCH_StandAlonePCH_2a) OR(tcv_TmpCellInfo.cellConfig = cell_FACH_2SCCPCH_StandAlonePCH_PS_2a) ]					
34		+ ts_CRLC_RelReconfSRB ( p_CellId )					
35		+ ts_SetCellCfg ( p_CellId, cell_FACH_2SCCPCH_StandAlonePCH_2a_N oConn )					
36		[(tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_4_FACH_2a_Cnfg1) ]					
37		+ ts_CRLC_RelReconfSRB ( p_CellId )					
38		+ ts_SetCellCfg ( p_CellId, cell_FACH_3_SCCPCH_4_FACH_2a_Cnfg1_ NoConn )					
39		[(tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_4_FACH_2a_Cnfg2) ]					
40		+ ts_CRLC_RelReconfSRB ( p_CellId )					
41		+ ts_SetCellCfg ( p_CellId, cell_FACH_3_SCCPCH_4_FACH_2a_Cnfg2_ NoConn )					
42		[(tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_3_FACH_2a_CTCH) ]					
43		+ ts_CRLC_RelReconfSRB ( p_CellId )					
44		+ ts_SetCellCfg(p_CellId, cell_FACH_3_SCCPCH_3_FACH_2a_CTCH_ NoConn)					

		Test Step Dynamic B	Behaviour		
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
45		[ (tcv_TmpCellInfo.cellConfig = cell_DCH_Speech ) OR (tcv_TmpCellInfo.cellConfig = cell_DCH_64kCS_RAB_SRB ) OR (tcv_TmpCellInfo.cellConfig = cell_DCH_57_6kCS_RAB_SRB ) OR (tcv_TmpCellInfo.cellConfig = cell_DCH_57_6kCS_RAB_SRB ) OR (tcv_TmpCellInfo.cellConfig = cell_DCH_64kPS_RAB_SRB ) OR (tcv_TmpCellInfo.cellConfig = cell_RLC_DCH_AM_RAB_15Lis ) OR (tcv_TmpCellInfo.cellConfig = cell_RLC_DCH_AM_RAB_7Lis ) OR (tcv_TmpCellInfo.cellConfig = cell_RLC_DCH_UM_RAB_7Lis ) OR (tcv_TmpCellInfo.cellConfig = cell_RLC_DCH_UM_RAB_15Lis ) OR (tcv_TmpCellInfo.cellConfig = cell_PDCP_AM_RAB ) OR (tcv_TmpCellInfo.cellConfig = cell_PDCP_UM_RAB ) OR (tcv_TmpCellInfo.cellConfig = cell_PDCP_AM_UM_RAB ) OR (tcv_TmpCellInfo.cellConfig = cell_PDCP_AM_UM_RAB ) OR (tcv_TmpCellInfo.cellConfig = cell_PDCP_CellConfig = cell_PDCP_CellConfig = cell_Pour_DTCH_CS ) OR (tcv_TmpCellInfo.cellConfig = cell_Four_DTCH_CS_PS ) OR (tcv_TmpCellInfo.cellConfig = cell_DCH_2AM_PS ) OR (tcv_TmpCellInfo.cellConfig = cell_DCH_2_PS_Call ) OR			
46		+ ts_SS_ReconfigRAB_ToSRB ( p_CellId )			
47		+ ts_SetCellCfg ( p_CellId, cell_DCH_StandAloneSRB_NoConn )			
48	ERR1	[ ( tcv_TmpCellInfo.cellConfig = cell_DCH_StandAloneSRB_NoConn ) OR ( tcv_TmpCellInfo.cellConfig = cell_FACH_NoConn ) OR ( tcv_TmpCellInfo.cellConfig = cell_FACH_BMC_NoConn ) OR ( tcv_TmpCellInfo.cellConfig = cell_FACH_2_PRACH_NoConn ) OR ( tcv_TmpCellInfo.cellConfig = cell_FACH_2_SCCPCH_NoConn ) OR ( tcv_TmpCellInfo.cellConfig = cell_FACH_2_SCCPCH_StandAlonePCH_NoConn ) ]			1.
49	ERR2	[TRUE]		I	
		It_Send_RRC_ConnectionRelease			
50		[ p_RRC_RelStatus= cell_Dch ]			

		Test Step Dynamic	Behaviour		
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
51		( tcv_N308 := 1, tcv_K := 1 )			Maximu m number of retransm issions of the RRC CONNE CTION RELEAS E COMPL ETE
52		UM ! RLC_UM_DATA_REQ	cas_RRC_ConnReIDCCH ( tsc_CellDedicated, tsc_RB1,  cs_108_RRC_ConnReIDCC H(tcv_CellIndInfo.dl_Integri tyCheckInfo,		message
53	TSP1	UM ? RLC_UM_DATA_IND	tcv_RRC_Ti, tcv_N308)) car_RRC_ConnRelCmplUM ( tsc_CellDedicated, tsc_RB1, cbr_108_RRC_ConnRelCm pl ( tcv_RRC_Ti )	(P)	
54		REPEAT It_RptRcvConnRel UNTIL [ tcv_K = ( tcv_N308+1) ]			UE sends RRC Connect ion Release Complet e for N308 times
55		[ p_RRC_RelStatus = cell_Fach_Dcch ]			
56		UM!RLC_UM_DATA_REQ	cas_RRC_ConnRelDCCH ( tsc_CellDedicated, tsc_RB1,		
57	TSP2	AM ? RLC_AM_DATA_IND	cs_108_RRC_ConnRelDCC H ( tcv_CellIndInfo.dl_Integrity CheckInfo, tcv_RRC_Ti, OMIT ) ) car_RRC_ConnRelCmpl ( tsc_CellDedicated, tsc_RB2,  cbr_108_RRC_ConnRelCm pl ( tcv_RRC_Ti )	(P)	
58		+ ts_RRC_Delay ( tsc_DelayAfterRRC_ConnRel)			

		Test Step Dyn	amic Behaviour		
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
59		[ p_RRC_RelStatus = cell_Fach_Ccch ]			
60		UM!RLC_UM_DATA_REQ	cas_RRC_ConnRelCCCH( p_CellId, tsc_RB0,		
			cs_108_RRC_ConnRelCCC H ( c_U_RNTI, tcv_RRC_Ti))		
61		[ TRUE]		I	Program ming error
		It_RptRcvConnRel			
62		START t_Dly			
63	TSF2	? TIMEOUT t_Dly		(F)	
64		( tcv_K := tcv_N308 + 1 )			To stop the loop
65	TSP2	UM?RLC_UM_DATA_IND (tcv_K := tcv_K+1) CANCEL t_Dly	car_RRC_ConnRelCmplUM ( tsc_CellDedicated , tsc_RB1,	(P)	Retrans mission
			cbr_108_RRC_ConnRelCm pl ( tcv_RRC_Ti )		

Test Step Name : ts\_RRC\_PagType1\_DefMAC ( p\_CellId: INTEGER )

Group : BasicM\_RRC\_Steps/

Objective : To send PAGING TYPE 1 with the default TIMSI for CS and PTMSI for PS and with the default

paging cause

Default : RRC\_Def1

**Comments**: SS CMAC shall be configured before sending the PAGING TYPE 1 message.

tcv\_RRC\_PagingCau is assigned in ts\_RRC\_InitVariables (shall be called before).

Description

**Detailed Comments:** 

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+ts_RRC_Delay(tsc_WaitBeforePaging)			Give delay before paging type1
2		+ts_CMAC_Pag1_Cfg( p_CellId)			
3		[ tcv_CN_Domain = cs_domain ]			
4		TM!RLC_TR_DATA_REQ	cas_PagingType1 (     p_CellId,     tsc_RB_PCCH,  cs_RRC_PagingType1_TMSI     ( tcv_RRC_PagingCau,     o_ConvertTMSI(px_TMSI_     Def), tcv_CN_Domain ))		
5		[ tcv_CN_Domain = ps_domain ]			
6		TM!RLC_TR_DATA_REQ	cas_PagingType1 (     p_CellId,     tsc_RB_PCCH,  cs_RRC_PagingType1_PTM SI ( tcv_RRC_PagingCau,     o_ConvertPTMSI (     px_PTMSI_Def ),     tcv_CN_Domain ))		

Test Step Name : ts\_RRC\_ReceiveConnSetupCmpl ( p\_CellId : INTEGER )

Group : BasicM\_RRC\_Steps/

Objective : To receive RRC CONNECTION SETUP COMPLETE message and download SS security keys

according to the received information element.

Default : RRC\_DefConnEst,RRC\_Def1

Comments : Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1 2		+ ts_SetTmpCellInfo ( p_CellId )  [ ( tcv_TmpCellInfo.cellConfig = cell_DCH_StandAloneSRB_NoConn ) OR ( tcv_TmpCellInfo.cellConfig = cell_DCH_StandAloneSRB ) OR ( tcv_TmpCellInfo.cellConfig = cell_DCH_MAC_SRB_NoConn ) OR ( tcv_TmpCellInfo.cellConfig = cell_DCH_MAC_SRB ) OR ( tcv_TmpCellInfo.cellConfig = cell_DCH_MAC_SRB ) OR ( tcv_TmpCellInfo.cellConfig = cell_DCH_2AM_PS) ]			
3		START t_WaitMS			
4	TSF1	? TIMEOUT t_WaitMS		(F)	
5	TSP1	AM ? RLC_AM_DATA_IND (tcv_StartList := RLC_AM_DATA_IND.aM_message.uL_DCC H_Message.message.rrcConnectionSetupCo mplete.startList, tcv_CellIndInfo.cipheringAlgorithmCapability := RLC_AM_DATA_IND.aM_message.uL_DCC H_Message.message.rrcConnectionSetupCo mplete.ue_RadioAccessCapability.securityCap ability.cipheringAlgorithmCap) CANCEL t_WaitMS	car_RRC_ConnSetupCmpl ( tsc_CellDedicated, tsc_RB2, cr_108_RRC_ConnSetupC mpl ( tcv_RRC_Ti, ? ) )	(P)	UE capabilit y ie is present in a DCH comfigur ation
6		+ It_GetHFN			
7		[ ( tcv_TmpCellInfo.cellConfig = cell_FACH_NoConn ) OR ( tcv_TmpCellInfo.cellConfig = cell_FACH ) OR ( tcv_TmpCellInfo.cellConfig = cell_FACH_BMC_NoConn ) OR ( tcv_TmpCellInfo.cellConfig = cell_FACH_BMC ) OR ( tcv_TmpCellInfo.cellConfig = cell_FACH_2_PRACH_NoConn ) OR ( tcv_TmpCellInfo.cellConfig = cell_FACH_2_PRACH_NoConn ) OR ( tcv_TmpCellInfo.cellConfig = cell_FACH_2_PRACH ) OR ( tcv_TmpCellInfo.cellConfig = cell_FACH_2_SCCPCH_NoConn ) OR ( tcv_TmpCellInfo.cellConfig = cell_FACH_2_SCCPCH ) OR ( tcv_TmpCellInfo.cellConfig = cell_FACH_MAC_SRB_NoConn ) OR ( tcv_TmpCellInfo.cellConfig = cell_FACH_MAC_SRB ) OR ( tcv_TmpCellInfo.cellConfig = cell_FACH_MAC_SRBO_NoConn ) OR ( tcv_TmpCellInfo.cellConfig = cell_FACH_MAC_SRBO ) OR ( tcv_TmpCellInfo.cellConfig = cell_FACH_SCCCPCH_StandAlonePCH_NoConn ) OR			

	Test Step Dynamic Behaviour							
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments			
8 9 10	TSF2 TSP2	(tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_4_FACH_Cnfg1_NoC onn) OR (tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_4_FACH_Cnfg1) OR (tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_4_FACH_Cnfg2_NoC onn) OR (tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_4_FACH_Cnfg2_NoC onn) OR (tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_4_FACH_Cnfg2) OR (tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_3_FACH_CTCH_NoCo nn) OR (tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_3_FACH_CTCH) OR (tcv_TmpCellInfo.cellConfig = cell_FACH_2SCCPCH_StandAlonePCH_NoCo nn) OR (tcv_TmpCellInfo.cellConfig = cell_FACH_2SCCPCH_StandAlonePCH) OR (tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_3_FACH_2a_CTCH) OR (tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_3_FACH_2a_CTCH) OR (tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_4_FACH_2a_Cnfg1) OR (tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_4_FACH_2a_Cnfg1) OR (tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_4_FACH_2a_Cnfg2)] START t_WaitMS ? TIMEOUT t_WaitMS AM ? RLC_AM_DATA_IND (tcv_StartList := RLC_AM_DATA_IND.aM_message.ul_DCC H_Message.message.rrcConnectionSetupCo mplete.startList)	car_RRC_ConnSetupCmpl ( tsc_CellDedicated, tsc_RB2, cr_108_RRC_ConnSetupC mpl ( tcv_RRC_Ti, ? ) )	(F) (P)	UE capabilit y ie is not present			
11		CANCEL t_WaitMS + It_GetHFN			in a FACH configur ation			
12		[TRUE]		1				
		lt_GetHFN						
13		( tcv_Count := NUMBER_OF_ELEMENTS ( tcv_StartList ))						
14		[ tcv_Count = 1 ]						
15		+ lt_FirstValue						
16		[ tcv_Count = 2 ]						
17		+ lt_FirstValue						
18		+ It_SecondValue						
19	ERR1	[TRUE]		F				
		lt_FirstValue						
20		[ tcv_StartList.[0].cn_DomainIdentity = tsc_CS_Domain ]						

	Test Step Dynamic Behaviour							
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments			
21		( tcv_CellIndInfo.start_CS := tcv_StartList.[0].start_Value )						
22		[ tcv_StartList.[0].cn_DomainIdentity = tsc_PS_Domain ]						
23		(tcv_CellIndInfo.start_PS := tcv_StartList.[0].start_Value)						
24	ERR2	[TRUE]		F				
		It_SecondValue						
25		[ tcv_StartList.[1].cn_DomainIdentity = tsc_CS_Domain ]						
26		( tcv_CellIndInfo.start_CS := tcv_StartList.[1].start_Value )						
27		[ tcv_StartList.[1].cn_DomainIdentity = tsc_PS_Domain ]						
28		( tcv_CellIndInfo.start_PS := tcv_StartList.[1].start_Value )						
29	ERR3	[TRUE]		F				
Deta	iled Com	ments: 1. Download the START value to SS						

Test Step Name : ts\_RRC\_ReceiveRB\_SetupCmpl ( p\_CellId : INTEGER; p\_RbType: RB\_ConfigType )

Group : BasicM\_RRC\_Steps/

Objective : To receive RADIO BEARER SETUP COMPLETE message and reconfigure SS according to the

received information element values.

Default : RRC\_Def1

Comments : Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+ ts_SetTmpCellInfo ( p_CellId )			
2		START t_WaitMS			
3		[( p_RbType = cell_DCH_Speech) OR ( p_RbType = cell_DCH_64kCS_RAB_SRB) OR ( p_RbType = cell_DCH_57_6kCS_RAB_SRB			TM RAB
		) OR ( p_RbType = cell_Two_DTCH ) OR ( p_RbType = cell_Four_DTCH_CS ) OR ( (p_RbType = cell_Two_DTCH_PS_CS) AND (tcv_CN_Domain = cs_domain)) OR ( (p_RbType = cell_Four_DTCH_PS_CS ) AND (tcv_CN_Domain = cs_domain)) OR ( (p_RbType = cell_DCH_DSCH_CS_PS ) AND (tcv_CN_Domain = cs_domain)) ]			
4		[( tcv_CellIndInfo.cs_cipheringStarted = TRUE) AND( tcv_CellIndInfo.recentSecureDomain = cs_domain)]			
5		+ lt_CipheringStartedTM_RAB			
6		[(tcv_CellIndInfo.cs_cipheringStarted = TRUE) AND ((p_RbType = cell_DCH_Speech)OR (p_RbType = cell_DCH_64kCS_RAB_SRB))]			For RAB test cases
7		+ lt_CipheringStartedTM_RAB			
8		[ tcv_CellIndInfo.cs_cipheringStarted = FALSE ]			
9		+ It_CipheringNotStartedTM_RAB			
10		[TRUE]			AM/UM RAB
11		[ (tcv_CellIndInfo.ps_cipheringStarted = TRUE) AND( tcv_CellIndInfo.recentSecureDomain = ps_domain) ]			
12		+ lt_CipheringStartedAM_RAB			
13		[TRUE]			
14		+ It_CipheringNotStartedAM_RAB			
		It_CipheringStartedTM_RAB			
15		+ ts_CMAC_DownloadSecurityKey(tcv_AuthCK,			
		OMIT, OMIT, tcv_CN_Domain, tcv_CellIndInfo.start_CS )			
16		+ ts_CMAC_UL_DL_CipherCfg( tcv_CellIndInfo.dL_CipherMode, tcv_ActTime ,notInc)			
17	TSF1	? TIMEOUT t_WaitMS		(F)	

		Test Step Dynamic	Behaviour		
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
18	TSP2	AM ?RLC_AM_DATA_IND (tcv_CipherActTime := RLC_AM_DATA_IND.aM_message.uL_DCCH_ Message.message.radioBearerSetupComplete.c ount_C_ActivationTime, tcv_CellIndInfo.start_CS := RLC_AM_DATA_IND.aM_message.uL_DCCH_ Message.message.radioBearerSetupComplete.st art_Value ) CANCEL t_WaitMS	car_RB_SetUpCmpl ( tsc_CellDedicated, tsc_RB2, cbr_108_RB_SetUpCmpl ( tcv_RRC_Ti, *, OMIT ) )	(P)	A new start value is provided
19		+ts_CMAC_DownloadSecurityKey(tcv_Auth CK, OMIT, OMIT, tcv_CN_Domain, tcv_CellIndInfo.start_CS)			
20		+ ts_CMAC_UL_DL_CipherCfg ( tcv_CellIndInfo.dL_CipherMode, tcv_CipherActTime, incPerCFN_Cycle )			
		It_CipheringStartedAM_RAB			
21	TSF3	? TIMEOUT t_WaitMS		(F)	
22	TSP4	AM ?RLC_AM_DATA_IND ( tcv_CellIndInfo.start_PS := RLC_AM_DATA_IND.aM_message.uL_DCCH_Me ssage.message.radioBearerSetupComplete.start_V alue ,	car_RB_SetUpCmpl ( tsc_CellDedicated, tsc_RB2, cbr_108_RB_SetUpCmpl ( tcv_RRC_Ti, OMIT, *))	(P)	A new start value is provided
		tcv_CellIndInfo.uL_CipherMode := RLC_AM_DATA_IND.aM_message.uL_DCCH_Me ssage.message.radioBearerSetupComplete.rb_UL_ CiphActivationTimeInfo) CANCEL t_WaitMS			A RB UL cipher is not present
23		+ It_SS_CipheringAM_RAB_UL_DL ( tcv_PS_AuthCK)			
		It_CipheringNotStartedTM_RAB			
24 25	TSF5 TSP5	? TIMEOUT t_WaitMS  AM ?RLC_AM_DATA_IND (tcv_CipherActTime := RLC_AM_DATA_IND.aM_message.uL_DCCH_Me ssage.message.radioBearerSetupComplete.count_ C_ActivationTime, tcv_CellIndInfo.uL_CipherMode := RLC_AM_DATA_IND.aM_message.uL_DCCH_Me ssage.message.radioBearerSetupComplete.rb_UL_ CiphActivationTimeInfo ) CANCEL t_WaitMS	car_RB_SetUpCmpl ( tsc_CellDedicated, tsc_RB2, cr_RRC_RB_SetUpCmplNo StartVal ( tcv_RRC_Ti, *,*) )	(F) (P)	No start value No RB UL cipher
26		+ ts_CMAC_DownloadSecurityKey ( OMIT, OMIT, tcv_CN_Domain, tcv_CellIndInfo.start_CS)			
27		+ ts_CMAC_UL_CipherCfg ( tcv_CellIndInfo.dL_CipherMode, tcv_CipherActTime,notInc )			
28	TSP6	AM ?RLC_AM_DATA_IND ( tcv_CipherActTime := RLC_AM_DATA_IND.aM_message.uL_DCCH_Me ssage.message.radioBearerSetupComplete.count_ C_ActivationTime, tcv_CellIndInfo.start_CS := RLC_AM_DATA_IND.aM_message.uL_DCCH_Me ssage.message.radioBearerSetupComplete.start_V alue ) CANCEL t_WaitMS	car_RB_SetUpCmpl ( tsc_CellDedicated, tsc_RB2, cbr_108_RB_SetUpCmpl ( tcv_RRC_Ti, *, OMIT ) )	(P)	A new start value is provided

		Test Step Dynamic	Behaviour		
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
29		+ ts_CMAC_DownloadSecurityKey ( OMIT, OMIT, tcv_CN_Domain, tcv_CellIndInfo.start_CS )			
30		+ ts_CMAC_UL_CipherCfg ( tcv_CellIndInfo.dL_CipherMode, tcv_CipherActTime ,notInc )			
		It_CipheringNotStartedAM_RAB			
31	TSF5	? TIMEOUT t_WaitMS		(F)	
32	TSP5	AM ?RLC_AM_DATA_IND CANCEL t_WaitMS	car_RB_SetUpCmpl ( tsc_CellDedicated, tsc_RB2, cr_RRC_RB_SetUpCmplNo StartVal ( tcv_RRC_Ti, OMIT,OMIT) )	(P)	No start value No RB UL cipher
33		+ lt_SS_CipheringAM_RAB_UL_DL(OMIT)			
34	TSP6	AM ?RLC_AM_DATA_IND ( tcv_CellIndInfo.start_PS := RLC_AM_DATA_IND.aM_message.uL_DCCH_Me ssage.message.radioBearerSetupComplete.start_V alue ) CANCEL t_WaitMS	car_RB_SetUpCmpl ( tsc_CellDedicated, tsc_RB2, cbr_108_RB_SetUpCmpl ( tcv_RRC_Ti, OMIT, OMIT) )	(P)	A new start value is provided
35		+ lt_SS_CipheringAM_RAB_UL_DL (OMIT)			
		lt_SS_CipheringAM_RAB_UL_DL ( p_KC : KeyCiphering )			
36		[ ( p_RbType = cell_DCH_64kPS_RAB_SRB ) OR			
		(p_RbType = cell_FACH_PS) OR (p_RbType = cell_Two_DTCH_CS_PS) OR (p_RbType = cell_Four_DTCH_CS_PS) OR (p_RbType = cell_PDCP_AM_RAB)OR (p_RbType= cell_FACH_3_SCCPCH_4_FACH_Cnfg1) OR (p_RbType = cell_FACH_3_SCCPCH_4_FACH_Cnfg2)OR (p_RbType = cell_FACH_3_SCCPCH_3_FACH_CTCH) OR (p_RbType = cell_DCH_DSCH_PS) OR (p_RbType = cell_DCH_DSCH_CS_PS) OR (p_RbType = cell_DCH_DSCH_CS_PS) OR (p_RbType = cell_FACH_CS_PS) OR			
37		+ It_CRLC_SecurityConfig (tcv_CellIndInfo.start_PS, p_KC)			
38		(tcv_RLC_SeqNumDL_RB20 := 0)			
39		+ ts_CRLC_DL_CipherCfgRB( tcv_CellIndInfo.dL_CipherMode, p_RbType ,notInc)			
40		+ ts_CRLC_UL_CipherCfg_RAB (ps_domain, cs_RB_ActTimeInfoList20 ( 0 ) ,notInc )			
41		[ ( p_RbType = cell_DCH_2AM_PS ) OR ( p_RbType =cell_DCH_2_PS_Call )]			
42		+ It_CRLC_SecurityConfig (tcv_CellIndInfo.start_PS, p_KC)			
43		( tcv_RLC_SeqNumDL_RB20 := 0, tcv_RLC_SeqNumDL_RB22 := 0)			

	Test Step Dynamic Behaviour						
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments		
44		+ ts_CRLC_DL_CipherCfgRB ( tcv_CellIndInfo.dL_CipherMode , p_RbType ,notInc )					
45		+ ts_CRLC_UL_CipherCfg_RAB (ps_domain,cs_RB_ActTimeInfoList20_22 ( 0, 0),notInc)					
46		[(p_RbType = cell_PDCP_AM_UM_RAB)]					
47		+ It_CRLC_SecurityConfig (tcv_CellIndInfo.start_PS, p_KC)					
48		( tcv_RLC_SeqNumDL_RB20 := 0, tcv_RLC_SeqNumDL_RB21 := 0)					
49		+ ts_CRLC_DL_CipherCfgRB ( tcv_CellIndInfo.dL_CipherMode , p_RbType ,notInc )					
50		+ ts_CRLC_UL_CipherCfg_RAB (ps_domain,cs_RB_ActTimeInfoList20_21 ( 0, 0),notInc)					
51		[(p_RbType = cell_PDCP_UM_RAB)]					
52		+ lt_CRLC_SecurityConfig (tcv_CellIndInfo.start_PS, p_KC)					
53		( tcv_RLC_SeqNumDL_RB21 := 0 )					
54		+ ts_CRLC_DL_CipherCfgRB ( tcv_CellIndInfo.dL_CipherMode , p_RbType ,notInc )					
55		+ ts_CRLC_UL_CipherCfg_RAB (ps_domain, cs_RB_ActTimeInfoList21 ( 0 ) ,notInc )					
56		[(p_RbType = cell_FACH_3_SCCPCH_3_FACH_2a_CTCH)OR					
		( p_RbType= cell_FACH_3_SCCPCH_4_FACH_2a_Cnfg1) OR ( p_RbType = cell_FACH_2SCCPCH_StandAlonePCH_PS_2a) OR ( p_RbType =					
		cell_FACH_3_SCCPCH_4_FACH_2a_Cnfg2)]					
57		+ lt_CRLC_SecurityConfig (tcv_CellIndInfo.start_PS, p_KC)					
58		( tcv_RLC_SeqNumDL_RB20 := 0, tcv_RLC_SeqNumDL_RB24 := 0)					
59		+ ts_CRLC_DL_CipherCfgRB ( tcv_CellIndInfo.dL_CipherMode , p_RbType ,notInc )					
60		+ ts_CRLC_UL_CipherCfg_RAB (ps_domain,cs_RB_ActTimeInfoList20_24 ( 0, 0),notInc)					
61		[TRUE]			for RLC do nothing		
		It_CRLC_SecurityConfig ( p_Hfn_LT:   HyperFrameNumber ; p_KC_LT: KeyCiphering )					

### Continued from previous page

	Test Step Dynamic Behaviour								
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments				
62		CRLC ! CRLC_SecurityMode_Config_REQ	ca_CRLC_SecurityModeCfg Req ( tsc_CellDedicated , tcv_CellIndInfo.recentSecur eDomain, p_Hfn_LT , p_KC_LT, OMIT, OMIT )		Downloa d security keys for RLC. CRLC is configur ed with cellId -1 ( tsc_Cell Dedicate d)				
63		CRLC ? CRLC_SecurityMode_Config_CNF	ca_CRLC_SecurityModeCfg Cnf ( tsc_CellDedicated )						
Deta	iled Com	iments :		•	•				

Test Step Name : ts\_CRLC\_GetRLC\_SeqNumSecurity ( p\_CellId : INTEGER )

Group : BasicM\_Security\_Steps/

Objective : To assign the variables to the current RLC sequnce number of its corresponding SRB and RAB if

configured.

Default : SS\_Def\_Special

Comments : Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+ ts_SetTmpCellInfo ( p_CellId )			
2		CRLC ! CRLC_SequenceNumber_REQ	cas_GetRLC_SeqNum ( tsc_CellDedicated, tsc_RB1 )		
3		CRLC ? CRLC_SequenceNumber_CNF ( tcv_RLC_SeqNumDL_RB1 :=     CRLC_SequenceNumber_CNF.count_C_LSB_     DL )	car_GetRLC_SeqNum ( tsc_CellDedicated, tsc_RB1 )		
4		CRLC ! CRLC_SequenceNumber_REQ	cas_GetRLC_SeqNum ( tsc_CellDedicated, tsc_RB2		
5		CRLC ? CRLC_SequenceNumber_CNF ( tcv_RLC_SeqNumDL_RB2 := CRLC_SequenceNumber_CNF.count_C_LS B_DL)	car_GetRLC_SeqNum ( tsc_CellDedicated, tsc_RB2 )		
6		CRLC! CRLC_SequenceNumber_REQ	cas_GetRLC_SeqNum ( tsc_CellDedicated, tsc_RB3 )		
7		CRLC ? CRLC_SequenceNumber_CNF ( tcv_RLC_SeqNumDL_RB3 :=     CRLC_SequenceNumber_CNF.count_C     _LSB_DL )	car_GetRLC_SeqNum ( tsc_CellDedicated, tsc_RB3 )		
8		CRLC ! CRLC_SequenceNumber_REQ	cas_GetRLC_SeqNum ( tsc_CellDedicated, tsc_RB4 )		
9		CRLC ? CRLC_SequenceNumber_CNF (tcv_RLC_SeqNumDL_RB4 := CRLC_SequenceNumber_CNF.count _C_LSB_DL)	car_GetRLC_SeqNum ( tsc_CellDedicated, tsc_RB4 )		
10		[( (tcv_TmpCellInfo.cellConfig = cell_DCH_64kPS_RAB_SRB ) OR (tcv_TmpCellInfo.cellConfig = cell_PDCP_AM_RAB ) OR (tcv_TmpCellInfo.cellConfig = cell_FACH_PS ) OR ((tcv_TmpCellInfo.cellConfig = cell_Two_DTCH_CS_PS ) ) OR ((tcv_TmpCellInfo.cellConfig = cell_Four_DTCH_CS_PS ) ) OR (tcv_TmpCellInfo.cellConfig = cell_FACH_2SCCPCH_StandAlon ePCH_PS ) OR (tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_4_FACH _Cnfg1 ) OR (tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_4_FACH _Cnfg1 ) OR (tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_4_FACH _Cnfg2 ) OR (tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_4_FACH _Cnfg2 ) OR (tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_3_FACH _Cnfg2 ) OR			

		Test Step Dynamic	Behaviour		
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
		_CTCH )OR (tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_3_FACH _2a_CTCH) OR (tcv_TmpCellInfo.cellConfig = cell_FACH_2SCCPCH_StandAlon ePCH_2a)) AND( tcv_CellIndInfo. recentSecureDomain =ps_domain)]			
11		CRLC! CRLC_SequenceNumber_REQ	cas_GetRLC_SeqNum ( tsc_CellDedicated, tsc_RB20 )		
12		CRLC ? CRLC_SequenceNumber_CNF (tcv_RLC_SeqNumDL_RB20) :=	car_GetRLC_SeqNum ( tsc_CellDedicated, tsc_RB20)		
13		CRLC_SequenceNumber_CNF. count_C_LSB_DL) [( tcv_TmpCellInfo.cellConfig =			
13		cell_PDCP_UM_RAB)AND( tcv_CellIndInfo. recentSecureDomain =ps_domain)]			
14		CRLC! CRLC_SequenceNumber_REQ	cas_GetRLC_SeqNum ( tsc_CellDedicated, tsc_RB21 )		
15		CRLC ? CRLC_SequenceNumber_CNF ( tcv_RLC_SeqNumDL_RB21 := CRLC_SequenceNumber_CNF. count_C_LSB_DL)	car_GetRLC_SeqNum ( tsc_CellDedicated, tsc_RB21)		
16		[ ( tcv_TmpCellInfo.cellConfig = cell_DCH_2AM_PS) AND( tcv_CellIndInfo. recentSecureDomain =ps_domain) ]			
17		CRLC! CRLC_SequenceNumber_REQ	cas_GetRLC_SeqNum ( tsc_CellDedicated, tsc_RB20 )		
18		CRLC ? CRLC_SequenceNumber_CNF (tcv_RLC_SeqNumDL_RB20) := CRLC_SequenceNumber_CNF.	car_GetRLC_SeqNum ( tsc_CellDedicated, tsc_RB20 )		
19		count_C_LSB_DL) CRLC! CRLC_SequenceNumber_RE	cas_GetRLC_SeqNum ( tsc_CellDedicated,		
20		Q CRLC ? CRLC_SequenceNumber_C NF	tsc_RB22 ) car_GetRLC_SeqNum ( tsc_CellDedicated, tsc_RB22 )		
		tcv_RLC_SeqNumDL_RB22 :=			
21		CRLC_SequenceNumber_C NF.count_C_LSB_DL) [ ( tcv_TmpCellInfo.cellConfig =			
۷1		cell_PDCP_AM_UM_RAB )AND( tcv_CellIndInfo. recentSecureDomain =ps_domain) ]			

		Test Step Dynamic	Behaviour		
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
22		CRLC! CRLC_SequenceNumber_REQ	cas_GetRLC_SeqNum ( tsc_CellDedicated, tsc_RB20 )		
23		CRLC ? CRLC_SequenceNumber_CNF ( tcv_RLC_SeqNumDL_RB20 := CRLC_SequenceNumber_CNF. count_C_LSB_DL)	car_GetRLC_SeqNum ( tsc_CellDedicated, tsc_RB20)		
24		CRLC! CRLC_SequenceNumber_RE Q	cas_GetRLC_SeqNum ( tsc_CellDedicated, tsc_RB21)		
25		CRLC ? CRLC_SequenceNumber_C NF ( tcv_RLC_SeqNumDL_RB21 := CRLC_SequenceNumber_C NF.count_C_LSB_DL)	car_GetRLC_SeqNum ( tsc_CellDedicated, tsc_RB21)		
26		[TRUE]			
Deta	iled Com	ments :			

Test Step Name : ts\_InitSystemSpecificCap
Group : BasicM\_Security\_Steps/

Objective : If UE supports GSM, this step initialises tcv\_UE\_SystemSpecificCap based on PICS

Default : RRC\_Def1

Comments : Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		[pc_UMTS_GSM]			IF GSM
					is supporte
					d
2		(tcv_UE_SystemSpecificCap := 0)			
3		+lt_A57			
4		+lt_A56			
5		+lt_A55			
6		+lt_A54			
7		+lt_A53			
8		+lt_A52			
9		+lt_A51			
10		[TRUE]			IF GSM
					not Support
					ed
11		(tcv_UE_SystemSpecificCap := 0)			
		lt_A57			
12		[ pc_MS_ClsmkA5_7='1'B]			A5_7
					Support ed
13		(tcv_UE_SystemSpecificCap :=			eu
13		tcv_UE_SystemSpecificCap+64)			
14		[TRUE]			
		lt_A56			
15		[ pc_MS_ClsmkA5_6='1'B]			A5_6
					Support
10		/tour LIE SuptameSpacificCon .			ed
16		(tcv_UE_SystemSpecificCap := tcv_UE_SystemSpecificCap+32)			
17		[TRUE]			
		lt_A55			
18		[ pc_MS_ClsmkA5_5='1'B]			A5_5
					Support
					ed
19		(tcv_UE_SystemSpecificCap := tcv_UE_SystemSpecificCap+16)			
20		[TRUE]			
		lt_A54			
21		[ pc_MS_ClsmkA5_4='1'B]			A5_4
[		[			Support
					ed
22		(tcv_UE_SystemSpecificCap :=			
22		tcv_UE_SystemSpecificCap+8)			
23	ued on ne	[TRUE]			

		Test Step Dynam	ic Behaviour		
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
		lt_A53			
24		[ pc_MS_ClsmkA5_3='1'B]			A5_3 Support ed
25		<pre>(tcv_UE_SystemSpecificCap := tcv_UE_SystemSpecificCap+4)</pre>			
26		[TRUE]			
		lt_A52			
27		[ pc_MS_ClsmkA5_2='1'B]			A5_2 Support ed
28		<pre>(tcv_UE_SystemSpecificCap := tcv_UE_SystemSpecificCap+2)</pre>			
29		[TRUE]			
		lt_A51			
30		[ pc_MS_ClsmkA5_1='0'B]			A5_1 Support ed
31		<pre>(tcv_UE_SystemSpecificCap := tcv_UE_SystemSpecificCap+1)</pre>			
32		[TRUE]			
Deta	iled Com	ments :			

		Test Step Dynami	ic Behaviour		
Test	Step Na	me: ts_CMAC_DownloadSecurityKey (			
Grou	ір	: BasicM_Security_Steps/			
Objective		: To download all security keys to CMAC. Only the keys/Parameters to be downloaded w depending on the PICS.	ill be passed as parameters, rest w	ill be omitted	
Defa	ult	: SS_Def			
Com	ments	:			
Desc	ription	:			
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		CMAC ! CMAC_SecurityMode_Config_REQ	ca_CMAC_SecurityModeCf gReq ( tsc_CellDedicated , p_CN_Domain, p_HFN , p_KC, p_IK, p_GSM_ck )		Downloa d security keys for MAC
2		CMAC ? CMAC_SecurityMode_Config_CNF	ca_CMAC_SecurityModeCf gCnf ( tsc_CellDedicated )		

**Detailed Comments:** 

 $\textbf{Test Step Name} \hspace{0.2cm} : \hspace{0.1cm} ts\_CMAC\_DL\_CipherCfg \hspace{0.1cm} (\hspace{0.1cm} p\_CipherMode: \hspace{0.1cm} CipheringModeCommand; \hspace{0.1cm} p\_ActTime: \hspace{0.1cm} INTEGER; \hspace{0.1cm} (\hspace{0.1cm} p\_CipherCfg) \hspace{0.1cm} (\hspace{0.1cm} p\_CipherMode: \hspace{0.1cm} CipheringModeCommand; \hspace{0.1cm} p\_ActTime: \hspace{0.1cm} INTEGER; \hspace{0.1cm} (\hspace{0.1cm} p\_CipherMode: \hspace{0.1cm} CipheringModeCommand; \hspace{0.1cm} p\_ActTime: \hspace{0.1cm} INTEGER; \hspace{0.1cm} (\hspace{0.1cm} p\_CipherMode: \hspace{0.1cm} CipheringModeCommand; \hspace{0.1cm} p\_ActTime: \hspace{0.1cm} INTEGER; \hspace{0.1cm} (\hspace{0.1cm} p\_CipherMode: \hspace{0.1cm} CipherMode: \hspace{0.1cm} CipherMode:$ 

p\_IncrDcr : Increment\_Mode )

Group : BasicM\_Security\_Steps/

: Configure ciphering on the MAC layer for DL RBs. Objective

This step shal be called when required.

Default : SS\_Def

Comments Description

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		CMAC ! CMAC_Ciphering_Activate_REQ	ca_CMAC_DL_CipherActRe q ( tsc_CellDedicated, tsc_DL_DPCH1, p_CipherMode, p_ActTime, p_IncrDcr )		start, restart or stop cipherin g for TM RB
2		CMAC ? CMAC_Ciphering_Activate_CNF	ca_CMAC_CipherActCnf(ts c_CellDedicated, tsc_DL_DPCH1)		

**Detailed Comments:** 

## **Test Step Dynamic Behaviour**

**Test Step Name**: ts\_CMAC\_UL\_CipherCfg ( p\_CipherMode: CipheringModeCommand; p\_ActTime: INTEGER; p\_IncrDcr : Increment\_Mode )

: BasicM\_Security\_Steps/ Group

Objective : Configure ciphering on the MAC layer for UL RBs.

Default : SS\_Def

Comments Description

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments			
1		CMAC ! CMAC_Ciphering_Activate_REQ	ca_CMAC_UL_CipherActRe q ( tsc_CellDedicated, tsc_UL_DPCH1, p_CipherMode, p_ActTime, p_IncrDcr)		start, restart or stop cipherin g			
2		CMAC ? CMAC_Ciphering_Activate_CNF	ca_CMAC_CipherActCnf ( tsc_CellDedicated, tsc_UL_DPCH1 )					
Doto	Detailed Comments:							

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 $\begin{tabular}{lll} \textbf{Test Step Name} &: ts\_CRLC\_DL\_CipherCfgRB (& p\_CipherMode: CipheringModeCommand; p\_RbType: RB\_ConfigType: ;p\_IncMode: RLC\_IncMode) \end{tabular}$ 

Group : BasicM\_Security\_Steps/

Objective : Configure ciphering for RLC layer for configured AM/UM RAB's

Default : SS\_Def

Comments : CRLC is configured with cellId -1 ( tsc\_CellDedicated )

Description

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		[ ( p_RbType = cell_DCH_64kPS_RAB_SRB ) OR			
		(p_RbType = cell_FACH_PS) OR (p_RbType = cell_Two_DTCH_CS_PS) OR (p_RbType = cell_Four_DTCH_CS_PS) OR (p_RbType = cell_PDCP_AM_RAB) OR (p_RbType = cell_PDCP_UM_RAB) OR (p_RbType= cell_FACH_3_SCCPCH_4_FACH_Cnfg1) OR (p_RbType = cell_FACH_3_SCCPCH_4_FACH_Cnfg2) OR (p_RbType = cell_FACH_3_SCCPCH_4_FACH_CTCH) OR (p_RbType = cell_FACH_3_SCCPCH_3_FACH_CTCH) OR (p_RbType = cell_DCH_DSCH_PS) OR (p_RbType = cell_DCH_DSCH_CS_PS) OR (p_RbType = cell_DCH_DSCH_CS_PS) OR			
		cell_FACH_2SCCPCH_StandAlonePCH) OR ( p_RbType =   cell_FACH_2SCCPCH_StandAlonePCH_PS)]			
2		+ It_RLC_Activate ( tsc_RB20, tcv_RLC_SeqNumDL_RB20 )			
3		[ ( p_RbType = cell_PDCP_UM_RAB) ]			
4		+ It_RLC_Activate ( tsc_RB21, tcv_RLC_SeqNumDL_RB21 )			
5		[(p_RbType = cell_PDCP_AM_UM_RAB)]			
6		+ It_RLC_Activate ( tsc_RB20, tcv_RLC_SeqNumDL_RB20 )			
7		+ It_RLC_Activate ( tsc_RB21, tcv_RLC_SeqNumDL_RB21 )			
8		[ (p_RbType = cell_DCH_2AM_PS) OR ( p_RbType = cell_DCH_2_PS_Call) ]			
9		+ It_RLC_Activate ( tsc_RB20, tcv_RLC_SeqNumDL_RB20 )			
10		+ lt_RLC_Activate ( tsc_RB22, tcv_RLC_SeqNumDL_RB22 )			
11		[(p_RbType = cell_FACH_3_SCCPCH_3_FACH_2a_CTCH)OR			
		( p_RbType= cell_FACH_3_SCCPCH_4_FACH_2a_Cnfg1) OR ( p_RbType = cell_FACH_2SCCPCH_StandAlonePCH_PS_2a) OR ( p_RbType = cell_FACH_3_SCCPCH_4_FACH_2a_Cnfg2)]			
12		+ It_RLC_Activate ( tsc_RB20, tcv_RLC_SeqNumDL_RB20 )			
13		+ It_RLC_Activate ( tsc_RB24, tcv_RLC_SeqNumDL_RB24 )			

	Test Step Dynamic Behaviour								
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments				
14		[TRUE]							
		It_RLC_Activate ( p_rbld : INTEGER ; p_SeqNum : RLC_SequenceNumber )							
15		CRLC ! CRLC_Ciphering_Activate_REQ	ca_CRLC_DL_CipherActRe q ( tsc_CellDedicated , ps_domain , p_rbld , p_CipherMode, p_SeqNum , p_IncMode)		configur e cipherin g for signaling radio bearers				
16		CRLC ? CRLC_Ciphering_Activate_CNF	ca_CRLC_CipherActCnf(ts c_CellDedicated )						
Deta	iled Com	nments :							

 $\textbf{Test Step Name} \quad : \ ts\_CRLC\_DL\_CipherCfgSRB \ (p\_CipherMode: CipheringModeCommand; p\_IncMode: CipherIngMode: CipherIng$ 

RLC\_IncMode)

Group : BasicM\_Security\_Steps/

Objective : Configure ciphering for RLC layer for RB1, RB2, RB3 and RB4

Default : SS\_Def

Comments : CRLC is configured with cellId -1 ( tsc\_CellDedicated )

Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+ It_RLC_Activate ( tsc_RB1, tcv_RLC_SeqNumDL_RB1 )			
2		+ It_RLC_Activate ( tsc_RB2 , tcv_RLC_SeqNumDL_RB2+2 )			
3		+ lt_RLC_Activate ( tsc_RB3 , tcv_RLC_SeqNumDL_RB3 )			
4		+ It_RLC_Activate(tsc_RB4, tcv_RLC_SeqNumDL_RB4)			
		It_RLC_Activate ( p_rb : INTEGER ; p_RLC_Seq : RLC_SequenceNumber )			
5		CRLC ! CRLC_Ciphering_Activate_REQ	ca_CRLC_DL_CipherActRe q ( tsc_CellDedicated ,tcv_CellIndInfo. recentSecureDomain, p_rb, p_CipherMode, p_RLC_Seq,p_IncMode )		configur e cipherin g for signaling radio bearers
6		CRLC ? CRLC_Ciphering_Activate_CNF	ca_CRLC_CipherActCnf(ts c_CellDedicated )		

 $\textbf{Test Step Name} \quad : \ ts\_CRLC\_DL\_Integrity \ ( \quad p\_Integrity Protection Modeln fo: Integrity Protection Modeln fo: Integri$ 

Group : BasicM\_Security\_Steps/
Objective : To start the integrity protection

Default : SS\_Def

Comments : CRLC is configured with cellId -1 (tsc\_CellDedicated)

Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		CRLC ! CRLC_Integrity_Activate_REQ	ca_CRLC_DL_IntegrityActi vateReq ( tsc_CellDedicated , tcv_CellIndInfo. recentSecureDomain, p_IntegrityProtectionModel nfo )		
2		CRLC ?CRLC_Integrity_Activate_CNF	ca_CRLC_IntegrityActivate Cnf ( tsc_CellDedicated )		

**Detailed Comments:** 

### **Test Step Dynamic Behaviour**

 $\textbf{Test Step Name} \hspace{0.2cm} : \hspace{0.2cm} ts\_CRLC\_UL\_CipherCfg \hspace{0.1cm} (\hspace{0.1cm} p\_RB\_ActivationTimeInfoList \hspace{0.1cm} : \hspace{0.1cm} RB\_ActivationTimeInfoList \hspace{0.1c$ 

RLC\_IncMode)

**Group** : BasicM\_Security\_Steps/

**Objective**: Configure ciphering for RLC layer

Default : SS\_Def

Comments : CRLC is configured with cellId -1 (tsc\_CellDedicated)

Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		CRLC ! CRLC_Ciphering_Activate_REQ	ca_CRLC_UL_CipherActRe q (tsc_CellDedicated, tcv_CellIndInfo. recentSecureDomain, p_RB_ActivationTimeInfoLis t,p_IncMode)		configur e cipherin g for signaling radio bearers
2		CRLC ? CRLC_Ciphering_Activate_CNF	ca_CRLC_CipherActCnf(ts c_CellDedicated )		

**Detailed Comments:** 

 $\textbf{Test Step Name} \quad : \ \, \text{ts\_CRLC\_UL\_CipherCfg\_RAB} \ \, \text{(p\_CN\_Domain: CN\_DomainIdentity; p\_RB\_ActivationTimeInfoList)} \\$ 

: RB\_ActivationTimeInfoList ;p\_IncMode : RLC\_IncMode)

Group : BasicM\_Security\_Steps/

**Objective**: Configure ciphering for RLC layer

Default : SS\_Def

Comments : CRLC is configured with cellId -1 ( tsc\_CellDedicated )

Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		CRLC ! CRLC_Ciphering_Activate_REQ	ca_CRLC_UL_CipherActRe q ( tsc_CellDedicated , p_CN_Domain, p_RB_ActivationTimeInfoLis t ,p_IncMode )		configur e cipherin g for signaling radio bearers
2		CRLC ? CRLC_Ciphering_Activate_CNF	ca_CRLC_CipherActCnf(ts c_CellDedicated )		

**Detailed Comments:** 

#### **Test Step Dynamic Behaviour**

 $\textbf{Test Step Name} \quad : \ ts\_CRLC\_UL\_Integrity \ ( \ p\_Integrity ProtActivationInfo : Integrity ProtActivationInfo ) \\$ 

Group : BasicM\_Security\_Steps/
Objective : To start the integrity protection

Default : SS\_Def

Comments : CRLC is configured with cellId -1 (tsc\_CellDedicated)

Description :

Nr L	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		CRLC ! CRLC_Integrity_Activate_REQ	ca_CRLC_UL_IntegrityActi vateReq ( tsc_CellDedicated , tcv_CellIndInfo. recentSecureDomain, c_RestRB_IntegrityProtActi vationInfoList(p_IntegrityPr otActivationInfo.rrc_Messag eSequenceNumberList.[0], p_IntegrityProtActivationInf o.rrc_MessageSequenceNum berList.[1], p_IntegrityProtActivationInf o.rrc_MessageSequenceNum berList.[3], p_IntegrityProtActivationInf o.rrc_MessageSequenceNum berList.[4]))		
2		CRLC ?CRLC_Integrity_Activate_CNF	ca_CRLC_IntegrityActivate Cnf (tsc_CellDedicated)		

 $\begin{array}{ll} \textbf{Test Step Name} & : \ \text{ts\_RRC\_Security (} \\ & \ \text{p\_CellId} : \ \text{INTEGER;} \\ \end{array}$ 

p\_KC : KeyCiphering;

p\_IK: IntegrityKey;
p\_GSM\_ck: GSM\_CipheringKey;
p\_NewKey: BOOLEAN;
p\_CN\_Domain: CN\_DomainIdentity)

: BasicM\_Security\_Steps/ Group

Objective : Configure and Activate (or deactivate) ciphering for all concerned RBs

Default : RRC\_Def1

Comments Description

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+ ts_SetTmpCellInfo ( p_CellId )			
2		+ lt_RRC_InitVariables			
3		+ ts_SS_DownloadSecurityKey ( p_CellId, p_KC, p_IK, p_GSM_ck, p_CN_Domain )			
4		+ lt_ActivateSecurity_DL_SS			To Start Integrity on the UL RB2
5		+lt_RB2_UL_IntegrityActivate			
6		+ It_StartSecurity_UE			
7		[( ( tcv_CellIndInfo.ps_cipheringStarted = TRUE) AND ( tcv_CellIndInfo. recentSecureDomain = ps_domain) ) OR (( tcv_CellIndInfo.cs_cipheringStarted = TRUE) AND( tcv_CellIndInfo. recentSecureDomain = cs_domain))]			
8		+ ts_CRLC_ResumeSecurity ( p_CellId )			
9		[TRUE]			
		lt_RB2_UL_IntegrityActivate			
10		[ tcv_Int_ModifyFlag ]			If Start of Integrity Set DL RRC_M SN to 0, else skipt it.
11		+ ts_RB2_UL_IntegrityActivate(tcv_RRC_MSN_R B2_UL)			
12		[NOT tcv_Int_ModifyFlag ]			If Start of Integrity Set DL RRC_M SN to 0, else skipt it.
13		+ ts_RB2_UL_IntegrityActivate(0)			
		It_ActivateSecurity_DL_SS			
14		+ It_InitialiseRRC_MSN			

		Test Step Dynamic B	ehaviour		
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
15		+ ts_CRLC_DL_Integrity ( tcv_CellIndInfo.dL_Integrity)			
16		[( ( tcv_CellIndInfo.ps_cipheringStarted = TRUE) AND ( tcv_CellIndInfo. recentSecureDomain =ps_domain) ) OR (( tcv_CellIndInfo.cs_cipheringStarted = TRUE)			
		AND( tcv_CellIndInfo. recentSecureDomain =cs_domain))]			
17		+ ts_CRLC_GetRLC_SeqNumSecurity ( p_CellId)			
18		+ lt_AssignRB_ActivationTimeInfoList			
19		+ ts_CRLC_SuspendSecurity ( p_CellId )			Suspend SRBs 1, 3 and 4
20		+ ts_CRLC_DL_CipherCfgSRB ( tcv_CellIndInfo.dL_CipherMode,notInc)			configur e cipherin g for RLC (RBs 1, 2, 3 and 4)
21		+ ts_CRLC_DL_CipherCfgRB ( tcv_CellIndInfo.dL_CipherMode, tcv_TmpCellInfo.cellConfig,notInc)			
22		+ ts_CMAC_CipherCfg ( p_CellId ,TRUE , tcv_CellIndInfo.dL_CipherMode ,incPerCFN_Cycle)			
23		[TRUE]			If no New Cipherin g config
		It_InitialiseRRC_MSN			
24		[ NOT tcv_Int_ModifyFlag ]			If Start of Integrity Set DL RRC_M SN to 0, else skipt it.
25		+ ts_SetDL_RRC_MessageSN ( p_CellId)			'
26		[ tcv_Int_ModifyFlag ]			
		lt_StartSecurity_UE			
27		+ It_SendSecurityModeCommand			
28		[ px_CipheringOnOff ]			Cipherin g and Integrity

	Test Step Dynamic Behaviour						
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments		
29	TSP1	AM?RLC_AM_DATA_IND ( tcv_CellIndInfo.uL_Integrity := RLC_AM_DATA_IND.aM_message.uL_DCCH_ Message.message.securityModeComplete.ul_Int egProtActivationInfo, tcv_CellIndInfo.uL_CipherMode := RLC_AM_DATA_IND.aM_message.uL_DCCH_ Message.message.securityModeComplete.rb_U L_CiphActivationTimeInfo)	car_RRC_SecModeCmpl ( tsc_CellDedicated, tsc_RB2, cbr_108_RRC_SecModeCm pl ( tcv_RRC_Ti,?) )	(P)	UL cipherin g informati on is present		
30		+ ts_CRLC_UL_CipherCfg ( tcv_CellIndInfo.uL_CipherMode ,notInc )					
31		+ ts_CRLC_UL_Integrity ( tcv_CellIndInfo.uL_Integrity)					
32	TSF1	AM?RLC_AM_DATA_IND	car_RRC_SecModeFail ( tsc_CellDedicated, tsc_RB2, cr_108_SecModeFail ( tcv_RRC_Ti,?))	(F)			
33		[ NOT ( px_CipheringOnOff ) ]			Integrity only no cipherin g		
34	TSP2	AM?RLC_AM_DATA_IND ( tcv_CellIndInfo.uL_Integrity := RLC_AM_DATA_IND.aM_message.uL_DCCH_ Message.message.securityModeComplete.ul_Int egProtActivationInfo )	car_RRC_SecModeCmpl ( tsc_CellDedicated, tsc_RB2, cbr_108_RRC_SecModeCm pl ( tcv_RRC_Ti , OMIT) )	(P)	No UL Cipherin g informati on		
35		+ ts_CRLC_UL_Integrity ( tcv_CellIndInfo.uL_Integrity)					
36	TSF2	AM?RLC_AM_DATA_IND	car_RRC_SecModeFail ( tsc_CellDedicated, tsc_RB2, cr_108_SecModeFail ( tcv_RRC_Ti,?))	(F)			
		lt_SendSecurityModeCommand					
37		[pc_UMTS_GSM]			Branchin g if GSM Support ed		
38		[ px_CipheringOnOff ]			Cipherin g ON and integrity ON		

	Test Step Dynamic Behaviour						
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments		
39		[(( tcv_TmpCellInfo.cellConfig = cell_DCH_Speech) OR ( tcv_TmpCellInfo.cellConfig =cell_DCH_64kCS_RAB_SRB) OR ( tcv_TmpCellInfo.cellConfig = cell_DCH_57_6kCS_RAB_SRB) OR ( tcv_TmpCellInfo.cellConfig = cell_Two_DTCH) OR ( tcv_TmpCellInfo.cellConfig = cell_Two_DTCH) OR ( tcv_TmpCellInfo.cellConfig = cell_Four_DTCH_CS) OR ( ( tcv_TmpCellInfo.cellConfig = cell_Two_DTCH_PS_CS) AND (tcv_CellIndInfo. recentSecureDomain = cs_domain)) OR ( tcv_TmpCellInfo.cellConfig = cell_Four_DTCH_PS_CS) OR( tcv_TmpCellInfo.cellConfig = cell_Two_DTCH_CS_PS) OR ( tcv_TmpCellInfo.cellConfig = cell_Four_DTCH_CS_PS) OR ( tcv_TmpCellInfo.cellConfig = cell_Four_DTCH_CS_PS)) OR ( tcv_TmpCellInfo.cellConfig = cell_DCH_DSCH_CS_PS)) AND ( tcv_CellIndInfo. recentSecureDomain = cs domain)]			Cipherin g on TM RAB present, hence include Cipherin g activatio n time		
40		AM!RLC_AM_DATA_REQ	cas_RRC_SecModeCmd ( tsc_CellDedicated, tsc_RB2, cs_108_RRC_SecModeCmd ( tcv_CellIndInfo.dl_Integrity CheckInfo,  cs_RRC_SecModeCmdCiph Int ( tcv_RRC_Ti, tcv_CellIndInfo.dL_CipherM ode, tcv_RB_ActivationTimeInfoL ist, tcv_CipherActTime, p_CN_Domain, tcv_CellIndInfo.dL_Integrity , tcv_CellIndInfo.cipheringAlg orithmCapability, cs_UE_SysSpecCap (INT_TO_BIT (tcv_UE_SystemSpecificCa p,7)) ) ) )		Cipherin g for signallin g RBs 1 to 4		
41		[TRUE]					

	Test Step Dynamic Behaviour						
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments		
42		AM!RLC_AM_DATA_REQ	cas_RRC_SecModeCmd ( tsc_CellDedicated, tsc_RB2, cs_108_RRC_SecModeCmd ( tcv_CellIndInfo.dl_Integrity CheckInfo,		Cipherin g for signallin g RBs 1 to 4		
			cs_RRC_SecModeCmdCiph Int ( tcv_RRC_Ti, tcv_CellIndInfo.dL_CipherM ode, tcv_RB_ActivationTimeInfoL ist, OMIT, p_CN_Domain, tcv_CellIndInfo.dL_Integrity				
			tcv_CellIndInfo.cipheringAlg orithmCapability,cs_UE_Sys SpecCap (INT_TO_BIT (tcv_UE_SystemSpecificCa p,7)) )))				
43		[ NOT ( px_CipheringOnOff ) ]			Integrity ON and cipherin g OFF		
44		AM!RLC_AM_DATA_REQ	cas_RRC_SecModeCmd ( tsc_CellDedicated, tsc_RB2, cs_108_RRC_SecModeCmd (		3		
			tcv_CellIndInfo.dl_Integrity CheckInfo, cs_RRC_SecModeCmdInt (				
			tcv_RRC_Ti, p_CN_Domain,				
			tcv_CellIndInfo.dL_Integrity				
			tcv_CellIndInfo.cipheringAlg orithmCapability, cs_UE_SysSpecCap (INT_TO_BIT (tcv_UE_SystemSpecificCa p,7)) )))				
45		[NOT pc_UMTS_GSM]			Branchin g if GSM Not Support ed		

Test Step Dynamic Behaviour						
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments	
46		[ px_CipheringOnOff ]			Cipherin g ON and integrity ON	
47		[(( tcv_TmpCellInfo.cellConfig = cell_DCH_Speech) OR ( tcv_TmpCellInfo.cellConfig =cell_DCH_64kCS_RAB_SRB) OR ( tcv_TmpCellInfo.cellConfig = cell_DCH_57_6kCS_RAB_SRB) OR ( tcv_TmpCellInfo.cellConfig = cell_Two_DTCH) OR ( tcv_TmpCellInfo.cellConfig = cell_Two_DTCH) OR ( tcv_TmpCellInfo.cellConfig = cell_Four_DTCH_CS) OR ( ( tcv_TmpCellInfo.cellConfig = cell_Two_DTCH_PS_CS) AND (tcv_CellIndInfo. recentSecureDomain = cs_domain)) OR ( tcv_TmpCellInfo.cellConfig = cell_Four_DTCH_PS_CS) OR( tcv_TmpCellInfo.cellConfig = cell_Two_DTCH_CS_PS) OR ( tcv_TmpCellInfo.cellConfig = cell_Four_DTCH_CS_PS) OR ( tcv_TmpCellInfo.cellConfig = cell_Four_DTCH_CS_PS)) OR ( tcv_TmpCellInfo.cellConfig = cell_DCH_DSCH_CS_PS)) AND ( tcv_CellIndInfo. recentSecureDomain = cs_domain)]			Cipherin g on TM RAB present, hence include Cipherin g activatio n time	
48		AM!RLC_AM_DATA_REQ	cas_RRC_SecModeCmd ( tsc_CellDedicated, tsc_RB2, cs_108_RRC_SecModeCmd ( tcv_CellIndInfo.dl_Integrity CheckInfo,  cs_RRC_SecModeCmdCiph Int ( tcv_RRC_Ti, tcv_CellIndInfo.dL_CipherM ode, tcv_RB_ActivationTimeInfoL ist , tcv_CipherActTime, p_CN_Domain, tcv_CellIndInfo.dL_Integrity , tcv_CellIndInfo.dL_Integrity , tcv_CellIndInfo.cipheringAlg orithmCapability,OMIT		Cipherin g for signallin g RBs 1 to 4	
	1		()))		1	

	Test Step Dynamic Behaviour						
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments		
50		AM!RLC_AM_DATA_REQ	cas_RRC_SecModeCmd ( tsc_CellDedicated, tsc_RB2, cs_108_RRC_SecModeCmd ( tcv_CellIndInfo.dl_Integrity CheckInfo,		Cipherin g for signallin g RBs 1 to 4		
			cs_RRC_SecModeCmdCiph Int ( tcv_RRC_Ti, tcv_CellIndInfo.dL_CipherM ode, tcv_RB_ActivationTimeInfoL ist, OMIT, p_CN_Domain,				
			tcv_CellIndInfo.dL_Integrity , tcv_CellIndInfo.cipheringAlg orithmCapability,OMIT )))				
51		[ NOT ( px_CipheringOnOff ) ]			Integrity ON and cipherin g OFF		
52		AM!RLC_AM_DATA_REQ	cas_RRC_SecModeCmd ( tsc_CellDedicated, tsc_RB2, cs_108_RRC_SecModeCmd (  tcv_CellIndInfo.dl_Integrity CheckInfo, cs_RRC_SecModeCmdInt (  tcv_RRC_Ti, p_CN_Domain,  tcv_CellIndInfo.dL_Integrity ,  tcv_CellIndInfo.cipheringAlg orithmCapability,OMIT ) )				
53 54		It_RRC_InitVariables + It_InitCipherMode + It_InitIntegrity	ý				
55 56 57		+ ts_InitSystemSpecificCap + ts_SaveCellInfo ( p_CellId ) [p_NewKey = TRUE]			Authenti cation was done, reset HFN		
58		(tcv_HFN := '000000000000000000'B)					

		Test Step Dynamic	Behaviour		
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
59		[ p_CN_Domain = cs_domain]			
60		( tcv_CellIndInfo.start_CS := '00000000000000000000000000000000000			
61		[ p_CN_Domain = ps_domain]			
62		( tcv_CellIndInfo.start_PS := '00000000000000000000000000000000000			
63		[p_NewKey = FALSE]			
64		[ p_CN_Domain = cs_domain]			
65		( tcv_HFN := tcv_CellIndInfo.start_CS )			
66		[ p_CN_Domain = ps_domain]			
67		( tcv_HFN := tcv_CellIndInfo.start_PS )			
		It_InitCipherMode			
68		[ px_CipheringOnOff = TRUE ]			
69		[pc_UEA1_Supp]			
70		( tcv_CellIndInfo.dL_CipherMode := cs_CipheringModeCmdOn ( uea1 ), tcv_CellIndInfo.cipheringAlgorithmCapability := '00000000000000011'B )			Swithch On cipherin g
71		[ p_CN_Domain = cs_domain ]			
72		( tcv_CellIndInfo.cs_cipheringStarted := TRUE)			
73		[p_CN_Domain = ps_domain ]			
74		( tcv_CellIndInfo.ps_cipheringStarted := TRUE)			
75		[ NOT ( pc_UEA1_Supp ) ]			
76		( tcv_CellIndInfo.dL_CipherMode := cs_CipheringModeCmdOn ( uea0 ), tcv_CellIndInfo.cipheringAlgorithmCapability := '000000000000000001'B )			Swithch On cipherin g
77		[ p_CN_Domain = cs_domain ]			
78		( tcv_CellIndInfo.cs_cipheringStarted := TRUE)			
79		[ p_CN_Domain = ps_domain ]			
80		( tcv_CellIndInfo.ps_cipheringStarted := TRUE)			
81		[ NOT ( px_CipheringOnOff ) ]			
82		( tcv_CellIndInfo.cs_cipheringStarted := FALSE , tcv_CellIndInfo.ps_cipheringStarted := FALSE )			
83		[ pc_UEA1_Supp ]			
84		(tcv_CellIndInfo.cipheringAlgorithmCapability := '0000000000000011'B)			
85		[ NOT ( pc_UEA1_Supp ) ]			
86		(tcv_CellIndInfo.cipheringAlgorithmCapability := '000000000000001'B)			
		lt_InitIntegrity			
87		(tcv_CellIndInfo.recentSecureDomain:= p_CN_Domain)			
88		[ tcv_CellIndInfo.integrityStarted ]			
89		+ts_GetRRC_MessageSN (p_CellId)			

	Test Step Dynamic Behaviour							
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments			
90		( tcv_CellIndInfo.dL_Integrity :=     cs_IntegrityProtectModify_P(     tcv_RRC_MSN_RB0 , tcv_RRC_MSN_RB1 ,     tcv_RRC_MSN_RB2, tcv_RRC_MSN_RB3,     tcv_RRC_MSN_RB4) , tcv_Int_ModifyFlag     := TRUE)			Modify integrity			
91		[ NOT tcv_CellIndInfo.integrityStarted ]						
92		( tcv_CellIndInfo.dL_Integrity :=     cs_IntegrityProtectStart ( px_FRESH ),     tcv_CellIndInfo.integrityStarted := TRUE,     tcv_CellIndInfo.dl_IntegrityCheckInfo :=     cs_IntegrityCheckInfo0, tcv_Int_ModifyFlag :=     FALSE)			Start integrity			
		lt_AssignRB_ActivationTimeInfoList						
93		[ ( ( tcv_TmpCellInfo.cellConfig = cell_DCH_64kPS_RAB_SRB ) OR ( tcv_TmpCellInfo.cellConfig = cell_PDCP_AM_RAB ) OR ( tcv_TmpCellInfo.cellConfig = cell_FACH_PS ) OR						
		( tcv_TmpCellInfo.cellConfig = cell_Two_DTCH_CS_PS ) OR ( tcv_TmpCellInfo.cellConfig = cell_Four_DTCH_CS_PS ) OR ( tcv_TmpCellInfo.cellConfig = cell_FACH_2SCCPCH_StandAlonePCH_PS ) OR						
		(tcv_TmpCellInfo.cellConfig = cell_DCH_DSCH_PS) OR (tcv_TmpCellInfo.cellConfig = cell_DCH_DSCH_CS_PS)) AND (p_CN_Domain = ps_domain)]						
94		( tcv_RB_ActivationTimeInfoList :=     cs_RB_ActTimeInfoListSRBs_20     (tcv_RLC_SeqNumDL_RB1,     tcv_RLC_SeqNumDL_RB2+2,     tcv_RLC_SeqNumDL_RB3,     tcv_RLC_SeqNumDL_RB4,     tcv_RLC_SeqNumDL_RB20 ) )						
95		[ ( tcv_TmpCellInfo.cellConfig = cell_PDCP_UM_RAB ) AND (p_CN_Domain = ps_domain ) ]						
96		( tcv_RB_ActivationTimeInfoList :=     cs_RB_ActTimeInfoListSRBs_21     (tcv_RLC_SeqNumDL_RB1,     tcv_RLC_SeqNumDL_RB2+2,     tcv_RLC_SeqNumDL_RB3,     tcv_RLC_SeqNumDL_RB4,     tcv_RLC_SeqNumDL_RB21 ) )						
97		[ ( tcv_TmpCellInfo.cellConfig = cell_PDCP_AM_UM_RAB ) AND (p_CN_Domain = ps_domain ) ]						

	Test Step Dynamic Behaviour								
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments				
98		( tcv_RB_ActivationTimeInfoList :=     cs_RB_ActTimeInfoListSRBs_20_21     (tcv_RLC_SeqNumDL_RB1,     tcv_RLC_SeqNumDL_RB2+2,     tcv_RLC_SeqNumDL_RB3,     tcv_RLC_SeqNumDL_RB4,     tcv_RLC_SeqNumDL_RB20,     tcv_RLC_SeqNumDL_RB21 ))							
99		[ ( (tcv_TmpCellInfo.cellConfig = cell_DCH_2AM_PS ) OR ( tcv_TmpCellInfo.cellConfig = cell_DCH_2_PS_Call ))AND (p_CN_Domain = ps_domain ) ]							
100		( tcv_RB_ActivationTimeInfoList :=     cs_RB_ActTimeInfoListSRBs_20_22     (tcv_RLC_SeqNumDL_RB1,     tcv_RLC_SeqNumDL_RB2+2,     tcv_RLC_SeqNumDL_RB3,     tcv_RLC_SeqNumDL_RB4,     tcv_RLC_SeqNumDL_RB20,     tcv_RLC_SeqNumDL_RB22))							
101		[TRUE]							
102		<pre>( tcv_RB_ActivationTimeInfoList :=   cs_RB_ActTimeInfoListSRBs   (tcv_RLC_SeqNumDL_RB1 ,   tcv_RLC_SeqNumDL_RB2 +2,   tcv_RLC_SeqNumDL_RB3 ,   tcv_RLC_SeqNumDL_RB4 ))</pre>							

**Detailed Comments**: 1. this step is necessary if ( ciphering is tested and shall be switch on) OR (ciphering is tested and shall be switch off and was previously switched on) OR integrity is tested

Test	Step	Dvna	mic	Beh	aviour
	p	-,	••••		a

Test Step Name : ts\_SS\_ResetSecurityKey
Group : BasicM\_Security\_Steps/

**Objective**: To download all security keys to CMAC (for DCH cell configurations only) and CRLC.

Default : SS\_Def

Comments :

Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		( tcv_CellIndInfo:=c_CellIndInfoDef )			
2		[pc_UEA1_Supp]			
3		( tcv_CellIndInfo.cipheringAlgorithmCapability := '00000000000000011'B)			
4		[ NOT (pc_UEA1_Supp) ]			
5		( tcv_CellIndInfo.cipheringAlgorithmCapability := '00000000000000001'B)			

 $\begin{tabular}{ll} \textbf{Test Step Name} &: ts\_SS\_DownloadSecurityKey ( p\_CellId : INTEGER; p\_KC : KeyCiphering; p\_IK : IntegrityKey; p\_GSM\_ck : GSM\_CipheringKey; p\_CN\_Domain : CN\_DomainIdentity ) \\ \end{tabular}$ 

Group : BasicM\_Security\_Steps/

Objective : To download all security keys to CMAC (for DCH cell configurations only) and CRLC.

Default : SS\_Def

Comments Description

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+ ts_SetTmpCellInfo ( p_CellId )			
2		[ px_CipheringOnOff ]			
3		[ ( tcv_TmpCellInfo.cellConfig =			Cell
		cell_FACH_NoConn ) OR			FACH
		( tcv_TmpCellInfo.cellConfig = cell_FACH ) OR			
		( tcv_TmpCellInfo.cellConfig =			
		cell_FACH_NoDedicated ) OR			
		( tcv_TmpCellInfo.cellConfig = cell_FACH_PS			
		) OR			
		( tcv_TmpCellInfo.cellConfig = cell_FACH_BMC ) OR			
		(tcv_TmpCellInfo.cellConfig =			
		cell_FACH_BMC_NoConn ) OR			
		( tcv_TmpCellInfo.cellConfig =			
		cell_FACH_2_PRACH_NoConn ) OR ( tcv_TmpCellInfo.cellConfig =			
		cell FACH 2 PRACH) OR			
		( tcv_TmpCellInfo.cellConfig =			
		cell_FACH_2_SCCPCH_NoConn ) OR			
		( tcv_TmpCellInfo.cellConfig = cell_FACH_2_SCCPCH ) OR			
		(tcv_TmpCellInfo.cellConfig =			
		cell_FACH_2SCCPCH_StandAlonePCH_NoC			
		onn ) OR			
		( tcv_TmpCellInfo.cellConfig = cell_FACH_2SCCPCH_StandAlonePCH ) OR			
		(tcv_TmpCellInfo.cellConfig =			
		cell_FACH_2SCCPCH_StandAlonePCH_PS			
		)OR			
		( tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_4_FACH_Cnfg1_No			
		Conn) OR			
		( tcv_TmpCellInfo.cellConfig =			
		cell_FACH_3_SCCPCH_4_FACH_Cnfg2_No			
		Conn) OR ( tcv_TmpCellInfo.cellConfig =			
		cell_FACH_3_SCCPCH_3_FACH_CTCH_No			
		Conn)OR			
		(tcv_TmpCellInfo.cellConfig =			
		cell_FACH_3_SCCPCH_4_FACH_Cnfg1) OR			
		( tcv_TmpCellInfo.cellConfig =			
		cell_FACH_3_SCCPCH_4_FACH_Cnfg2) OR			
		( tcv_TmpCellInfo.cellConfig =			
		cell_FACH_3_SCCPCH_3_FACH_CTCH)OR			
		(tcv_TmpCellInfo.cellConfig =			
		cell_FACH_3_SCCPCH_3_FACH_2a_CTCH)			
		OR (tcv_TmpCellInfo.cellConfig =			
		cell_FACH_2SCCPCH_StandAlonePCH_2a)O			
		R ,			

		Test Step Dynamic	Behaviour		
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
		(tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_4_FACH_2a_Cnfg1) OR (tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_4_FACH_2a_Cnfg2)]			
4		+ It_DownloadKeyCRLC ( tcv_HFN, p_KC, p_IK )			
5		[ (tcv_TmpCellInfo.cellConfig = cell_DCH_StandAloneSRB_NoConn ) OR (tcv_TmpCellInfo.cellConfig = cell_DCH_StandAloneSRB ) OR (tcv_TmpCellInfo.cellConfig = cell_DCH_64kPS_RAB_SRB ) OR (tcv_TmpCellInfo.cellConfig = cell_DCH_64kPS_RAB_SRB ) OR (tcv_TmpCellInfo.cellConfig = cell_RLC_DCH_AM_RAB_15Lis ) OR (tcv_TmpCellInfo.cellConfig = cell_RLC_DCH_AM_RAB_7Lis ) OR (tcv_TmpCellInfo.cellConfig = cell_RLC_DCH_UM_RAB_15Lis ) OR (tcv_TmpCellInfo.cellConfig = cell_RLC_DCH_UM_RAB_7Lis ) OR (tcv_TmpCellInfo.cellConfig = cell_PDCP_AM_RAB ) OR (tcv_TmpCellInfo.cellConfig = cell_PDCP_UM_RAB ) OR (tcv_TmpCellInfo.cellConfig = cell_PDCP_AM_UM_RAB ) OR (tcv_TmpCellInfo.cellConfig = cell_DCH_MAC_SRB_NoConn ) OR (tcv_TmpCellInfo.cellConfig = cell_DCH_MAC_SRB ) OR (tcv_TmpCellInfo.cellConfig = cell_DCH_2AM_PS ) OR (tcv_TmpCellInfo.cellConfig = cell_DCH_2AM_PS ) OR (tcv_TmpCellInfo.cellConfig = cell_DCH_2PS_Call ) OR (tcv_TmpCellInfo.cellConfig = cell_Two_DTCH_CS_PS_Init) OR (tcv_TmpCellInfo.cellConfig = cell_Four_DTCH_CS_PS_Init) ]			Cell DCH no TM RAB
6		+ It_DownloadKeyCRLC ( tcv_HFN, p_KC,p_IK )			
7		[ ( tcv_TmpCellInfo.cellConfig = cell_DCH_Speech ) OR ( tcv_TmpCellInfo.cellConfig = cell_DCH_64kCS_RAB_SRB ) OR ( tcv_TmpCellInfo.cellConfig = cell_DCH_57_6kCS_RAB_SRB) OR ( tcv_TmpCellInfo.cellConfig = cell_Two_DTCH_PS_CS_Init) OR ( tcv_TmpCellInfo.cellConfig = cell_Four_DTCH_PS_CS_Init) OR ( tcv_TmpCellInfo.cellConfig = cell_Four_DTCH_PS_CS_Init) OR ( tcv_TmpCellInfo.cellConfig = cell_Two_DTCH_PS_CS) OR ( tcv_TmpCellInfo.cellConfig = cell_Four_DTCH_PS_CS) ]			cell DCH with TM RAB
8		+ It_DownloadKeyCRLC ( tcv_HFN,p_KC,p_IK ) + It_DownloadKeyCMAC (tcv_HFN,			
Ŭ		p_KC)			

		Test Step Dynamic B	ehaviour		
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
10		[TRUE]			
11		[ NOT px_CipheringOnOff ]			
12		[ ( tcv_TmpCellInfo.cellConfig = cell_FACH_NoConn ) OR			Cell FACH
		( tcv_TmpCellInfo.cellConfig = cell_FACH ) OR			17.011
		( tcv_TmpCellInfo.cellConfig =			
		cell_FACH_NoDedicated ) OR			
		( tcv_TmpCellInfo.cellConfig = cell_FACH_PS ) OR			
		( tcv_TmpCellInfo.cellConfig =			
		cell_FACH_BMC ) OR ( tcv_TmpCellInfo.cellConfig =			
		cell_FACH_BMC_NoConn ) OR			
		( tcv_TmpCellInfo.cellConfig = cell_FACH_2_PRACH_NoConn ) OR			
		( tcv_TmpCellInfo.cellConfig =			
		cell_FACH_2_PRACH ) OR ( tcv_TmpCellInfo.cellConfig =			
		cell_FACH_2_SCCPCH_NoConn ) OR			
		( tcv_TmpCellInfo.cellConfig = cell_FACH_2_SCCPCH ) OR			
		( tcv_TmpCellInfo.cellConfig =			
		cell_FACH_2SCCPCH_StandAlonePCH_NoC onn ) OR			
		( tcv_TmpCellInfo.cellConfig =			
		cell_FACH_2SCCPCH_StandAlonePCH ) OR ( tcv_TmpCellInfo.cellConfig =			
		cell_FACH_2SCCPCH_StandAlonePCH_PS)			
		OR ( tcv_TmpCellInfo.cellConfig =			
		cell_FACH_3_SCCPCH_4_FACH_Cnfg1_No			
		Conn) OR ( tcv_TmpCellInfo.cellConfig =			
		cell_FACH_3_SCCPCH_4_FACH_Cnfg2_No			
		Conn) OR			
		( tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_3_FACH_CTCH_No			
		Conn)OR			
		( tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_4_FACH_Cnfg1) OR			
		( tcv_TmpCellInfo.cellConfig =			
		cell_FACH_3_SCCPCH_4_FACH_Cnfg2) OR			
		( tcv_TmpCellInfo.cellConfig =			
		cell_FACH_3_SCCPCH_3_FACH_CTCH)OR			
		(tcv_TmpCellInfo.cellConfig =			
		cell_FACH_3_SCCPCH_3_FACH_2a_CTCH) OR			
		(tcv_TmpCellInfo.cellConfig =			
		cell_FACH_2SCCPCH_StandAlonePCH_2a)O R			
		(tcv_TmpCellInfo.cellConfig =			
		cell_FACH_3_SCCPCH_4_FACH_2a_Cnfg1) OR			
		(tcv_TmpCellInfo.cellConfig =			
13		cell_FACH_3_SCCPCH_4_FACH_2a_Cnfg2)] + lt_DownloadKeyCRLC (			
		tcv_HFN,OMIT,p_IK)		<u> </u>	<u> </u>

	Test Step Dynamic Behaviour							
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments			
14		[ ( tcv_TmpCellInfo.cellConfig = cell_DCH_StandAloneSRB_NoConn ) OR ( tcv_TmpCellInfo.cellConfig = cell_DCH_StandAloneSRB ) OR ( tcv_TmpCellInfo.cellConfig = cell_DCH_64kPS_RAB_SRB ) OR ( tcv_TmpCellInfo.cellConfig = cell_RLC_DCH_AM_RAB_15Lis ) OR ( tcv_TmpCellInfo.cellConfig = cell_RLC_DCH_AM_RAB_15Lis ) OR ( tcv_TmpCellInfo.cellConfig = cell_RLC_DCH_UM_RAB_15Lis ) OR ( tcv_TmpCellInfo.cellConfig = cell_RLC_DCH_UM_RAB_15Lis ) OR ( tcv_TmpCellInfo.cellConfig = cell_RLC_DCH_UM_RAB_7Lis ) OR ( tcv_TmpCellInfo.cellConfig = cell_PDCP_AM_RAB ) OR ( tcv_TmpCellInfo.cellConfig = cell_PDCP_UM_RAB ) OR ( tcv_TmpCellInfo.cellConfig = cell_PDCP_AM_UM_RAB ) OR ( tcv_TmpCellInfo.cellConfig = cell_DCH_MAC_SRB_NoConn ) OR ( tcv_TmpCellInfo.cellConfig = cell_DCH_MAC_SRB ) OR ( tcv_TmpCellInfo.cellConfig = cell_DCH_2AM_PS ) OR ( tcv_TmpCellInfo.cellConfig = cell_DCH_2PS_Call ) OR ( tcv_TmpCellInfo.cellConfig = cell_Two_DTCH_CS_PS_Init) OR ( tcv_TmpCellInfo.cellConfig = cell_Four_DTCH_CS_PS_Init) ]			Cell DCH no TM RAB			
15		+ It_DownloadKeyCRLC ( tcv_HFN ,OMIT, p_IK )						
16		[ ( tcv_TmpCellInfo.cellConfig = cell_DCH_Speech ) OR ( tcv_TmpCellInfo.cellConfig = cell_DCH_64kCS_RAB_SRB ) OR ( tcv_TmpCellInfo.cellConfig = cell_DCH_57_6kCS_RAB_SRB) ]			cell DCH with TM RAB			
17		+ lt_DownloadKeyCRLC ( tcv_HFN,OMIT, p_IK )						
18		[TRUE]  It_DownloadKeyCMAC ( p_HFN : B20; p_KC_LT : KeyCiphering )						
19		CMAC ! CMAC_SecurityMode_Config_REQ	ca_CMAC_SecurityModeCf gReq ( tsc_CellDedicated , p_CN_Domain, p_HFN , p_KC_LT, OMIT, OMIT )		Downloa d security keys for MAC			
20		CMAC ? CMAC_SecurityMode_Config_CNF	ca_CMAC_SecurityModeCf gCnf ( tsc_CellDedicated )					
		lt_DownloadKeyCRLC ( p_HFN : B20; p_KC_LT : KeyCiphering; p_IK_LT : IntegrityKey )						

	Test Step Dynamic Behaviour							
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments			
21		CRLC ! CRLC_SecurityMode_Config_REQ	ca_CRLC_SecurityModeCfg Req ( tsc_CellDedicated , p_CN_Domain, p_HFN , p_KC_LT, p_IK_LT, OMIT )		Downloa d security keys for RLC. CRLC is configur ed with cellId -1 ( tsc_Cell Dedicate d )			
22		CRLC ? CRLC_SecurityMode_Config_CNF	ca_CRLC_SecurityModeCfg Cnf ( tsc_CellDedicated )					
Deta	iled Com	ments :	·					

Test Step Name : ts\_SS\_SecurityDownloadStart ( p\_domain : CN\_DomainIdentity ; p\_StartValue : B20 )

Group : BasicM\_Security\_Steps/

Objective : To download a new START value In the cell Independent Record

Default : SS\_Def

Comments :

Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments			
1		[ p_domain = cs_domain ]						
2		(tcv_CellIndInfo.start_CS := p_StartValue)						
3		[ p_domain = ps_domain ]						
4		(tcv_CellIndInfo.start_PS := p_StartValue)						
Deta	Detailed Comments							

Test Step Name : ts\_SetDL\_RRC\_MessageSN (p\_ActCell : INTEGER)

Group : BasicM\_Security\_Steps/

Objective : To Set the Message sequence number in DL to all 0 for RB0 to RB4

Default : SS\_Def

**Comments**: This step to be used when Integrity is to be started

Description :

CRLC ! CRLC_SetRRC_MessageSN_REQ	ca_DL_CRLC_SetRRC_MS N_REQ (p_ActCell, tsc_RB0, 0 )		
CRLC ?CRLC_SetRRC_MessageSN_CNF	ca_CRLC_SetRRC_MSN_C NF ( p_ActCell, tsc_RB0 )		
CRLC ! CRLC_SetRRC_MessageSN_REQ	ca_DL_CRLC_SetRRC_MS N_REQ( tsc_CellDedicated, tsc_RB1, 0 )		
CRLC ?CRLC_SetRRC_MessageSN_CNF	ca_CRLC_SetRRC_MSN_C NF (tsc_CellDedicated, tsc_RB1)		
CRLC ! CRLC_SetRRC_MessageSN_REQ	ca_DL_CRLC_SetRRC_MS N_REQ( tsc_CellDedicated, tsc_RB2, 0)		
CRLC ?CRLC_SetRRC_MessageSN_CNF	ca_CRLC_SetRRC_MSN_C NF (tsc_CellDedicated, tsc_RB2)		
CRLC ! CRLC_SetRRC_MessageSN_REQ	ca_DL_CRLC_SetRRC_MS N_REQ( tsc_CellDedicated, tsc_RB3, 0)		
CRLC ?CRLC_SetRRC_MessageSN_CNF	ca_CRLC_SetRRC_MSN_C NF (tsc_CellDedicated, tsc_RB3)		
CRLC! CRLC_SetRRC_MessageSN_REQ	ca_DL_CRLC_SetRRC_MS N_REQ( tsc_CellDedicated, tsc_RB4, 0)		
CRLC ?CRLC_SetRRC_MessageSN_CN F	ca_CRLC_SetRRC_MSN_C NF (tsc_CellDedicated, tsc_RB4)		
	CRLC ! CRLC_SetRRC_MessageSN_REQ  CRLC ! CRLC_SetRRC_MessageSN_CNF  CRLC ! CRLC_SetRRC_MessageSN_REQ  CRLC ?CRLC_SetRRC_MessageSN_CNF  CRLC ! CRLC ! CRLC_SetRRC_MessageSN_REQ  CRLC ?CRLC_SetRRC_MessageSN_CNF  CRLC ! CRLC ! CRLC_SetRRC_MessageSN_CNF  CRLC ! CRLC ! CRLC_SetRRC_MessageSN_REQ  CRLC ! CRLC_SetRRC_MessageSN_REQ  CRLC ! CRLC_SetRRC_MessageSN_CN	tsc_RB0, 0)  CRLC ?CRLC_SetRRC_MessageSN_CNF  CRLC ! CRLC_SetRRC_MessageSN_REQ  CRLC ?CRLC_SetRRC_MessageSN_REQ  CRLC ?CRLC_SetRRC_MessageSN_CNF  CRLC ! CRLC_SetRRC_MessageSN_CNF  CRLC ! CRLC_SetRRC_MessageSN_REQ  CRLC ?CRLC_SetRRC_MessageSN_REQ  CRLC ?CRLC_SetRRC_MessageSN_REQ  CRLC ?CRLC_SetRRC_MessageSN_REQ  CRLC !  CRLC !  CRLC !  CRLC !  CRLC_SetRRC_MessageSN_REQ  CRLC !  CRLC_SetRRC_MessageSN_REQ  CRLC !  CRLC    CRLC	tsc_RB0, 0 )  CRLC ?CRLC_SetRRC_MessageSN_CNF  CRLC ! CRLC_SetRRC_MessageSN_REQ  CRLC ?CRLC_SetRRC_MessageSN_REQ  CRLC ?CRLC_SetRRC_MessageSN_CNF  CRLC ?CRLC_SetRRC_MessageSN_CNF  CRLC ! CRLC_SetRRC_MessageSN_REQ  CRLC ?CRLC_SetRRC_MessageSN_REQ  CRLC ?CRLC_SetRRC_MessageSN_REQ  CRLC ?CRLC_SetRRC_MessageSN_REQ  CRLC ?CRLC_SetRRC_MessageSN_CNF  CRLC !  CRLC !  CRLC !  CRLC ?CRLC_SetRRC_MessageSN_REQ  CRLC !  CRLC    CRLC ?CRLC_SetRRC_MessageSN_REQ  CRLC    CRLC    CRLC ?CRLC_SetRRC_MessageSN_REQ  CRLC    CRLC    CRLC ?CRLC_SetRRC_MessageSN_CNF  CRLC    CRLC ?CRLC_SetRRC_MessageSN_CNF  CRLC    CRLC ?CRLC_SetRRC_MessageSN_CNF  CRLC    CRLC ?CRLC_SetRRC_MessageSN_CNF  CRLC !  CRLC    CRLC SetRRC_MessageSN_REQ  CRLC SetRRC_MessageSN_REQ  CRLC SetRRC_MSN_C    CRLC    CRLC    CRLC SetRRC_MessageSN_REQ  CRLC SetRRC_MSN_C    CRLC SetRRC_MS    CRLC SetRRC_

 $\textbf{Test Step Name} \quad \textbf{:} \quad ts\_RB2\_UL\_IntegrityActivate(p\_RRCSN: RRC\_MessageSequenceNumber)$ 

Group : BasicM\_Security\_Steps/

Objective :

Default : SS\_Def

Comments : Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		CRLC ! CRLC_Integrity_Activate_REQ	ca_CRLC_UL_IntegrityActi vateReq ( tsc_CellDedicated		
			tcv_CellIndInfo.recentSecur eDomain, c_RB2_IntegrityProtActivati onInfoList( p_RRCSN) )		
2		CRLC ?CRLC_Integrity_Activate_CNF	ca_CRLC_IntegrityActivate Cnf (tsc_CellDedicated )		

 $\textbf{Test Step Name} \quad \textbf{:} \quad ts\_CMAC\_CipherCfg \ ( \ p\_CellId : INTEGER; p\_CalcNewActTime : BOOLEAN; p\_CipherMode: \\ \quad \quad \quad CipheringModeCommand; \ p\_IncrDcr : Increment\_Mode \ )$ 

: BasicM\_Security\_Steps/ Group

Objective : To Configuare the MAC Layer with the

Default Comments Description

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+ ts_SetTmpCellInfo ( p_CellId )			
3 4 5		tis_settripcellinfo.cellConfig = cell_DCH_Speech) OR			
		p_CipherMode, tcv_CipherActTime, p_IncrDcr )			
6		(TRUE)		(P)	No TM RAB configur ed
		lt_CalcActivationTime			
7		[ p_CalcNewActTime = TRUE]			
8		CPHY ! CPHY_Frame_Number_REQ	cas_GetFrameNum( p_CellId, tsc_DL_DPCH1 )		
9		CPHY ? CPHY_Frame_Number_CNF (tcv_FrameNumber := CPHY_Frame_Number_CNF.frameNumber)	car_GetFrameNum( p_CellId, tsc_DL_DPCH1)		
10		(tcv_CipherActTime := (256 + tcv_FrameNumber- ( tcv_FrameNumber MOD 8 +8)) MOD 256)			Calculate the Cipherin g Activatio n Time
11		[ p_CalcNewActTime = FALSE]			
Deta	iled Com	ments :		•	•

 $\textbf{Test Step Name} \quad : \ \, ts\_GetRRC\_MessageSN(p\_CellId:INTEGER)$ 

Group : BasicM\_Security\_Steps/

**Objective**: To Calculate the Message sequence numbers for RB0 to RB4 and store in TCV's.

Default :
Comments :
Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		CRLC !CRLC_RRC_MessageSN_REQ	cas_CRLC_RRC_MessageS N_REQ (tsc_CellDedicated, tsc_RB0)		
2		CRLC ? CRLC_RRC_MessageSN_CNF (tcv_RRC_MSN_RB0 := CRLC_RRC_MessageSN_CNF.count_I_LSB_D L)	car_CRLC_RRC_MessageS N_CNF (tsc_CellDedicated, tsc_RB0)		
3		CRLC !CRLC_RRC_MessageSN_REQ	cas_CRLC_RRC_MessageS N_REQ (tsc_CellDedicated, tsc_RB1)		
4		CRLC ? CRLC_RRC_MessageSN_CNF ( tcv_RRC_MSN_RB1 := CRLC_RRC_MessageSN_CNF.count_I_LSB _DL )	car_CRLC_RRC_MessageS N_CNF (tsc_CellDedicated, tsc_RB1)		
5		CRLC ! CRLC_RRC_MessageSN_REQ	cas_CRLC_RRC_MessageS N_REQ (tsc_CellDedicated, tsc_RB2)		
6		CRLC ? CRLC_RRC_MessageSN_CNF ( tcv_RRC_MSN_RB2 :=     CRLC_RRC_MessageSN_CNF.count_I_L     SB_DL,     tcv_RRC_MSN_RB2_UL :=     CRLC_RRC_MessageSN_CNF.count_I_L     SB_UL)	car_CRLC_RRC_MessageS N_CNF (tsc_CellDedicated, tsc_RB2)		
7		CRLC! CRLC_RRC_MessageSN_REQ	cas_CRLC_RRC_MessageS N_REQ (tsc_CellDedicated, tsc_RB3)		
8		CRLC ? CRLC_RRC_MessageSN_CNF ( tcv_RRC_MSN_RB3 := CRLC_RRC_MessageSN_CNF.count_ I_LSB_DL)	car_CRLC_RRC_MessageS N_CNF (tsc_CellDedicated, tsc_RB3)		
9		CRLC ! CRLC_RRC_MessageSN_REQ	cas_CRLC_RRC_MessageS N_REQ (tsc_CellDedicated, tsc_RB4)		
10		CRLC ? CRLC_RRC_MessageSN_CNF (tcv_RRC_MSN_RB4 := CRLC_RRC_MessageSN_CNF.cou nt_I_LSB_DL)	car_CRLC_RRC_MessageS N_CNF (tsc_CellDedicated, tsc_RB4)		

 $\textbf{Test Step Name} \quad : \ ts\_CMAC\_UL\_DL\_CipherCfg \ ( \ p\_CipherMode: CipheringModeCommand; \ p\_ActTime: INTEGER; \\ \quad p\_IncrDcr : Increment\_Mode \ )$ 

Group : BasicM\_Security\_Steps/

Objective : Configure ciphering on the MAC layer for UL and DLRBs.

: SS\_Def Default

Comments Description

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+ts_CMAC_DL_CipherCfg ( p_CipherMode, p_ActTime, p_IncrDcr ) +ts_CMAC_UL_CipherCfg ( p_CipherMode, p_ActTime, p_IncrDcr )			
		p_nerrane; p_merber /			

Test Step Name : ts\_CRLC\_ReconfRLC\_Size (p\_urnti:BOOLEAN)

Group : BasicM\_SS\_Configuration\_Steps/

: To Reconfigure RLC size to allow U–RNTI in MAC header or C–RNTI in MAC header depending on parameter if it is TRUE allow U–RNTI in MAC header and if it is false allow C–RNTI in MAC header Objective

Default

Comments Description

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		[p_urnti=TRUE]			
2		CRLC! CRLC_Config_REQ	cad_RB_UM_ReconfInfo ( tsc_CellDedicated , tsc_RB1, {uLlogicalChannelIdentity tsc_UL_DCCH1, dLlogicalChannelIdentity tsc_DL_DCCH1})		cofigure radio bearers:  RB1 (UM + DCCH) and (UM + DCCH)
					Payload size=120
3		CRLC ? CRLC_Config_CNF	ca_CRLC_CfgCnf ( tsc_CellDedicated, tsc_RB1)		
4		[p_urnti=FALSE]			
5		CRLC ! CRLC_Config_REQ	ca_RB_UM_ReconfInfo ( tsc_CellDedicated , tsc_RB1, {uLlogicalChannelIdentity tsc_UL_DCCH1, dLlogicalChannelIdentity tsc_DL_DCCH1})		cofigure radio bearers:  RB1 (UM + DCCH) and (UM + DCCH)  Payload size=136 (default)
6		CRLC ? CRLC_Config_CNF	ca_CRLC_CfgCnf ( tsc_CellDedicated, tsc_RB1)		Í

**Test Step Name**: ts\_CMAC\_New\_RNTI\_Reconf ( p\_urnti:BOOLEAN; p\_CellId : INTEGER; p\_U\_RNTI : U\_RNTI; p\_C\_RNTI : BITSTRING )

Group : BasicM\_SS\_Configuration\_Steps/

Objective : Reconfigure MAC when a new U\_RNTI or C\_RNTI is assigned to UE.

Default : SS\_Def

Comments : U-RNTI and C-RNTI are not required on DPCH.

U-RNTI and C-RNTI is necessary when DCCH/DTCH mapped on S-CCPCH.

C-RNTI is necessary when DCCH/DTCH mapped on PRACH.

Description

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+ ts_SetTmpCellInfo ( p_CellId )			
2		+ ts_CRLC_ReconfRLC_Size ( p_urnti )			
3		+ lt_CMAC_Reconf ( p_urnti )			
		It_CMAC_Reconf ( p_urnti: BOOLEAN )			
4		[p_urnti]			
5		CMAC ! CMAC_Config_REQ	ca_CMAC_ReconfigInfoAct Now ( p_CellId , tsc_S_CCPCH1, c_UE_Info(p_U_RNTI, OMIT ), c_TrChInfoPCH_FACH_PS		SS has valid U-RNTI, C-RNTI is not valid
			c_TrLogMappingPCH_FAC		
6		CMAC ? CMAC_Config_CNF	ca_CMAC_CfgCnf ( p_CellId , tsc_S_CCPCH1		
7		[ NOT p_urnti ]			
8		[(tcv_TmpCellInfo.cellConfig = cell_FACH)OR			
		(tcv_TmpCellInfo.cellConfig = cell_FACH_PS) OR (tcv_TmpCellInfo.cellConfig = cell_FACH_NoConn)]			
9		CMAC ! CMAC_Config_REQ	ca_CMAC_ReconfigInfoAct Now ( p_CellId , tsc_PRACH1, c_UE_Info ( OMIT, p_C_RNTI ), cb_TrChInfoRACH1, c_TrLogMappingRACH_DT CH )		SS has valid C-RNTI, U-RNTI is not valid Only C-RNTI is required on PRACH
10		CMAC ? CMAC_Config_CNF	ca_CMAC_CfgCnf ( p_CellId , tsc_PRACH1)		
11		CMAC ! CMAC_Config_REQ	ca_CMAC_ReconfigInfoAct Now ( p_CellId , tsc_S_CCPCH1, c_UE_Info( OMIT, p_C_RNTI ), c_TrChInfoPCH_FACH_PS , c_TrLogMappingPCH_FAC		
			H_PS)		

### Continued from previous page

	Test Step Dynamic Behaviour							
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments			
12		CMAC ? CMAC_Config_CNF	ca_CMAC_CfgCnf ( p_CellId , tsc_S_CCPCH1 )					
13		[TRUE]						
Deta	Detailed Comments :							

Test Step Name : ts\_CMAC\_Pag1\_Cfg ( p\_CellId: INTEGER )

Group : BasicM\_SS\_Configuration\_Steps/
Objective : Configure paging on the MAC layer.

Default : SS\_Def

**Comments**: This step shall be used when UE in idle mode.

The DRX cycle length to use is the shortest of the CN domain specific Drx cycle length.

The test case variable tcv\_dRX\_CycleLengthPaging is assigned to: the smallest value of CN Drx cycle

length for the CN domain the UE is attached to.

Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+ ts_SetTmpCellInfo ( p_CellId )			
2		$[px_RAT = fdd]$			
3		+ lt_CalculateDrxCycleLength			
4		CMAC ! CMAC_PAGING_Config_REQ	ca_CMAC_PagingCfgReq(p _CellId, tsc_S_CCPCH1, fdd, c_MAC_PagingCfg (o_GetPI(px_IMSI_Def, 18), tcv_dRX_CycleLengthPagin g ))		
5		CMAC ? CMAC_PAGING_Config_CNF	ca_CMAC_PagingCfgCnf(p _CellId, tsc_S_CCPCH1)		
6	ERR1	[px_RAT = tdd ]		1	
7	ERR2	[TRUE]		1	
		lt_CalculateDrxCycleLength			
8		[pc_CS AND pc_PS]			0.
9		[ tcv_TmpCellInfo.dRX_CycleLength.cN_CS_DRX _CycleLength <= tcv_TmpCellInfo.dRX_CycleLength.cN_PS_DRX _CycleLength]			1.
10		( tcv_dRX_CycleLengthPaging := tcv_TmpCellInfo.dRX_CycleLength.cN_CS_DR X_CycleLength )			
11		[TRUE]			2.
12		( tcv_dRX_CycleLengthPaging := tcv_TmpCellInfo.dRX_CycleLength.cN_PS_DR X_CycleLength )			
13		[pc_CS AND NOT (pc_PS) ]			3.
14		( tcv_dRX_CycleLengthPaging := tcv_TmpCellInfo.dRX_CycleLength.cN_CS_DRX _CycleLength )			
15		[pc_PS AND NOT (pc_CS) ]			4.
16		( tcv_dRX_CycleLengthPaging := tcv_TmpCellInfo.dRX_CycleLength.cN_PS_DRX _CycleLength )			

Detailed Comments: 0. UE supports CS and PS

1. CN Drx Cycle length for CS is smaller than PS, then CN Drx Cycle length for CS is used

2. CN Drx Cycle length for CS is smaller than PS, then CN Drx Cycle length for PS is used

3. UE supports only CS, the CN Drx cycle length for CS is used

4. UE supports only PS, the CN Drx cycle length for PS is used

Test Step Name : ts\_CMAC\_Rel ( p\_CellId : INTEGER; p\_PhyCH : PhysicalChannelIdentity )

Group : BasicM\_SS\_Configuration\_Steps/
Objective : To request to release the Radio Link

Default : SS\_Def

Comments : Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		CMAC ! CMAC_Config_REQ	cas_MAC_Rel (p_CellId, p_PhyCH)		
2		CMAC ? CMAC_Config_CNF	ca_CMAC_CfgCnf ( p_CellId , p_PhyCH )		

**Detailed Comments:** 

### **Test Step Dynamic Behaviour**

Test Step Name : ts\_CPHY\_TrChRelDCH\_NoSHO ( p\_CellId : INTEGER; p\_PhyCH : PhysicalChannelIdentity )

Group : BasicM\_SS\_Configuration\_Steps/
Objective : To request to release the Radio Link

Default : SS\_Def

Comments : Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments			
1		CPHY ! CPHY_TrCH_Release_REQ	ca_PHY_RelReqDCH_NoS HO ( p_CellId , p_PhyCH )					
2		CPHY ? CPHY_TrCH_Release_CNF	ca_PHY_RelCnf ( p_CellId , p_PhyCH )					
Data	Detailed Commands							

**Detailed Comments:** 

### **Test Step Dynamic Behaviour**

Test Step Name : ts\_CPHY\_TrChRelNonDch ( p\_CellId : INTEGER; p\_PhyCH : PhysicalChannelIdentity )

Group : BasicM\_SS\_Configuration\_Steps/
Objective : To request to release the Radio Link

Default : SS\_Def

Comments : Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments			
1		CPHY ! CPHY_TrCH_Release_REQ	ca_PHY_RelReqNonDch ( p_CellId , p_PhyCH )					
2		CPHY ? CPHY_TrCH_Release_CNF	ca_PHY_RelCnf ( p_CellId , p_PhyCH )					

Test Step Name : ts\_CRLC\_Rel ( p\_CellId : INTEGER; p\_RB\_Id : INTEGER )

Group : BasicM\_SS\_Configuration\_Steps/

**Objective**: To release RLC entity.

Default : SS\_Def

Comments : Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		CRLC ! CRLC_Config_REQ	ca_CRLC_RB_RelReq (p_CellId, p_RB_Id)		release radio bearer
2		CRLC ? CRLC_Config_CNF	ca_CRLC_CfgCnf( p_CellId, p_RB_Id)		

**Detailed Comments:** 

### **Test Step Dynamic Behaviour**

Test Step Name : ts\_CRLC\_RelReconfSRB (p\_CellId : INTEGER )

Group : BasicM\_SS\_Configuration\_Steps/

Objective : To release RLC counter sequence number for SRB 1 to 4, by first releasing them and then setting

them up again.

Default : SS\_Def

Comments : This step is used only in conjonction with the RRC Connestion Release step. The configuration for

SRBs 1 to 4 is the same as the one used for cell\_DCH and cell\_FACH.

Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+ ts_CRLC_Rel ( tsc_CellDedicated, tsc_RB1 )			
2		+ ts_CRLC_Rel (tsc_CellDedicated, tsc_RB2)			
3		+ ts_CRLC_Rel (tsc_CellDedicated, tsc_RB3)			
4		+ ts_CRLC_Rel (tsc_CellDedicated, tsc_RB4			
		)			
5		+ ts_SS_RB1_ToRB4_Cfg			

Test Step Name : ts\_CRLC\_ResumeSecurity ( p\_CellId : INTEGER )

**Group**: BasicM\_SS\_Configuration\_Steps/

**Objective**: resume radio bearers for the security procedure

Default : SS\_Def

Comments : CRLC is configured with cellId -1 ( tsc\_CellDedicated )

Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+ ts_SetTmpCellInfo ( p_CellId )			Swithch On cipherin g
2		CRLC ! CRLC_Resume_REQ	cas_ResumeRB(tsc_CellDedicated, tsc_RB1)		
3		CRLC ? CRLC_Resume_CNF	car_ResumeRB(tsc_CellDedicated, tsc_RB1)		
4		CRLC! CRLC_Resume_REQ	cas_ResumeRB(tsc_CellDedicated, tsc_RB3)		
5		CRLC ? CRLC_Resume_CNF	car_ResumeRB(tsc_CellDedicated, tsc_RB3)		
6		CRLC! CRLC_Resume_REQ	cas_ResumeRB(tsc_CellDedicated, tsc_RB4)		
7		CRLC ? CRLC_Resume_CNF (tcv_RB_SigResumed := TRUE)	car_ResumeRB(tsc_CellDedicated, tsc_RB4)		
8		[ (( tcv_TmpCellInfo.cellConfig = cell_DCH_64kPS_RAB_SRB ) OR ( tcv_TmpCellInfo.cellConfig = cell_PDCP_AM_RAB ) OR ( tcv_TmpCellInfo.cellConfig = cell_FACH_PS ) OR ( tcv_TmpCellInfo.cellConfig = cell_Two_DTCH_PS_CS) OR ( tcv_TmpCellInfo.cellConfig = cell_Four_DTCH_PS_CS) OR ( tcv_TmpCellInfo.cellConfig = cell_Two_DTCH_CS_PS) OR ( tcv_TmpCellInfo.cellConfig = cell_Two_DTCH_CS_PS) OR ( tcv_TmpCellInfo.cellConfig = cell_FACH_2SCCPCH_StandAloneP CH_PS ) OR ( tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_4_FACH_Cn fg1 ) OR ( tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_4_FACH_Cn fg2 ) OR ( tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_4_FACH_CT CH ) OR ( tcv_TmpCellInfo.cellConfig = cell_DCH_DSCH_PS ) OR ( tcv_TmpCellInfo.cellConfig = cell_DCH_DSCH_PS ) OR ( tcv_TmpCellInfo.cellConfig = cell_DCH_DSCH_PS ) OR ( tcv_TmpCellInfo.cellConfig = cell_DCH_DSCH_CS_PS ))AND ( tcv_CellIndInfo. recentSecureDomain = ps_domain) ]			
9		CRLC ! CRLC_Resume_REQ	cas_ResumeRB(tsc_CellDedicated, tsc_RB20)		
10		CRLC ? CRLC_Resume_CNF	car_ResumeRB(tsc_CellDedicated, tsc_RB20)		

		Test Step Dynamic	Behaviour		
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
11		[ tcv_TmpCellInfo.cellConfig = cell_PDCP_UM_RAB ]			
12		CRLC! CRLC_Resume_REQ	cas_ResumeRB(tsc_CellDedicated, tsc_RB21)		
13		CRLC ? CRLC_Resume_CNF	car_ResumeRB(tsc_CellDedicated, tsc_RB21)		
14		[ ( tcv_TmpCellInfo.cellConfig = cell_PDCP_AM_UM_RAB ) ]			
15		CRLC! CRLC_Resume_REQ	cas_ResumeRB(tsc_CellDedicated, tsc_RB20)		
16		CRLC ? CRLC_Resume_CNF	car_ResumeRB(tsc_CellDedicated, tsc_RB20)		
17		CRLC! CRLC_Resume_REQ	cas_ResumeRB(tsc_CellDedicated, tsc_RB21)		
18		CRLC ? CRLC_Resume_CNF	car_ResumeRB(tsc_CellDedicated, tsc_RB21)		
19		[(tcv_TmpCellInfo.cellConfig = cell_DCH_2AM_PS) OR (tcv_TmpCellInfo.cellConfig = cell_DCH_2_PS_Call)]			
20		CRLC ! CRLC_Resume_REQ	cas_ResumeRB(tsc_CellDedicated, tsc_RB20)		
21		CRLC ? CRLC_Resume_CNF	car_ResumeRB(tsc_CellDedicated, tsc_RB20)		
22		CRLC ! CRLC_Resume_REQ	cas_ResumeRB(tsc_CellDedicated, tsc_RB22)		
23		CRLC ? CRLC_Resume_CNF	car_ResumeRB(tsc_CellDedicated, tsc_RB22)		
24		[TRUE]			
Deta	iled Com	ments :			

Test Step Name : ts\_CRLC\_SuspendSecurity ( p\_CellId : INTEGER )

**Group**: BasicM\_SS\_Configuration\_Steps/

**Objective**: suspend radio bearers for the security procedure

Default : SS\_Def\_Special

Comments : CRLC is configured with cellId -1 ( tsc\_CellDedicated )

Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+ ts_SetTmpCellInfo ( p_CellId )			Swithch On cipherin g
2		CRLC ! CRLC_Suspend_REQ	cas_RLC_SuspendRB ( tsc_CellDedicated , tsc_RB1, tcv_RLC_SeqNumDL_RB1 )		2
3		CRLC ? CRLC_Suspend_CNF	car_SuspendRB ( tsc_CellDedicated , tsc_RB1		
4		CRLC ! CRLC_Suspend_REQ	cas_RLC_SuspendRB ( tsc_CellDedicated , tsc_RB3, tcv_RLC_SeqNumDL_RB3 )		2
5		CRLC ? CRLC_Suspend_CNF	car_SuspendRB ( tsc_CellDedicated , tsc_RB3 )		
6		CRLC! CRLC_Suspend_REQ	cas_RLC_SuspendRB (tsc_CellDedicated, tsc_RB4, tcv_RLC_SeqNumDL_RB4		2
7		CRLC ? CRLC_Suspend_CNF	car_SuspendRB ( tsc_CellDedicated , tsc_RB4		
8		[( ( tcv_TmpCellInfo.cellConfig = cell_DCH_64kPS_RAB_SRB ) OR ( tcv_TmpCellInfo.cellConfig = cell_PDCP_AM_RAB ) OR ( tcv_TmpCellInfo.cellConfig = cell_FACH_PS ) OR ( tcv_TmpCellInfo.cellConfig = cell_Two_DTCH_PS_CS) OR ( tcv_TmpCellInfo.cellConfig = cell_Four_DTCH_PS_CS) OR ( tcv_TmpCellInfo.cellConfig = cell_Four_DTCH_PS_CS) OR ( tcv_TmpCellInfo.cellConfig = cell_Two_DTCH_CS_PS) OR ( tcv_TmpCellInfo.cellConfig = cell_Four_DTCH_CS_PS) OR ( tcv_TmpCellInfo.cellConfig = cell_FACH_2SCCPCH_StandAloneP CH_PS ) OR ( tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_4_FACH_Cn fg1 ) OR ( tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_4_FACH_Cn fg2 )OR ( tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_4_FACH_Cn fg2 )OR ( tcv_TmpCellInfo.cellConfig = cell_FACH_S_SCCPCH_4_FACH_Cn fg2 )OR ( tcv_TmpCellInfo.cellConfig = cell_FA			

		Test Step Dynamic	Behaviour		
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
		CH_3_SCCPCH_3_FACH_CTCH) OR (tcv_TmpCellInfo.cellConfig = cell_DCH_DSCH_PS) OR (tcv_TmpCellInfo.cellConfig = cell_DCH_DSCH_CS_PS)) AND (tcv_CellIndInfo. recentSecureDomain =ps_domain)]			
9		CRLC! CRLC_Suspend_REQ	cas_RLC_SuspendRB (tsc_CellDedicated , tsc_RB20, tcv_RLC_SeqNumDL_RB20 )		2
10		CRLC ? CRLC_Suspend_CNF	car_SuspendRB ( tsc_CellDedicated , tsc_RB20 )		
11		[( tcv_TmpCellInfo.cellConfig = cell_PDCP_UM_RAB) AND (tcv_CellIndInfo. recentSecureDomain =ps_domain)]			
12		CRLC! CRLC_Suspend_REQ	cas_RLC_SuspendRB (tsc_CellDedicated, tsc_RB21, tcv_RLC_SeqNumDL_RB21)		2
13		CRLC ? CRLC_Suspend_CNF	car_SuspendRB ( tsc_CellDedicated , tsc_RB21 )		
14		[ ( tcv_TmpCellInfo.cellConfig = cell_PDCP_AM_UM_RAB)AND (tcv_CellIndInfo. recentSecureDomain =ps_domain) ]			
15		CRLC! CRLC_Suspend_REQ	cas_RLC_SuspendRB (tsc_CellDedicated , tsc_RB20, tcv_RLC_SeqNumDL_RB20		2
16		CRLC ? CRLC_Suspend_CNF	car_SuspendRB ( tsc_CellDedicated , tsc_RB20 )		
17		CRLC! CRLC_Suspend_REQ	cas_RLC_SuspendRB (tsc_CellDedicated , tsc_RB21, tcv_RLC_SeqNumDL_RB21 )		2
18		CRLC ? CRLC_Suspend_CNF	car_SuspendRB ( tsc_CellDedicated , tsc_RB21 )		
19		[(( tcv_TmpCellInfo.cellConfig = cell_DCH_2AM_PS ) OR ( tcv_TmpCellInfo.cellConfig = cell_DCH_2_PS_Call )) AND (tcv_CellIndInfo. recentSecureDomain =ps_domain)]			

	Test Step Dynamic Behaviour								
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments				
20		CRLC! CRLC_Suspend_REQ	cas_RLC_SuspendRB (tsc_CellDedicated, tsc_RB20, tcv_RLC_SeqNumDL_RB20)		2				
21		CRLC ? CRLC_Suspend_CNF	car_SuspendRB ( tsc_CellDedicated , tsc_RB20 )						
22		CRLC! CRLC_Suspend_REQ	cas_RLC_SuspendRB (tsc_CellDedicated, tsc_RB22, tcv_RLC_SeqNumDL_RB22)		2				
23		CRLC ? CRLC_Suspend_CNF	car_SuspendRB ( tsc_CellDedicated , tsc_RB22 )						
24		[TRUE]							

Detailed Comments : 1. Get the RLC sequence number 2. suspend the SRB at the current RLC sequence number

Test Step Name : ts\_ReconfigFACH\_ToNoDedicated ( p\_CellId : INTEGER )

**Group**: BasicM\_SS\_Configuration\_Steps/

**Objective**: To reconfig the cell from cell\_FACH to cell\_FACH\_NoDedicated.

Default : SS\_Def

Comments : In cell\_FACH\_NoDedicated, no DCCH/DTCH are configured: no C-RNTI nor U-RNTI are

downloaded to CMAC.

Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+ts_SetTmpCellInfo (p_CellId)			
2		$[px_RAT = fdd]$			
3		+ lt_RelBCCH_FACH			
4		CMAC! CMAC_Config_REQ	ca_CMAC_ReconfigInfoAct Now ( p_CellId, tsc_S_CCPCH1, c_UE_Info( OMIT, OMIT ), c_TrChInfoPCH_FACH, c_TrLogMappingPCH_FAC H_CellDCH )		map PCCH to PCH, CCCH to FACH
5		CMAC ? CMAC_Config_CNF	ca_CMAC_CfgCnf(p_CellId , tsc_S_CCPCH1)		
6		CMAC ! CMAC_Config_REQ	ca_CMAC_ReconfigInfoAct Now (p_CellId, tsc_PRACH1, c_UE_Info( OMIT, OMIT), cb_TrChInfoRACH1, cb_TrLogMappingRACH2)		mapping CCCH to RACH
7		CMAC ? CMAC_Config_CNF	ca_CMAC_CfgCnf(p_CellId , tsc_PRACH1)		
8	ERR1	$[px_RAT = tdd]$		1	
9	ERR2	[TRUE]		1	
		lt_RelBCCH_FACH			
10		[ ( tcv_TmpCellInfo.cellConfig = cell_FACH_NoConn ) OR (tcv_TmpCellInfo.cellConfig = cell_FACH) OR ( tcv_TmpCellInfo.cellConfig = cell_FACH_PS ) ]			
11		+ ts_CRLC_Rel ( p_CellId , tsc_RB_BCCH_FACH )			
12		[TRUE]			
Deta	iled Com	ments :			

Test Step Name : ts\_SS\_1DCH\_DCCH\_Cfg ( p\_CellId : INTEGER )

Group : BasicM\_SS\_Configuration\_Steps/

Objective : to configure physical channel DPCH1and connect DCH5 to the physical channel,then map DCCH1-4

on to the DCH5 transport channel. Used for setting up stand-alone UL:13.6 DL:13.6 kbps SRBs

Default : SS\_Def

**Comments**: The transport channel DCH5 carries only dedicated control channels.

MAC-d is configured with cellId -1 (tsc\_CellDedicated).

Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+ ts_SetTmpCellInfo ( p_CellId )			
2		$[px\_RAT = fdd]$			
3		( tcv_TGCFN := 0)			
4		CPHY!CPHY_RL_Setup_REQ	ca_DL_DPCH_Info ( p_CellId, tsc_DL_DPCH1, cb_DL_DPCH_SRB_Stand AloneDPCH_Offset ( tcv_TmpCellInfo.dl_DPCH_ 2ndScrCode ) )		1.
5		CPHY?CPHY_RL_Setup_CNF	ca_RL_SetupCnf ( p_CellId, tsc_DL_DPCH1)		
6		CPHY!CPHY_TrCH_Config_REQ	ca_DCH_148_TTI_10_DL_I nfoActNow ( p_CellId, tsc_DL_DPCH1 )		2.
7		CPHY?CPHY_TrCH_Config_CNF	ca_TrChCfgCnf(p_CellId, tsc_DL_DPCH1)		
8		CMAC ! CMAC_Config_REQ	ca_CMAC_CfgInfo ( tsc_CellDedicated, tsc_DL_DPCH1, c_UE_Info ( OMIT, OMIT), c_TrChInfoDL_13_6_Stand Alone, c_TrLogMappingDL_4DCC H)		3. C-RNTI and U-RNTI are not needed on DPCH
9		CMAC ? CMAC_Config_CNF	ca_CMAC_CfgCnf( tsc_CellDedicated, tsc_DL_DPCH1)		
10		CPHY!CPHY_RL_Setup_REQ	ca_UL_DPCH_Info(p_CellI d, tsc_UL_DPCH1, c_UL_DPCH_13_6_StandA lone( tcv_TmpCellInfo.uL_Scrambl ingCode))		1.
11		CPHY?CPHY_RL_Setup_CNF	ca_RL_SetupCnf(p_CellId, tsc_UL_DPCH1)		
12		CPHY!CPHY_TrCH_Config_R EQ	ca_DCH_148_TTI_10_UL_I nfoActNow ( p_CellId, tsc_UL_DPCH1 )		2.
13		CPHY?CPHY_TrCH_Config_ CNF	ca_TrChCfgCnf ( p_CellId, tsc_UL_DPCH1 )		
14		CMAC ! CMAC_Config_REQ	ca_CMAC_CfgInfo ( tsc_CellDedicated, tsc_UL_DPCH1, c_UE_Info ( OMIT, OMIT ), c_TrChInfoUL_13_6_Stand Alone, c_TrLogMappingUL_4DCC H)		3. C-RNTI and U-RNTI are not needed on DPCH

#### Continued from previous page

	Test Step Dynamic Behaviour									
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments					
15		CMAC ? CMAC_Config_CNF	ca_CMAC_CfgCnf ( tsc_CellDedicated, tsc_UL_DPCH1 )							
16	ERR1	$[px_RAT = tdd]$		1						
17	ERR2	[TRUE]		I						

Detailed Comments : 1. configure physical channel DPCH1.
2. connect DCH5 to DPCH1.
3. map logical channels: DCCH1-4 to DCH5. MAC-d is to be configured with cellId -1.

 $\begin{tabular}{ll} \textbf{Test Step Name} &: ts\_SS\_2DCH\_Modify (p\_CellId:INTEGER; p\_UL\_TrChConfig: CphyTrchConfigReq; p\_UL\_TrChInfo, p\_DL\_TrChInfo: TrCHInfo; \\ & p\_DL\_TrChInfo: TrCHInfo; \\ \end{tabular}$ 

p\_UL\_TrLogMapping, p\_DL\_TrLogMapping: TrCH\_LogCHMappingList1; p\_ActTime: ActivationTime; p\_DL\_DPCHInfo : DL\_DPCHInfo; p\_UL\_DPCH\_Info : UL\_DPCH\_Info)

Group : BasicM\_SS\_Configuration\_Steps/

: to modify physical channel DPCH1and connect DCH1and DCH5 to the physical channel, then map Objective

DCCH1-4 on to the DCH5 transport channel and map DTCH1 to the DCH1 transport channel. used

for RLC testing.

: SS\_Def Default

Comments : SS is in TM mode different from the mode of UE.

Transport channel configuration is parameter (of type: CphyTrchConfigReq); DPCH is 64 kbps

physical channel.

Description

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+ ts_SetTmpCellInfo ( p_CellId )			
2		$[px\_RAT = fdd]$			
3		CPHY!CPHY_RL_Modify_REQ	ca_DL_DPCH_ModifyInfo ( p_CellId, tsc_DL_DPCH1, p_DL_DPCHInfo,p_ActTime )		1.
4		CPHY?CPHY_RL_Modify_CNF	ca_RL_ModifyCnf(p_CellId, tsc_DL_DPCH1)		
5		CPHY!CPHY_TrCH_Config_REQ	ca_TrChCfgInfo(p_CellId, tsc_DL_DPCH1, c_TrChConfigTypeDCH_No SHO, p_DL_TrChConfig)		3.
6		CPHY?CPHY_TrCH_Config_CNF	ca_TrChCfgCnf(p_CellId, tsc_DL_DPCH1)		
7		CMAC ! CMAC_Config_REQ	ca_CMAC_ReconfigInfo( tsc_CellDedicated , tsc_DL_DPCH1, c_UE_Info( OMIT, OMIT ), p_DL_TrCHInfo, p_DL_TrLogMapping,p_Act Time)		4. U-RNTI and C-RNTI are not needed on DPCH
8		CMAC ? CMAC_Config_CNF	ca_CMAC_CfgCnf( tsc_CellDedicated , tsc_DL_DPCH1)		
9		CPHY!CPHY_RL_Modify_REQ	ca_UL_DPCH_ModifyInfo( p_CellId, tsc_UL_DPCH1, p_UL_DPCH_Info,p_ActTi me)		1.
10		CPHY?CPHY_RL_Modify_CNF	ca_RL_ModifyCnf(p_CellId, tsc_UL_DPCH1)		
11		CPHY!CPHY_TrCH_Config_RE Q	ca_TrChCfgInfo ( p_CellId, tsc_UL_DPCH1, c_TrChConfigTypeDCH_No SHO, p_UL_TrChConfig )		2.
12		CPHY?CPHY_TrCH_Config_C NF	ca_TrChCfgCnf(p_CellId, tsc_UL_DPCH1)		

	Test Step Dynamic Behaviour										
Nr	Label	Behaviou	r Description	Constraints Ref	Verdict	Comments					
13		CM	IAC ! CMAC_Config_REQ	ca_CMAC_ReconfigInfo( tsc_CellDedicated , tsc_UL_DPCH1, c_UE_Info( OMIT, OMIT ), p_UL_TrCHInfo, p_UL_TrLogMapping,p_Act Time)		4. U-RNTI and C-RNTI are not needed on DPCH					
14		-	MAC ? MAC_Config_CNF	ca_CMAC_CfgCnf( tsc_CellDedicated , tsc_UL_DPCH1)							
15	ERR1	$[px_RAT = tdd]$			1						
16	ERR2	[TRUE]			I						

**Detailed Comments**: 1. configure DPCH1supporting 64 kspb data rate.

2. connect uplink DCH1 and DCH5 to DPCH1.

3. connect downlink DCH1and DCH5 to DPCH1.

4. map logical channels: DCCH1-4 to DCH5, DTCH1 to DCH1 for both uplink and downlink and

send relevant transport channel configuration information to MAC.

### **Test Step Dynamic Behaviour**

Test Step Name : ts\_SS\_AddDPCH ( p\_CellId : INTEGER )

Group : BasicM\_SS\_Configuration\_Steps/

**Objective**: To reconfigure the cell p\_CellId from cell\_NoDPCH to cell\_DCH\_StandaloneSRB\_NoConn.

Default : SS\_Def

**Comments**: The following channels need to be created:

physical channels: DPCH; transport channesl: DCH logical channels: DCCH; and

signalling radio bearer: signalling bearer RB1, RB2, RB3, RB4 on DCH.

Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+ ts_SS_1DCH_DCCH_Cfg ( p_CellId )			
2		+ts_SS_RB1_ToRB4_Cfg			

Test Step Name : ts\_SS\_BCH\_SCH\_CPICH\_Cfg ( p\_CellId : INTEGER )

**Group**: BasicM\_SS\_Configuration\_Steps/

Objective : To configure P-CCPCH, P-SCH, S-SCH and P-CPICH physical channels. To map BCH to

P-PCCPCH, then to map logical channel BCCH to transport channel BCH.

Default : SS Def

Comments : To configre P-CCPCH, P-SCH, S-SCH and P-CPICH physical channels and map BCH to

P-PCCPCH, then to map logical channel BCCH to transport channel BCH.

Description

1 2 3 4 5 5	Label	Behaviour Description  +ts_SetTmpCellInfo (p_CellId)  [px_RAT = fdd]  CPHY!CPHY_RL_Setup_REQ  CPHY?CPHY_RL_Setup_CNF	ca_pCPICH_Info ( p_CellId, (tcv_TmpCellInfo.powerpCP ICH) )	Verdict	Comments
2 3 4		[px_RAT = fdd]  CPHY!CPHY_RL_Setup_REQ	(tcv_TmpCellInfo.powerpCP		95:-
3		CPHY!CPHY_RL_Setup_REQ	(tcv_TmpCellInfo.powerpCP		05:5
4			(tcv_TmpCellInfo.powerpCP		
		CDUV2CDUV DI Cotup CNE	1 , ,		p-CPIC H
5		GENT OF NI_NL_Setup_CNF	ca_RL_SetupCnf ( p_CellId, tsc_P_CPICH )		
		CPHY!CPHY_RL_Setup_REQ	ca_pSCH_Info ( p_CellId, (tcv_TmpCellInfo.powerpSC H))		p-SCH
6		CPHY?CPHY_RL_Setup_CNF	ca_RL_SetupCnf ( p_CellId, tsc_P_SCH )		
7		CPHY!CPHY_RL_Setup_REQ	ca_sSCH_Info ( p_CellId, (tcv_TmpCellInfo.powersSC H) )		s-SCH
8		CPHY?CPHY_RL_Setup_CNF	ca_RL_SetupCnf ( p_CellId, tsc_S_SCH )		
9		CPHY!CPHY_RL_Setup_REQ	ca_pCCPCH_Info ( p_CellId, (tcv_TmpCellInfo.powerpC CPCH) )		p-CCP CH
10		CPHY?CPHY_RL_Setup_CNF	ca_RL_SetupCnf ( p_CellId, tsc_P_CCPCH )		
11		CPHY!CPHY_TrCH_Config_RE Q	ca_BCH_InfoActNow ( p_CellId )		BCH connect ed to p-CCP CH
12		CPHY?CPHY_TrCH_Config_C NF	ca_TrChCfgCnf ( p_CellId, tsc_P_CCPCH )		
13		CMAC!CMAC_Config_REQ	ca_CMAC_CfgInfo(p_CellId , tsc_P_CCPCH, c_UE_Info ( OMIT, OMIT ) , c_TrChInfoBCH1, c_TrLogMappingBCH1)		mapping BCCH to BCH. C-RNTI and U-RNTI are not needed on P-CCP CH
14		CMAC?CMAC_Config_CN F	ca_CMAC_CfgCnf ( p_CellId, tsc_P_CCPCH)		
15	ERR1	$[px_RAT = tdd]$		1	
16	ERR2	[TRUE]		1	
Detaile	ed Com	ments :			

Test Step Name : ts\_SS\_CellCfg (p\_CellId : INTEGER)
Group : BasicM\_SS\_Configuration\_Steps/

Objective : To setup the cell parameter in CPHY, if the cell 'p\_CellId' is the first one to be created, then CPHY

shall be initialised using CHY\_INIT\_REquest ASP.

Default : SS\_Def

Comments : Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
2	ERR	+ts_SetTmpCellInfo (p_CellId)  [ tcv_TmpCellInfo.cellConfig <> cell_NotConfigured ]		I	Fetch table correpo nding to the cell Fatal error: cell already
3		[ tcv_TmpCellInfo.cellConfig = cell_NotConfigured]			configur ed Cell not yet configur ed
4		+ lt_CellIsAlreadyStarted			
5		[px_RAT = fdd]			
6		CPHY!CPHY_Cell_Config_REQ	ca_CellCfgReq(p_CellId, tcv_TmpCellInfo.tCell, tcv_TmpCellInfo.frequencyIn fo, tcv_TmpCellInfo.priScrmCo de, tcv_TmpCellInfo.attenuation Level, tcv_TmpCellInfo.sfnOffset, tcv_TmpCellInfo.cellTxPowe rLevel)		
7		CPHY?CPHY_Cell_Config_CNF	ca_CellCfgCnf(p_CellId)		
8		+ ts_SaveCellInfo ( p_CellId )			
9	ERR2	[px_RAT = tdd]		ļ	
10	ERR3	[TRUE]		1	
		lt_CelllsAlreadyStarted			
11		+ ts_CountConfiguredCell			
12		[ tcv_NumCfgCell = 0 ]			1.
13		+ts_MM_PwrOrUSIM_Off(tsc_USIM_NeedRm v)			1. Deactiva te the UE
14		[ tcv_DefaultRadioCnf = TRUE ]			3.
15		CPHY!CPHY_Ini_REQ	cas_InitReqDef		
16		CPHY ? CPHY_Ini_CNF	car_IniCnf		
17		( tcv_TmpCellInfo.tCell := 0 )			
18		[ tcv_DefaultRadioCnf = FALSE ]			4.
19		CPHY!CPHY_Ini_REQ	cas_InitReqNonDef		
20		CPHY ? CPHY_Ini_CNF	car_IniCnf		
21		( tcv_TmpCellInfo.tCell := 0 )			

### Continued from previous page

Test Step Dynamic Behaviour							
Nr Label Behaviour Description Constraints Ref Verdi							
22	22 [tcv_NumCfgCell <> 0] 2.						
Deta	Detailed Comments: 1. The cell 'p_CellId' is the first one to be created 2. The cell 'p_CellId' is not the first one to be created 3. CPHY_Init_Request is sent with a defaultRadioEnvironment value 4. CPHY_Init_Request is sent with a nonDefaultMultiCell value						

Test Step Name : ts\_SS\_CreateCellDCH (p\_CellId : INTEGER)

Group : BasicM\_SS\_Configuration\_Steps/

Objective : This test Step sets up a cell with stand-alone UL:3.4 DL:3.4 kbps SRBs for DCCH which consists of

the following: For a first cell:

physical channels: p-SCH, s-SCH, p-CPICH, p-CCPCH, s-CCPCH, PRACH and DPCH;

transport channesl: BCH, FACH, PCH, RACH, DCH; logical channels: BCCH, CCCH, PCCH, DCCH; and

signalling radio bearer RB0 on FACH and RACH; signalling bearer RB1, RB2, RB3, RB4 on DCH.

For cells other than the first cell

physical channels: p–SCH, s–SCH, p–CPICH, p–CCPCH, s–CCPCH, PRACH (no DPCH)

transport channesl: BCH, FACH, PCH, RACH (no DCH) logical channels: BCCH, CCCH, PCCH (no DCCH)

signalling radio bearer RB0 on FACH and RACH (not RB1 RB2 RB3 RB4 on DCH)

Default : InitOtherwiseFail

Comments : Cell configuration supporting UL:3.4 DL:3.4 kbps stand–alone signalling RB.

CRLC is configured with cellId -1 (tsc\_CellDedicated)

CMAC for DCCH (MAC-d) is configured with cellId -1 (tsc\_CellDedicated).

Description

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+ts_SS_CellCfg(p_CellId)			
2		+ts_SS_BCH_SCH_CPICH_Cfg(p_CellId)			
3		+ts_SS_PCH_FACH_CCCH_Cfg(p_CellId)			
4		+ts_SS_RACH_CCCH_Cfg(p_CellId)			
5		+ ts_CountConfiguredCell			
6		[ tcv_NumCfgCell = 0 ]			First cell
					to be created
7		+ts_SS_1DCH_DCCH_Cfg(p_CellId)			Created
8		+ts_SS_RB_BCCH_BCH_Cfg(p_CellI			
		d)			
9		+ts_SS_RB_PCCH_Cfg(p_CellId)			
10		+ts_SS_RB0_Cfg (p_CellId)			
11		+ts_SS_RB1_ToRB4_Cfg			
12		(			
		tcv_TmpCellInfo.DL_DPCH_S HO := TRUE,			
		tcv_TmpCellInfo.UL_DPCH_S			
		HO := TRUE, tcv_TmpCellInfo.cellConfig :=			
		cell_DCH_StandAloneSRB_No			
		Conn )			
13		+ ts_SaveCellInfo ( p_CellId )			1.
14		[ tcv_NumCfgCell <> 0 ]			Next cell
					to be created
15					orcaica
		ts_SS_RB_BCCH_BCH_Cfg(p_CellId)			
16		+ ts_SS_RB_PCCH_Cfg(p_CellId)			
17		+ ts_SS_RB0_Cfg(p_CellId)			
18		+ ts_SetCellCfg ( p_CellId, cell_NoDPCH)			1.

Detailed Comments: 1. Set the cell configuration in the CellInfoCfg record

Test Step Name : ts\_SS\_CreateCellFACH ( p\_CellId : INTEGER )

Group : BasicM\_SS\_Configuration\_Steps/

**Objective**: To setup a baseline cell which consists of the following:

For a first cell\_FACH cell

physical channels: p-SCH, s-SCH, p-CPICH, p-CCPCH, s-CCPCH and PRACH;

transport channesl: BCH, FACH, PCH, RACH; logical channels: BCCH, CCCH, PCCH, DCCH; and

signalling radio bearer RB0(CCCH), RB1(UM DCCH), RB2(AM DCCH), RB3(AM DCCH for NAS high priority), RB4(AM DCCH for NAS low priority) on FACH and RACH, RB–3(TM BCCH FACH) on FACH, RB20(AM DTCH) on FACH and RACH, RB–1 (TM, BCCH) on BCH, RB–2 (TM, PCCH,

PCH)

For cells other than the first cell

Same physical channels as for the first cell (p-SCH, s-SCH, p-CPICH, p-CCPCH, s-CCPCH and

PRACH);

Same transport channels as for the first cell (BCH, FACH, PCH, RACH);

Logical channels: BCCH, CCCH, PCCH, no DCCH

Signalling radio bearer RB0(CCCH), RB-3(TM BCCH FACH) on FACH, RB-1 (TM, BCCH) on BCH,

RB-2 (TM, PCCH, PCH)

Default : InitOtherwiseFail

**Comments** : CRLC is configured with cellId -1 (tsc\_CellDedicated)

Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+ts_SS_CellCfg(p_CellId)			
2		+ts_SS_BCH_SCH_CPICH_Cfg(p_CellId)			
3		+ ts_CountConfiguredCell			
4		[ tcv_NumCfgCell = 0 ]			First cell to be created
5		+ts_SS_PCH_2FACH_CCCH_DCCH_BC CH_DTCH_Cfg ( p_CellId )			
6		+ts_SS_RACH_CCCH_DCCH_DTCH_C fg ( p_CellId )			
7		+ts_SS_RB_BCCH_BCH_Cfg(p_CellId )			
8		+ts_SS_RB_PCCH_Cfg(p_CellId)			
9		+ts_SS_RB0_Cfg(p_CellId)			
10		+ts_SS_RB1_ToRB4_Cfg			
11		+ts_SS_RB_BCCH_FACH_Cfg( p_CellId)			RB9 is on BCCH- FACH
12		+ts_SS_RB20_AM_PS_Cfg ( 320 )			
13		+ts_SetCellCfg ( p_CellId, cell_FACH_NoConn )			
14		[ tcv_NumCfgCell <> 0 ]			Not first cell to be created
15		+ts_SS_PCH_FACH_CCCH_Cfg ( p_CellId )			
16		+ ts_SS_RACH_CCCH_Cfg ( p_CellId )			
17		+ts_SS_RB_BCCH_BCH_Cfg(p_CellId )			
18		+ts_SS_RB_PCCH_Cfg(p_CellId)			
19		+ts_SS_RB0_Cfg(p_CellId)			

### Continued from previous page

	Test Step Dynamic Behaviour							
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments			
20		+ ts_SetCellCfg ( p_CellId, cell_FACH_NoDedicated )						
Deta	Detailed Comments :							

Test Step Name : ts\_SS\_PCH\_2FACH\_CCCH\_DCCH\_BCCH\_DTCH\_Cfg ( p\_CellId : INTEGER )

Group : BasicM\_SS\_Configuration\_Steps/

**Objective**: To configure a secondary CCPCH (tsc\_S\_CCPCH1), then connect PCH and 2 FACH's to the

secondary CCPCH. finally to map PCCH to PCH and DCCH1, DCCH2, DCCH3, DCCH4, CCCH,

BCCH(for BCCH\_FACH) to FACH1 and DTCH to FACH2.

Default : SS\_Def

Comments : one secondary CCPCH( tsc\_S\_CCPCH1) for PCH and FACH. PCCH mapping to PCH and

DCCH1, DCCH2, DCCH3, DCCH4, CCCH, BCCH(for BCCH\_FACH) to FACH1, and DTCH to

FACH2.

Description

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+ ts_SetTmpCellInfo ( p_CellId )			
2		$[px_RAT = fdd]$			
3		CPHY!CPHY_RL_Setup_REQ	ca_sCCPCH_Info(p_CellId, tsc_S_CCPCH1, tsc_S_CCPCH2ndScrCod e, tsc_S_CCPCH1_ChC, tcv_TmpCellInfo.slotFormat sCCPCH1, (tcv_TmpCellInfo.powersCC PCH1), tcv_TmpCellInfo.timingsCC PCH1)		s-CCP CH1
4		CPHY?CPHY_RL_Setup_CNF	ca_RL_SetupCnf(p_CellId, tsc_S_CCPCH1)		
5		CPHY!CPHY_TrCH_Config_REQ	ca_PCH_2_FACH_InfoAct Now (p_CellId, tsc_S_CCPCH1)		connect PCH and FACH to s-CCP CH1
6		CPHY ? CPHY_TrCH_Config_CNF	ca_TrChCfgCnf (p_CellId, tsc_S_CCPCH1)		
7		CMAC! CMAC_Config_REQ	ca_CMAC_CfgInfo ( p_CellId, tsc_S_CCPCH1, c_UE_Info() tcv_TmpCellInfo.uRNTI, tcv_TmpCellInfo.cRNTI), c_TrChInfoPCH_FACH_PS , c_TrLogMappingPCH_FAC H_PS)		map PCCH to PCH, and map CCCH, BCCH, DTCH and DCCH's to FACH. C-RNTI and U-RNTI are needed when DCCH/ DTCH are mapped on S-CCP CH
8		CMAC ? CMAC_Config_CNF	ca_CMAC_CfgCnf(p_CellId , tsc_S_CCPCH1)		

### Continued from previous page

	Test Step Dynamic Behaviour								
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments				
9		CPHY!CPHY_RL_Setup_REQ	ca_PICH_Info ( p_CellId, c_PichInfo, (tcv_TmpCellInfo.powerPIC H),tsc_S_CCPCH1 )		PICH				
10		CPHY?CPHY_RL_Setup_CNF	ca_RL_SetupCnf(p_CellId, tsc_PICH1)						
11	ERR1	$[px_RAT = tdd]$		1					
12	ERR2	[TRUE]		1					
Deta	iled Com	ments :							

 $\textbf{Test Step Name} \quad : \ \mathsf{ts\_SS\_PCH\_FACH\_CCCH\_Cfg} \ ( \ \mathsf{p\_CellId} : \mathsf{INTEGER} \ )$ 

Group : BasicM\_SS\_Configuration\_Steps/

: To configure a secondary CCPCH ( tsc\_S\_CCPCH1), then connect PCH and FACH to the secondary CCPCH .(34.108 cl. 4.2.1), finally to map PCCH to PCH and CCCH to FACH. Objective

Default : SS\_Def

Comments Description

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+ts_SetTmpCellInfo (p_CellId)	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		
2		[px_RAT = fdd]			
3		CPHY!CPHY_RL_Setup_REQ	ca_sCCPCH_Info(p_CellId, tsc_S_CCPCH1, tsc_S_CCPCH1, tsc_S_CCPCH_2ndScrCod e, tsc_S_CCPCH1_ChC, tcv_TmpCellInfo.slotFormat sCCPCH1, (tcv_TmpCellInfo.powersCC PCH1), tcv_TmpCellInfo.timingsCC PCH1)		s-CCP CH1
4		CPHY?CPHY_RL_Setup_CNF	ca_RL_SetupCnf(p_CellId, tsc_S_CCPCH1)		
5		CPHY!CPHY_TrCH_Config_REQ	ca_PCH_2_FACH_InfoAct Now ( p_CellId, tsc_S_CCPCH1)		connect PCH and FACH to s-CCP CH1
6		CPHY ? CPHY_TrCH_Config_CNF	ca_TrChCfgCnf(p_CellId, tsc_S_CCPCH1)		
7		CMAC ! CMAC_Config_REQ	ca_CMAC_CfgInfo ( p_CellId, tsc_S_CCPCH1, c_UE_Info ( OMIT, OMIT ), c_TrChInfoPCH_FACH, c_TrLogMappingPCH_FAC H_CellDCH )		map PCCH to PCH.  U-RNTI and C-RNTI are not needed (no DCCH/ DTCH)
8		CMAC ? CMAC_Config_CNF	ca_CMAC_CfgCnf(p_CellId , tsc_S_CCPCH1)		
9		CPHY!CPHY_RL_Setup_REQ	ca_PICH_Info(p_CellId, c_PichInfo, (tcv_TmpCellInfo.powerPIC H),tsc_S_CCPCH1)		PICH
10		CPHY?CPHY_RL_Setup_CNF	ca_RL_SetupCnf(p_CellId, tsc_PICH1)		
11	ERR1	$[px\_RAT = tdd]$		I	
12	ERR2	[TRUE]		I	
Detai	led Com	ments :			

Test Step Name : ts\_SS\_PrepareCellRRC\_ConnEst (

p\_CellId: INTEGER )

**Group**: BasicM\_SS\_Configuration\_Steps/

Objective : To reconfigure the cell if it is not ready for an RRC connection establishment.

4 cases are handled:

1> the cell is already configure ( cell\_DCH\_StandAloneSRB\_NoConn OR cell\_FACH\_NoConn OR

cell\_FACH\_BMC\_NoConn OR cell\_FACH\_2PRACH\_NoConn OR

cell\_FACH\_2\_SCCPCH\_NoConn)

2> the cell is configured to cell\_NoDPCH, then remove the DPCH from the 'old' cell and configure

the DPCH in the cell p\_CellId

3> the cell is configured to cell\_FACH\_NoDedicated , then reconfigure the old cell where the 4> the configuration of the cell to not allow an RRC connection establishment -> error case

Default : SS\_Def

Comments : Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+ ts_SetTmpCellInfo ( p_CellId )			
		[ (tcv_TmpCellInfo.cellConfig = cell_DCH_StandAloneSRB_NoConn ) OR (tcv_TmpCellInfo.cellConfig = cell_FACH_NoConn ) OR (tcv_TmpCellInfo.cellConfig = cell_FACH_BMC_NoConn ) OR (tcv_TmpCellInfo.cellConfig = cell_FACH_BMC_NoConn ) OR (tcv_TmpCellInfo.cellConfig = cell_FACH_2_PRACH_NoConn ) OR (tcv_TmpCellInfo.cellConfig = cell_FACH_2_SCCPCH_NoConn ) OR (tcv_TmpCellInfo.cellConfig = cell_FACH_2SCCPCH_StandAlonePCH_NoConn) OR (tcv_TmpCellInfo.cellConfig = cell_FACH_MAC_SRB_NoConn) OR (tcv_TmpCellInfo.cellConfig = cell_DCH_MAC_SRB_NoConn ) OR (tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_4_FACH_Cnfg1_NoConn ) OR (tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_4_FACH_Cnfg2_NoConn ) OR (tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_3_FACH_CTCH_NoConn) OR (tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_3_FACH_CTCH_NoConn) OR (tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_4_FACH_CTCH_NoConn) OR (tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_4_FACH_2a_Cnfg1_NoConn) OR (tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_4_FACH_2a_Cnfg1_NoConn) OR (tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_4_FACH_2a_Cnfg2_NoConn ) OR (tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_4_FACH_2a_Cnfg2_NoConn ) OR (tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_3_FACH_2a_CTCH_NoConn)]			0

		Test Step Dynamic B	Behaviour		
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
3		[( tcv_TmpCellInfo.cellConfig = cell_NoDPCH ) OR ( tcv_CellInfoA.cellConfig = cell_DCH_Speech ) OR ( tcv_CellInfoA.cellConfig =			1
		cell_DCH_64kCS_RAB_SRB) OR (tcv_CellInfoA.cellConfig = cell_DCH_57_6kCS_RAB_SRB) OR (tcv_CellInfoA.cellConfig = cell_DCH_64kPS_RAB_SRB)]			
4		+ It_ReconfOldDPCH_Cell			
5		+ ts_SS_AddDPCH( p_CellId )			
6		( tcv_TmpCellInfo.cellConfig := cell_DCH_StandAloneSRB_NoConn, tcv_TmpCellInfo.DL_DPCH_SHO := TRUE,			
		tcv_TmpCellInfo.UL_DPCH_SHO := TRUE )			
7		+ ts_SaveCellInfo ( p_CellId )			
8		[ tcv_TmpCellInfo.cellConfig = cell_FACH_NoDedicated ]			2
9		+ It_ReconfOldFACH_Cell			
10		+ ts_SS_ReconfNoDedicatedToCellFACH ( p_CellId)			
11		+ ts_SetCellCfg ( p_CellId, cell_FACH_NoConn )			
12	ERR	[TRUE]		1	Program ming error
		It_ReconfOldFACH_Cell			
13		[ ( tcv_CellInfoA.cellConfig = cell_FACH_NoConn ) OR ( tcv_CellInfoA.cellConfig = cell_FACH) OR ( tcv_CellInfoA.cellConfig = cell_FACH_PS ) ]			
14		+ ts_ReconfigFACH_ToNoDedicated ( tsc_CellA )			
15		( tcv_CellInfoA.cellConfig := cell_FACH_NoDedicated )			
16		[ ( tcv_CellInfoB.cellConfig = cell_FACH_NoConn ) OR			
		( tcv_CellInfoB.cellConfig = cell_FACH) OR ( tcv_CellInfoB.cellConfig = cell_FACH_PS ) ]			
17		+ ts_ReconfigFACH_ToNoDedicated ( tsc_CellB )			
18		( tcv_CellInfoB.cellConfig := cell_FACH_NoDedicated )			
19		[ ( tcv_CellInfoC.cellConfig = cell_FACH_NoConn ) OR ( tcv_CellInfoC.cellConfig = cell_FACH) OR ( tcv_CellInfoC.cellConfig = cell_FACH_PS ) ]			
20		+ ts_ReconfigFACH_ToNoDedicated (tsc_CellC			
21		( tcv_CellInfoC.cellConfig := cell_FACH_NoDedicated )			

		Test Step Dynamic	Behaviour		
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
22		[ ( tcv_CellInfoD.cellConfig = cell_FACH_NoConn ) OR ( tcv_CellInfoD.cellConfig = cell_FACH) OR ( tcv_CellInfoD.cellConfig = cell_FACH_PS ) ]			
23		+ ts_ReconfigFACH_ToNoDedicated ( tsc_CellD )			
24		( tcv_CellInfoD.cellConfig := cell_FACH_NoDedicated )			
25		[ ( tcv_CellInfoE.cellConfig = cell_FACH_NoConn ) OR ( tcv_CellInfoE.cellConfig = cell_FACH) OR ( tcv_CellInfoE.cellConfig = cell_FACH_PS) ]			
26		+ ts_ReconfigFACH_ToNoDedicated ( tsc_CellE )			
27		( tcv_CellInfoE.cellConfig := cell_FACH_NoDedicated )			
28		[ ( tcv_CellInfoF.cellConfig = cell_FACH_NoConn ) OR ( tcv_CellInfoF.cellConfig = cell_FACH) OR ( tcv_CellInfoF.cellConfig = cell_FACH_PS ) ]			
29		+ ts_ReconfigFACH_ToNoDedicated ( tsc_CellF )			
30		( tcv_CellInfoF.cellConfig := cell_FACH_NoDedicated )			
31		[ ( tcv_CellInfoG.cellConfig = cell_FACH_NoConn ) OR ( tcv_CellInfoG.cellConfig = cell_FACH) OR ( tcv_CellInfoG.cellConfig = cell_FACH_PS ) ]			
32		+ ts_ReconfigFACH_ToNoDedicated ( tsc_CellG )			
33		( tcv_CellInfoG.cellConfig := cell_FACH_NoDedicated )			
34		[ ( tcv_CellInfoH.cellConfig = cell_FACH_NoConn ) OR ( tcv_CellInfoH.cellConfig = cell_FACH) OR ( tcv_CellInfoH.cellConfig = cell_FACH_PS ) ]			
35		+ ts_ReconfigFACH_ToNoDedicated ( tsc_CellH )			
36		( tcv_CellInfoH.cellConfig := cell_FACH_NoDedicated )			
37	ERR1	[TRUE]		ı	
		lt_ReconfOldDPCH_Cell			

		Test Step Dynamic I	3ehaviour		
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
38		[ (tcv_CellInfoA.cellConfig = cell_DCH_StandAloneSRB_NoConn ) OR (tcv_CellInfoA.cellConfig = cell_DCH_StandAloneSRB) OR (tcv_CellInfoA.cellConfig = cell_DCH_Speech ) OR (tcv_CellInfoA.cellConfig = cell_DCH_Speech ) OR (tcv_CellInfoA.cellConfig = cell_DCH_64kCS_RAB_SRB ) OR (tcv_CellInfoA.cellConfig = cell_DCH_57_6kCS_RAB_SRB ) OR (tcv_CellInfoA.cellConfig = cell_DCH_64kPS_RAB_SRB ) OR (tcv_CellInfoA.cellConfig = cell_DCH_64kPS_RAB_SRB ) OR (tcv_CellInfoA.cellConfig = cell_RLC_DCH_AM_RAB_15Lis ) OR (tcv_CellInfoA.cellConfig = cell_RLC_DCH_UM_RAB_7Lis ) OR (tcv_CellInfoA.cellConfig = cell_RLC_DCH_UM_RAB_15Lis ) OR (tcv_CellInfoA.cellConfig = cell_RLC_DCH_UM_RAB_7Lis ) OR (tcv_CellInfoA.cellConfig = cell_PDCP_AM_RAB ) OR (tcv_CellInfoA.cellConfig = cell_PDCP_AM_RAB ) OR (tcv_CellInfoA.cellConfig = cell_PDCP_UM_RAB ) OR			
		( tcv_CellInfoA.cellConfig =			
20		cell_PDCP_AM_UM_RAB)]			
39 40		+ ts_SS_ReIDPCH ( tsc_CellA ) ( tcv_CellInfoA.cellConfig := cell_NoDPCH, tcv_CellInfoA.DL_DPCH_SHO := FALSE, tcv_CellInfoA.UL_DPCH_SHO := FALSE )			
41		[ ( tcv_CellInfoB.cellConfig = cell_DCH_StandAloneSRB_NoConn ) OR ( tcv_CellInfoB.cellConfig = cell_DCH_StandAloneSRB) OR ( tcv_CellInfoB.cellConfig = cell_DCH_Speech ) OR ( tcv_CellInfoB.cellConfig = cell_DCH_Speech ) OR ( tcv_CellInfoB.cellConfig = cell_DCH_64kCS_RAB_SRB ) OR ( tcv_CellInfoB.cellConfig = cell_DCH_57_6kCS_RAB_SRB ) OR ( tcv_CellInfoB.cellConfig = cell_DCH_64kPS_RAB_SRB ) OR ( tcv_CellInfoB.cellConfig = cell_DCH_64kPS_RAB_SRB ) OR ( tcv_CellInfoB.cellConfig = cell_RLC_DCH_AM_RAB_15Lis ) OR ( tcv_CellInfoB.cellConfig = cell_RLC_DCH_UM_RAB_15Lis ) OR ( tcv_CellInfoB.cellConfig = cell_RLC_DCH_UM_RAB_7Lis ) OR ( tcv_CellInfoB.cellConfig = cell_PDCP_AM_RAB ) OR ( tcv_CellInfoB.cellConfig = cell_PDCP_UM_RAB ) OR ( tcv_CellInfoB.cellConfig = cell_PDCP_UM_RAB ) OR ( tcv_CellInfoB.cellConfig = cell_PDCP_UM_RAB ) OR ( tcv_CellInfoB.cellConfig = cell_PDCP_AM_UM_RAB ) ]			
42 43		+ ts_SS_ReIDPCH ( tsc_CellB ) ( tcv_CellInfoB.cellConfig := cell_NoDPCH , tcv_CellInfoB.DL_DPCH_SHO := FALSE, tcv_CellInfoB.UL_DPCH_SHO := FALSE)			

		Test Step Dynamic E	Behaviour		
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
44		[ ( tcv_CellInfoC.cellConfig = cell_DCH_StandAloneSRB_NoConn ) OR ( tcv_CellInfoC.cellConfig = cell_DCH_StandAloneSRB) OR ( tcv_CellInfoC.cellConfig = cell_DCH_Speech ) OR ( tcv_CellInfoC.cellConfig = cell_DCH_Speech ) OR ( tcv_CellInfoC.cellConfig = cell_DCH_64kCS_RAB_SRB ) OR ( tcv_CellInfoC.cellConfig = cell_DCH_57_6kCS_RAB_SRB ) OR ( tcv_CellInfoC.cellConfig = cell_DCH_64kPS_RAB_SRB ) OR ( tcv_CellInfoC.cellConfig = cell_DCH_64kPS_RAB_SRB ) OR ( tcv_CellInfoC.cellConfig = cell_RLC_DCH_AM_RAB_15Lis ) OR ( tcv_CellInfoC.cellConfig = cell_RLC_DCH_UM_RAB_7Lis ) OR ( tcv_CellInfoC.cellConfig = cell_RLC_DCH_UM_RAB_15Lis ) OR ( tcv_CellInfoC.cellConfig = cell_RLC_DCH_UM_RAB_7Lis ) OR ( tcv_CellInfoC.cellConfig = cell_PDCP_AM_RAB ) OR ( tcv_CellInfoC.cellConfig = cell_PDCP_UM_RAB ) OR ( tcv_CellInfoC.cellConfig = c			
		cell_PDCP_AM_UM_RAB ) ]			
45		+ ts_SS_ReIDPCH ( tsc_CellC )			
46		( tcv_CellInfoC.cellConfig := cell_NoDPCH, tcv_CellInfoC.DL_DPCH_SHO := FALSE, tcv_CellInfoC.UL_DPCH_SHO := FALSE)			
47		[ ( tcv_CellInfoD.cellConfig = cell_DCH_StandAloneSRB_NoConn ) OR ( tcv_CellInfoD.cellConfig = cell_DCH_StandAloneSRB) OR ( tcv_CellInfoD.cellConfig = cell_DCH_Speech ) OR ( tcv_CellInfoD.cellConfig = cell_DCH_Speech ) OR ( tcv_CellInfoD.cellConfig = cell_DCH_64kCS_RAB_SRB ) OR ( tcv_CellInfoD.cellConfig = cell_DCH_57_6kCS_RAB_SRB ) OR ( tcv_CellInfoD.cellConfig = cell_DCH_64kPS_RAB_SRB ) OR ( tcv_CellInfoD.cellConfig = cell_DCH_64kPS_RAB_SRB ) OR ( tcv_CellInfoD.cellConfig = cell_RLC_DCH_AM_RAB_15Lis ) OR ( tcv_CellInfoD.cellConfig = cell_RLC_DCH_UM_RAB_15Lis ) OR ( tcv_CellInfoD.cellConfig = cell_RLC_DCH_UM_RAB_15Lis ) OR ( tcv_CellInfoD.cellConfig = cell_RLC_DCH_UM_RAB_7Lis ) OR ( tcv_CellInfoD.cellConfig = cell_PDCP_AM_RAB ) OR ( tcv_CellInfoD.cellConfig = cell_PDCP_UM_RAB ) OR ( tcv_CellInfoD.cellConfig = cell_PDCP_UM_RAB ) OR ( tcv_CellInfoD.cellConfig = cell_PDCP_AM_UM_RAB ) ]			
48 49		+ ts_SS_ReIDPCH ( tsc_CellD )  ( tcv_CellInfoD.cellConfig := cell_NoDPCH, tcv_CellInfoD.DL_DPCH_SHO := FALSE, tcv_CellInfoD.UL_DPCH_SHO := FALSE )			

		Test Step Dynamic	Behaviour		
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
50		[ (tcv_CellInfoE.cellConfig = cell_DCH_StandAloneSRB_NoConn ) OR (tcv_CellInfoE.cellConfig = cell_DCH_StandAloneSRB) OR (tcv_CellInfoE.cellConfig = cell_DCH_Speech ) OR (tcv_CellInfoE.cellConfig = cell_DCH_Speech ) OR (tcv_CellInfoE.cellConfig = cell_DCH_64kCS_RAB_SRB ) OR (tcv_CellInfoE.cellConfig = cell_DCH_57_6kCS_RAB_SRB ) OR (tcv_CellInfoE.cellConfig = cell_DCH_64kPS_RAB_SRB ) OR (tcv_CellInfoE.cellConfig = cell_DCH_64kPS_RAB_SRB ) OR (tcv_CellInfoE.cellConfig = cell_RLC_DCH_AM_RAB_15Lis ) OR (tcv_CellInfoE.cellConfig = cell_RLC_DCH_UM_RAB_15Lis ) OR (tcv_CellInfoE.cellConfig = cell_RLC_DCH_UM_RAB_15Lis ) OR (tcv_CellInfoE.cellConfig = cell_RLC_DCH_UM_RAB_7Lis ) OR (tcv_CellInfoE.cellConfig = cell_PDCP_AM_RAB ) OR (tcv_CellInfoE.cellConfig = cell_PDCP_UM_RAB )			
		cell_PDCP_AM_UM_RAB)]			
51		+ ts_SS_ReIDPCH ( tsc_CellE )			
52		( tcv_CellInfoE.cellConfig := cell_NoDPCH, tcv_CellInfoE.DL_DPCH_SHO := FALSE, tcv_CellInfoE.UL_DPCH_SHO := FALSE)			
53		[ (tcv_CellInfoF.cellConfig = cell_DCH_StandAloneSRB_NoConn ) OR (tcv_CellInfoF.cellConfig = cell_DCH_StandAloneSRB) OR (tcv_CellInfoF.cellConfig = cell_DCH_Speech ) OR (tcv_CellInfoF.cellConfig = cell_DCH_Speech ) OR (tcv_CellInfoF.cellConfig = cell_DCH_64kCS_RAB_SRB ) OR (tcv_CellInfoF.cellConfig = cell_DCH_57_6kCS_RAB_SRB ) OR (tcv_CellInfoF.cellConfig = cell_DCH_64kPS_RAB_SRB ) OR (tcv_CellInfoF.cellConfig = cell_DCH_64kPS_RAB_SRB ) OR (tcv_CellInfoF.cellConfig = cell_RLC_DCH_AM_RAB_15Lis ) OR (tcv_CellInfoF.cellConfig = cell_RLC_DCH_UM_RAB_15Lis ) OR (tcv_CellInfoF.cellConfig = cell_RLC_DCH_UM_RAB_15Lis ) OR (tcv_CellInfoF.cellConfig = cell_RLC_DCH_UM_RAB_7Lis ) OR (tcv_CellInfoF.cellConfig = cell_PDCP_AM_RAB ) OR (tcv_CellInfoF.cellConfig = cell_PDCP_UM_RAB ) OR (tcv_CellInfoF.cellConfig = cell_PDCP_UM_RAB ) OR (tcv_CellInfoF.cellConfig = cell_PDCP_AM_UM_RAB )]			
54 55		+ ts_SS_ReIDPCH (tsc_CellF)  (tcv_CellInfoF.cellConfig := cell_NoDPCH, tcv_CellInfoF.DL_DPCH_SHO := FALSE, tcv_CellInfoF.UL_DPCH_SHO := FALSE)			

		Test Step Dynamic	Behaviour		
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
56		[ ( tcv_CellInfoG.cellConfig = cell_DCH_StandAloneSRB_NoConn ) OR ( tcv_CellInfoG.cellConfig = cell_DCH_StandAloneSRB) OR ( tcv_CellInfoG.cellConfig = cell_DCH_Speech ) OR ( tcv_CellInfoG.cellConfig = cell_DCH_Speech ) OR ( tcv_CellInfoG.cellConfig = cell_DCH_64kCS_RAB_SRB ) OR ( tcv_CellInfoG.cellConfig = cell_DCH_57_6kCS_RAB_SRB ) OR ( tcv_CellInfoG.cellConfig = cell_DCH_64kPS_RAB_SRB ) OR ( tcv_CellInfoG.cellConfig = cell_DCH_64kPS_RAB_SRB ) OR ( tcv_CellInfoG.cellConfig = cell_RLC_DCH_AM_RAB_15Lis ) OR ( tcv_CellInfoG.cellConfig = cell_RLC_DCH_UM_RAB_15Lis ) OR ( tcv_CellInfoG.cellConfig = cell_RLC_DCH_UM_RAB_15Lis ) OR ( tcv_CellInfoG.cellConfig = cell_RLC_DCH_UM_RAB_7Lis ) OR ( tcv_CellInfoG.cellConfig = cell_PDCP_AM_RAB ) OR ( tcv_CellInfoG.cellConfig = cell_PDCP_UM_RAB ) OR ( tcv_CellInfoG.cellConfig =			
57		cell_PDCP_AM_UM_RAB)]			
57 58		+ ts_SS_ReIDPCH ( tsc_CellG )  ( tcv_CellInfoG.cellConfig := cell_NoDPCH, tcv_CellInfoG.DL_DPCH_SHO := FALSE, tcv_CellInfoG.UL_DPCH_SHO := FALSE )			
59		[ ( tcv_CellInfoH.cellConfig = cell_DCH_StandAloneSRB_NoConn ) OR ( tcv_CellInfoH.cellConfig = cell_DCH_StandAloneSRB) OR ( tcv_CellInfoH.cellConfig = cell_DCH_Speech ) OR ( tcv_CellInfoH.cellConfig = cell_DCH_Speech ) OR ( tcv_CellInfoH.cellConfig = cell_DCH_64kCS_RAB_SRB ) OR ( tcv_CellInfoH.cellConfig = cell_DCH_57_6kCS_RAB_SRB ) OR ( tcv_CellInfoH.cellConfig = cell_DCH_64kPS_RAB_SRB ) OR ( tcv_CellInfoH.cellConfig = cell_DCH_64kPS_RAB_SRB ) OR ( tcv_CellInfoH.cellConfig = cell_RLC_DCH_AM_RAB_15Lis ) OR ( tcv_CellInfoH.cellConfig = cell_RLC_DCH_UM_RAB_15Lis ) OR ( tcv_CellInfoH.cellConfig = cell_RLC_DCH_UM_RAB_15Lis ) OR ( tcv_CellInfoH.cellConfig = cell_RLC_DCH_UM_RAB_7Lis ) OR ( tcv_CellInfoH.cellConfig = cell_PDCP_AM_RAB ) OR ( tcv_CellInfoH.cellConfig = cell_PDCP_UM_RAB ) OR ( tcv_CellInfoH.cellConfig = cell_PDCP_AM_UM_RAB ) OR ( tcv_CellInfoH.cellConfig = cell_PDCP_AM_UM_RAB ) ]			
60 61		+ ts_SS_ReIDPCH ( tsc_CellH )  ( tcv_CellInfoH.cellConfig := cell_NoDPCH, tcv_CellInfoH.DL_DPCH_SHO := FALSE, tcv_CellInfoH.UL_DPCH_SHO := FALSE)			

### Continued from previous page

	Test Step Dynamic Behaviour								
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments				
62		[TRUE]							
Deta	iled Com	<ul> <li>Iments: 0. No reconfiguration of the cell is needed before 1. Reconfigure the cell p_CellId to cell_DCH_set to cell_DCH_StandAloneSRB_NoConn to 2. Reconfigure the cell p_CellId to cell_FACH_cell_FACH_NoConn to cell_FACH_NoDedication.</li> </ul>	StandAloneSRB_NoConn and re cell_NoDPCH _NoConn and reconfigure the ce	econfigure the	cell				

Test Step Name : ts\_SS\_RACH\_CCCH\_Cfg ( p\_CellId : INTEGER )

**Group**: BasicM\_SS\_Configuration\_Steps/

Objective : To configure AICH and PRACH physical channels and connect RACH onto PRACH, then map one

logical channel (CCCH) to RACH

Default : SS\_Def

Comments : Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+ts_SetTmpCellInfo (p_CellId)			
2		$[px\_RAT = fdd]$			
3		CPHY!CPHY_RL_Setup_REQ	ca_AichInfo ( p_CeIIId, tsc_AICH1, c_AICH_Info, tcv_TmpCeIIInfo.powerAIC H )		AICH
4		CPHY?CPHY_RL_Setup_CNF	ca_RL_SetupCnf ( p_CellId, tsc_AICH1)		
5		CPHY!CPHY_RL_Setup_REQ	ca_PRACH_Info ( p_CellId, tsc_PRACH1, tsc_PRACH1_Signatures, tsc_PRACH1_ScrC, tcv_TmpCellInfo.puncLimit, tcv_TmpCellInfo.sf_PRACH, tcv_SubChNum)		PRACH
6		CPHY?CPHY_RL_Setup_CNF	ca_RL_SetupCnf ( p_CellId, tsc_PRACH1)		
7		CPHY!CPHY_TrCH_Config_REQ	cab_RACH_InfoActNow ( p_CellId, tsc_PRACH1)		connect RACH to PRACH
8		CPHY?CPHY_TrCH_Config_CNF	ca_TrChCfgCnf ( p_CellId, tsc_PRACH1)		
9		CMAC ! CMAC_Config_REQ	ca_CMAC_CfgInfo ( p_CellId, tsc_PRACH1, c_UE_Info ( OMIT, OMIT), cb_TrChInfoRACH1, cb_TrLogMappingRACH2 )		mapping CCCH to RACH. C-RNTI and U-RNTI are not needed on
10		CMAC ? CMAC_Config_CNF	ca_CMAC_CfgCnf ( p_CellId, tsc_PRACH1)		
11	ERR1	[px_RAT = tdd]		1	
12	ERR2	[TRUE]		I	
Detai	iled Com	ments :			

Test Step Name : ts\_SS\_RACH\_CCCH\_DCCH\_DTCH\_Cfg ( p\_Cellid : INTEGER )

Group : BasicM\_SS\_Configuration\_Steps/

: To configure AICH and PRACH physical channels and connect RACH onto PRACH, then map five logical channels (CCCH, DCCH1, DCCH2, DCCH3, DCCH4) to RACH Objective

Default : SS\_Def

Comments Description

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comment
1		+ ts_SetTmpCellInfo ( p_CellId )			
2		[px_RAT = fdd]			
3		CPHY!CPHY_RL_Setup_REQ	ca_AichInfo(p_CeIIId, tsc_AICH1, c_AICH_Info, (tcv_TmpCeIIInfo.powerAIC H))		AICH
4		CPHY?CPHY_RL_Setup_CNF	ca_RL_SetupCnf(p_CellId, tsc_AICH1)		
5		CPHY!CPHY_RL_Setup_REQ	ca_PRACH_Info(p_CellId, tsc_PRACH1, tsc_PRACH1_Signatures, tsc_PRACH1_ScrC, tcv_TmpCellInfo.puncLimit, tcv_TmpCellInfo.sf_PRACH , tcv_SubChNum)		PRACH
6		CPHY?CPHY_RL_Setup_CNF	ca_RL_SetupCnf(p_CellId, tsc_PRACH1)		
7		CPHY!CPHY_TrCH_Config_REQ	cab_RACH_InfoActNow (p_CellId, tsc_PRACH1)		connect RACH to
8		CPHY?CPHY_TrCH_Config_CNF	ca_TrChCfgCnf(p_CellId, tsc_PRACH1)		PRACH
9		CMAC! CMAC_Config_REQ	ca_CMAC_CfgInfo(p_CellId , tsc_PRACH1, c_UE_Info( OMIT, tcv_TmpCellInfo.cRNTI), cb_TrChInfoRACH1, c_TrLogMappingRACH_DT CH)		CCCH, DCCH1, DCCH2, DCCH3, DCCH4 to RACH. Only C-RNTI is used for DCCH/ DTCH on PRACH
10		CMAC ? CMAC_Config_CNF	ca_CMAC_CfgCnf(p_CellId , tsc_PRACH1)		
11	ERR1	$[px_RAT = tdd]$		1	
	ERR2	TRUE]		l i	1

Test Step Name : ts\_SS\_RB0\_Cfg( p\_CellId : INTEGER)
Group : BasicM\_SS\_Configuration\_Steps/

Objective : to setup radio bearers : RB0 ( the downlink is UM + CCCH + FACH + sCCPCH1 and uplink is TM +

CCCH + RACH + PRACH). The configuration is adapted from 34.108 cl. 6.10.2.4.3 and 6.10.2.4.4

Default : SS\_Def

Comments :
Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		CRLC ! CRLC_Config_REQ	ca_RB_UM_DL_Info(p_Cell Id, tsc_RB0, { dLlogicalChannelIdentity tsc_DL_CCCH5})		cofigure radio bearers (downlin k): RB0 (UM + CCCH + FACH)
2		CRLC ? CRLC_Config_CNF	ca_CRLC_CfgCnf(p_CellId, tsc_RB0)		
3		CRLC! CRLC_Config_REQ	ca_RB_TM_UL_Info(p_CellI d, tsc_RB0, 166, {uLlogicalChannelIdentity tsc_UL_CCCH5})		cofigure radio bearers (uplink): RB0 (TM + CCCH + RACH)
4		CRLC ? CRLC_Config_CNF	ca_CRLC_CfgCnf(p_CellId, tsc_RB0)		

Test Step Name : ts\_SS\_RB1\_ToRB4\_Cfg

**Group**: BasicM\_SS\_Configuration\_Steps/

Objective : To setup radio bearers : RB1, RB2, RB3, RB4. default values from 34.123-1

Default : SS\_Def

Comments : CRLC is configured with cellId -1 (tsc\_CellDedicated)

Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		CRLC ! CRLC_Config_REQ	ca_RB_UM_Info ( tsc_CellDedicated , tsc_RB1, {uLlogicalChannelIdentity tsc_UL_DCCH1, dLlogicalChannelIdentity tsc_DL_DCCH1})		cofigure radio bearers:  RB1 (UM + DCCH) and (UM + DCCH)
2		CRLC ? CRLC_Config_CNF	ca_CRLC_CfgCnf ( tsc_CellDedicated, tsc_RB1)		Doorij
3		CRLC ! CRLC_Config_REQ	ca_RB_AM_Info_SRB ( tsc_CellDedicated, tsc_RB2, tcv_TimerPollProhibit, tcv_TimerPoll, tcv_PollSDU, tcv_PollWindow, {uLlogicalChannelIdentity tsc_UL_DCCH2, dLlogicalChannelIdentity tsc_DL_DCCH2}, 128)		cofigure radio bearers:  RB2 (AM + DCCH) and (AM + DCCH)
4		CRLC ? CRLC_Config_CNF	ca_CRLC_CfgCnf ( tsc_CellDedicated, tsc_RB2)		
5		CRLC ! CRLC_Config_REQ	ca_RB_AM_Info_SRB ( tsc_CellDedicated, tsc_RB3, tcv_TimerPollProhibit, tcv_TimerPoll, tcv_PollSDU, tcv_PollWindow, {uLlogicalChannelIdentity tsc_UL_DCCH3, dLlogicalChannelIdentity tsc_DL_DCCH3},128)		cofigure radio bearers :  RB3 (AM + DCCH) and (AM + DCCH)
6		CRLC ? CRLC_Config_CNF	ca_CRLC_CfgCnf ( tsc_CellDedicated, tsc_RB3)		
7		CRLC! CRLC_Config_REQ	ca_RB_AM_Info_SRB ( tsc_CellDedicated, tsc_RB4, tcv_TimerPollProhibit, tcv_TimerPoll, tcv_PollSDU, tcv_PollWindow, {uLlogicalChannelIdentity tsc_UL_DCCH4, dLlogicalChannelIdentity tsc_DL_DCCH4},128)		cofigure radio bearers:  RB4(AM + DCCH) and (AM + DCCH)
8		CRLC ? CRLC_Config_CNF	ca_CRLC_CfgCnf ( tsc_CellDedicated, tsc_RB4)		
Detai	iled Com	ments:			

Test Step Name : ts\_SS\_RB20\_AM\_PS\_Cfg ( p\_Payloadsize: INTEGER )

**Group**: BasicM\_SS\_Configuration\_Steps/

Objective : setup radio bearers : RB20. default values from 34.108 cl. 6.10.2.4.4 and 6.10.2.4.3.3

Default : SS\_Def

Comments : CRLC is configured with cellId -1 (tsc\_CellDedicated)

Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		CRLC ! CRLC_Config_REQ	ca_RB_AM_Info_RAB ( tsc_CellDedicated, tsc_RB20, tcv_TimerPollProhibit,		cofigure radio bearers :
			tcv_TimerPoll, tcv_PollSDU, tcv_PollWindow, {uLlogicalChannelIdentity tsc_UL_DTCH1, dLlogicalChannelIdentity tsc_DL_DTCH1},p_Payload size)		RB20 (AM + DTCH)
2		CRLC ? CRLC_Config_CNF	ca_CRLC_CfgCnf ( tsc_CellDedicated, tsc_RB20 )		

**Detailed Comments:** 

## **Test Step Dynamic Behaviour**

**Test Step Name**: ts\_SS\_RB\_BCCH\_BCH\_Cfg(p\_CellId: INTEGER)

Group : BasicM\_SS\_Configuration\_Steps/

**Objective**: to setup the radio bearer (RB\_BCCH) which is used for sending system information blocks.

Default : SS\_Def

Comments :
Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		CRLC!CRLC_Config_REQ	ca_RB_BCCH_Info(p_CellI d, tsc_RB_BCCH, {dLlogicalChannelIdentity tsc_BCCH1})		configur e radio bearer (RB_BC CH) for BCCH on TM + BCCH + BCH, used for sending system informati on blocks
2		CRLC?CRLC_Config_CNF	ca_CRLC_CfgCnf(p_CellId, tsc_RB_BCCH)		
Deta	iled Com	ments :		•	•

Test Step Name : ts\_SS\_RB\_BCCH\_FACH\_Cfg (p\_CellId: INTEGER)

**Group**: BasicM\_SS\_Configuration\_Steps/

Objective : setup radio bearers : RB9 (downlink only) this bearer is for BCCH-FACH (TM + BCCH + FACH +

sCCPCH1). The configuration is adapted from 34.108 cl. 6.10.2.4.3.

Default : SS\_Def

Comments : Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		CRLC ! CRLC_Config_REQ	ca_RB_TM_DL_InfoNoSeg (p_CellId, tsc_RB_BCCH_FACH, 166, {dLlogicalChannelIdentity tsc_BCCH6})		configur e radio bearers (downlin k): RB9 (TM + BCCH + FACH)
2		CRLC ? CRLC_Config_CNF	ca_CRLC_CfgCnf(p_CellId, tsc_RB_BCCH_FACH)		
_					

**Detailed Comments:** 

# **Test Step Dynamic Behaviour**

Test Step Name : ts\_SS\_RB\_PCCH\_Cfg(p\_CellId: INTEGER)

Group : BasicM\_SS\_Configuration\_Steps/

Objective : to setup radio bearer (RB\_PCCH) used for paging message sending

Default : SS\_Def

Comments :
Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		CRLC ! CRLC_Config_REQ	ca_RB_PCCH_Info(p_CellI d, tsc_RB_PCCH, {dLlogicalChannelIdentity tsc_PCCH1})		configur e radio bearer(R B_PCC H) on TM + PCCH + PCH, used for sending paging message
2		CRLC ? CRLC_Config_CNF	ca_CRLC_CfgCnf(p_CellId, tsc_RB_PCCH)		

Test Step Name: ts\_SS\_RB\_TM\_Cfg\_RLC (p\_PayLoad: INTEGER; p\_RB\_Identity: SS\_RB\_Identity)

Group : BasicM\_SS\_Configuration\_Steps/

Objective :

Default : InitOtherwiseFail

Comments : Configure TM RLC entity in SS for RLC testing. The given RB identity can be used by the SS decoder

to determine which RLC mode is being simulated.

The UE entity should be configured as an AM or UM entity using the same transport block size. This

allows the RLC header information to be specified and / or inspected by the TTCN.

DL Logical channel mapping list for RLC tests. The DTCH RAB for RLC testing is mapped to DCH1.

The SRBs are mapped to DCH5.

**Parameters** 

p\_CellId:

The cell to be used to configure the new RLC entity.

p Payload

The TM payload size in bits. This should be equal to the simulated AM or UM payload size, plus the

relevant RLC header size.

p\_RB\_Identity:

The RB Id to be used within the SS. Different values can be used by the SS decoder to determine

which RLC mode is being simulated.

Expected values:

-10 => UM7

-11 => UM15

-12 => AM7

-13 => AM15

CRLC is configured with cellId -1 (tsc\_CellDedicated)

#### Description

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		CRLC ! CRLC_Config_REQ	ca_RB_TM_Info( tsc_CellDedicated, p_RB_Identity, p_PayLoad, {     uLlogicalChannelIdentity tsc_UL_DTCH1,     dLlogicalChannelIdentity tsc_DL_DTCH1 } )		
2		CRLC ? CRLC_Config_CNF	ca_CRLC_CfgCnf( tsc_CellDedicated, p_RB_Identity )		

Detailed Comments:

 $\textbf{Test Step Name} \hspace{0.2cm} : \hspace{0.1cm} ts\_SS\_ReconfigRAB\_ToSRB \hspace{0.1cm} (\hspace{0.1cm} p\_CellId: \hspace{0.1cm} INTEGER \hspace{0.1cm} )$ 

**Group**: BasicM\_SS\_Configuration\_Steps/

**Objective**: To reconfigure SS from a configuration including RABS to cell\_DCH.

Default : SS\_Def

Comments : Description :

ı	Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
I	1		+ ts_SetTmpCellInfo ( p_CellId )			
	2		+ ts_SS_ReIDPCH ( p_CellId )			
	3		+ ts_SS_1DCH_DCCH_Cfg ( p_CellId )			
	4		+ ts_SS_RB1_ToRB4_Cfg			
ı						

**Detailed Comments:** 

 $\textbf{Test Step Name} \hspace{0.2cm} : \hspace{0.1cm} ts\_SS\_ReconfNoDedicatedToCellFACH \hspace{0.1cm} (\hspace{0.1cm} p\_CellId : INTEGER \hspace{0.1cm})$ 

**Group**: BasicM\_SS\_Configuration\_Steps/

**Objective**: To reconfig the cell from cell\_FACH\_NoDedicated to cell\_FACH.

Default : SS\_Def

Comments : Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+ ts_SetTmpCellInfo ( p_CellId )			
2		$[px\_RAT = fdd]$			
3		CMAC ! CMAC_Config_REQ	ca_CMAC_ReconfigInfoAct Now (p_CellId, tsc_S_CCPCH1, c_UE_Info( tcv_TmpCellInfo.uRNTI, tcv_TmpCellInfo.cRNTI), c_TrChInfoPCH_FACH_PS , c_TrLogMappingPCH_FAC H_PS)		map PCCH to PCH, and map CCCH, BCCH, DTCH and DCCH's to FACH
4		CMAC ? CMAC_Config_CNF	ca_CMAC_CfgCnf(p_CellId , tsc_S_CCPCH1)		
5		CMAC ! CMAC_Config_REQ	ca_CMAC_ReconfigInfoAct Now (p_CellId, tsc_PRACH1, c_UE_Info(OMIT, tcv_TmpCellInfo.cRNTI), cb_TrChInfoRACH1, c_TrLogMappingRACH_DT CH )		CCCH, DCCH1, DCCH2, DCCH3, DCCH4 to RACH
6		CMAC ? CMAC_Config_CNF	ca_CMAC_CfgCnf(p_CellId , tsc_PRACH1)		
7		+ lt_RB_BCCH_FACH_Cfg			
8	ERR1	$[px_RAT = tdd]$		1	
9	ERR2	[TRUE]		1	
		lt_RB_BCCH_FACH_Cfg			
10		[ tcv_TmpCellInfo.cellConfig = cell_FACH_NoDedicated ]			
11		+ts_SS_RB_BCCH_FACH_Cfg(p_CellId)			Config BCCH on FACH
12		[TRUE]			
Deta	iled Com	ments :			

Test Step Name : ts\_SS\_Rel (p\_CellId:INTEGER)
Group : BasicM\_SS\_Configuration\_Steps/

**Objective**: To release all channels that are configured in the SS.

Default : SS\_Def

Comments : Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
	Lauei	•	Constiants Rei	VEIUICE	Comments
1 2		+ ts_SetTmpCellInfo ( p_CellId )  [ ( tcv_TmpCellInfo.cellConfig = cell_DCH_StandAloneSRB ) OR ( tcv_TmpCellInfo.cellConfig = cell_DCH_StandAloneSRB_NoConn ) OR ( tcv_TmpCellInfo.cellConfig = cell_DCH_Speech) OR ( tcv_TmpCellInfo.cellConfig = cell_DCH_64kCS_RAB_SRB ) OR ( tcv_TmpCellInfo.cellConfig = cell_DCH_57_6kCS_RAB_SRB ) OR ( tcv_TmpCellInfo.cellConfig = cell_DCH_64kPS_RAB_SRB ) OR ( tcv_TmpCellInfo.cellConfig = cell_DCH_64kPS_RAB_SRB ) OR ( tcv_TmpCellInfo.cellConfig = cell_RLC_DCH_AM_RAB_15Lis ) OR ( tcv_TmpCellInfo.cellConfig = cell_RLC_DCH_UM_RAB_7Lis ) OR ( tcv_TmpCellInfo.cellConfig = cell_RLC_DCH_UM_RAB_15Lis ) OR ( tcv_TmpCellInfo.cellConfig = cell_RLC_DCH_UM_RAB_7Lis ) OR ( tcv_TmpCellInfo.cellConfig = cell_PDCP_AM_RAB ) OR ( tcv_TmpCellInfo.cellConfig = cell_PDCP_UM_RAB ) OR ( tcv_TmpCellInfo.cellConfig = cell_PDCP_UM_RAB ) OR ( tcv_TmpCellInfo.cellConfig = cell_PDCP_AM_UM_RAB ) OR ( tcv_TmpCellInfo.cellConfig = cell_DCH_2AM_PS) OR ( tcv_TmpCellInfo.cellConfig = cell_DCH_2PS_Call) OR ( tcv_TmpCellInfo.cellCo			
		cell_DCH_MAC_SRB) OR ( tcv_TmpCellInfo.cellConfig =			
		cell_DCH_MAC_SRB_NoConn)]			
3		+ ts_SS_ReIDPCH ( p_CellId )			1.
4		+ It_ReleaseCommonCh			
5 6		+ It_Release_BCCH			
7		[ ( tcv_TmpCellInfo.cellConfig = cell_NoDPCH ) ]			
8		+ It_ReleaseCommonCh			
9		+ lt_Release_BCCH			
10		<ul><li>+ ts_SetCellCfg ( p_CellId, cell_NotConfigured )</li></ul>			
11		[ ( tcv_TmpCellInfo.cellConfig = cell_FACH_PS ) OR ( tcv_TmpCellInfo.cellConfig = cell_FACH ) OR ( tcv_TmpCellInfo.cellConfig = cell_FACH_NoConn ) ]			
12		+ It_RelSRB1_4			

		Test Step Dynamic	Behaviour		
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
13		+ ts_CRLC_Rel ( tsc_CellDedicated, tsc_RB20 )			
14		+ ts_CRLC_Rel ( p_CellId , tsc_RB_BCCH_FACH )			
15		+ lt_ReleaseCommonCh			
16		+ lt_Release_BCCH			
17		+ ts_SetCellCfg ( p_CellId, cell_NotConfigured )			
18		[ ( tcv_TmpCellInfo.cellConfig = cell_FACH_MAC_SRB ) OR ( tcv_TmpCellInfo.cellConfig = cell_FACH_MAC_SRB_NoConn ) ]			
19		+ ts_CRLC_Rel ( tsc_CellDedicated, tsc_RB1 )			1.
20		+ ts_CRLC_Rel(tsc_CellDedicated, tsc_RB2)			
21		+ ts_CRLC_Rel ( tsc_CellDedicated, tsc_RB_DCCH_FACH_MAC)			
22		+ ts_CRLC_Rel (tsc_CellDedicated, tsc_RB4)			
23		+ ts_CRLC_Rel ( tsc_CellDedicated, tsc_RB20 )			
24		+ ts_CRLC_Rel ( p_CellId , tsc_RB_BCCH_FACH )			
25		+ lt_ReleaseCommonCh			
26		+ It_Release_BCCH			
27		+ ts_SetCellCfg ( p_CellId, cell_NotConfigured )			
28		[ ( tcv_TmpCellInfo.cellConfig = cell_FACH_MAC_SRB0 ) OR ( tcv_TmpCellInfo.cellConfig = cell_FACH_MAC_SRB0_NoConn ) ]			
29		+ ts_CRLC_Rel ( tsc_CellDedicated, tsc_RB1 )			1.
30		+ ts_CRLC_Rel(tsc_CellDedicated, tsc_RB2)			
31		+ ts_CRLC_Rel ( tsc_CellDedicated, tsc_RB3)			
32		+ ts_CRLC_Rel (tsc_CellDedicated, tsc_RB4)			
33		+ ts_CRLC_Rel ( tsc_CellDedicated, tsc_RB20 )			
34		+ ts_CRLC_Rel ( p_CellId, tsc_RB_CCCH_FACH_MAC )			
35		+ It_ReleaseCommonCh			
36		+ It_Release_BCCH			
37		<ul><li>+ ts_SetCellCfg ( p_CellId, cell_NotConfigured )</li></ul>			
38		[ (tcv_TmpCellInfo.cellConfig = cell_FACH_BMC ) OR ( tcv_TmpCellInfo.cellConfig = cell_FACH_BMC_NoConn ) ]			
39		+ lt_RelSRB1_4			
JJ		- IL_INDIOND1_4	l		I

		Test Step Dynamic	Behaviour		
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
40		+ ts_CRLC_Rel ( p_CellId , tsc_RB30 )			
41		+ ts_CRLC_Rel ( tsc_CellDedicated, tsc_RB20 )			
42		+ ts_CRLC_Rel ( p_CellId , tsc_RB_BCCH_FACH )			
43		+ ts_CRLC_Rel ( p_CellId , tsc_RB_PCCH )			
44		+ It_ReleaseCommonCh			
45		+ It_Release_BCCH			
46		+ ts_SetCellCfg ( p_CellId, cell_NotConfigured )			
47		[ ( tcv_TmpCellInfo.cellConfig = cell_FACH_2_PRACH_NoConn) OR ( tcv_TmpCellInfo.cellConfig = cell_FACH_2_PRACH) ]			
48		+ lt_RelSRB1_4			
49		+ ts_CRLC_Rel ( p_CellId , tsc_RB_2ndCCCH)			
50		+ ts_CRLC_Rel ( tsc_CellDedicated, tsc_RB20 )			
51		+ ts_CRLC_Rel ( p_CellId , tsc_RB_BCCH_FACH )			
52		+ lt_ReleaseCommonCh			
53		+ ts_CMAC_Rel (p_CellId, tsc_PRACH2)			
54		+ ts_CPHY_TrChRelNonDch ( p_CellId,tsc_PRACH2)			
55		+ ts_SS_StopRL ( p_CellId , tsc_PRACH2 )			
56		+ ts_SS_StopRL ( p_CellId , tsc_AICH2)			
57		+ It_Release_BCCH			
58		+ ts_SetCellCfg ( p_CellId, cell_NotConfigured )			
59		[ ( tcv_TmpCellInfo.cellConfig = cell_FACH_2_SCCPCH_NoConn ) OR ( tcv_TmpCellInfo.cellConfig = cell_FACH_2_SCCPCH ) ]			
60		+ lt_RelSRB1_4			
61		+ ts_CRLC_Rel ( p_CellId , tsc_RB30 )			
62		+ ts_CRLC_Rel ( p_CellId , tsc_RB_BCCH_FACH )			
63		+ ts_CRLC_Rel ( p_CellId , tsc_RB_PCCH )			
64		+ ts_CRLC_Rel ( p_CellId, tsc_RB31)			
65		+ ts_CRLC_Rel ( p_CellId, tsc_RB_2ndPCCH )			
66		+ It_ReleaseCommonCh			
67		+ ts_CMAC_Rel (p_CellId, tsc_S_CCPCH2)			
68		+ ts_CPHY_TrChRelNonDch ( p_CellId, tsc_S_CCPCH2)			

	Test Step Dynamic Behaviour							
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments			
69		+ ts_SS_StopRL ( p_CellId , tsc_S_CCPCH2 )						
70		+ ts_SS_StopRL ( p_CellId , tsc_PICH2)						
71		+ lt_Release_BCCH						
72		+ ts_SetCellCfg ( p_CellId, cell_NotConfigured)						
73		[ ( tcv_TmpCellInfo.cellConfig = cell_FACH_NoDedicated ) ]						
74		+ It_ReleaseCommonCh						
75		+ lt_Release_BCCH						
76		+ ts_SetCellCfg ( p_CellId, cell_NotConfigured )						
77		[ ( tcv_TmpCellInfo.cellConfig = cell_FACH_2SCCPCH_StandAlonePCH_NoCo nn ) OR ( tcv_TmpCellInfo.cellConfig = cell_FACH_2SCCPCH_StandAlonePCH ) OR ( tcv_TmpCellInfo.cellConfig = cell_FACH_2SCCPCH_StandAlonePCH_PS ) ]						
78		+ lt_RelSRB1_4						
79		+ ts_CRLC_Rel (tsc_CellDedicated, tsc_RB20)						
80		+ ts_CRLC_Rel ( p_CellId , tsc_RB_BCCH_FACH )						
81		+ ts_CRLC_Rel ( p_CellId, tsc_RB0 )			2.			
82		+ ts_CMAC_Rel (p_CellId, tsc_PRACH1 )						
83		+ts_CPHY_TrChRelNonDch ( p_CellId , tsc_PRACH1)						
84		+ ts_SS_StopRL ( p_CellId , tsc_PRACH1 )						
85		+ ts_SS_StopRL ( p_CellId , tsc_AICH1)						
86		+ ts_CRLC_Rel ( p_CellId , tsc_RB_PCCH2 )						
87		+ ts_CMAC_Rel (p_CellId, tsc_S_CCPCH1)						
88		+ ts_CPHY_TrChRelNonDch ( p_CellId , tsc_S_CCPCH1)						
89		+ ts_SS_StopRL ( p_CellId , tsc_S_CCPCH1 )						
90		+ ts_SS_StopRL ( p_CellId,tsc_PICH1)						
91		+ ts_CMAC_Rel (p_CellId, tsc_S_CCPCH2)						
92		+ ts_CPHY_TrChRelNon Dch ( p_CellId , tsc_S_CCPCH2)						

	Test Step Dynamic Behaviour							
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments			
93		+ ts_SS_StopRL ( p_CellId , tsc_S_CCPCH2)						
94		+ lt_Release_BCCH						
95		+ ts_SetCellCfg ( p_CellId, cell_NotConfigure d)						
96		[ ( tcv_TmpCellInfo.cellConfig = cell_FACH_2SCCPCH_StandAlonePCH_2a_No Conn ) OR ( tcv_TmpCellInfo.cellConfig =						
		cell_FACH_2SCCPCH_StandAlonePCH_2a ) OR ( tcv_TmpCellInfo.cellConfig = cell_FACH_2SCCPCH_StandAlonePCH_PS_2a ) ]						
97		+ lt_RelSRB1_4						
98		+ ts_CRLC_Rel (tsc_CellDedicated, tsc_RB20)						
99		+ ts_CRLC_Rel (tsc_CellDedicated, tsc_RB24)						
100		+ ts_CRLC_Rel ( p_CellId , tsc_RB_BCCH_FACH )						
101		+ ts_CRLC_Rel ( p_CellId, tsc_RB0 )			2.			
102		+ ts_CMAC_Rel (p_CellId, tsc_PRACH1 )						
103		+ts_CPHY_TrChRelNonDch ( p_CellId , tsc_PRACH1)						
104		+ ts_SS_StopRL ( p_CellId , tsc_PRACH1 )						
105		+ ts_SS_StopRL ( p_CellId , tsc_AICH1)						
106		+ ts_CRLC_Rel ( p_CellId , tsc_RB_PCCH2 )						
107		+ ts_CMAC_Rel (p_CellId, tsc_S_CCPCH1)						
108		+ ts_CPHY_TrChRelNonDch ( p_CellId , tsc_S_CCPCH1)						
109		+ ts_SS_StopRL( p_CellId, tsc_S_CCPCH1)						
110		+ ts_SS_StopRL ( p_CellId, tsc_PICH1)						
111		+ ts_CMAC_Rel (p_CellId, tsc_S_CCPCH2)						
112		+ ts_CPHY_TrChRelN onDch ( p_CellId , tsc_S_CCPCH2)						

	Test Step Dynamic Behaviour							
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments			
113		+ ts_SS_StopRL ( p_CellId , tsc_S_CCPCH2 )						
114		+ It_Release_BCCH						
115		+ ts_SetCellCfg ( p_CellId, cell_NotConfigu red)						
116		[ ( tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_4_FACH_Cnfg1_NoC onn ) OR ( tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_4_FACH_Cnfg1 ) OR ( tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_4_FACH_Cnfg2_NoC onn ) OR ( tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_4_FACH_Cnfg2) ]						
117		+ It_RelSRB1_4						
118		+ ts_CRLC_Rel (tsc_CellDedicated, tsc_RB20)						
119		+ ts_CRLC_Rel (p_CellId, tsc_RB29)						
120		+ ts_CRLC_Rel ( p_CellId , tsc_RB_BCCH_FACH )						
121		+ ts_CRLC_Rel ( p_CellId , tsc_RB_BCCH_FACH_RAB )						
122		+ ts_CRLC_Rel ( p_CellId , tsc_RB_PCCH )						
123		+ ts_CRLC_Rel ( p_CellId, tsc_RB0 )			2.			
124		+ ts_CMAC_Rel (p_CellId, tsc_PRACH1 )						
125		+ ts_CPHY_TrChRelNonDch ( p_CellId, tsc_PRACH1)						
126		+ ts_SS_StopRL ( p_CellId , tsc_PRACH1 )						
127		+ ts_SS_StopRL ( p_CellId , tsc_AICH1)						
128		+ ts_CMAC_Rel (p_CellId, tsc_S_CCPCH1 )						
129		+ ts_CPHY_TrChRelNonDc h ( p_CellId , tsc_S_CCPCH1)						
130		+ ts_SS_StopRL ( p_CellId , tsc_S_CCPCH1 )						
131		+ ts_SS_StopRL ( p_CellId, tsc_PICH1)						
132		+ ts_CMAC_Rel (p_CellId, tsc_S_CCPCH2)						

	Test Step Dynamic Behaviour							
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments			
133		+ ts_CPHY_TrChRel NonDch ( p_CellId , tsc_S_CCPCH2)						
134		+ ts_SS_StopRL ( p_CellId , tsc_S_CCPCH2 )						
135		+ ts_CMAC_Rel (p_CellId, tsc_S_CCPCH 3)						
136		+ ts_CPHY_TrC hRelNonDch ( p_CellId , tsc_S_CCPC H3)						
137		+ ts_SS_Stop RL ( p_CellId						
		tsc_S_CCP CH3 )						
138		+ It_Release_ BCCH						
139		+ ts_SetCe IlCfg ( p_CellId, cell_Not Configur ed )						
140		[ ( tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_3_FACH_CTCH_NoCo nn ) OR ( tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_3_FACH_CTCH ) ]						
141		+ It_RelSRB1_4						
142		+ ts_CRLC_Rel (tsc_CellDedicated, tsc_RB20)						
143 144		+ ts_CRLC_Rel (p_CellId, tsc_RB30) + ts_CRLC_Rel (p_CellId, tsc_RB29)						
144		+ ts_CRLC_Rel (p_Cellid, tsc_RB29)  + ts_CRLC_Rel ( p_Cellid , tsc_RB_BCCH_FACH )						
146		+ ts_CRLC_Rel ( p_CellId , tsc_RB_BCCH_FACH_RAB )						
147		+ ts_CRLC_Rel ( p_CellId , tsc_RB_PCCH )						
148		+ ts_CRLC_Rel ( p_CellId, tsc_RB0 )			2.			
149		+ ts_CMAC_Rel (p_CellId, tsc_PRACH1 )						
150		+ts_CPHY_TrChRelNonDch ( p_CellId, tsc_PRACH1)						

	Test Step Dynamic Behaviour					
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments	
151		+ ts_SS_StopRL ( p_CellId , tsc_PRACH1 )				
152		+ ts_SS_StopRL ( p_CellId , tsc_AlCH1)				
153		+ ts_CMAC_Rel (p_CellId, tsc_S_CCPCH1)				
154		+ ts_CPHY_TrChRelNonD ch ( p_CellId , tsc_S_CCPCH1)				
155		+ ts_SS_StopRL ( p_CellId , tsc_S_CCPCH1 )				
156		+ ts_SS_StopRL ( p_CellId , tsc_PICH1)				
157		+ ts_CMAC_Rel (p_CellId, tsc_S_CCPCH2)				
158		+ts_CPHY_TrCh RelNonDch( p_CellId , tsc_S_CCPCH2)				
159		+ ts_SS_StopRL ( p_CellId , tsc_S_CCPCH 2 )				
160		+ ts_CMAC_Rel (p_CellId, tsc_S_CCPC H3)				
161		+ ts_CPHY_Tr ChRelNonDc h(p_CellId, tsc_S_CCP CH3)				
162		+ ts_SS_Sto pRL ( p_CellId , tsc_S_CC PCH3 )				
163		+ It_Releas e_BCCH				
164		+ ts_Set CellCfg ( p_CellI d, cell_No tConfig				

	Test Step Dynamic Behaviour							
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments			
165		[ tcv_TmpCellInfo.cellConfig = cell_Two_DTCH ]						
166		+ It_RelSRB1_4						
167		+ ts_CRLC_Rel ( tsc_CellDedicated, tsc_RB10 )						
168		+ ts_CRLC_Rel ( tsc_CellDedicated, tsc_RB11 )						
169		+ ts_CMAC_Rel (tsc_CellDedicated, tsc_DL_DPCH1 )						
170		+ ts_CMAC_Rel (tsc_CellDedicated, tsc_UL_DPCH1 )						
171		+ ts_CPHY_TrChRelDCH_NoSHO ( p_CellId , tsc_DL_DPCH1 )						
172		+ ts_CPHY_TrChRelDCH_NoSHO( p_CellId,tsc_UL_DPCH1)						
173		+ ts_SS_StopRL ( p_CellId , tsc_DL_DPCH1 )						
174		+ ts_SS_StopRL ( p_CellId , tsc_UL_DPCH1 )						
175		+ lt_ReleaseCommonCh						
176		+ lt_Release_BCCH						
177		+ ts_SetCellCfg ( p_CellId, cell_NotConfigured )						
178		[ tcv_TmpCellInfo.cellConfig = cell_Four_DTCH_CS ]						
179		+ lt_RelSRB1_4						
180		+ ts_CRLC_Rel ( tsc_CellDedicated, tsc_RB10 )						
181		+ ts_CRLC_Rel ( tsc_CellDedicated, tsc_RB11 )						
182		+ ts_CRLC_Rel ( tsc_CellDedicated, tsc_RB12 )						
183		+ ts_CRLC_Rel ( tsc_CellDedicated, tsc_RB13 )						
184		+ ts_CMAC_Rel (tsc_CellDedicated, tsc_DL_DPCH1)						
185		+ ts_CMAC_Rel (tsc_CellDedicated, tsc_UL_DPCH1 )						
186		+ ts_CPHY_TrChRelDCH_NoSHO ( p_CellId , tsc_DL_DPCH1 )						
187		+						
		ts_CPHY_TrChReIDCH_NoSHO ( p_CellId , tsc_UL_DPCH1 )						
188		+ ts_SS_StopRL ( p_CellId , tsc_DL_DPCH1 )						
189		+ ts_SS_StopRL ( p_CellId , tsc_UL_DPCH1 )						
190		+ It_ReleaseCommonCh						
191		+ lt_Release_BCCH						
192		+ ts_SetCellCfg( p_CellId, cell_NotConfigured)						

		Test Step Dynamic I	Behaviour		
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
193		[ (tcv_TmpCellInfo.cellConfig = cell_Two_DTCH_CS_PS) OR ( tcv_TmpCellInfo.cellConfig = cell_Two_DTCH_PS_CS) ]			
194		+ lt_RelSRB1_4			
195		+ ts_CRLC_Rel ( tsc_CellDedicated, tsc_RB10 )			
196		+ ts_CRLC_Rel ( tsc_CellDedicated, tsc_RB20 )			
197		+ ts_CMAC_Rel (tsc_CellDedicated, tsc_DL_DPCH1 )			
198		+ ts_CMAC_Rel (tsc_CellDedicated, tsc_UL_DPCH1 )			
199		+ ts_CPHY_TrChRelDCH_NoSHO( p_CellId,tsc_DL_DPCH1)			
200		+ ts_CPHY_TrChRelDCH_NoSHO ( p_CellId, tsc_UL_DPCH1)			
201		+ ts_SS_StopRL ( p_CellId , tsc_DL_DPCH1 )			
202		+ ts_SS_StopRL(p_CellId, tsc_UL_DPCH1)			
203		+ It_ReleaseCommonCh			
204		+ lt_Release_BCCH			
205		+ ts_SetCellCfg ( p_CellId, cell_NotConfigured )			
206		[ (tcv_TmpCellInfo.cellConfig = cell_Four_DTCH_CS_PS) OR (tcv_TmpCellInfo.cellConfig = cell_Four_DTCH_PS_CS) ]			
207		+ lt_RelSRB1_4			
208		+ ts_CRLC_Rel ( tsc_CellDedicated, tsc_RB10 )			
209		+ ts_CRLC_Rel ( tsc_CellDedicated, tsc_RB11 )			
210		+ ts_CRLC_Rel ( tsc_CellDedicated, tsc_RB12 )			
211		+ ts_CRLC_Rel ( tsc_CellDedicated, tsc_RB20 )			
212		+ ts_CMAC_Rel (tsc_CellDedicated, tsc_DL_DPCH1 )			
213		+ ts_CMAC_Rel (tsc_CellDedicated, tsc_UL_DPCH1 )			
214		+ ts_CPHY_TrChRelDCH_NoSHO ( p_CellId , tsc_DL_DPCH1 )			
215		+ts_CPHY_TrChRelDCH_NoSH O(p_CellId,tsc_UL_DPCH1)			
216		+ ts_SS_StopRL ( p_CellId , tsc_DL_DPCH1 )			
217		+ ts_SS_StopRL ( p_CellId , tsc_UL_DPCH1 )			
218		+ lt_ReleaseCommonCh			2.
219		+ It_Release_BCCH			

		Test Step Dynamic	Behaviour		
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
220		+ ts_SetCellCfg ( p_CellId, cell_NotConfigured)			
221		[ ( tcv_TmpCellInfo.cellConfig = cell_DCH_DSCH_PS ) ]			
222		+ lt_RelSRB1_4			
223		+ ts_CRLC_Rel ( tsc_CellDedicated, tsc_RB20 )			
224		+ ts_CMAC_Rel (tsc_CellDedicated, tsc_DL_DPCH1)			
225		+ ts_CMAC_Rel (tsc_CellDedicated, tsc_UL_DPCH1 )			
226		+ ts_CPHY_TrChRelDCH_NoSHO ( p_CellId , tsc_DL_DPCH1 )			
227		+ ts_CPHY_TrChRelDCH_NoSHO( p_CellId,tsc_UL_DPCH1)			
228		+ ts_SS_StopRL ( p_CellId , tsc_DL_DPCH1 )			
229		+ ts_SS_StopRL ( p_CellId , tsc_UL_DPCH1 )			
230		+ ts_CMAC_Rel (tsc_CellDedicated, tsc_DL_PDSCH1 )			
231		+ ts_CPHY_TrChRelNonDch ( p_CellId , tsc_DL_PDSCH1 )			
232		+ ts_SS_StopRL ( p_CellId , tsc_DL_PDSCH1 )			
233		+ It_ReleaseCommonCh			
234		+ It_Release_BCCH			
235		+ ts_SetCellCfg ( p_CellId, cell_NotConfigured)			
236		[ ( tcv_TmpCellInfo.cellConfig = cell_DCH_DSCH_CS_PS ) ]			
237		+ lt_RelSRB1_4			
238		+ ts_CRLC_Rel ( tsc_CellDedicated, tsc_RB10 )			
239		+ ts_CRLC_Rel ( tsc_CellDedicated, tsc_RB11 )			
240		+ ts_CRLC_Rel ( tsc_CellDedicated, tsc_RB12 )			
241		+ ts_CRLC_Rel ( tsc_CellDedicated, tsc_RB20 )			
242		+ ts_CMAC_Rel (tsc_CellDedicated, tsc_DL_DPCH1 )			
243		+ ts_CMAC_Rel (tsc_CellDedicated, tsc_UL_DPCH1 )			
244		+ ts_CPHY_TrChRelDCH_NoSHO ( p_CellId , tsc_DL_DPCH1 )			
245		+ ts_CPHY_TrChReIDCH_NoSHO ( p_CeIlld , tsc_UL_DPCH1 )			

		Test Step Dynamic E	Behaviour		
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
246		+ ts_SS_StopRL ( p_CellId , tsc_DL_DPCH1 )			
247		+ ts_SS_StopRL ( p_CellId , tsc_UL_DPCH1 )			
248		+ ts_CMAC_Rel (tsc_CellDedicated, tsc_DL_PDSCH1)			
249		+ ts_CPHY_TrChRelNonDc h ( p_CellId , tsc_DL_PDSCH1 )			
250		+ ts_SS_StopRL( p_CellId, tsc_DL_PDSCH1)			
251		+ lt_ReleaseCommonCh			
252		+ lt_Release_BCCH			
253		+ ts_SetCellCfg ( p_CellId, cell_NotConfigured )			
254		[ ( tcv_TmpCellInfo.cellConfig = cell_FACH_2SCCPCH_StandAlonePCH_NoConn ) OR ( tcv_TmpCellInfo.cellConfig =			
255		cell_FACH_2SCCPCH_StandAlonePCH)]			
255 256		+ It_RelSRB1_4 + ts_CRLC_Rel (tsc_CellDedicated,			
257		tsc_RB20 ) + ts_CRLC_Rel (tsc_CellDedicated,			
237		tsc_RB24)			
258		+ ts_CRLC_Rel ( p_CellId , tsc_RB_BCCH_FACH )			
259		+ ts_CRLC_Rel ( p_CellId , tsc_RB_PCCH2 )			
260		+ ts_CRLC_Rel ( p_CellId, tsc_RB0 )			2.
261		+ ts_CMAC_Rel (p_CellId, tsc_PRACH1 )			
262		+ts_CPHY_TrChRelNonDch ( p_CellId,tsc_PRACH1)			
263		+ ts_SS_StopRL ( p_CellId , tsc_PRACH1 )			
264		+ ts_SS_StopRL ( p_CellId , tsc_AICH1)			
265		+ ts_CMAC_Rel (p_CellId, tsc_S_CCPCH1 )			
266		+ ts_CPHY_TrChRelNonDch ( p_CellId , tsc_S_CCPCH1)			
267		+ ts_SS_StopRL ( p_CellId , tsc_S_CCPCH1 )			
268		+ ts_SS_StopRL ( p_CellId, tsc_PICH1)			

	Test Step Dynamic Behaviour						
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments		
269		+ ts_CMAC_Rel (p_CellId, tsc_S_CCPCH2)					
270		+ ts_CPHY_TrChRelN onDch ( p_CellId , tsc_S_CCPCH2)					
271		+ ts_SS_StopRL ( p_CellId , tsc_S_CCPCH2 )					
272		+ ts_SS_StopRL ( p_CellId , tsc_PICH2)					
273		+ It_ReleaseComm onCh					
274		+ ts_CMAC_Rel (p_CellId, tsc_S_CCPC H2)					
275		+ ts_CPHY_Tr ChRelNonDc h ( p_CellId ,					
276		tsc_S_CCP CH2) + ts_SS_Sto pRL ( p_CellId ,					
277		tsc_S_CC PCH2) + ts_SS_S topRL( p_CellId,					
070		tsc_PIC H2)					
278		+ It_Relea se_BC CH					
279		+ ts_Se tCellC fg ( p_Cell ld, cell_N otCo nfigur ed )					

	Test Step Dynamic Behaviour						
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments		
280		[ (tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_4_FACH_2a_Cnfg1_N oConn ) OR (tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_4_FACH_2a_Cnfg1 ) OR (tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_4_FACH_2a_Cnfg2_NoConn ) OR (tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_4_FACH_2a_Cnfg2 ) ]					
281		+ lt_RelSRB1_4					
282		+ ts_CRLC_Rel (tsc_CellDedicated, tsc_RB20 )					
283		+ ts_CRLC_Rel (tsc_CellDedicated, tsc_RB24)					
284		+ ts_CRLC_Rel (p_CellId, tsc_RB29)					
285		+ ts_CRLC_Rel(p_CellId, tsc_RB_BCCH_FACH)					
286		+ ts_CRLC_Rel ( p_CellId , tsc_RB_BCCH_FACH_RAB )					
287		+ ts_CRLC_Rel ( p_CellId , tsc_RB_PCCH )					
288		+ ts_CRLC_Rel ( p_CellId, tsc_RB0 )			2.		
289		+ ts_CMAC_Rel (p_CellId, tsc_PRACH1 )					
290		+ ts_CPHY_TrChRelNonDch ( p_CellId , tsc_PRACH1)					
291		+ ts_SS_StopRL ( p_CellId , tsc_PRACH1 )					
292		+ ts_SS_StopRL ( p_CellId , tsc_AlCH1)					
293		+ ts_CMAC_Rel (p_CellId, tsc_S_CCPCH1 )					
294		+ ts_CPHY_TrChRelNonD ch ( p_CellId , tsc_S_CCPCH1)					
295		+ ts_SS_StopRL ( p_CellId , tsc_S_CCPCH1 )					
296		+ ts_SS_StopRL( p_CellId, tsc_PICH1)					
297		+ ts_CMAC_Rel (p_CellId, tsc_S_CCPCH2)					
298		+ ts_CPHY_TrChR elNonDch ( p_CellId , tsc_S_CCPCH2)					
299		+ ts_SS_StopRL ( p_CellId , tsc_S_CCPCH 2 )					

		Test Step Dynamic E	Behaviour		
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
300		+ ts_CMAC_Rel (p_CellId, tsc_S_CCPC H3) + ts_CPHY_Tr ChRelNonDc			
		h(p_CellId, tsc_S_CCP CH3)			
302		+ ts_SS_Sto pRL ( p_CellId , tsc_S_CC PCH3)			
303		+ It_Releas e_BCCH			
304		+ ts_Set CellCfg ( p_CellI d, cell_No tConfig ured)			
305		[ ( tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_3_FACH_2a_CTCH_N oConn ) OR ( tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_3_FACH_2a_CTCH ) ]			
306		+ lt_RelSRB1_4			
307		+ ts_CRLC_Rel (tsc_CellDedicated, tsc_RB20)			
308		+ ts_CRLC_Rel (tsc_CellDedicated, tsc_RB24)			
309		+ ts_CRLC_Rel (p_CellId, tsc_RB30)			
310 311		+ ts_CRLC_Rel (p_CellId, tsc_RB29)  + ts_CRLC_Rel ( p_CellId , tsc_RB_BCCH_FACH )			
312		+ ts_CRLC_Rel ( p_CellId , tsc_RB_BCCH_FACH_RAB )			
313		+ ts_CRLC_Rel ( p_CellId , tsc_RB_PCCH )			
314		+ ts_CRLC_Rel ( p_CellId, tsc_RB0 )			2.
315		+ ts_CMAC_Rel (p_CellId, tsc_PRACH1 )			
316		+ts_CPHY_TrChRelNonDch ( p_CellId , tsc_PRACH1) + ts_SS_StopRL ( p_CellId			
<b>.</b>		, tsc_PRACH1)			

Test Step Dynamic Behaviour									
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments				
318		+ ts_SS_StopRL ( p_CellId , tsc_AICH1)							
319		+ ts_CMAC_Rel (p_CellId, tsc_S_CCPCH1)							
320		+ ts_CPHY_TrChRelNon Dch ( p_CellId , tsc_S_CCPCH1)							
321		+ ts_SS_StopRL ( p_CellId , tsc_S_CCPCH1 )							
322		+ ts_SS_StopRL ( p_CellId , tsc_PICH1)							
323		+ ts_CMAC_Rel (p_CellId, tsc_S_CCPCH2)							
324		+ts_CPHY_TrC hRelNonDch( p_CellId , tsc_S_CCPCH 2)							
325		+ ts_SS_StopR L ( p_CellId , tsc_S_CCPC H2 )							
326		+ ts_CMAC_R el (p_Cellid, tsc_S_CCP CH3)							
327		+ ts_CPHY_ TrChRelNo nDch( p_CellId, tsc_S_CC PCH3)							
328		+ ts_SS_S topRL ( p_CellId,							
329		tsc_S_C CPCH3) + It_Relea se_BC							

Test Step Dynamic Behaviour									
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments				
330		+ ts_Se tCellC fg ( p_Cell Id, cell_N otCo nfigur ed)							
331		[TRUE]							
		It_Release_BCCH							
332		+ ts_CRLC_Rel ( p_CellId , tsc_RB_BCCH )							
333		+ ts_CMAC_Rel (p_CellId, tsc_P_CCPCH)							
334		+ ts_CPHY_TrChRelNonDch ( p_CellId , tsc_P_CCPCH )							
335		+ ts_SS_StopRL ( p_CellId, tsc_S_SCH )							
336		+ ts_SS_StopRL ( p_CellId, tsc_P_SCH )							
337		+ ts_SS_StopRL ( p_CellId , tsc_P_CCPCH )							
338		+ ts_SS_StopRL ( p_CellId, tsc_P_CPICH )							
339		CPHY! CPHY_Cell_Release_REQ	ca_CPHY_Cell_Release_RE Q(p_CellId)						
340		CPHY ? CPHY_Cell_Release_CNF	ca_CPHY_Cell_Release_CN F(p_CellId)						
		lt_ReleaseCommonCh							
341		+ ts_CRLC_Rel ( p_CellId, tsc_RB0 )			2.				
342		+ ts_CMAC_Rel (p_CellId, tsc_PRACH1)							
343		+ ts_CPHY_TrChRelNonDch ( p_CellId , tsc_PRACH1)							
344		+ ts_SS_StopRL ( p_CellId , tsc_AICH1)							
345		+ ts_SS_StopRL ( p_CellId , tsc_PRACH1 )							
346		+ ts_CRLC_Rel ( p_CellId, tsc_RB_PCCH )			3.				
347		+ ts_CMAC_Rel (p_CellId, tsc_S_CCPCH1 )							
348		+ ts_CPHY_TrChRelNonDch ( p_CellId, tsc_S_CCPCH1)							
349		+ ts_SS_StopRL ( p_CellId , tsc_PICH1)							
350		+ ts_SS_StopRL ( p_CellId , tsc_S_CCPCH1 )							
		lt_RelSRB1_4							
351		+ ts_CRLC_Rel ( tsc_CellDedicated, tsc_RB1 )			1.				
352		+ ts_CRLC_Rel ( tsc_CellDedicated, tsc_RB2 )							
353		+ ts_CRLC_Rel ( tsc_CellDedicated, tsc_RB3							
354		+ ts_CRLC_Rel (tsc_CellDedicated, tsc_RB4)							

Detailed Comments : 1. Release DPCH 2. Release PRACH 3. Release S-CCPCH

Test Step Name : ts\_SS\_ReIDPCH ( p\_CellId : INTEGER )
Group : BasicM\_SS\_Configuration\_Steps/
Objective : To release the DPCH channel.

Default : SS\_Def

**Comments**: The following channels need to be removed:

physical channels: DPCH; transport channesl: DCH logical channels: DCCH; and

signalling radio bearer: signalling bearers on DCH radio access bearer on DCH.

Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+ ts_SetTmpCellInfo ( p_CellId )			
2		[ ( tcv_TmpCellInfo.cellConfig = cell_DCH_StandAloneSRB_NoConn ) OR ( tcv_TmpCellInfo.cellConfig = cell_DCH_StandAloneSRB) ]			
3		+ It_RelSRB1_4			
4		+ ts_CMAC_Rel (tsc_CellDedicated, tsc_DL_DPCH1)			
5		+ ts_CMAC_Rel (tsc_CellDedicated, tsc_UL_DPCH1)			
6		+ ts_CPHY_TrChRelDCH_NoSHO ( p_CellId, tsc_DL_DPCH1)			
7		+ ts_CPHY_TrChRelDCH_NoSHO ( p_Cellid, tsc_UL_DPCH1)			
8		+ ts_SS_StopRL ( p_CellId , tsc_DL_DPCH1 )			
9		+ ts_SS_StopRL ( p_CellId , tsc_UL_DPCH1 )			
10		[ ( tcv_TmpCellInfo.cellConfig = cell_DCH_Speech ) ]			
11		+ lt_RelSRB1_4			
12		+ ts_CRLC_Rel ( tsc_CellDedicated, tsc_RB10 )			
13		+ ts_CRLC_Rel ( tsc_CellDedicated, tsc_RB11 )			
14		+ ts_CRLC_Rel (tsc_CellDedicated, tsc_RB12)			
15		+ ts_CMAC_Rel (tsc_CellDedicated, tsc_DL_DPCH1)			
16		+ ts_CMAC_Rel (tsc_CellDedicated, tsc_UL_DPCH1 )			
17		+ts_CPHY_TrChRelDCH_NoSHO ( p_CellId, tsc_DL_DPCH1)			
18		+ ts_CPHY_TrChRelDCH_NoSHO( p_CellId , tsc_UL_DPCH1 )			
19		+ ts_SS_StopRL ( p_CellId , tsc_DL_DPCH1 )			
20		+ ts_SS_StopRL ( p_CellId , tsc_UL_DPCH1 )			
21		[ ( tcv_TmpCellInfo.cellConfig = cell_DCH_64kCS_RAB_SRB ) OR ( tcv_TmpCellInfo.cellConfig = cell_DCH_57_6kCS_RAB_SRB ) ]			

	Test Step Dynamic Behaviour				
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
22		+ lt_RelSRB1_4			
23		+ ts_CRLC_Rel ( tsc_CellDedicated, tsc_RB10 )			
24		+ ts_CMAC_Rel (tsc_CellDedicated, tsc_DL_DPCH1)			
25		+ ts_CMAC_Rel (tsc_CellDedicated, tsc_UL_DPCH1 )			
26		+ ts_CPHY_TrChRelDCH_NoSHO ( p_CellId , tsc_DL_DPCH1 )			
27		+ ts_CPHY_TrChRelDCH_NoSHO( p_CellId,tsc_UL_DPCH1)			
28		+ ts_SS_StopRL ( p_CellId , tsc_DL_DPCH1 )			
29		+ ts_SS_StopRL ( p_CellId , tsc_UL_DPCH1 )			
30		[ ( tcv_TmpCellInfo.cellConfig = cell_DCH_64kPS_RAB_SRB ) OR ( tcv_TmpCellInfo.cellConfig = cell_PDCP_AM_RAB ) ]			
31		+ lt_RelSRB1_4			
32		+ ts_CRLC_Rel ( tsc_CellDedicated, tsc_RB20 )			
33		+ ts_CMAC_Rel (tsc_CellDedicated, tsc_DL_DPCH1)			
34		+ ts_CMAC_Rel (tsc_CellDedicated, tsc_UL_DPCH1 )			
35		+ ts_CPHY_TrChReIDCH_NoSHO( p_CellId,tsc_DL_DPCH1)			
36		+ ts_CPHY_TrChRelDCH_NoSHO( p_CellId,tsc_UL_DPCH1)			
37		+ ts_SS_StopRL ( p_CellId , tsc_DL_DPCH1 )			
38		+ ts_SS_StopRL ( p_CellId , tsc_UL_DPCH1 )			
39		[ ( tcv_TmpCellInfo.cellConfig = cell_PDCP_UM_RAB ) ]			
40		+ lt_RelSRB1_4			
41		+ ts_CRLC_Rel (tsc_CellDedicated, tsc_RB21)			
42		+ ts_CMAC_Rel (tsc_CellDedicated, tsc_DL_DPCH1)			
43		+ ts_CMAC_Rel (tsc_CellDedicated, tsc_UL_DPCH1)			
44		+ ts_CPHY_TrChReIDCH_NoSHO( p_CellId,tsc_DL_DPCH1)			
45		+ ts_CPHY_TrChRelDCH_NoSHO( p_CellId,tsc_UL_DPCH1)			
46		+ ts_SS_StopRL ( p_CellId , tsc_DL_DPCH1 )			
47		+ ts_SS_StopRL ( p_CellId , tsc_UL_DPCH1 )			
48		[ ( tcv_TmpCellInfo.cellConfig = cell_PDCP_AM_UM_RAB ) ]			

	v 1	Test Step Dynamic E	Behaviour		
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
49		+ lt_RelSRB1_4			
50		+ ts_CRLC_Rel ( tsc_CellDedicated, tsc_RB20 )			
51		+ ts_CRLC_Rel ( tsc_CellDedicated, tsc_RB21 )			
52		+ ts_CMAC_Rel (tsc_CellDedicated, tsc_DL_DPCH1 )			
53		+ ts_CMAC_Rel (tsc_CellDedicated, tsc_UL_DPCH1 )			
54		+ts_CPHY_TrChRelDCH_NoSHO ( p_CellId , tsc_DL_DPCH1 )			
55		+ts_CPHY_TrChRelDCH_NoSHO( p_CellId,tsc_UL_DPCH1)			
56		+ ts_SS_StopRL ( p_CellId , tsc_DL_DPCH1 )			
57		+ ts_SS_StopRL ( p_CellId , tsc_UL_DPCH1 )			
58		[ ( tcv_TmpCellInfo.cellConfig = cell_RLC_DCH_AM_RAB_15Lis ) OR ( tcv_TmpCellInfo.cellConfig = cell_RLC_DCH_AM_RAB_7Lis ) OR ( tcv_TmpCellInfo.cellConfig = cell_RLC_DCH_UM_RAB_15Lis ) OR ( tcv_TmpCellInfo.cellConfig = cell_RLC_DCH_UM_RAB_7Lis ) ]			
59		+ lt_RelSRB1_4			
60		+ lt_ReleaseRLC_RB			
61		+ ts_CMAC_Rel (tsc_CellDedicated, tsc_DL_DPCH1)			
62		+ ts_CMAC_Rel (tsc_CellDedicated, tsc_UL_DPCH1)			
63		+ ts_CPHY_TrChRelDCH_NoSHO ( p_CellId , tsc_DL_DPCH1 )			
64		+ ts_CPHY_TrChRelDCH_NoSHO ( p_CellId, tsc_UL_DPCH1)			
65		+ ts_SS_StopRL ( p_CellId , tsc_DL_DPCH1 )			
66		+ ts_SS_StopRL ( p_CellId , tsc_UL_DPCH1 )			
67		[ ( tcv_TmpCellInfo.cellConfig = cell_DCH_MAC_SRB) OR ( tcv_TmpCellInfo.cellConfig = cell_DCH_MAC_SRB_NoConn )]			
68		+ ts_CRLC_Rel ( tsc_CellDedicated, tsc_RB1 )			
69		+ ts_CRLC_Rel(tsc_CellDedicated, tsc_RB2)			
70		+ ts_CRLC_Rel (tsc_CellDedicated, tsc_RB_DCCH_DCH_MAC)			
71		+ ts_CRLC_Rel (tsc_CellDedicated, tsc_RB4)			
72		+ ts_CMAC_Rel (tsc_CellDedicated, tsc_DL_DPCH1 )			

		Test Step Dynamic B	Behaviour		
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
73		+ ts_CMAC_Rel (tsc_CellDedicated, tsc_UL_DPCH1)			
74		+ ts_CPHY_TrChRelDCH_NoSHO( p_CellId,tsc_DL_DPCH1)			
75		+ ts_CPHY_TrChReIDCH_NoSHO ( p_CellId , tsc_UL_DPCH1 )			
76		+ ts_SS_StopRL ( p_CellId , tsc_DL_DPCH1 )			
77		+ ts_SS_StopRL ( p_CellId , tsc_UL_DPCH1 )			
78		[ ( tcv_TmpCellInfo.cellConfig = cell_DCH_2AM_PS) OR ( tcv_TmpCellInfo.cellConfig			
79		=cell_DCH_2_PS_Call) ] + lt_RelSRB1_4			
80		+ ts_CRLC_Rel ( tsc_CellDedicated, tsc_RB20)			
81		+ ts_CRLC_Rel (tsc_CellDedicated, tsc_RB22)			
82		+ ts_CMAC_Rel (tsc_CellDedicated, tsc_DL_DPCH1)			
83		+ ts_CMAC_Rel (tsc_CellDedicated, tsc_UL_DPCH1)			
84		+ ts_CPHY_TrChRelDCH_NoSHO( p_CellId,tsc_DL_DPCH1)			
85		+ ts_CPHY_TrChRelDCH_NoSHO( p_CellId,tsc_UL_DPCH1)			
86		+ ts_SS_StopRL ( p_CellId , tsc_DL_DPCH1 )			
87		+ ts_SS_StopRL ( p_CellId , tsc_UL_DPCH1 )			
88		[ ( tcv_TmpCellInfo.cellConfig = cell_Two_DTCH_CS_PS ) ]			
89		+ lt_RelSRB1_4			
90		+ ts_CRLC_Rel ( tsc_CellDedicated, tsc_RB10 )			
91		+ ts_CRLC_Rel ( tsc_CellDedicated, tsc_RB20)			
92		+ ts_CMAC_Rel (tsc_CellDedicated, tsc_DL_DPCH1)			
93		+ ts_CMAC_Rel (tsc_CellDedicated, tsc_UL_DPCH1)			
94		+ts_CPHY_TrChRelDCH_NoSHO( p_CellId,tsc_DL_DPCH1)			
95		+ ts_CPHY_TrChRelDCH_NoSHO( p_CellId, tsc_UL_DPCH1)			
96		+ ts_SS_StopRL ( p_CellId , tsc_DL_DPCH1 )			
97		+ ts_SS_StopRL ( p_CellId , tsc_UL_DPCH1 )			
98		[ ( tcv_TmpCellInfo.cellConfig = cell_Four_DTCH_CS_PS ) ]			

		Test Step Dynamic	Behaviour		
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
99		+ lt_RelSRB1_4			
100		+ ts_CRLC_Rel ( tsc_CellDedicated, tsc_RB10 )			
101		+ ts_CRLC_Rel ( tsc_CellDedicated, tsc_RB11 )			
102		+ ts_CRLC_Rel (tsc_CellDedicated, tsc_RB12)			
103		+ ts_CRLC_Rel ( tsc_CellDedicated, tsc_RB20)			
104		+ ts_CMAC_Rel (tsc_CellDedicated, tsc_DL_DPCH1 )			
105		+ ts_CMAC_Rel (tsc_CellDedicated, tsc_UL_DPCH1 )			
106		+ts_CPHY_TrChRelDCH_NoSHO ( p_CellId , tsc_DL_DPCH1 )			
107		+			
		ts_CPHY_TrChRelDCH_NoSHO ( p_CellId , tsc_UL_DPCH1 )			
108		+ ts_SS_StopRL ( p_CellId , tsc_DL_DPCH1 )			
109		+ ts_SS_StopRL(p_CellId, tsc_UL_DPCH1)			
110		[(tcv_TmpCellInfo.cellConfig = cell_DCH_64kPS_RAB_SRB_HS)]			
111		+ lt_RelSRB1_4			
112		+ts_CRLC_Rel (tsc_CellDedicated, tsc_RB25)			
113		+ ts_CMAC_Rel (tsc_CellDedicated, tsc_DL_DPCH1)			
114		+ ts_CMAC_Rel (tsc_CellDedicated, tsc_UL_DPCH1 )			
115		+ ts_CPHY_TrChRelDCH_NoSHO( p_CellId,tsc_DL_DPCH1)			
116		+ ts_CPHY_TrChRelDCH_NoSHO( p_CellId,tsc_UL_DPCH1)			
117		+ ts_SS_StopRL ( p_CellId , tsc_DL_DPCH1 )			
118		+ ts_SS_StopRL ( p_CellId , tsc_UL_DPCH1 )			
119	ERR	[TRUE]		I	
		It_ReleaseRLC_RB			
120		[ ( tcv_TmpCellInfo.cellConfig = cell_RLC_DCH_AM_RAB_15Lis) ]			
121		+ ts_CRLC_Rel (tsc_CellDedicated, tsc_RB_AM_15_RLC)			
122		[ ( tcv_TmpCellInfo.cellConfig = cell_RLC_DCH_AM_RAB_7Lis) ]			
123		+ ts_CRLC_Rel ( tsc_CellDedicated, tsc_RB_AM_7_RLC)			
124		[ (tcv_TmpCellInfo.cellConfig = cell_RLC_DCH_UM_RAB_15Lis)]			
125		+ ts_CRLC_Rel ( tsc_CellDedicated, tsc_RB_UM_15_RLC)			

	Test Step Dynamic Behaviour								
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments				
126		[ ( tcv_TmpCellInfo.cellConfig = cell_RLC_DCH_UM_RAB_7Lis) ]							
127		+ ts_CRLC_Rel ( tsc_CellDedicated, tsc_RB_UM_7_RLC)							
		lt_RelSRB1_4							
128		+ ts_CRLC_Rel ( tsc_CellDedicated, tsc_RB1 )			1.				
129		+ ts_CRLC_Rel (tsc_CellDedicated, tsc_RB2)							
130		+ ts_CRLC_Rel ( tsc_CellDedicated, tsc_RB3 )							
131		+ ts_CRLC_Rel (tsc_CellDedicated, tsc_RB4)							

Test Step Name : ts\_SS\_StopRL(p\_CellId : INTEGER; p\_PhyCH : PhysicalChannelIdentity)

**Group**: BasicM\_SS\_Configuration\_Steps/

**Objective**: To stop transmission and receiving on the specified physical channel

Default : SS\_Def

**Comments**: To release (stop transmission and receiving) the specified physical channel

Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments			
1		CPHY!CPHY_RL_Release_REQ	ca_RL_RelReq(p_CellId, p_PhyCH)					
2		CPHY?CPHY_RL_Release_CNF	ca_RL_RelCnf(p_CellId, p_PhyCH)					
Detai	Detailed Comments :							

 $\textbf{Test Step Name} \quad : \ ts\_InitializeSIB11\_SIB12 \ ( \ p\_CellID : INTEGER \ )$ 

Group : BasicM\_SysInfoHandling\_Steps/Default/
Objective : To assign tcv\_SIB11 and tcv\_SIB12

Default : InitOtherwiseFail

Comments : Description :

3	Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
PLMN   Isst case   Isst panel	1		+ ts_SetTmpCellInfo ( p_CellID )			
1	2		[ tcv_NumOfPLMN = 1]			Default I
1						PLMN test case
1	3		+lt_10r2PLMN			
Section   Sect	4		[ tcv_NumOfPLMN = 2]			2 PLMN test case
Test case   Test	5					
Section   Sect	6		[ tcv_NumOfPLMN = 3]			3 PLMN test case
step not designed for this    It_1Or2PLMN	7		_			
[p_CellID = tsc_CellA ]   (tcv_SIB11 := cb_SIB11_Def (tcv_CellInfoA, tcv_CellInfoB, tcv_SIB12 := cb_SIB12_Def)   [p_CellID = tsc_CellB ]   (tcv_SIB11 := cb_SIB11_Def (tcv_CellInfoB, tcv_CellInfoA, tcv_CellInfoC, tcv_CellInfoB, tcv_CellInfoH, tcv_CellInfoB, tc	8		[TRUE]		(1)	step not designed
10			lt_1Or2PLMN			
tcv_CellinfoB, tcv_CellinfoC, tcv_CellinfoG, tcv_CellinfoH, tcv_CellinfoD, tcv_CellinfoE, tcv_CellinfoF), tcv_SiB12 := cb_SiB12_Def)  [p_CelliD = tsc_CellB ]  (tcv_SiB11 := cb_SiB11_Def (tcv_CellinfoB, tcv_CellinfoB, tcv_CellinfoH, tcv_CellinfoC, tcv_CellinfoG, tcv_CellinfoF), tcv_CellinfoF), tcv_SiB12 := cb_SiB12_Def)  [p_CelliD = tsc_CellC]  (tcv_SiB11 := cb_SiB11_Def (tcv_CellinfoC, tcv_CellinfoB, tcv_Cel	9		[p_CellID = tsc_CellA ]			
12     (tcv_SIB11 := cb_SIB11_Def ( tcv_CellInfoB, tcv_CellInfoA, tcv_CellInfoC, tcv_CellInfoG, tcv_CellInfoF), tcv_CellInfoF), tcv_SIB12 := cb_SIB12_Def)  13     (p_CellID = tsc_CellC]  14     (tcv_SIB11 := cb_SIB11_Def ( tcv_CellInfoC, tcv_CellInfoA, tcv_CellInfoA, tcv_CellInfoB, tcv_CellInfoB, tcv_CellInfoB, tcv_CellInfoE, tcv_CellInfoF), tcv_SIB12 := cb_SIB12_Def)  15     (p_CellID = tsc_CellD]  16     (tcv_SIB11 := cb_SIB11_Freq2 ( tcv_CellInfoD, tcv_CellInfoB, tcv_CellInfoE, tcv_CellInfoB, tcv_CellInfoA, tcv_CellInfoB, tcv_CellInfoC, tcv_CellInfoB,	10		tcv_CellInfoB, tcv_CellInfoC, tcv_CellInfoG, tcv_CellInfoH, tcv_CellInfoD, tcv_CellInfoE, tcv_CellInfoF),			
tcv_CellInfoA, tcv_CellInfoC, tcv_CellInfoG, tcv_CellInfoH, tcv_CellInfoE, tcv_CellInfoF), tcv_CellInfoF, tcv_CellInfoF, tcv_CellInfoF, tcv_SIB12 := cb_SIB12_Def)  13	11		[p_CellID = tsc_CellB ]			
(tcv_SIB11 := cb_SIB11_Def (tcv_CellInfoC, tcv_CellInfoA, tcv_CellInfoB, tcv_CellInfoG, tcv_CellInfoH, tcv_CellInfoD, tcv_CellInfoE, tcv_CellInfoF), tcv_SIB12 := cb_SIB12_Def)  [p_CellID = tsc_CelID]  (tcv_SIB11 := cb_SIB11_Freq2 (tcv_CellInfoD, tcv_CellInfoE, tcv_CellInfoE, tcv_CellInfoA, tcv_CellInfoB, tcv_CellInfoC, tcv_CellInfoG, tcv_CellInfoH), tcv_SIB12 := cb_SIB12_Freq2)  [p_CellID = tsc_CelIE]  (tcv_SIB11 := cb_SIB11_Freq2 (tcv_CellInfoE, tcv_CellInfoD, tcv_CellInfoD, tcv_CellInfoC, tcv_CellInfoE, tcv_CellInfoD, tcv_CellInfoC, tcv_CellInfoA, tcv_CellInfoB, tcv_CellInfoC, tcv_CellInfoG, tcv_CellInfoB, tcv_CellInfoC, tcv_CellInfoB, tcv_CellInfoB, tcv_CellInfoC, tcv_CellInfoC, tcv_CellInfoB, tcv_C	12		tcv_CellInfoA, tcv_CellInfoC, tcv_CellInfoG, tcv_CellInfoH, tcv_CellInfoD, tcv_CellInfoE, tcv_CellInfoF),			
tcv_CellInfoA, tcv_CellInfoB, tcv_CellInfoG, tcv_CellInfoH, tcv_CellInfoD, tcv_CellInfoE, tcv_CellInfoF), tcv_SIB12 := cb_SIB12_Def)  [p_CellID = tsc_CellD]  (tcv_SIB11 := cb_SIB11_Freq2 ( tcv_CellInfoD, tcv_CellInfoE, tcv_CellInfoA, tcv_CellInfoB, tcv_CellInfoC, tcv_CellInfoG, tcv_CellInfoH), tcv_SIB12 := cb_SIB12_Freq2)  [p_CellID = tsc_CellE]  (tcv_SIB11 := cb_SIB11_Freq2 ( tcv_CellInfoE, tcv_CellInfoD, tcv_CellInfoF, tcv_CellInfoA, tcv_CellInfoD, tcv_CellInfoF, tcv_CellInfoA, tcv_CellInfoB, tcv_CellInfoC, tcv_CellInfoG, tcv_CellInfoH), tcv_SIB12 := cb_SIB12_Freq2)	13		[p_CellID = tsc_CellC]			
(tcv_SIB11 := cb_SIB11_Freq2 ( tcv_CellInfoD, tcv_CellInfoE, tcv_CellInfoF, tcv_CellInfoA, tcv_CellInfoB, tcv_CellInfoC, tcv_CellInfoG, tcv_CellInfoH), tcv_SIB12 := cb_SIB12_Freq2)  [p_CellID = tsc_CellE]  (tcv_SIB11 := cb_SIB11_Freq2 ( tcv_CellInfoE, tcv_CellInfoD, tcv_CellInfoF, tcv_CellInfoA, tcv_CellInfoB, tcv_CellInfoC, tcv_CellInfoG, tcv_CellInfoH), tcv_SIB12 := cb_SIB12_Freq2)	14		tcv_CellInfoA, tcv_CellInfoB, tcv_CellInfoG, tcv_CellInfoH, tcv_CellInfoD, tcv_CellInfoE, tcv_CellInfoF),			
tcv_CellInfoE, tcv_CellInfoA, tcv_CellInfoB, tcv_CellInfoC, tcv_CellInfoG, tcv_CellInfoH), tcv_SIB12 := cb_SIB12_Freq2)  [p_CellID = tsc_CellE]  (tcv_SIB11 := cb_SIB11_Freq2 ( tcv_CellInfoE, tcv_CellInfoD, tcv_CellInfoF, tcv_CellInfoA, tcv_CellInfoB, tcv_CellInfoC, tcv_CellInfoG, tcv_CellInfoH), tcv_SIB12 := cb_SIB12_Freq2)	15		[p_CellID = tsc_CellD]			
(tcv_SIB11 := cb_SIB11_Freq2 (tcv_CellInfoE, tcv_CellInfoD, tcv_CellInfoA, tcv_CellInfoB, tcv_CellInfoG, tcv_CellInfoH), tcv_SIB12 := cb_SIB12_Freq2)	16		tcv_CellInfoE, tcv_CellInfoF, tcv_CellInfoA, tcv_CellInfoB, tcv_CellInfoC, tcv_CellInfoG, tcv_CellInfoH),			
tcv_CellInfoD, tcv_CellInfoF, tcv_CellInfoA, tcv_CellInfoB, tcv_CellInfoC, tcv_CellInfoG, tcv_CellInfoH), tcv_SIB12 := cb_SIB12_Freq2)	17		[p_CellID = tsc_CellE]			
19 In CellD = tsc CellEl	18		tcv_CellInfoD, tcv_CellInfoF, tcv_CellInfoA, tcv_CellInfoB, tcv_CellInfoC, tcv_CellInfoG, tcv_CellInfoH),			
10	19		[p_CellID = tsc_CellF]			

		Test Step Dynamic I	Behaviour		
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
20		(tcv_SIB11 := cb_SIB11_Freq2 ( tcv_CellInfoF, tcv_CellInfoD, tcv_CellInfoE, tcv_CellInfoA, tcv_CellInfoB, tcv_CellInfoC, tcv_CellInfoG, tcv_CellInfoH), tcv_SIB12 := cb_SIB12_Freq2)			
21		[p_CellID = tsc_CellG]			
22		(tcv_SIB11 := cb_SIB11_Def ( tcv_CellInfoG, tcv_CellInfoA, tcv_CellInfoB, tcv_CellInfoC, tcv_CellInfoH, tcv_CellInfoD, tcv_CellInfoE, tcv_CellInfoF), tcv_SIB12 := cb_SIB12_Def)			
23		[p_CellID = tsc_CellH]			
24		(tcv_SIB11 := cb_SIB11_Def ( tcv_CellInfoH, tcv_CellInfoA, tcv_CellInfoB, tcv_CellInfoC, tcv_CellInfoG, tcv_CellInfoE, tcv_CellInfoF), tcv_CellInfoF), tcv_SIB12 := cb_SIB12_Def)			
25		[TRUE]		1	no such cell
		lt_3PLMN			
26		[p_CellID = tsc_CellA ]			
27		( tcv_SIB11 := cb_SIB11_Freq3_PLMN1Or2 (     tcv_CellInfoA, tcv_CellInfoB, tcv_CellInfoC,     tcv_CellInfoD, tcv_CellInfoE, tcv_CellInfoF,     tcv_CellInfoG, tcv_CellInfoH),     tcv_SIB12 := cb_SIB12_Def)			
28		[p_CellID = tsc_CellB ]			
29		(tcv_SIB11 := cb_SIB11_Freq3_PLMN1Or2 ( tcv_CellInfoB, tcv_CellInfoA, tcv_CellInfoC, tcv_CellInfoD, tcv_CellInfoE, tcv_CellInfoF, tcv_CellInfoG, tcv_CellInfoH), tcv_SIB12 := cb_SIB12_Def)			
30		[p_CellID = tsc_CellC]			
31		( tcv_SIB11 := cb_SIB11_Freq3_PLMN1Or2 (tcv_CellInfoC, tcv_CellInfoA, tcv_CellInfoB, tcv_CellInfoD, tcv_CellInfoE, tcv_CellInfoF, tcv_CellInfoG, tcv_CellInfoH), tcv_SIB12 := cb_SIB12_Def)			
32		[p_CellID = tsc_CellD]			
33		(tcv_SIB11 := cb_SIB11_Freq3_PLMN1Or2( tcv_CellInfoD, tcv_CellInfoE, tcv_CellInfoF, tcv_CellInfoA, tcv_CellInfoB, tcv_CellInfoC, tcv_CellInfoG, tcv_CellInfoH), tcv_SIB12 := cb_SIB12_Freq2)			
34		[p_CellID = tsc_CellE]			
35		(tcv_SIB11 := cb_SIB11_Freq3_PLMN1Or2 ( tcv_CellInfoE, tcv_CellInfoD, tcv_CellInfoF, tcv_CellInfoA, tcv_CellInfoB, tcv_CellInfoC, tcv_CellInfoG, tcv_CellInfoH), tcv_SIB12 := cb_SIB12_Freq2)			
36		[p_CellID = tsc_CellF]			
37		(tcv_SIB11 := cb_SIB11_Freq3_PLMN1Or2 ( tcv_CellInfoF, tcv_CellInfoD, tcv_CellInfoE, tcv_CellInfoA, tcv_CellInfoB, tcv_CellInfoC, tcv_CellInfoG, tcv_CellInfoH), tcv_SIB12 := cb_SIB12_Freq2)			

# Continued from previous page

	Test Step Dynamic Behaviour								
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments				
38		[p_CellID = tsc_CellG]							
39		(tcv_SIB11 := cb_SIB11_Freq3_PLMN3 ( tcv_CellInfoG, tcv_CellInfoH,tcv_CellInfoA, tcv_CellInfoB, tcv_CellInfoC, tcv_CellInfoD, tcv_CellInfoE, tcv_CellInfoF), tcv_SIB12 := cb_SIB12_Def)							
40		[p_CellID = tsc_CellH]							
41		(tcv_SIB11 := cb_SIB11_Freq3_PLMN3 (tcv_CellInfoH, tcv_CellInfoG, tcv_CellInfoA, tcv_CellInfoB, tcv_CellInfoC, tcv_CellInfoD, tcv_CellInfoE, tcv_CellInfoF), tcv_SIB12 := cb_SIB12_Def)							
42		[TRUE]		1	no such cell				
Deta	Detailed Comments :								

Test Step Name : ts\_InitializeSIB2AndSIB18( p\_CellInfo: CellInfoCfg)

Group : BasicM\_SysInfoHandling\_Steps/Default/
Objective : To initialize tcv\_SIB2 and tcv\_SIB18

Default : InitOtherwiseFail

Comments : Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		(tcv_SIB2 := c_SIB2_Def ( p_CellInfo))			
2		[ tcv_NumOfPLMN = 1]			Default I
					PLMN
		( OD40 OD40 D ( O W ( ))			test case
3		(tcv_SIB18 := c_SIB18_Def(p_CellInfo))			O DI MNI
4		[ tcv_NumOfPLMN = 2]			2 PLMN Test Case
5		+ It_Init2PLMN			
6		[ tcv_NumOfPLMN = 3]			3 PLMN
					Test case
7		+ lt_Init3PLMN			Case
8		[TRUE]		(I)	The test
					step not
					designed for this
		lt_Init2PLMN			
9		[ (p_CellInfo.cellId = tsc_CellA) OR			PLMN
		(p_CellInfo.cellId = tsc_CellB) OR			Group 1
		(p_CellInfo.cellId = tsc_CellC) OR (p_CellInfo.cellId = tsc_CellG) OR			cells, Hence
		(p_CellInfo.cellId = tsc_CellH) ]			MCC
					and MNC of
					Cell D
10		(According to CIDAO)			used
10		(tcv_SIB18 := c_SIB18_2PLMN(tcv_CellInfoD))			
11		<i>, _ ,</i> [TRUE]			PLMN
					Group 2 cells,
					Hence
					MCC and
					MNC of
					Cell A
12		(tcv_SIB18 := c_SIB18_2PLMN(tcv_CellInfoA))			used
14		lt_Init3PLMN			
		IL_ITIILOT LIVIIN			

		Test Step Dynamic I	<b>Behaviour</b>		
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
13		[ (p_CellInfo.cellId = tsc_CellA) OR (p_CellInfo.cellId = tsc_CellB) OR (p_CellInfo.cellId = tsc_CellC) ]			PLMN Group 1 cells, Hence MCC and MNC of Cell D and G used
14		(tcv_SIB18 := c_SIB18_3PLMN(tcv_CellInfoD, tcv_CellInfoG))			
15		[ (p_CellInfo.cellId = tsc_CelID) OR   (p_CellInfo.celIId = tsc_CelIE) OR   (p_CellInfo.celIId = tsc_CelIF) ]			PLMN Group 2 cells, Hence MCC and MNC of Cell A and G used
16		(tcv_SIB18 := c_SIB18_3PLMN(tcv_CellInfoA, tcv_CellInfoG))			
17		[TRUE]			PLMN Group 3 cells, Hence MCC and MNC of Cell A and D used
18		(tcv_SIB18 := c_SIB18_3PLMN(tcv_CellInfoA, tcv_CellInfoD))			
Detai	iled Com	ments :			

Test Step Name : ts\_SendDefSysInfo ( p\_CellId: INTEGER)
Group : BasicM\_SysInfoHandling\_Steps/Default/
Objective : To broadcast default system infomation.

Default : InitOtherwiseFail

Comments : Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+ ts_UTRAN_GERAN_ParaInit( p_CellId )			ts_SetT
					mpCellIn fo done
					already
					in
					ts_UTR AN_GE
					RAN_Pa
					ralnit
2		+ts_CellDependentPara(p_CellId)			
3		+ts_InitializeSIB2AndSIB18( tcv_TmpCellInfo)			
4		+ ts_InitializeSIB11_SIB12 ( p_CellId )			
5 6		[px_RAT = fdd] +ts_SendNoSegDefSchedul(p_CellId)			
7		+ts_SendSIB1 ( cb_SIB1_Def(			
,		tcv_TmpCellInfo),			
		p_CellId, tsc_Now)			
8		+ts_SendSIB2 ( tcv_SIB2 , p_CellId, tsc_Now)			
9		+ts_SendSIB3(tcv_SIB3,			
		p_CellId, tsc_Now)			
10		+ts_SendSIB4(tcv_SIB4, p_CellId, tsc_Now)			
11		+ts_SendSIB5(cb_SIB5_Def(tcv			
		_TmpCellInfo), p_CellId, tsc_Now)			
12		+ts_SendSIB6(cb_SIB6_Def(tc v_TmpCellInfo), p_CellId, tsc_Now)			
13		+ts_SendSIB7(c_SIB7_Def, p_CellId, tsc_Now)			
14		+ts_SendSIB11(tcv_SIB11, p_CellId, tsc_Now)			
15		+ts_SendSIB12( tcv_SIB12, p_CellId, tsc_Now)			
16		+ts_SendSIB18( tcv_SIB18, p_CellId, tsc_Now)			
17		+ts_SendSB1_DefSch edul(tcv_SB1, p_CellId, tsc_Now)			
18		+ts_SendMIB(tcv_MI B, p_CellId, tsc_Now)			
19	ERR1	[px_RAT = tdd]		1	
20	ERR2	TRUE]		ı	
Detai	iled Com	ments :			

Test Step Name : ts\_SendNoSegDefSchedul(p\_CellId : INTEGER)

**Group**: BasicM\_SysInfoHandling\_Steps/Default/

Objective : To deliver the system information message with NoSegment to SS on the frames on which there is no

any SIB/MIB/SB scheduled

Default : InitOtherwiseFail

**Comments** : Current scheduling assumption:

Repetition period: 64 frames;

Not scheduled positions: frame 54 (SIB\_POS 27). Above unscheduled positions can be used for other SIBs later, if so this test Step shall be modified

accordingly.

Description :

	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+ts_Scheduling(p_CellId, 6, 27, tsc_Now)			pos = 27
2		CMAC?CMAC_SYSINFO_Config_CNF	ca_SysInfoCfgCnf(p_CellId, tsc_RB_BCCH)		
3		TM!RLC_TR_DATA_REQ	ca_TR_DataReq(p_CellId, tsc_RB_BCCH, cs_SIB_MsgNoSegment)		

**Detailed Comments:** 

**Test Step Name**: ts\_SendSB1\_DefSchedul (p\_SB: SysInfoTypeSB1; p\_CellId: INTEGER; p\_Timing: INTEGER)

Group : BasicM\_SysInfoHandling\_Steps/Default/
Objective : To deliver the SysInfoTypeSB1 to SS

**Default** : InitOtherwiseFail

Comments : Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		(tcv_Segs := o_SIB_Segmentation ( o_SIB_PER_Encoding ( sB1 : p_SB )))			1.
2		[tcv_Segs.segCount =1]			
3		+ts_Scheduling(p_CellId, 4, 1, p_Timing)			3.
4		CMAC?CMAC_SYSINFO_Config_CNF	ca_SysInfoCfgCnf(p_CellId, tsc_RB_BCCH)		
5		+lt_CompleteSIB(schedulingBlock1)			4.
6		+ts_ChangeSB1_ValueTag			
7		(tcv_MIB.sibSb_ReferenceList.[0].sched uling := c_SB1_Schedul1, tcv_SB1_ValueTagChanged := FALSE)			
8		[tcv_Segs.segCount <>1]		1	2.
		It_CompleteSIB(p_SIBType : SIB_Type)			
9		[LENGTH_OF(tcv_Segs.seg1) = 226]			
10		TM!RLC_TR_DATA_REQ	ca_TR_DataReq(p_CellId, tsc_RB_BCCH, cs_SIB_MsgCmpI( p_SIBType, tcv_Segs.seg1))		4.
11		[LENGTH_OF(tcv_Segs.seg1) <> 226]			
12		TM!RLC_TR_DATA_REQ	ca_TR_DataReq(p_CellId, tsc_RB_BCCH, cs_SIB_MsgCmplList1( p_SIBType, tcv_Segs.seg1))		4.

**Detailed Comments**: 1. Unaligned PER encoding of the SB1 then segmentation.

- 2. The result of segmentation shall be one segment for the SB1 (current assumption).
- 3. Send the scheduling info to SS.(one segment; REP=16; POS=1).
- 4. Construct the system information message containing the first segment of SB1 and send it to

SS.

Test Step Name : ts\_SendSIB1 (p\_SIB: SysInfoType1; p\_CellId : INTEGER; p\_Timing: INTEGER)

Group : BasicM\_SysInfoHandling\_Steps/Default/

Objective : To deliver the SIBType1 to SS

Default : InitOtherwiseFail

Comments : SIB1 is concatenated with SIB2.

system information on air changes imediatly if p\_Timing => 512. change of system information on air

starts at the frame number = p\_Timing.

Description

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		<pre>(tcv_SIB1 := p_SIB, tcv_Segs.seg1 := o_SIB_PER_Encoding ( sIB1: p_SIB), tcv_Segs.seg2 := o_SIB_PER_Encoding ( sIB2 : tcv_SIB2))</pre>			1.
2		[(LENGTH_OF(tcv_Segs.seg1) + LENGTH_OF(tcv_Segs.seg2)) >201]		I	2.
3		[TRUE]			
4		+ts_Scheduling(p_CellId, 6, 11, p_Timing)			3.
5		CMAC?CMAC_SYSINFO_Config_CNF	ca_SysInfoCfgCnf(p_CellId, tsc_RB_BCCH)		
6		TM!RLC_TR_DATA_REQ	ca_TR_DataReq(p_CellId, tsc_RB_BCCH, cs_SIB_MsgCmplList2( systemInformationBlockType 1, tcv_Segs.seg1, systemInformationBlockType 2, tcv_Segs.seg2))		4.
7		(tcv_MIB.sibSb_ReferenceList.[1].sibSb_T ype.sysInfoType1 := (tcv_MIB.sibSb_ReferenceList.[1].sibSb_T ype.sysInfoType1) MOD 256 + 1)			
8		+ts_ChangeMIB_ValueTag			

- **Detailed Comments**: 1. Save the new SIB1 value to tcv\_SIB1, unaligned PER encoding of the SIB1 and SIB2.
  - 2. The concatenated SIB1 and SIB2 is too long .
  - 3. Send the scheduling info to SS. one segment: REP=64, POS=11.
  - 4. Construct the system information message containing completeList of SIB1+SIB2 and send it to SS.

 $\textbf{Test Step Name} \quad : \ ts\_SendSIB11(p\_SIB: \ SysInfoType11; \ p\_CellId: \ INTEGER; \ p\_Timing: \ INTEGER)$ 

**Group** : BasicM\_SysInfoHandling\_Steps/Default/

**Objective**: To deliver the SIBType11 to SS

Default : InitOtherwiseFail

Comments : Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		(tcv_Segs := o_SIB_Segmentation(o_SIB_PER_Encoding (			1.
		sIB11: p_SIB)))			
2		[tcv_Segs.segCount >3]		1	2.
3		[tcv_Segs.segCount <=3]			
4		[tcv_Segs.segCount = 1]			
5		<pre>(tcv_SB1.sib_ReferenceList.[2].sib_Type.sysl nfoType11 :=   (tcv_SB1.sib_ReferenceList.[2].sib_Type.sysl nfoType11) MOD 4 + 1,   tcv_SB1.sib_ReferenceList.[2].scheduling :=   c_SIB11_Schedul1)</pre>			
6		+ts_ChangeSB1_ValueTag			
7		+ts_Scheduling(p_CellId, 6, 29, p_Timing)			3.
8		CMAC?CMAC_SYSINFO_Config_CNF	ca_SysInfoCfgCnf(p_CellId, tsc_RB_BCCH)		
9		+lt_CompleteSIB(systemInformationBI ockType11)			4.
10		+ts_Scheduling(p_CellId, 6, 30, p_Timing)			5.
11		CMAC?CMAC_SYSINFO_Config _CNF	ca_SysInfoCfgCnf(p_CellId, tsc_RB_BCCH)		
12		TM!RLC_TR_DATA_REQ	ca_TR_DataReq(p_CellId, tsc_RB_BCCH, cs_SIB_MsgNoSegment)		6.
13		+ts_Scheduling(p_CellId, 6, 31, p_Timing)			8.
14		CMAC?CMAC_SYSINFO_C onfig_CNF	ca_SysInfoCfgCnf(p_CellId, tsc_RB_BCCH)		
15		TM!RLC_TR_DATA_REQ	ca_TR_DataReq(p_CellId, tsc_RB_BCCH, cs_SIB_MsgNoSegment)		6.
16		[tcv_Segs.segCount = 2]			
17		(tcv_SB1.sib_ReferenceList.[2].sib_Type.sysl nfoType11 := (tcv_SB1.sib_ReferenceList.[2].sib_Type.sysl nfoType11) MOD 4 + 1, tcv_SB1.sib_ReferenceList.[2].scheduling := c_SIB11_Schedul2)			
18		+ts_ChangeSB1_ValueTag			
19		+ts_Scheduling(p_CellId, 6, 31, p_Timing)			8.
20		CMAC?CMAC_SYSINFO_Config_CNF	ca_SysInfoCfgCnf(p_CellId, tsc_RB_BCCH)		
21		TM!RLC_TR_DATA_REQ	ca_TR_DataReq(p_CellId, tsc_RB_BCCH, cs_SIB_MsgNoSegment)		6.
22		+ts_Scheduling(p_CellId, 6, 29, p_Timing)			3.

		Test Step Dynamic	Behaviour		
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
23		CMAC?CMAC_SYSINFO_Config _CNF	ca_SysInfoCfgCnf(p_CellId, tsc_RB_BCCH)		
24		TM!RLC_TR_DATA_REQ	ca_TR_DataReq(p_CellId, tsc_RB_BCCH, cs_SIB_MsgFirst(systemInf ormationBlockType11, 2, tcv_Segs.seg1))		4.
25		+ts_Scheduling(p_CellId, 6, 30, p_Timing)			5.
26		CMAC?CMAC_SYSINFO_C onfig_CNF	ca_SysInfoCfgCnf(p_CellId, tsc_RB_BCCH)		
27		[LENGTH_OF(tcv_Segs.seg 2) <= 214]			
28		TM!RLC_TR_DATA_REQ	ca_TR_DataReq(p_CellId, tsc_RB_BCCH, cs_SIB_MsgLastShort(syst emInformationBlockType11, 1, tcv_Segs.seg2))		7.
29		[TRUE]			
30		TM!RLC_TR_DATA_REQ	ca_TR_DataReq(p_CellId, tsc_RB_BCCH, cs_SIB_MsgLast(systemInf ormationBlockType11, 1, tcv_Segs.seg2))		7.
31		[tcv_Segs.segCount = 3]			
32		(tcv_SB1.sib_ReferenceList.[2].sib_Type.sysl nfoType11 := (tcv_SB1.sib_ReferenceList.[2].sib_Type.sysl nfoType11) MOD 4 + 1, tcv_SB1.sib_ReferenceList.[2].scheduling := c_SIB11_Schedul3)			
33		+ts_ChangeSB1_ValueTag			
34		+ts_Scheduling(p_CellId, 6, 30, p_Timing)			5.
35		CMAC?CMAC_SYSINFO_Config_CNF	ca_SysInfoCfgCnf(p_CellId, tsc_RB_BCCH)		
36		TM!RLC_TR_DATA_REQ	ca_TR_DataReq(p_CellId, tsc_RB_BCCH, cs_SIB_MsgSubsequent(sys temInformationBlockType11, 1, tcv_Segs.seg2))		7.
37		+ts_Scheduling(p_CellId, 6, 29, p_Timing)			3.
38		CMAC?CMAC_SYSINFO_Config _CNF	ca_SysInfoCfgCnf(p_CellId, tsc_RB_BCCH)		
39		TM!RLC_TR_DATA_REQ	ca_TR_DataReq(p_CellId, tsc_RB_BCCH, cs_SIB_MsgFirst(systemInf ormationBlockType11, 3, tcv_Segs.seg1))		4.
40		+ts_Scheduling(p_CellId, 6, 31, p_Timing)			8.
41		CMAC?CMAC_SYSINFO_C onfig_CNF	ca_SysInfoCfgCnf(p_CellId, tsc_RB_BCCH)		
42		[LENGTH_OF(tcv_Segs.seg 3) <= 214]			

	Test Step Dynamic Behaviour						
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments		
43		TM!RLC_TR_DATA_REQ	ca_TR_DataReq(p_CellId, tsc_RB_BCCH, cs_SIB_MsgLastShort(syst emInformationBlockType11, 2, tcv_Segs.seg3))		9.		
44		[TRUE]					
45		TM!RLC_TR_DATA_REQ	ca_TR_DataReq(p_CellId, tsc_RB_BCCH, cs_SIB_MsgLast(systemInf ormationBlockType11, 2, tcv_Segs.seg3))		9.		
		It_CompleteSIB(p_SIBType : SIB_Type)					
46		[LENGTH_OF(tcv_Segs.seg1) = 226]					
47		TM!RLC_TR_DATA_REQ	ca_TR_DataReq(p_CellId, tsc_RB_BCCH, cs_SIB_MsgCmpl( p_SIBType, tcv_Segs.seg1))		4.		
48		[TRUE]					
49		TM!RLC_TR_DATA_REQ	ca_TR_DataReq(p_CellId, tsc_RB_BCCH, cs_SIB_MsgCmplList1( p_SIBType, tcv_Segs.seg1))		4.		

- **Detailed Comments**: 1. Unaligned PER encoding of the SIB11 then segmentation.
  - 2. The result of segmentation shall be one or two or three segments for the SIB11 ( current
  - 3. Send the scheduling info to SS. one segment: REP=64, POS=29.
  - 4. Construct the system information message containing first segment of SIB11 and send it to
  - 5. Send the scheduling info to SS. one segment: REP=64, POS=30.
  - 6. Send no segment system information message to SS.
  - 7. Construct the system information message containing the second segment of SIB11 and send it to SS.
  - 8. Send the scheduling info segment to SS. one segment: REP=64, POS=31.
  - 9. Construct the system information message containing the third segment of SIB11 and send it to SS.

 $\textbf{Test Step Name} \quad : \ ts\_SendSIB12(p\_SIB: \ SysInfoType12; \ p\_CellId: \ INTEGER; \ p\_Timing: \ INTEGER)$ 

**Group** : BasicM\_SysInfoHandling\_Steps/Default/

**Objective**: To deliver the SIBType12 to SS

Default : InitOtherwiseFail

Comments : Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		(tcv_Segs :=			1.
		o_SIB_Segmentation(o_SIB_PER_Encoding ( sIB12 : p_SIB)))			
2		[tcv_Segs.segCount >3]		1	2.
3		[tcv_Segs.segCount <=3]			
4		[tcv_Segs.segCount = 1]			
5		(tcv_SB1.sib_ReferenceList.[3].sib_Type.sysl nfoType12 := (tcv_SB1.sib_ReferenceList.[3].sib_Type.sysl nfoType12) MOD 4 + 1, tcv_SB1.sib_ReferenceList.[3].scheduling := c_SIB12_Schedul1)			
6		+ts_ChangeSB1_ValueTag			
7		+ts_Scheduling(p_CellId, 6, 13, p_Timing)			3.
8		CMAC?CMAC_SYSINFO_Config_CNF	ca_SysInfoCfgCnf(p_CellId, tsc_RB_BCCH)		
9		+lt_CompleteSIB(systemInformationBI ockType12)			4.
10		+ts_Scheduling(p_CellId, 6, 14, p_Timing)			5.
11		CMAC?CMAC_SYSINFO_Config _CNF	ca_SysInfoCfgCnf(p_CellId, tsc_RB_BCCH)		
12		TM!RLC_TR_DATA_REQ	ca_TR_DataReq(p_CellId, tsc_RB_BCCH, cs_SIB_MsgNoSegment)		6.
13		+ts_Scheduling(p_CellId, 6, 15, p_Timing)			8.
14		CMAC?CMAC_SYSINFO_C onfig_CNF	ca_SysInfoCfgCnf(p_CellId, tsc_RB_BCCH)		
15		TM!RLC_TR_DATA_REQ	ca_TR_DataReq(p_CellId, tsc_RB_BCCH, cs_SIB_MsgNoSegment)		6.
16		[tcv_Segs.segCount = 2]			
17		(tcv_SB1.sib_ReferenceList.[3].sib_Type.sysl nfoType12 := (tcv_SB1.sib_ReferenceList.[3].sib_Type.sysl nfoType12) MOD 4 + 1, tcv_SB1.sib_ReferenceList.[3].scheduling := c_SIB12_Schedul2)			
18		+ts_ChangeSB1_ValueTag			
19		+ts_Scheduling(p_CellId, 6, 15, p_Timing)			8.
20		CMAC?CMAC_SYSINFO_Config_CNF	ca_SysInfoCfgCnf(p_CellId, tsc_RB_BCCH)		
21		TM!RLC_TR_DATA_REQ	ca_TR_DataReq(p_CellId, tsc_RB_BCCH, cs_SIB_MsgNoSegment)		6.
22		+ts_Scheduling(p_CellId, 6, 13, p_Timing)			3.

		Test Step Dynamic	Behaviour		
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
23		CMAC?CMAC_SYSINFO_Config _CNF	ca_SysInfoCfgCnf(p_CellId, tsc_RB_BCCH)		
24		TM!RLC_TR_DATA_REQ	ca_TR_DataReq(p_CellId, tsc_RB_BCCH, cs_SIB_MsgFirst(systemInf ormationBlockType12, 2, tcv_Segs.seg1))		4.
25		+ts_Scheduling(p_CellId, 6, 14, p_Timing)			5.
26		CMAC?CMAC_SYSINFO_C onfig_CNF	ca_SysInfoCfgCnf(p_CellId, tsc_RB_BCCH)		
27		[LENGTH_OF(tcv_Segs.seg 2) <= 214]			
28		TM!RLC_TR_DATA_REQ	ca_TR_DataReq(p_CellId, tsc_RB_BCCH, cs_SIB_MsgLastShort(syst emInformationBlockType12, 1, tcv_Segs.seg2))		7.
29		[TRUE]			
30		TM!RLC_TR_DATA_REQ	ca_TR_DataReq(p_CellId, tsc_RB_BCCH, cs_SIB_MsgLast(systemInf ormationBlockType12, 1, tcv_Segs.seg2))		7.
31		[tcv_Segs.segCount = 3]			
32		(tcv_SB1.sib_ReferenceList.[3].sib_Type.sysl nfoType12 := (tcv_SB1.sib_ReferenceList.[3].sib_Type.sysl nfoType12) MOD 4 + 1, tcv_SB1.sib_ReferenceList.[3].scheduling := c_SIB12_Schedul3)			
33		+ts_ChangeSB1_ValueTag			
34		+ts_Scheduling(p_CellId, 6, 14, p_Timing)			5.
35		CMAC?CMAC_SYSINFO_Config_CNF	ca_SysInfoCfgCnf(p_CellId, tsc_RB_BCCH)		
36		TM!RLC_TR_DATA_REQ	ca_TR_DataReq(p_CellId, tsc_RB_BCCH, cs_SIB_MsgSubsequent(sys temInformationBlockType12, 1, tcv_Segs.seg2))		7.
37		+ts_Scheduling(p_CellId, 6, 13, p_Timing)			3.
38		CMAC?CMAC_SYSINFO_Config _CNF	ca_SysInfoCfgCnf(p_CellId, tsc_RB_BCCH)		
39		TM!RLC_TR_DATA_REQ	ca_TR_DataReq(p_CellId, tsc_RB_BCCH, cs_SIB_MsgFirst(systemInf ormationBlockType12, 3, tcv_Segs.seg1))		4.
40		+ts_Scheduling(p_CellId, 6, 15, p_Timing)			8.
41		CMAC?CMAC_SYSINFO_C onfig_CNF	ca_SysInfoCfgCnf(p_CellId, tsc_RB_BCCH)		
42		[LENGTH_OF(tcv_Segs.seg 3) <= 214]			

	Test Step Dynamic Behaviour							
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments			
43		TM!RLC_TR_DATA_REQ	ca_TR_DataReq(p_CellId, tsc_RB_BCCH, cs_SIB_MsgLastShort(syst emInformationBlockType12, 2, tcv_Segs.seg3))		9.			
44		[TRUE]						
45		TM!RLC_TR_DATA_REQ	ca_TR_DataReq(p_CellId, tsc_RB_BCCH, cs_SIB_MsgLast(systemInf ormationBlockType12, 2, tcv_Segs.seg3))		9.			
46		[TRUE]						
		It_CompleteSIB(p_SIBType : SIB_Type)						
47		[LENGTH_OF(tcv_Segs.seg1) = 226]						
48		TM!RLC_TR_DATA_REQ	ca_TR_DataReq(p_CellId, tsc_RB_BCCH, cs_SIB_MsgCmpl( p_SIBType, tcv_Segs.seg1))		4.			
49		[TRUE]						
50		TM!RLC_TR_DATA_REQ	ca_TR_DataReq(p_CellId, tsc_RB_BCCH, cs_SIB_MsgCmplList1( p_SIBType, tcv_Segs.seg1))		4.			

- **Detailed Comments**: 1. Unaligned PER encoding of the SIB12 then segmentation.
  - 2. The result of segmentation shall be one or two or three segments for the SIB12 ( current assumption).
  - 3. Send the scheduling info segment to SS. one segment: REP=64, POS=13.
  - 4. Construct the system information message containing the first segment of SIB12 and send it
  - 5. Send the scheduling info segment to SS. one segment: REP=64, POS=14.
  - 6. Send no segment system information message to SS.
  - 7. Construct the system information message containing the second segment of SIB12 and send
  - 8. Send the scheduling info to SS. one segment: REP=64, POS=15 .
  - 9. Construct the system information message containing the third segment of SIB12 and send it to SS.

Test Step Name : ts\_SendSIB18 (p\_SIB: SysInfoType18; p\_CellId : INTEGER; p\_Timing: INTEGER)

Group : BasicM\_SysInfoHandling\_Steps/Default/

Objective : To deliver the SIB18 to SS

Default : InitOtherwiseFail

Comments : SIB18 is concatenated with SIB7, default scheduling described in 3GPP TS 34.123–3 clause 8.4.3

Description

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		(tcv_SIB18 := p_SIB, tcv_Segs.seg1 := o_SIB_PER_Encoding ( sIB18 : p_SIB), tcv_Segs.seg2 := o_SIB_PER_Encoding ( sIB7 : tcv_SIB7))			1.
2		[(LENGTH_OF(tcv_Segs.seg1) + LENGTH_OF(tcv_Segs.seg2)) >201]		1	2.
3		[TRUE]			
4		+ts_Scheduling(p_CellId, 6, 18, p_Timing)			3.
5		CMAC?CMAC_SYSINFO_Config_CNF	ca_SysInfoCfgCnf(p_CellId, tsc_RB_BCCH)		
6		TM!RLC_TR_DATA_REQ	ca_TR_DataReq(p_CellId, tsc_RB_BCCH, cs_SIB_MsgCmplList2( systemInformationBlockType 7, tcv_Segs.seg2, systemInformationBlockType 18, tcv_Segs.seg1 ))		4.
7		(tcv_SB1.sib_ReferenceList.[4].sib_Type.s ysInfoType18 := (tcv_SB1.sib_ReferenceList.[4].sib_Type.s ysInfoType18) MOD 4 + 1)			
8		+ts_ChangeSB1_ValueTag			

- Detailed Comments: 1. save the new value of SIB18, unaligned PER encoding of the SIB7 and SIB18.
  - 2. The concatenated SIB7 and SIB18 is too long.
  - 3. Send the scheduling info to SS. one segment: REP=64, POS=18.
  - 4. Construct the system information message containing SIB18 + SIB7 and sent to SS.

Test Step Name : ts\_SendSIB2 ( p\_SIB: SysInfoType2; p\_CellId : INTEGER; p\_Timing: INTEGER )

Group : BasicM\_SysInfoHandling\_Steps/Default/

Objective : To deliver the SIB2 to SS

Default : InitOtherwiseFail

Comments : SIB2 is concatenated with SIB1

Description

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		(tcv_SIB2 := p_SIB, tcv_Segs.seg1 := o_SIB_PER_Encoding ( sIB2 : p_SIB), tcv_Segs.seg2 := o_SIB_PER_Encoding ( sIB1 : tcv_SIB1))			1.
2		[(LENGTH_OF(tcv_Segs.seg1) + LENGTH_OF(tcv_Segs.seg2)) >201]		I	2.
3		[TRUE]			
4		+ts_Scheduling(p_CellId, 6, 11, p_Timing)			3.
5		CMAC?CMAC_SYSINFO_Config_CNF	ca_SysInfoCfgCnf(p_CellId, tsc_RB_BCCH)		
6		TM!RLC_TR_DATA_REQ	ca_TR_DataReq ( p_CellId, tsc_RB_BCCH, cs_SIB_MsgCmplList2 ( systemInformationBlockType 1, tcv_Segs.seg2, systemInformationBlockType 2, tcv_Segs.seg1 ))		4.
7		(tcv_MIB.sibSb_ReferenceList.[2].sibSb_T ype.sysInfoType2 := (tcv_MIB.sibSb_ReferenceList.[2].sibSb_T ype.sysInfoType2) MOD 4 + 1)			
8		+ts_ChangeMIB_ValueTag			

- Detailed Comments: 1. Save the new SIB2 value to tcv\_SIB2, unaligned PER encoding of the SIB1 and SIB2.
  - 2. The concatenated SIB1 and SIB2 is too long.
  - 3. Send the scheduling info to SS. one segment, REP=64, POS=11.
  - 4. Construct the system information message containing SIB2 + SIB1 and send it to SS.

 $\textbf{Test Step Name} \quad : \ ts\_SendSIB3(p\_SIB: \ SysInfoType3; \ p\_CellId: \ INTEGER; \ p\_Timing: \ INTEGER)$ 

**Group**: BasicM\_SysInfoHandling\_Steps/Default/

**Objective**: To deliver the SIB3 to SS

Default : InitOtherwiseFail

**Comments**: SIB3 is concatenated with SIB7.

Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		( tcv_SIB3 := p_SIB, tcv_Segs.seg1 := o_SIB_PER_Encoding ( sIB3 : p_SIB), tcv_Segs.seg2 := o_SIB_PER_Encoding ( sIB7 : tcv_SIB7))			1.
2		[(LENGTH_OF(tcv_Segs.seg1) + LENGTH_OF(tcv_Segs.seg2)) >201]		1	2.
3		[TRUE]			
4		+ts_Scheduling(p_CellId, 6, 10, p_Timing)			3.
5		CMAC?CMAC_SYSINFO_Config_CNF	ca_SysInfoCfgCnf(p_CellId, tsc_RB_BCCH)		
6		TM!RLC_TR_DATA_REQ	ca_TR_DataReq(p_CellId, tsc_RB_BCCH, cs_SIB_MsgCmplList2( systemInformationBlockType 7, tcv_Segs.seg2, systemInformationBlockType 3, tcv_Segs.seg1))		4.
7		(tcv_MIB.sibSb_ReferenceList.[3].sibSb_T ype.sysInfoType3 := (tcv_MIB.sibSb_ReferenceList.[3].sibSb_T ype.sysInfoType3) MOD 4 + 1)			
8		+ts_ChangeMIB_ValueTag			

**Detailed Comments**: 1. Save the new value of SIB3 to tcv\_SIB3, unaligned PER encoding of the SIB3 and SIB7.

- 2. The concatenated SIB3 and SIB7 is too long.
- 3. Send the scheduling info to SS. one segment; REP=64, POS=10.
- 4. Construct the system information message containing SIB3 + SIB7 and send it to SS.

 $\textbf{Test Step Name} \quad : \ ts\_SendSIB4(p\_SIB: \ SysInfoType4; \ p\_CellId: \ INTEGER; \ p\_Timing: \ INTEGER)$ 

Group : BasicM\_SysInfoHandling\_Steps/Default/

Objective : To deliver the SIB4 to SS

Default : InitOtherwiseFail

Comments : SIB4 is concatenated with SIB7

Description

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		(tcv_SIB4 := p_SIB, tcv_Segs.seg1 := o_SIB_PER_Encoding ( sIB4 : p_SIB), tcv_Segs.seg2 := o_SIB_PER_Encoding ( sIB7 : tcv_SIB7))			1.
2		[(LENGTH_OF(tcv_Segs.seg1) + LENGTH_OF(tcv_Segs.seg2)) >201]		1	2.
3		[TRUE]			
4		+ts_Scheduling(p_CellId, 6, 26, p_Timing)			3.
5		CMAC?CMAC_SYSINFO_Config_CNF	ca_SysInfoCfgCnf(p_CellId, tsc_RB_BCCH)		
6		TM!RLC_TR_DATA_REQ	ca_TR_DataReq(p_CellId, tsc_RB_BCCH, cs_SIB_MsgCmplList2(		4.
			systemInformationBlockType 7, tcv_Segs.seg2, systemInformationBlockType 4, tcv_Segs.seg1))		
7		(tcv_MIB.sibSb_ReferenceList.[4].sibSb_T ype.sysInfoType4 := (tcv_MIB.sibSb_ReferenceList.[4].sibSb_T ype.sysInfoType4) MOD 4 + 1)			
8		+ts_ChangeMIB_ValueTag			

- Detailed Comments: 1. Save the new value of SIB3 to tcv\_SIB3, unaligned PER encoding of the SIB3 and SIB7.
  - 2. The concatenated SIB4 and SIB7 is too long.
  - 3. Send the scheduling info to SS. one segment; REP=64, POS=10.
  - 4. Construct the system information message containing SIB4 + SIB7 and send it to SS.

Test Step Name : ts\_SendSIB5 ( p\_SIB: SysInfoType5; p\_CellId : INTEGER; p\_Timing: INTEGER)

**Group** : BasicM\_SysInfoHandling\_Steps/Default/

**Objective**: To deliver the SIBType5 to SS

Default : InitOtherwiseFail

Comments : Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		(tcv_Segs := o_SIB_Segmentation			1.
		(o_SIB_PER_Encoding ( sIB5 : p_SIB)))			
2		[tcv_Segs.segCount >4]			2.
3		[tcv_Segs.segCount <=4]			
4		[tcv_Segs.segCount = 1]			
5		+ts_Scheduling(p_CellId, 6, 19, p_Timing)			3.
6		CMAC?CMAC_SYSINFO_Config_CNF	ca_SysInfoCfgCnf(p_CellId, tsc_RB_BCCH)		
7		+lt_CompleteSIB(systemInformationBlock Type5)			4.
8		+ts_Scheduling(p_CellId, 6, 21, p_Timing)			5.
9		CMAC?CMAC_SYSINFO_Config_C NF	ca_SysInfoCfgCnf(p_CellId, tsc_RB_BCCH)		
10		TM!RLC_TR_DATA_REQ	ca_TR_DataReq(p_CellId, tsc_RB_BCCH, cs_SIB_MsgNoSegment)		6.
11		+ts_Scheduling(p_CellId, 6, 22, p_Timing)			8.
12		CMAC?CMAC_SYSINFO_Confi g_CNF	ca_SysInfoCfgCnf(p_CellId, tsc_RB_BCCH)		
13		TM!RLC_TR_DATA_REQ	ca_TR_DataReq(p_CellId, tsc_RB_BCCH, cs_SIB_MsgNoSegment)		6.
14		+ts_Scheduling(p_CellId, 6, 23, p_Timing)			10.
15		CMAC?CMAC_SYSINFO_ Config_CNF	ca_SysInfoCfgCnf(p_CellId, tsc_RB_BCCH)		
16		TM!RLC_TR_DATA_REQ	ca_TR_DataReq(p_CellId, tsc_RB_BCCH, cs_SIB_MsgNoSegment)		6.
17		(tcv_MIB.sibSb_Referen ceList.[5].sibSb_Type.sys InfoType5 := (tcv_MIB.sibSb_Referen ceList.[5].sibSb_Type.sys InfoType5) MOD 4 + 1, tcv_MIB.sibSb_Referenc eList.[5].scheduling := c_SIB5_Schedul1)			
18		+ts_ChangeMIB_Value Tag			
19		[tcv_Segs.segCount = 2]			
20		(tcv_MIB.sibSb_ReferenceList.[5].sibSb_Type .sysInfoType5 := (tcv_MIB.sibSb_ReferenceList.[5].sibSb_Type .sysInfoType5) MOD 4 + 1, tcv_MIB.sibSb_ReferenceList.[5].scheduling := c_SIB5_Schedul2)			

		Test Step Dynamic	Behaviour		
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
21		+ts_ChangeMIB_ValueTag			
22		+ts_Scheduling(p_CellId, 6, 22, p_Timing)			8.
23		CMAC?CMAC_SYSINFO_Config_CNF	ca_SysInfoCfgCnf(p_CellId, tsc_RB_BCCH)		
24		TM!RLC_TR_DATA_REQ	ca_TR_DataReq(p_CellId, tsc_RB_BCCH, cs_SIB_MsgNoSegment)		6.
25		+ts_Scheduling(p_CellId, 6, 23, p_Timing)			10.
26		CMAC?CMAC_SYSINFO_Config _CNF	ca_SysInfoCfgCnf(p_CellId, tsc_RB_BCCH)		
27		TM!RLC_TR_DATA_REQ	ca_TR_DataReq(p_CellId, tsc_RB_BCCH, cs_SIB_MsgNoSegment)		6.
28		+ts_Scheduling(p_CellId, 6, 19, p_Timing)			3.
29		CMAC?CMAC_SYSINFO_C onfig_CNF	ca_SysInfoCfgCnf(p_CellId, tsc_RB_BCCH)		
30		TM!RLC_TR_DATA_REQ	ca_TR_DataReq(p_CellId, tsc_RB_BCCH, cs_SIB_MsgFirst(systemInf ormationBlockType5, 2, tcv_Segs.seg1))		4.
31		+ts_Scheduling(p_CellId, 6, 21, p_Timing)			5.
32		CMAC?CMAC_SYSINF O_Config_CNF	ca_SysInfoCfgCnf(p_CellId, tsc_RB_BCCH)		
33		[LENGTH_OF(tcv_Seg s.seg2) <= 214]			
34		TM!RLC_TR_DATA_ REQ	ca_TR_DataReq(p_CellId, tsc_RB_BCCH, cs_SIB_MsgLastShort(syst emInformationBlockType5, 1, tcv_Segs.seg2))		7.
35		[TRUE]			
36		TM!RLC_TR_DATA_ REQ	ca_TR_DataReq(p_CellId, tsc_RB_BCCH, cs_SIB_MsgLast(systemInf ormationBlockType5, 1, tcv_Segs.seg2))		7.
37		[tcv_Segs.segCount = 3]			
38		(tcv_MIB.sibSb_ReferenceList.[5].sibSb_Type .sysInfoType5 := (tcv_MIB.sibSb_ReferenceList.[5].sibSb_Type .sysInfoType5) MOD 4 + 1, tcv_MIB.sibSb_ReferenceList.[5].scheduling := c_SIB5_Schedul3)			
39		+ts_ChangeMIB_ValueTag			
40		+ts_Scheduling(p_CellId, 6, 23, p_Timing)			10.
41		CMAC?CMAC_SYSINFO_Config_CNF	ca_SysInfoCfgCnf(p_CellId, tsc_RB_BCCH)		
42		TM!RLC_TR_DATA_REQ	ca_TR_DataReq(p_CellId, tsc_RB_BCCH, cs_SIB_MsgNoSegment)		6.

		Test Step Dynamic	Behaviour		
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
43		+ts_Scheduling(p_CellId, 6, 19, p_Timing)			3.
44		CMAC?CMAC_SYSINFO_Config _CNF	ca_SysInfoCfgCnf(p_CellId, tsc_RB_BCCH)		
45		TM!RLC_TR_DATA_REQ	ca_TR_DataReq(p_CellId, tsc_RB_BCCH, cs_SIB_MsgFirst(systemInf ormationBlockType5, 3, tcv_Segs.seg1))		4.
46		+ts_Scheduling(p_CellId, 6, 21, p_Timing)			5.
47		CMAC?CMAC_SYSINFO_C onfig_CNF	ca_SysInfoCfgCnf(p_CellId, tsc_RB_BCCH)		
48		TM!RLC_TR_DATA_REQ	ca_TR_DataReq(p_CellId, tsc_RB_BCCH, cs_SIB_MsgSubsequent(sys temInformationBlockType5, 1, tcv_Segs.seg2))		7.
49		+ts_Scheduling(p_CellId, 6, 22, p_Timing)			8.
50		CMAC?CMAC_SYSINF O_Config_CNF	ca_SysInfoCfgCnf(p_CellId, tsc_RB_BCCH)		
51		[LENGTH_OF(tcv_Seg s.seg3) <= 214]			
52		TM!RLC_TR_DATA_ REQ	ca_TR_DataReq(p_CellId, tsc_RB_BCCH, cs_SIB_MsgLastShort(syst emInformationBlockType5, 2, tcv_Segs.seg3))		9.
53		[TRUE]			
54		TM!RLC_TR_DATA_ REQ	ca_TR_DataReq(p_CellId, tsc_RB_BCCH, cs_SIB_MsgLast(systemInf ormationBlockType5, 2, tcv_Segs.seg3))		9.
55		[tcv_Segs.segCount = 4]			
56		(tcv_MIB.sibSb_ReferenceList.[5].sibSb_Type .sysInfoType5 := (tcv_MIB.sibSb_ReferenceList.[5].sibSb_Type .sysInfoType5) MOD 4 + 1, tcv_MIB.sibSb_ReferenceList.[5].scheduling := c_SIB5_Schedul4)			
57		+ts_ChangeMIB_ValueTag			
58 59		+ts_Scheduling(p_CellId, 6, 19, p_Timing) CMAC?CMAC_SYSINFO_Config_CNF	ca_SysInfoCfgCnf(p_CellId, tsc_RB_BCCH)		3.
60		TM!RLC_TR_DATA_REQ	ca_TR_DataReq(p_CellId, tsc_RB_BCCH, cs_SIB_MsgFirst(systemInf ormationBlockType5, 4, tcv_Segs.seg1))		4.
61		<pre>+ts_Scheduling(p_CellId, 6, 21, p_Timing)</pre>			5.
62		CMAC?CMAC_SYSINFO_Config _CNF	ca_SysInfoCfgCnf(p_CellId, tsc_RB_BCCH)		

		Test Step Dynamic	Behaviour		
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
63		TM!RLC_TR_DATA_REQ	ca_TR_DataReq(p_CellId, tsc_RB_BCCH, cs_SIB_MsgSubsequent(sys temInformationBlockType5, 1, tcv_Segs.seg2))		7.
64		+ts_Scheduling(p_CellId, 6, 22, p_Timing)			8.
65		CMAC?CMAC_SYSINFO_C onfig_CNF	ca_SysInfoCfgCnf(p_CellId, tsc_RB_BCCH)		
66		TM!RLC_TR_DATA_REQ	ca_TR_DataReq(p_CellId, tsc_RB_BCCH, cs_SIB_MsgSubsequent(sys temInformationBlockType5, 2, tcv_Segs.seg3))		9.
67		+ts_Scheduling(p_CellId, 6, 23, p_Timing)			10.
68		CMAC?CMAC_SYSINF O_Config_CNF	ca_SysInfoCfgCnf(p_CellId, tsc_RB_BCCH)		
69		[LENGTH_OF(tcv_Seg s.seg4) <= 214]			
70		TM!RLC_TR_DATA_ REQ	ca_TR_DataReq(p_CellId, tsc_RB_BCCH, cs_SIB_MsgLastShort(syst emInformationBlockType5, 3, tcv_Segs.seg4))		11.
71		[TRUE]			
72		TM!RLC_TR_DATA_ REQ	ca_TR_DataReq(p_CellId, tsc_RB_BCCH, cs_SIB_MsgLast(systemInf ormationBlockType5, 3, tcv_Segs.seg4))		11.
		lt_CompleteSIB(p_SIBType : SIB_Type)			
73		[LENGTH_OF(tcv_Segs.seg1) = 226]			
74		TM!RLC_TR_DATA_REQ	ca_TR_DataReq(p_CellId, tsc_RB_BCCH, cs_SIB_MsgCmpl( p_SIBType, tcv_Segs.seg1))		4.
75		[TRUE]			
76		TM!RLC_TR_DATA_REQ	ca_TR_DataReq(p_CellId, tsc_RB_BCCH, cs_SIB_MsgCmplList1( p_SIBType, tcv_Segs.seg1))		4.

- **Detailed Comments**: 1. Unaligned PER encoding of the SIB5 then segmentation.
  - 2. The result of segmentation shall be less that 5 segments for the SIB5 ( current assumption).
  - 3. Send the scheduling info segment to SS. one segment: REP=64, POS=19.
  - 4. Construct the system information message containing the first segment of SIB5 and send it to
  - 5. Send the scheduling info segment to SS. one segment: REP=64, POS=21.
  - 6. Send no segment system information message to SS.
  - 7. Construct the system information message containing the second segment of SIB5 and send it
  - 8. Send the scheduling info to SS. one segment: REP=64, POS=22.
  - 9. Construct thesystem information message containing the third segment of SIB5 and send it to
  - 10. Send the scheduling info to SS. one segment: REP=64, POS=23.
  - 11. Construct the system information message containing the fourth segment of SIB5 and send it to SS.

Test Step Name : ts\_SendSIB6(p\_SIB: SysInfoType6; p\_CellId: INTEGER; p\_Timing: INTEGER)

**Group** : BasicM\_SysInfoHandling\_Steps/Default/

**Objective**: To deliver the SIBType6 to SS

Default : InitOtherwiseFail

Comments : Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		(tcv_Segs :=			1.
		o_SIB_Segmentation(o_SIB_PER_Encoding ( sIB6: p_SIB)))			
2		[tcv_Segs.segCount >4]		1	2.
3		[tcv_Segs.segCount <=4]			
4		[tcv_Segs.segCount = 1]			
5		(tcv_SB1.sib_ReferenceList.[0].sib_Type.sysl nfoType6 :=			
		(tcv_SB1.sib_ReferenceList.[0].sib_Type.sysl			
		nfoType6) MOD 4 + 1, tcv_SB1.sib_ReferenceList.[0].scheduling :=			
		c_SIB6_Schedul1)			
6		+ts_ChangeSB1_ValueTag			
7		+ts_Scheduling(p_CellId, 6, 3, p_Timing)			3.
8		CMAC?CMAC_SYSINFO_Config_CNF	ca_SysInfoCfgCnf(p_CellId, tsc_RB_BCCH)		
9		<pre>+lt_CompleteSIB(systemInformationBl ockType6)</pre>			4.
10		+ts_Scheduling(p_CellId, 6, 5, p_Timing)			5.
11		CMAC?CMAC_SYSINFO_Config _CNF	ca_SysInfoCfgCnf(p_CellId, tsc_RB_BCCH)		
12		TM!RLC_TR_DATA_REQ	ca_TR_DataReq(p_CellId, tsc_RB_BCCH, cs_SIB_MsgNoSegment)		6.
13		+ts_Scheduling(p_CellId, 6, 6, p_Timing)			8.
14		CMAC?CMAC_SYSINFO_C onfig_CNF	ca_SysInfoCfgCnf(p_CellId, tsc_RB_BCCH)		
15		TM!RLC_TR_DATA_REQ	ca_TR_DataReq(p_CellId, tsc_RB_BCCH, cs_SIB_MsgNoSegment)		6.
16		+ts_Scheduling(p_CellId, 6, 7, p_Timing)			10.
17		CMAC?CMAC_SYSINF O_Config_CNF	ca_SysInfoCfgCnf(p_CellId, tsc_RB_BCCH)		
18		TM!RLC_TR_DATA_RE Q	ca_TR_DataReq(p_CellId, tsc_RB_BCCH, cs_SIB_MsgNoSegment)		6.
19		[tcv_Segs.segCount = 2]			
20		<pre>(tcv_SB1.sib_ReferenceList.[0].sib_Type.sysl nfoType6 := (tcv_SB1.sib_ReferenceList.[0].sib_Type.sysl</pre>			
		nfoType6) MOD 4 + 1, tcv_SB1.sib_ReferenceList.[0].scheduling := c_SIB6_Schedul2)			
21		+ts_ChangeSB1_ValueTag			
22		+ts_Scheduling(p_CellId, 6, 6, p_Timing)			8.

		Test Step Dynamic	Behaviour		
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
23		CMAC?CMAC_SYSINFO_Config_CNF	ca_SysInfoCfgCnf(p_CellId, tsc_RB_BCCH)		
24		TM!RLC_TR_DATA_REQ	ca_TR_DataReq(p_CellId, tsc_RB_BCCH, cs_SIB_MsgNoSegment)		6.
25		<pre>+ts_Scheduling(p_CellId, 6, 7, p_Timing)</pre>			10.
26		CMAC?CMAC_SYSINFO_Config _CNF	ca_SysInfoCfgCnf(p_CellId, tsc_RB_BCCH)		
27		TM!RLC_TR_DATA_REQ	ca_TR_DataReq(p_CellId, tsc_RB_BCCH, cs_SIB_MsgNoSegment)		6.
28		+ts_Scheduling(p_CellId, 6, 3, p_Timing)			3.
29		CMAC?CMAC_SYSINFO_C onfig_CNF	ca_SysInfoCfgCnf(p_CellId, tsc_RB_BCCH)		
30		TM!RLC_TR_DATA_REQ	ca_TR_DataReq(p_CellId, tsc_RB_BCCH, cs_SIB_MsgFirst(systemInf ormationBlockType6, 2, tcv_Segs.seg1))		4.
31		+ts_Scheduling(p_CellId, 6, 5, p_Timing)			5.
32		CMAC?CMAC_SYSINF O_Config_CNF	ca_SysInfoCfgCnf(p_CellId, tsc_RB_BCCH)		
33		[LENGTH_OF(tcv_Seg s.seg2) <= 214]			
34		TM!RLC_TR_DATA_ REQ	ca_TR_DataReq(p_CellId, tsc_RB_BCCH, cs_SIB_MsgLastShort(syst emInformationBlockType6, 1, tcv_Segs.seg2))		7.
35		[TRUE]			
36		TM!RLC_TR_DATA_ REQ	ca_TR_DataReq(p_CellId, tsc_RB_BCCH, cs_SIB_MsgLast(systemInf ormationBlockType6, 1, tcv_Segs.seg2))		7.
37		[tcv_Segs.segCount = 3]			
38		(tcv_SB1.sib_ReferenceList.[0].sib_Type.sysl nfoType6 := (tcv_SB1.sib_ReferenceList.[0].sib_Type.sysl nfoType6) MOD 4 + 1, tcv_SB1.sib_ReferenceList.[0].scheduling := c_SIB6_Schedul3)			
39		+ts_ChangeSB1_ValueTag			
40		+ts_Scheduling(p_CellId, 6, 7, p_Timing)			10.
41		CMAC?CMAC_SYSINFO_Config_CNF	ca_SysInfoCfgCnf(p_CellId, tsc_RB_BCCH)		
42		TM!RLC_TR_DATA_REQ	ca_TR_DataReq(p_CellId, tsc_RB_BCCH, cs_SIB_MsgNoSegment)		6.
43		<pre>+ts_Scheduling(p_CellId, 6, 3, p_Timing)</pre>			3.

		Test Step Dynamic	Behaviour		
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
44		CMAC?CMAC_SYSINFO_Config _CNF	ca_SysInfoCfgCnf(p_CellId, tsc_RB_BCCH)		
45		TM!RLC_TR_DATA_REQ	ca_TR_DataReq(p_CellId, tsc_RB_BCCH, cs_SIB_MsgFirst(systemInf ormationBlockType6, 3, tcv_Segs.seg1))		4.
46		+ts_Scheduling(p_CellId, 6, 5, p_Timing)			5.
47		CMAC?CMAC_SYSINFO_C onfig_CNF	ca_SysInfoCfgCnf(p_CellId, tsc_RB_BCCH)		
48		TM!RLC_TR_DATA_REQ	ca_TR_DataReq(p_CellId, tsc_RB_BCCH, cs_SIB_MsgSubsequent(sys temInformationBlockType6, 1, tcv_Segs.seg2))		7.
49		+ts_Scheduling(p_CellId, 6, 6, p_Timing)			8.
50		CMAC?CMAC_SYSINF O_Config_CNF	ca_SysInfoCfgCnf(p_CellId, tsc_RB_BCCH)		
51		[LENGTH_OF(tcv_Seg s.seg3) <= 214]			
52		TM!RLC_TR_DATA_ REQ	ca_TR_DataReq(p_CellId, tsc_RB_BCCH, cs_SIB_MsgLastShort(syst emInformationBlockType6, 2, tcv_Segs.seg3))		9.
53		[TRUE]			
54		TM!RLC_TR_DATA_ REQ	ca_TR_DataReq(p_CellId, tsc_RB_BCCH, cs_SIB_MsgLast(systemInf ormationBlockType6, 2, tcv_Segs.seg3))		9.
55		[tcv_Segs.segCount = 4]			
56		(tcv_SB1.sib_ReferenceList.[0].sib_Type.sysl			
		<pre>nfoType6 :=   (tcv_SB1.sib_ReferenceList.[0].sib_Type.sysl   nfoType6) MOD 4 + 1,   tcv_SB1.sib_ReferenceList.[0].scheduling :=   c_SIB6_Schedul4)</pre>			
57		+ts_ChangeSB1_ValueTag			
58		+ts_Scheduling(p_CellId, 6, 3, p_Timing)			3.
59		CMAC?CMAC_SYSINFO_Config_CNF	ca_SysInfoCfgCnf(p_CellId, tsc_RB_BCCH)		
60		TM!RLC_TR_DATA_REQ	ca_TR_DataReq(p_CellId, tsc_RB_BCCH, cs_SIB_MsgFirst(systemInf ormationBlockType6, 4, tcv_Segs.seg1))		4.
61		+ts_Scheduling(p_CellId, 6, 5, p_Timing)			5.
62		CMAC?CMAC_SYSINFO_Config _CNF	ca_SysInfoCfgCnf(p_CellId, tsc_RB_BCCH)		

		Test Step Dynamic	Behaviour		
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
63		TM!RLC_TR_DATA_REQ	ca_TR_DataReq(p_CellId, tsc_RB_BCCH, cs_SIB_MsgSubsequent(sys temInformationBlockType6, 1, tcv_Segs.seg2))		7.
64		+ts_Scheduling(p_CellId, 6, 6, p_Timing)			5.
65		CMAC?CMAC_SYSINFO_C onfig_CNF	ca_SysInfoCfgCnf(p_CellId, tsc_RB_BCCH)		
66		TM!RLC_TR_DATA_REQ	ca_TR_DataReq(p_CellId, tsc_RB_BCCH, cs_SIB_MsgSubsequent(sys temInformationBlockType6, 2, tcv_Segs.seg3))		7.
67		+ts_Scheduling(p_CellId, 6, 7, p_Timing)			10.
68		CMAC?CMAC_SYSINF O_Config_CNF	ca_SysInfoCfgCnf(p_CellId, tsc_RB_BCCH)		
69		[LENGTH_OF(tcv_Seg s.seg4) <= 214]			
70		TM!RLC_TR_DATA_ REQ	ca_TR_DataReq(p_CellId, tsc_RB_BCCH, cs_SIB_MsgLastShort(syst emInformationBlockType6, 3, tcv_Segs.seg4))		11.
71		[TRUE]			
72		TM!RLC_TR_DATA_ REQ	ca_TR_DataReq(p_CellId, tsc_RB_BCCH, cs_SIB_MsgLast(systemInf ormationBlockType6, 3, tcv_Segs.seg4))		11.
		lt_CompleteSIB(p_SIBType : SIB_Type)			
73		[LENGTH_OF(tcv_Segs.seg1) = 226]			
74		TM!RLC_TR_DATA_REQ	ca_TR_DataReq(p_CellId, tsc_RB_BCCH, cs_SIB_MsgCmpl( p_SIBType, tcv_Segs.seg1))		4.
75		[TRUE]			
76		TM!RLC_TR_DATA_REQ	ca_TR_DataReq(p_CellId, tsc_RB_BCCH, cs_SIB_MsgCmplList1( p_SIBType, tcv_Segs.seg1))		4.

- **Detailed Comments**: 1. Unaligned PER encoding of the SIB6 then segmentation.
  - 2. The result of segmentation shall be one or two or three or four segments for the SIB6 ( current assumption).
  - 3. Send the scheduling info to SS. one segment: REP=64, POS=3.
  - 4. Construct the system information message containing the first segment of SIB6 and send it to SS.
  - 5. Send the scheduling infot to SS. one segment: REP=64, POS=5.
  - 6. Send no segment system information message to SS.
  - 7. Construct the system information message containing the second segment of SIB6 and send it to SS.
  - 8. Send the scheduling info to SS. one segment: REP=64, POS=6.
  - 9. Construct the system information message containing the third segment of SIB6 and send it to
  - 10. Send the scheduling info to SS. one segment: REP=64, POS=7.
  - 11. Construct the system information message containing the fourth segment of SIB6 and send it to SS.

 $\textbf{Test Step Name} \quad : \ ts\_SendSIB7(p\_SIB: \ SysInfoType7; \ p\_CellId: \ INTEGER; \ p\_Timing: \ INTEGER)$ 

**Group**: BasicM\_SysInfoHandling\_Steps/Default/

**Objective**: To deliver the SIB7 to SS

Default : InitOtherwiseFail

Comments : single SIB7 or concatenated with SIB3 or SIB4 or SIB18, default scheduling described in 3GPP TS

34.123-3 clause 8.4.3

Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		(tcv_Segs := o_SIB_Segmentation(o_SIB_PER_Encoding ( sIB7 : p_SIB)), tcv_SIB7 := p_SIB)			1.
2		[tcv_Segs.segCount <>1]		1	2.
3		[tcv_Segs.segCount =1]			
4		+ts_Scheduling(p_CellId, 6, 2, p_Timing)			3.
5		CMAC?CMAC_SYSINFO_Config_CNF	ca_SysInfoCfgCnf(p_CellId, tsc_RB_BCCH)		
6		+lt_CompleteSIB(systemInformationBlockTy pe7)			4.
7		+lt_ConcatWithSIB3			
8		+lt_ConcatWithSIB18			
9		+lt_ConcatWithSIB4			
		It_CompleteSIB(p_SIBType : SIB_Type)			
10		[LENGTH_OF(tcv_Segs.seg1) = 226]			
11		TM!RLC_TR_DATA_REQ	ca_TR_DataReq(p_CellId, tsc_RB_BCCH, cs_SIB_MsgCmpl( p_SIBType, tcv_Segs.seg1))		4.
12		[TRUE]	p_0.2 . ) po; tot_00g0.00g . //		
13		TM!RLC_TR_DATA_REQ	ca_TR_DataReq(p_CellId, tsc_RB_BCCH, cs_SIB_MsgCmplList1( p_SIBType, tcv_Segs.seg1))		4.
		It_ConcatWithSIB3			
14		<pre>(tcv_Segs.seg1 := o_SIB_PER_Encoding ( sIB7 : p_SIB), tcv_Segs.seg2 := o_SIB_PER_Encoding ( sIB3 : tcv_SIB3))</pre>			5.
15		[(LENGTH_OF(tcv_Segs.seg1) + LENGTH_OF(tcv_Segs.seg2)) >201]		I	6.
16		[TRUE]			
17		+ts_Scheduling(p_CellId, 6, 10, p_Timing)			7.
18		CMAC?CMAC_SYSINFO_Config_CNF	ca_SysInfoCfgCnf(p_CellId, tsc_RB_BCCH)		
19		TM!RLC_TR_DATA_REQ	ca_TR_DataReq(p_CellId, tsc_RB_BCCH, cs_SIB_MsgCmplList2( systemInformationBlockType 7, tcv_Segs.seg1, systemInformationBlockType 3, tcv_Segs.seg2))		8.
		It_ConcatWithSIB18			
20		( tcv_Segs.seg2 := o_SIB_PER_Encoding ( sIB18 : tcv_SIB18))			9.

		Test Step Dynamic	Behaviour		
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
21		[(LENGTH_OF(tcv_Segs.seg1) + LENGTH_OF(tcv_Segs.seg2)) >201]		I	10.
22		[TRUE]			
23		+ts_Scheduling(p_CellId, 6, 18, p_Timing)			11.
24		CMAC?CMAC_SYSINFO_Config_CNF	ca_SysInfoCfgCnf(p_CellId, tsc_RB_BCCH)		
25		TM!RLC_TR_DATA_REQ	ca_TR_DataReq(p_CellId, tsc_RB_BCCH, cs_SIB_MsgCmplList2( systemInformationBlockType 7, tcv_Segs.seg1, systemInformationBlockType 18, tcv_Segs.seg2))		12.
		It_ConcatWithSIB4			
26		( tcv_Segs.seg2 := o_SIB_PER_Encoding ( sIB4 : tcv_SIB4))			13.
27		[(LENGTH_OF(tcv_Segs.seg1) + LENGTH_OF(tcv_Segs.seg2)) >201]		I	14.
28		[TRUE]			
29		+ts_Scheduling(p_CellId, 6, 26, p_Timing)			15.
30		CMAC?CMAC_SYSINFO_Config_CNF	ca_SysInfoCfgCnf(p_CellId, tsc_RB_BCCH)		
31		TM!RLC_TR_DATA_REQ	ca_TR_DataReq(p_CellId, tsc_RB_BCCH, cs_SIB_MsgCmplList2( systemInformationBlockType 7, tcv_Segs.seg1, systemInformationBlockType 4, tcv_Segs.seg2))		16.

- Detailed Comments: 1. save the new value of SIB7, unaligned PER encoding of the SIB7 then segmentation.
  - 2. The result of segmentation shall be one segment for the SIB7 (current assumption).
  - 3. Send the scheduling info to SS. one segment: REP=64, POS=2.
  - 4. Construct the system information message containing SIB7 and send it to SS.
  - 5. unaligned PER encoding of the SIB7 and SIB3.
  - 6. concateneted SIB7 and SIB3 is too long.
  - 7. Send the scheduling info to SS. one segment: REP=64, POS=10.
  - 8. Construct the system information message containing SIB7 + SIB3 and send it to SS.
  - 9. unaligned PER encoding of the SIB18.
  - 10. concatenated SIB7 and SIB18 is too long.
  - 11. Send the scheduling info to SS. one segment: REP=64, POS=18.
  - 12. Construct the system information message containing SIB7 + SIB18 and send it to SS.
  - 13. unaligned PER encoding of the SIB4.
  - 14. concatenated SIB7 and SIB4 is too long.
  - 15. Send the scheduling info to SS. one segment: REP=64, POS=26.
  - 16. Construct the system information message containing SIB7 + SIB4 and send it to SS.

In system information broadcasting, SIB7 is concatinated with SIB3, SIB4, and SIB18, the assignment tcv\_SIB7 := p\_SIB in line 1 is to provide a communication mechanism between ts\_SendSIB7 and ts\_SendSIB4, ts\_SendSIB3, ts\_SendSIB18. Normally the ts\_SendSIB7 is called in the preamble part of the test case to establish the default system information broadcasting. If in the test body the contents of SIB7 need be changed and afterards SIB3 or SIB4 or SIB18 needs also be changed, the ts\_SendSIB7 will be called again with a new SIB7 value and ts\_SendSIB3 or ts\_SendSIB4 or ts\_SendSIB18 will also be called again with new SIB value, in the new call of ts\_SendSIB3 or ts\_SendSIB4 or ts\_SendSIB18 new SIB7 value, which was used in the new call of ts\_SendSIB7, shall be used. the assignment tcv\_SIB7 := p\_SIB in line 1 is to provide this new value for ts\_SendSIB3 or ts\_SendSIB4 or ts\_SendSIB18.

 $\textbf{Test Step Name} \quad : \ \, \text{ts\_CellDependentPara} \ \, ( \ \, \text{p\_CellID} : \text{INTEGER} \, )$ 

Group : BasicM\_SysInfoHandling\_Steps/
Objective : To set cell dependent parameters

Default : InitOtherwiseFail

Comments : Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+ ts_SetTmpCellInfo ( p_CellID )			
2		[p_CellID = tsc_CellA ]			
3		(tcv_SIB3.cellIdentity := tsc_CellIdCellA, tcv_SIB4.cellIdentity := tsc_CellIdCellA)			
4		[p_CellID = tsc_CellB]			
5		(tcv_SIB3.cellIdentity := tsc_CellIdCellB, tcv_SIB4.cellIdentity := tsc_CellIdCellB)			
6		[p_CellID = tsc_CellC]			
7		(tcv_SIB3.cellIdentity := tsc_CellIdCellC, tcv_SIB4.cellIdentity := tsc_CellIdCellC)			
8		[p_CellID = tsc_CellD]			
9		(tcv_SIB3.cellIdentity := tsc_CellIdCellD, tcv_SIB4.cellIdentity := tsc_CellIdCellD)			
10		[p_CellID = tsc_CellE]			
11		(tcv_SIB3.cellIdentity := tsc_CellIdCellE, tcv_SIB4.cellIdentity := tsc_CellIdCellE)			
12		[p_CellID = tsc_CellF]			
13		(tcv_SIB3.cellIdentity := tsc_CellIdCellF, tcv_SIB4.cellIdentity := tsc_CellIdCellF)			
14		[p_CellID = tsc_CellG]			
15		(tcv_SIB3.cellIdentity := tsc_CellIdCellG, tcv_SIB4.cellIdentity := tsc_CellIdCellG)			
16		[p_CellID = tsc_CellH]			
17		(tcv_SIB3.cellIdentity := tsc_CellIdCellH, tcv_SIB4.cellIdentity := tsc_CellIdCellH)			
18		[TRUE]		I	no such cell

Detailed Comments :

Test Step Name : ts\_ChangeMIB\_ValueTag

Group : BasicM\_SysInfoHandling\_Steps/

**Objective**: To increment MIBValueTag if tcv\_MIB\_ValueTagChanged = FALSE.

Default : InitOtherwiseFail

Comments : Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		[tcv_MIB_ValueTagChanged = FALSE]			
2		( tcv_MIB.mib_ValueTag := ( tcv_MIB.mib_ValueTag) MOD 8 + 1, tcv_MIB_ValueTagChanged := TRUE)			
3		[tcv_MIB_ValueTagChanged = TRUE]			

**Detailed Comments:** 

## **Test Step Dynamic Behaviour**

Test Step Name : ts\_ChangeSB1\_ValueTag

Group : BasicM\_SysInfoHandling\_Steps/

**Objective**: To increment SB1ValueTag if tcv\_SB1\_ValueTagChanged = FALSE.

Default : InitOtherwiseFail

Comments : Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		[tcv_SB1_ValueTagChanged = FALSE]			
2		(tcv_SB1_ValueTag := (tcv_MIB.sibSb_ReferenceList.[0].sibSb_Type.sy sInfoTypeSB1) MOD 4 + 1, tcv_MIB.sibSb_ReferenceList.[0].sibSb_Type.sys InfoTypeSB1 := tcv_SB1_ValueTag, tcv_SB1_ValueTagChanged := TRUE)			
3		+ts_ChangeMIB_ValueTag			
4		[TRUE]			

**Detailed Comments:** 

 $\textbf{Test Step Name} \quad \textbf{:} \ \, \text{ts\_Scheduling}(p\_CellId: \ \, \text{INTEGER}; \ p\_REP: \ \, \text{INTEGER}; \ p\_POS: \ \, \text{INTEGER}; \ p\_Timing: \ \, \text{INTEGER})$ 

**Group** : BasicM\_SysInfoHandling\_Steps/

Objective :

Default : InitOtherwiseFail

Comments : Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		(tcv_BCCH_ModifyTime := p_Timing)			
2		[p_Timing >= 512]			
3		CMAC!CMAC_SYSINFO_Config_REQ	ca_SchedulNow ( p_CellId, p_REP, p_POS )		
4		[p_Timing <= 511]			
5		CMAC!CMAC_SYSINFO_Config_REQ	ca_SchedulLater(p_CellId, p_REP, p_POS, p_Timing)		

**Detailed Comments:** 

**Test Step Name**: ts\_SendMIB(p\_MIB: MasterInformationBlock; p\_CellId : INTEGER; p\_Timing: INTEGER)

Group : BasicM\_SysInfoHandling\_Steps/

Objective : To deliver the MIB to SS

Default : InitOtherwiseFail

Comments Description

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+ ts_SetTmpCellInfo ( p_CellId )			
2		( tcv_MIB.plmn_Type.gsm_MAP.plmn_Identity.mc c := o_HexToDigitsMCC ( tcv_TmpCellInfo.mcc),			
		tcv_MIB.plmn_Type.gsm_MAP.plmn_Identity.mn c := o_HexToDigitsMNC ( tcv_TmpCellInfo.mnc )			
3		<pre>(tcv_Segs :=   o_SIB_Segmentation(o_SIB_PER_Encoding (   mIB : tcv_MIB)))</pre>			1.
4		[tcv_Segs.segCount <>1]		1	2.
5		[tcv_Segs.segCount =1]			
6		+ts_Scheduling(p_CellId, 3, 0, p_Timing)			3.
7		CMAC?CMAC_SYSINFO_Config_CNF	ca_SysInfoCfgCnf (p_CellId, tsc_RB_BCCH)		
8		+lt_CompleteSIB(masterInformationBloc k)			4.
9		(tcv_MIB_ValueTagChanged := FALSE)			
		lt_CompleteSIB(p_SIBType : SIB_Type)			
10		[LENGTH_OF(tcv_Segs.seg1) = 226]			
11		TM!RLC_TR_DATA_REQ	ca_TR_DataReq(p_CellId, tsc_RB_BCCH, cs_SIB_MsgCmpl ( p_SIBType, tcv_Segs.seg1))		4.
12		[TRUE]			
13		TM!RLC_TR_DATA_REQ	ca_TR_DataReq(p_CellId, tsc_RB_BCCH, cs_SIB_MsgCmplList1( p_SIBType, tcv_Segs.seg1))		4.

- **Detailed Comments**: 1. Unaligned PER encoding of the MIB then segmentation.
  - 2. The result of segmentation shall be one segment for the MIB ( current assumption).
  - 3. Send the scheduling info to SS.(one segment; REP=8; POS=0)
  - 4. Construct the system information message containing MIB and sent to SS.

 $\begin{array}{c} \textbf{Test Step Name} & : \ ts\_SendSysInfoChangeInd\_InFACHConfig(\\ & p\_CellId:INTEGER; \end{array}$ 

p\_mib\_valuetag: MIB\_ValueTag

Group : BasicM\_SysInfoHandling\_Steps/

Objective : Transmit System Information change indication message with IE "BCCH modification info" on the

BCCH, to inform UE the change of System Information.

Default : InitOtherwiseFail

Comments Description

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+ ts_SetTmpCellInfo ( p_CellId )			
2		[ (tcv_TmpCellInfo.cellConfig = cell_FACH) OR (tcv_TmpCellInfo.cellConfig = cell_FACH_NoConn) OR (tcv_TmpCellInfo.cellConfig = cell_FACH_PS) OR (tcv_TmpCellInfo.cellConfig = cell_FACH_PS) OR (tcv_TmpCellInfo.cellConfig = cell_FACH_2_PRACH_NoConn) OR (tcv_TmpCellInfo.cellConfig = cell_FACH_2_PRACH) OR (tcv_TmpCellInfo.cellConfig = cell_FACH_BMC) OR (tcv_TmpCellInfo.cellConfig = cell_FACH_BMC) OR (tcv_TmpCellInfo.cellConfig = cell_FACH_2SCCPCH_StandAlonePCH_NoConn) OR (tcv_TmpCellInfo.cellConfig = cell_FACH_2SCCPCH_4_FACH_Cnfg1_NoConn) OR (tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_4_FACH_Cnfg1) OR (tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_4_FACH_Cnfg2_NoConn) OR (tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_4_FACH_Cnfg2) OR (tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_4_FACH_Cnfg2) OR (tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_3_FACH_CTCH_NoConn) OR (tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_3_FACH_CTCH_NoConn) OR (tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_3_FACH_CTCH) OR (tcv_TmpCellInfo.cellConfig = cell_FACH_3_SCCPCH_3_FACH_CTCH_NoConn) [			If BCCH on FACH is configur ed then send System info change indicatio n

		Test Step Dynan	nic Behaviour		
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
3		TM!RLC_TR_DATA_REQ	cas_SysInfoChangeInd (     p_CellId,     tsc_RB_BCCH_FACH,     cs_SysInfoChangeInd (         p_mib_valuetag     ) )		SS sends SYSTE M INFORM ATION CHANG E INDICA TION message containi ng IE "BCCH modifica tion info"on the BCCH to inform UE the change of system informati on. do nothing
Deta	iled Com	ments :			

Test Step Name : ts\_SendPage1\_ModifySI (

p\_CellId:INTEGER;

p\_mib\_valuetag: MIB\_ValueTag

)

Group : BasicM\_SysInfoHandling\_Steps/

Objective : Transmit Paging Type 1 with IE "BCCH modification info" on the PCCH, to informed UE the change

of System Information. and Transmit System Information change indication message with IE "BCCH

modification info" on the BCCH, to inform UE the change of System Information.

Default : InitOtherwiseFail

Comments : Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+ts_RRC_Delay(tsc_WaitBeforePaging)			Give delay before paging type1
2		+ts_CMAC_Pag1_Cfg(p_CellId)			
3		TM!RLC_TR_DATA_REQ	cas_PagingType1 (     p_CellId,     tsc_RB_PCCH,  cs_RRC_PagingType1_Modi fySI (     p_mib_valuetag     ) )		SS sends PAGING TYPE1 message containi ng IE "BCCH modifica tion info"on the PCCH to inform UE the change of system informati on.
4		+ts_SendSysInfoChangeInd_InFACHConfig( p_CellId, p_mib_valuetag)			

**Detailed Comments:** 

Test Step Name : ts\_UTRAN\_GERAN\_ParaInit ( p\_CellId: INTEGER )

Group : BasicM\_SysInfoHandling\_Steps/

**Objective**: Initialize default parameters for different region

Default : InitOtherwiseFail

Comments : currently only UTRAN and UTRAN/GERAN are defined

Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		+ ts_SetTmpCellInfo ( p_CellId )			
2		[px_UTRAN_GERAN = "UTRAN and GERAN"]			
3		(tcv_SIB3 := cb_SIB3_DefUTRAN_GERAN ( tcv_TmpCellInfo), tcv_SIB4 := cb_SIB4_DefUTRAN_GERAN ( tcv_TmpCellInfo))			
4		[px_UTRAN_GERAN = "UTRAN only"]			
5		(tcv_SIB3 := cb_SIB3_DefUTRAN ( tcv_TmpCellInfo), tcv_SIB4 := cb_SIB4_DefUTRAN ( tcv_TmpCellInfo))			
6		[TRUE]		I	

**Detailed Comments:** 

Test Step Name : ts\_TC\_ActivateRB\_TestMode (p\_CellId: INTEGER )

Group : BasicM\_TC\_Steps/

Objective : Activate UE radio bearer test mode.

Default : NAS\_OtherwiseFailActRB\_TM

Comments : tcv\_TestModeActivated is assigned to TRUE to keep track that RB test mode has been activated

during the test case; to be used in the postamble.

Description :

**Detailed Comments:** 

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		[ tcv_CN_Domain = cs_domain ]			
2		Dc!RRC_DataReq START t_Dly (tsc_TT01)	ca_DataReq ( tsc_CellDedicated, tsc_RB3, c_ActivateRB_TestMode )		
3	TSP1	Dc?RRC_DataInd CANCEL t_Dly	car_UplinkDirectTransfer ( tsc_CellDedicated, tsc_RB3, c_ActivateRB_TestModeCm pl)	(P)	
4		( tcv_RB_TestModeActivated := TRUE )			1.
5	TSF1	?TIMEOUT t_Dly		(F)	no
					answer received
6		[ tcv_CN_Domain = ps_domain ]			
7		Dc!RRC_DataReq START t_Dly (tsc_TT01)	ca_PS_DataReq ( tsc_CellDedicated, tsc_RB3, c_ActivateRB_TestMode)		
8	TSP2	Dc?RRC_DataInd CANCEL t_Dly	car_PS_UplinkDirectTransfe r ( tsc_CellDedicated, tsc_RB3, c_ActivateRB_TestModeCm pl)	(P)	
9		( tcv_RB_TestModeActivated := TRUE )			1.
10	TSF2	?TIMEOUT t_Dly		(F)	no
					answer
					received

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 $\begin{tabular}{ll} \textbf{Test Step Name} &: ts\_TC\_CloseUE\_TestLoop(p\_CellId: INTEGER; p\_UE\_TestLoopMode: UE\_TestLoopMode: UE\_TestLoopMode: UE\_TestLoopMode1LB\_Setup) \\ \end{tabular}$ 

Group : BasicM\_TC\_Steps/ Objective : Close UE test loop Default : NAS\_OtherwiseFail

Comments Description

**Detailed Comments:** 

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		[ tcv_CN_Domain = cs_domain ]			
2		Dc!RRC_DataReq START t_Dly (tsc_TT01)	ca_DataReq( tsc_CellDedicated, tsc_RB3,c_CloseUE_TestLo op(p_UE_TestLoopMode, p_UE_TestLoopMode1LB_ Setup))		
3	TSP1	Dc?RRC_DataInd CANCEL t_Dly	car_UplinkDirectTransfer ( tsc_CellDedicated, tsc_RB3, c_CloseUE_TestLoopCmpl )	(P)	
4	TSF1	?TIMEOUT t_Dly		(F)	no answer received
5		[ tcv_CN_Domain = ps_domain ]			
6		Dc!RRC_DataReq START t_Dly (tsc_TT01)	ca_PS_DataReq( tsc_CellDedicated, tsc_RB3,c_CloseUE_TestLo op(p_UE_TestLoopMode, p_UE_TestLoopMode1LB_ Setup))		
7	TSP2	Dc?RRC_DataInd CANCEL t_Dly	car_PS_UplinkDirectTransfe r ( tsc_CellDedicated, tsc_RB3, c_CloseUE_TestLoopCmpl )	(P)	
8	TSF2	?TIMEOUT t_Dly		(F)	no answer received

Test Step Name : ts\_TC\_DeactivateRB\_TestMode(p\_CellId: INTEGER )

Group : BasicM\_TC\_Steps/

**Objective**: Deactivate UE radio bearer test mode

Default : NAS\_OtherwiseFail

Comments : Description :

SP1	[ tcv_CN_Domain = cs_domain ]  Dc!RRC_DataReq START t_Dly (tsc_TT01)  Dc?RRC_DataInd CANCEL t_Dly  ?TIMEOUT t_Dly	ca_DataReq( tsc_CellDedicated, tsc_RB3,c_DeactivateRB_Te stMode) car_UplinkDirectTransfer ( tsc_CellDedicated, tsc_RB3, c_DeactivateRB_TestModeC mpl )	(P)	
	Dc?RRC_DataInd CANCEL t_Dly	tsc_CellDedicated, tsc_RB3,c_DeactivateRB_Te stMode) car_UplinkDirectTransfer ( tsc_CellDedicated, tsc_RB3, c_DeactivateRB_TestModeC		
	,	tsc_CellDedicated, tsc_RB3, c_DeactivateRB_TestModeC		
SF1	?TIMEOUT t_Dly		/ <b>-</b> \	
			(F)	no answer received
	[ tcv_CN_Domain = ps_domain ]			
	Dc!RRC_DataReq START t_Dly (tsc_TT01)	ca_PS_DataReq( tsc_CellDedicated, tsc_RB3,c_DeactivateRB_Te stMode)		
SP2	Dc?RRC_DataInd CANCEL t_Dly	car_PS_UplinkDirectTransfe r ( tsc_CellDedicated, tsc_RB3, c_DeactivateRB_TestModeC mpl )	(P)	
SF2	?TIMEOUT t_Dly		(F)	no answer received
S	F2	P2 Dc?RRC_DataInd CANCEL t_Dly	tsc_CellDedicated, tsc_RB3,c_DeactivateRB_Te stMode)  car_PS_UplinkDirectTransfe r (tsc_CellDedicated, tsc_RB3, c_DeactivateRB_Te stMode)  car_PS_UplinkDirectTransfe r (tsc_CellDedicated, tsc_RB3, c_DeactivateRB_TestModeC mpl )	tsc_CellDedicated, tsc_RB3,c_DeactivateRB_Te stMode)  car_PS_UplinkDirectTransfe r (tsc_CellDedicated, tsc_RB3, c_DeactivateRB_Te stMode)  (P) r (tsc_CellDedicated, tsc_RB3, c_DeactivateRB_TestModeC mpl )  (F)

## **Test Step Dynamic Behaviour**

Test Step Name : ts\_AT\_TriggerGMM\_Attach

Group : BasicM\_UT\_Steps/

Objective : Trigger UE to start GMM Attach procedure via AT command +CGATT

**Default**: UT\_OtherwiseFail

**Comments**: (see 3GPP 27.007 / 10.1.9)

Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments		
1		Ut!AT_CmdReq	ca_AT_CmdReq ( "AT+CGATT=1 <cr>")</cr>				
2		Ut ? AT_CmdCnf	ca_AT_CmdCnf				
Detailed Comments							

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Test Step Name : ts\_MMI\_UE\_PwrOff
Group : BasicM\_UT\_Steps/

**Objective**: To make the operator power off the UE

Default : UT\_OtherwiseFail

Comments : Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		[ tcv_UE_SwitchedOn = TRUE]			UE is ON
2		Ut!MMI_CmdReq	ca_MMI_CmdReq ( "Please power off the UE")		
3		Ut ? MMI_CmdCnf	ca_MMI_CmdCnf		
4		( tcv_UE_SwitchedOn := FALSE)			UE is now OFF
5		[ TRUE]			UE is Already OFF

**Detailed Comments:** 

## **Test Step Dynamic Behaviour**

Test Step Name : ts\_MMI\_UE\_PwrOn
Group : BasicM\_UT\_Steps/

**Objective**: To make the operator power on the UE

Default : UT\_OtherwiseFail

Comments : Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments		
1		[ tcv_UE_SwitchedOn = FALSE]			UE is OFF		
2		Ut! MMI_CmdReq	ca_MMI_CmdReq ( "Please power on the UE")				
3		Ut ? MMI_CmdCnf	ca_MMI_CmdCnf				
4		( tcv_UE_SwitchedOn := TRUE)			UE is now ON		
5		[ TRUE]			UE is Already ON		
Deta	Detailed Comments :						

Test Step Name : ts\_MMI\_UE\_SwitchOff
Group : BasicM\_UT\_Steps/

**Objective**: To make the operator switch off the UE

Default : UT\_OtherwiseFail

Comments : Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		[ tcv_UE_SwitchedOn = TRUE]			UE is ON
2		Ut!MMI_CmdReq	ca_MMI_CmdReq ( "Please switch off the UE")		
3		Ut ? MMI_CmdCnf	ca_MMI_CmdCnf		
4		( tcv_UE_SwitchedOn := FALSE)			UE is now OFF
5		[ TRUE]			UE is Already OFF

**Detailed Comments:** 

## **Test Step Dynamic Behaviour**

Test Step Name : ts\_MMI\_UE\_SwitchOn
Group : BasicM\_UT\_Steps/

**Objective**: To make the operator switch on the UE

Default : UT\_OtherwiseFail

Comments :

Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments		
1		[ tcv_UE_SwitchedOn = FALSE]			UE is OFF		
2		Ut!MMI_CmdReq	ca_MMI_CmdReq ( "Please switch on the UE")				
3		Ut ? MMI_CmdCnf	ca_MMI_CmdCnf				
4		( tcv_UE_SwitchedOn := TRUE)			UE is now ON		
5		[ TRUE]			UE is Already ON		
Deta	Detailed Comments :						

Test Step Name : ts\_MMI\_USIM\_Insert
Group : BasicM\_UT\_Steps/

Objective : To make the operator insert the USIM card

Default : UT\_OtherwiseFail

Comments : Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments			
1		Ut! MMI_CmdReq	ca_MMI_CmdReq ( "Please insert the USIM card into the UE")					
2		Ut ? MMI_CmdCnf	ca_MMI_CmdCnf					
Deta	Detailed Comments :							

## Test Step Dynamic Behaviour

Test Step Name : ts\_MMI\_USIM\_Remove
Group : BasicM\_UT\_Steps/

**Objective**: To make the operator remove the USIM card

Default : UT\_OtherwiseFail

Comments : Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments			
1		Ut! MMI_CmdReq	ca_MMI_CmdReq ( "Please remove the USIM card from the UE")					
2		Ut ? MMI_CmdCnf	ca_MMI_CmdCnf					
Deta	Detailed Comments :							

Default Name : InitOtherwiseFail
Group : Init\_Defaults/

Objective :

Comments : Handle any irrelevant sync/outsync indications during cell setup

Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		CPHY?CPHY_Sync_IND	ca_SyncInd (?)		
2		RETURN			
3		CPHY?CPHY_Out_of_Sync_IND	ca_OutOfSyncInd (?)		
4		RETURN			
5		CRLC?CRLC_Integrity_Failure_IND	car_CRLC_IntegrityFail		
6	DFF1	[ tcv_CellIndInfo.integrityStarted ]		(F)	
7		RETURN			
8		[ NOT tcv_CellIndInfo.integrityStarted ]			
9		RETURN			
10		?TIMEOUT			
11		[ tcv_TestBody = FALSE ]			
12	DFI8	CANCEL		(I)	
13		[ tcv_TestBody = TRUE ]			
14	DFF8	CANCEL		(F)	

Detailed Comments :

Default Name : NAS\_OtherwiseFail
Group : NAS\_Defaults/

**Objective**: To match unexpected events and fail the test case.

Comments : Description :

-	Labol	Robaviour Description	Constraints Ref	Vordict	Comments
Nr	Label	Behaviour Description	Constraints Ref	Verdict	
1 2		?TIMEOUT t_Guard Ut! MMI_CmdReq	ca_MMI_CmdReq ( "The guard timer has run out. Please take appropriate measures")		1. 4.
3		Ut ? MMI_CmdCnf	ca_MMI_CmdCnf		
4	5514	[ tcv_TestBody = FALSE ]		(1)	
5	DFI1	CANCEL		(1)	
6	DEE4	[ tcv_TestBody = TRUE ]		(F)	
7	DFF1	CANCEL	DO INTERNATIONAL	(F)	
8		Dc ? RRC_DataInd[tcv_MM_TestExecution]	car_PS_InitDirectTransfer ( tsc_CellDedicated, tsc_RB3, cr_AttachReq ( c_AttachTypeAny, c_MobileIdAny_Iv, c_RAI_Any_v,?))		6.
9		Dc ! RRC_DataReq	ca_PS_DataReq ( tsc_CellDedicated, tsc_RB3, cs_AttachRej( '07'O))		7.
10		RETURN			
11		?TIMEOUT t_TimeoutInDefault			
12		(tcv_TimeoutInDefault := TRUE)			
13		RETURN			
14		?TIMEOUT			
15		[ tcv_TestBody = FALSE ]			
16	DFI8	CANCEL		(I)	
17		[ tcv_TestBody = TRUE ]			
18	DFF8	CANCEL		(F)	
19		Dc ? RRC_DataInd [ tcv_GMM_AttachExpect = TRUE] ( tcv_TmpAttachReqPDU := RRC_DataInd.msg, tcv_TmpB3:= tcv_TmpAttachReqPDU.attachType.type, tcv_CellIndInfo.start_PS := RRC_DataInd.start , tcv_GMM_AttachRec := TRUE )	car_PS_InitDirectTransfer (tsc_CellDedicated, tsc_RB3, cr_AttachReq ( c_AttachTypeAny, c_MobileIdAny_Iv, c_RAI_Any_v, ?))		ATTACH REQUE ST - Extract Attach type requeste d
20		RETURN			
21		Dc ? RRC_DataInd [ tcv_ReceivePS_ServiceReq = TRUE ]	car_InitDirectTransfer ( tsc_CellDedicated , tsc_RB3, cr_ServiceRequest ( c_ServiceType_v(?),   c_MobileIdAny_lv, ? ) )		SERVIC E REQUE ST
22		RETURN	,		
	·		1		

		Default Dynamic	Behaviour		
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
23		Dc ? RRC_DataInd [ tcv_GMM_RAU_Expect = TRUE ]( tcv_TmpRAU_ReqPDU := RRC_DataInd.msg, tcv_CellIndInfo.start_PS := RRC_DataInd.start , tcv_GMM_RAU_Rec := TRUE )	car_PS_InitDirectTransfer ( tsc_CellDedicated , tsc_RB3, cbr_RA_UpdReqAny ( c_GMM_UpdateType_v(?,?) , c_RAI_Any_v, ?)		ROUTIN G AREA UPDAT E REQUE ST
24		RETURN			
25		Dc ? RRC_DataInd [ tcv_GMM_DetachExpect = TRUE ]( tcv_GMM_DetachExpect := FALSE )	car_PS_UplinkDirectTransfe r ( tsc_CellDedicated , tsc_RB3, cr_DetachRequest_MO )		DETAC H REQUE ST
26		RETURN			
27	DFI2	Dc?OTHERWISE [ tcv_TestBody = FALSE ]		(1)	2.
28		CANCEL			3.
29	DFF2	Dc?OTHERWISE [ tcv_TestBody = TRUE ]		(F)	5.
30		CANCEL			3.
31		CRLC?CRLC_Integrity_Failure_IND	car_CRLC_IntegrityFail		
32	DFF3	[ tcv_CellIndInfo.integrityStarted ]		(F)	
33		RETURN			
34		[ NOT tcv_CellIndInfo.integrityStarted ]			
35		RETURN			

- **Detailed Comments**: 1. The guard timer times out, inconclusive.
  - 2. If unexpectied data is received in the preambles or postambles, a preliminary inconclusive verdict is assigned, and the test case is terminated.
  - 3. Cancel of all running timers.
  - 4. Depending upon the context appropriate measures may differ: the guard timer duration may be increased, operator action during a test may be speeded up, ...
  - 5. If unexpected data is received in the test body, a preliminary failure verdict is assigned, and the test case is terminated.
  - 6. ATTACH REQUEST with any contents received during MM\_TestExecution
  - 7. ATTACH REJECT with cause 'GPRS services not allowed'
  - 8. DETACH REQUEST received during MM\_TestExecution
  - 9. DETACH ACCEPT

Default Name: NAS\_OtherwiseFailActRB\_TM

Group : NAS\_Defaults/

**Objective**: To match unexpected events and fail the test case.

Any Setup or Activate PDP context request message can be received and ignored.

Comments : Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		Dc ? RRC_DataInd [ tcv_CN_Domain = cs_domain ]	car_UplinkDirectTransfer ( tsc_CellDedicated, tsc_RB3, cr_SetupMO_Any )		0.
2		RETURN			
3		Dc ? RRC_DataInd [ tcv_CN_Domain = ps_domain ]	car_UplinkDirectTransfer ( tsc_CellDedicated, tsc_RB3, cr_ActPDP_ContextReqMO _Any)		0.
4		RETURN			
5		?TIMEOUT t_Guard			1.
6		Ut! MMI_CmdReq	ca_MMI_CmdReq ( "The guard timer has run out. Please take appropriate measures")		4.
7		Ut ? MMI_CmdCnf	ca_MMI_CmdCnf		
8		[ tcv_TestBody = FALSE ]			
9	DFI1	CANCEL		(I)	
10		[ tcv_TestBody = TRUE ]			
11	DFF1	CANCEL		(F)	
12		Dc ? RRC_DataInd [ tcv_ReceivePS_ServiceReq = TRUE ]	car_InitDirectTransfer ( tsc_CellDedicated , tsc_RB3, cr_ServiceRequest ( c_ServiceType_v(?),   c_MobileIdAny_lv, ? ) )		SERVIC E REQUE ST
13		RETURN			
14	DFI2	Dc?OTHERWISE [ tcv_TestBody = FALSE ]		(I)	2.
15		CANCEL			3.
16	DFF2	Dc?OTHERWISE [ tcv_TestBody = TRUE ]		(F)	5.
17		CANCEL			3.
18		CRLC?CRLC_Integrity_Failure_IND	car_CRLC_IntegrityFail		
19	DFF3	[ tcv_CellIndInfo.integrityStarted ]		(F)	
20		RETURN			
21		[ NOT tcv_CellIndInfo.integrityStarted ]			
22		RETURN			

**Detailed Comments**: 0. UE may send the SETUP or the Activate PDP context request message, then it shall be ignored

- 1. The guard timer times out, inconclusive.
- 2. If unexpectied data is received in the preambles or postambles, a preliminary inconclusive verdict is assigned, and the test case is terminated.
- 3. Cancel of all running timers.
- 4. Depending upon the context appropriate measures may differ: the guard timer duration may be increased, operator action during a test may be speeded up, ...
- 5. If unexpected data is received in the test body, a preliminary failure verdict is assigned, and the test case is terminated.

Default Name : RRC\_Def1
Group : RRC\_Defaults/

**Objective**: To match unexpected events and fail the test case.

Comments : Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		TM?RxStatus [ tcv_RLC_IgnoreStatus = TRUE ]	car_StatusInd(tsc_RB_AM_		
			7_RLC)	1	
2		RETURN		1	
3		Dc ? RRC_DataInd [ tcv_GMM_AttachExpect = TRUE] ( tcv_TmpAttachReqPDU := RRC_DataInd.msg, tcv_TmpB3:= tcv_TmpAttachReqPDU.attachType.type, tcv_CellIndInfo.start_PS := RRC_DataInd.start , tcv_GMM_AttachRec := TRUE )	car_PS_InitDirectTransfer (tsc_CellDedicated, tsc_RB3, cr_AttachReq ( c_AttachTypeAny, c_MobileIdAny_Iv, c_RAI_Any_v, ?))		ATTACH REQUE ST - Extract Attach type requeste d
4		RETURN		1	
5		Dc ? RRC_DataInd [ tcv_GMM_RAU_Expect = TRUE ]( tcv_TmpRAU_ReqPDU := RRC_DataInd.msg, tcv_CellIndInfo.start_PS := RRC_DataInd.start , tcv_GMM_RAU_Rec := TRUE )	car_PS_InitDirectTransfer ( tsc_CellDedicated , tsc_RB3, cbr_RA_UpdReqAny ( c_GMM_UpdateType_v(?,?) , c_RAI_Any_v, ?)		ROUTIN G AREA UPDAT E REQUE ST
			) ^	1	
6		RETURN		l	
7		Dc ? RRC_DataInd [ tcv_GMM_DetachExpect = TRUE ]( tcv_GMM_DetachExpect := FALSE )	car_PS_UplinkDirectTransfe r ( tsc_CellDedicated , tsc_RB3, cr_DetachRequest_MO )		DETAC H REQUE ST
8		RETURN			
9		AM?RLC_AM_DATA_IND	car_RRC_Status(?, tsc_RB2, cr_RRC_RrcStatus)		
10		RETURN		l	
11		AM?RLC_AM_DATA_IND	car_MeasRepAM(?, tsc_RB2, cr_RRC_MeasRep)		
12		RETURN		l	
13		UM?RLC_UM_DATA_IND	car_MeasRepUM(?, tsc_RB1, cr_RRC_MeasRep)		
14		RETURN		1	
15		AM?RLC_AM_DATA_CNF	car_AM_DataCnf(?, tsc_RB2)		
16		RETURN		1	
17		CPHY?CPHY_Sync_IND CANCEL t_T312	ca_SyncInd ( tsc_UL_DPCH1 )		
18		RETURN		1	
19		CPHY?CPHY_Out_of_Sync_IND CANCEL t_T312	ca_OutOfSyncInd ( tsc_UL_DPCH1 )		

		Default Dynamic I	3ehaviour		
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
20		RETURN			
21		CRLC?CRLC_Integrity_Failure_IND	car_CRLC_IntegrityFail		
22	DFF0	[ tcv_CellIndInfo.integrityStarted ]		(F)	
23		RETURN			
24		[ NOT tcv_CellIndInfo.integrityStarted ]			
25		RETURN			
26		Dc ? RRC_DataInd[tcv_MM_TestExecution]	car_PS_InitDirectTransfer ( tsc_CellDedicated, tsc_RB3, cr_AttachReq ( c_AttachTypeAny, c_MobileIdAny_lv, c_RAI_Any_v,?))		
27		Dc ! RRC_DataReq	ca_PS_DataReq ( tsc_CellDedicated, tsc_RB3, cs_AttachRej( '07'O))		
28		RETURN	,,		
29		Dc ? RRC_DataInd [ tcv_ReceivePS_ServiceReq = TRUE ]	car_InitDirectTransfer ( tsc_CellDedicated , tsc_RB3, cr_ServiceRequest ( c_ServiceType_v(?), c_MobileIdAny_lv, ? ) )		SERVIC E REQUE ST
30		RETURN			
31		?TIMEOUT t_Guard			
32		Ut!MMI_CmdReq	ca_MMI_CmdReq ( "The guard timer has run out. Please take appropriate measures")		4.
33		Ut ? MMI_CmdCnf	ca_MMI_CmdCnf		
34		[ tcv_TestBody = FALSE ]			
35	DFI1	CANCEL		(I)	
36		[ tcv_TestBody = TRUE ]			
37	DFF1	CANCEL		(F)	
38		?TIMEOUT t_TimeoutInDefault			
39		(tcv_TimeoutInDefault := TRUE)			
40		RETURN			
41 42		?TIMEOUT   [tcv_TestBody = FALSE]			
43	DFI8	CANCEL		(I)	
44	57 15	[tcv_TestBody = TRUE]		(')	
45	DFF8	CANCEL		(F)	
46		AM?OTHERWISE [ tcv_TestBody = FALSE ]		` ′	
47	DFI2	CANCEL		(I)	
48		UM?OTHERWISE [ tcv_TestBody = FALSE ]			
49	DFI3	CANCEL		(I)	
50		TM?OTHERWISE [ tcv_TestBody = FALSE ]			
51	DFI4	CANCEL		(I)	

		Default Dynamic	Behaviour		
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
52		Dc?RRC_DataInd [ tcv_TestBody = FALSE ]	car_PS_UplinkDirectTransfe r (tsc_CellDedicated, tsc_RB3, cbr_Deact_PDP_ContextRe q_MO(?))	(1)	2.
53	DFI5	CANCEL			3.
54		AM?OTHERWISE [ tcv_TestBody = TRUE]			
55	DFF2	CANCEL		(F)	
56		UM?OTHERWISE [ tcv_TestBody = TRUE]			
57	DFF3	CANCEL		(F)	
58		TM?OTHERWISE [ tcv_TestBody = TRUE]			
59	DFF4	CANCEL		(F)	
60		Dc?RRC_DataInd [ tcv_TestBody = TRUE ]	car_PS_UplinkDirectTransfe r (tsc_CellDedicated, tsc_RB3, cbr_Deact_PDP_ContextRe q_MO(?))	(F)	5.
61	DFF5	CANCEL			3.
62		CRLC?OTHERWISE			
63	DFI6	CANCEL		(I)	
64		CMAC?OTHERWISE			
65	DFI7	CANCEL		(I)	
66		CPHY?OTHERWISE			
67	DFI9	CANCEL		(I)	
Detai	iled Com	ments :			

**Default Name**: RRC\_DefConnEst : RRC\_Defaults/ Group

: To match unexpected events during an RRC connection establishment i.e to match the repetition of RRC CONNECTION REQUEST. Objective

Comments Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		TM?RLC_TR_DATA_IND	car_RRC_ConnReq(?,		
			tsc_RB0, cr_RRC_RrcConnReqAny)		
2		RETURN	CI_KIKO_KICCOIIIIKeqAiiy)		
3		AM?RLC_AM_DATA_IND	car_RRC_Status(?,		
ľ			tsc_RB2,		
			cr_RRC_RrcStatus)		
4		RETURN			
5		CPHY?CPHY_Sync_IND CANCEL t_T312	ca_SyncInd ( tsc_UL_DPCH1 )		
6		RETURN	isc_ol_broili)		
7		CPHY?CPHY_Out_of_Sync_IND	ca_OutOfSyncInd (		
'		CANCEL t_T312	tsc_UL_DPCH1)		
8		RETURN			
9		AM?RLC_AM_DATA_IND	car_MeasRepAM(?,		
			tsc_RB2, cr_RRC_MeasRep)		
10		RETURN	CI_KKC_ivieaskep)		
11		UM?RLC_UM_DATA_IND	car_MeasRepUM(?,		
''		OWNICO_OM_DATA_IND	tsc_RB1,		
			cr_RRC_MeasRep)		
12		RETURN			
13		AM?RLC_AM_DATA_CNF	car_AM_DataCnf(?, tsc_RB2)		
14		RETURN	(SC_ND2)		
15		CRLC?CRLC_Integrity_Failure_IND	car_CRLC_IntegrityFail		
16	DFF0	[ tcv_CellIndInfo.integrityStarted ]	odi_OrtEO_intogntyr dii	(F)	
17	2	RETURN		(. )	
18		[ NOT tcv_CellIndInfo.integrityStarted ]			
19		RETURN			
20		Dc ? RRC_DataInd [ tcv_ReceivePS_ServiceReq =	car_InitDirectTransfer (		SERVIC
		TRUE]	tsc_CellDedicated,		E
			tsc_RB3, cr_ServiceRequest ( c_ServiceType_v(?),		REQUE
			c_MobileIdAny_lv,?)		-
			)		
21		RETURN			
22		?TIMEOUT t_Guard	ANAL CONTRACTOR		
23		Ut!MMI_CmdReq	ca_MMI_CmdReq ( "The guard timer has run out.		4.
			Please take appropriate		
			measures")		
24		Ut ? MMI_CmdCnf	ca_MMI_CmdCnf		
25		[ tcv_TestBody = FALSE ]			
26	DFI1	CANCEL		(1)	
27 Contin		[ tcv_TestBody = TRUE ]			

		Default Dynamic B	ehaviour		
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
28	DFF1	CANCEL		(F)	
29		?TIMEOUT t_TimeoutInDefault			
30		(tcv_TimeoutInDefault := TRUE)			
31		RETURN			
32		?TIMEOUT			
33		[ tcv_TestBody = FALSE ]			
34	DFI8	CANCEL		(I)	
35		[ tcv_TestBody = TRUE ]			
36	DFF8	CANCEL		(F)	
37		AM?OTHERWISE [ tcv_TestBody = FALSE ]			
38	DFI2	CANCEL		(I)	
39		UM?OTHERWISE [ tcv_TestBody = FALSE ]			
40	DFI3	CANCEL		(I)	
41		TM?OTHERWISE [ tcv_TestBody = FALSE ]			
42	DFI4	CANCEL		(I)	
43		AM?OTHERWISE [ tcv_TestBody = TRUE]			
44	DFF2	CANCEL		(F)	
45		UM?OTHERWISE [ tcv_TestBody = TRUE]			
46	DFF3	CANCEL		(F)	
47		TM?OTHERWISE [ tcv_TestBody = TRUE]			
48	DFF4	CANCEL		(F)	
49		CRLC?OTHERWISE			
50	DFI5	CANCEL		(I)	
51		CMAC?OTHERWISE			
52	DFI6	CANCEL		(I)	
53		CPHY?OTHERWISE			
54	DFI7	CANCEL		(I)	
Deta	iled Com	ments :			

**Default Name :** UT\_OtherwiseFail Group : UT\_Defaults/

Objective : To match unexpected events and fail the test case at the UtT PCO.

Comments Description

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		Ut?OTHERWISE			1.
2	DFI1	CANCEL		1	2.
3		CRLC?CRLC_Integrity_Failure_IND	car_CRLC_IntegrityFail		
4	DFF2	[ tcv_CellIndInfo.integrityStarted ]		(F)	
5		RETURN			
6		[ NOT tcv_CellIndInfo.integrityStarted ]			
7		RETURN			
8		?TIMEOUT			
9		[ tcv_TestBody = FALSE ]			
10	DFI8	CANCEL		(I)	
11		[ tcv_TestBody = TRUE ]			
12	DFF8	CANCEL		(F)	

Detailed Comments : 1. Unexpected UT MMI events, fail. 2. Cancel of all running timers.

**Default Name:** SS\_Def\_Special : SS\_Defaults/ Group

: To match unexpected events during SS configuration/reconfiguration steps. This default does not send any message. Objective

Comments Description

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		?TIMEOUT t_Guard			
2		Ut! MMI_CmdReq	ca_MMI_CmdReq ( "The guard timer has run out. Please take appropriate measures")		4.
3		Ut ? MMI_CmdCnf	ca_MMI_CmdCnf		
4		[ tcv_TestBody = FALSE ]			
5	DFI5	CANCEL		(I)	
6		[ tcv_TestBody = TRUE ]			
7	DFF7	CANCEL		(F)	
8		?TIMEOUT t_TimeoutInDefault			
9		(tcv_TimeoutInDefault := TRUE)			
10		RETURN			
11		?TIMEOUT			
12		[ tcv_TestBody = FALSE ]			
13	DFI8	CANCEL		(I)	
14		[ tcv_TestBody = TRUE ]			
15	DFF8	CANCEL		(F)	
16		CPHY?CPHY_Sync_IND	ca_SyncInd (?)		
17		RETURN			
18		CPHY?CPHY_Out_of_Sync_IND	ca_OutOfSyncInd (?)		
19		RETURN			
20		Dc ? RRC_DataInd [ tcv_ReceivePS_ServiceReq = TRUE ]	car_InitDirectTransfer ( tsc_CellDedicated , tsc_RB3, cr_ServiceRequest ( c_ServiceType_v(?),   c_MobileIdAny_lv, ? ) )		SERVIC E REQUE ST
21		RETURN			
22		Dc ? RRC_DataInd [ tcv_GMM_AttachExpect = TRUE] ( tcv_TmpAttachReqPDU := RRC_DataInd.msg, tcv_TmpB3:= tcv_TmpAttachReqPDU.attachType.type, tcv_CellIndInfo.start_PS := RRC_DataInd.start , tcv_GMM_AttachRec := TRUE )	car_PS_InitDirectTransfer (tsc_CellDedicated, tsc_RB3, cr_AttachReq ( c_AttachTypeAny, c_MobileIdAny_Iv, c_RAI_Any_v, ?))		ATTACH REQUE ST - Extract Attach type requeste d
23		RETURN			
24		CRLC?CRLC_Integrity_Failure_IND	car_CRLC_IntegrityFail		
25	DFF5	[ tcv_CellIndInfo.integrityStarted ]		(F)	
26		RETURN			
27		[ NOT tcv_CellIndInfo.integrityStarted ]			
28		RETURN			
29		CPHY?OTHERWISE			

### Continued from previous page

	Default Dynamic Behaviour								
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments				
30	DFI2	CANCEL		(I)					
31		CMAC?OTHERWISE							
32	DFI3	CANCEL		(I)					
33		CRLC?OTHERWISE							
34	DFI4	CANCEL		(I)					
Deta	iled Com	Detailed Comments :							

Default Name : SS\_Def
Group : SS\_Defaults/

**Objective**: To match unexpected events during SS configuration/reconfiguration steps.

Comments : Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1	Label	?TIMEOUT t_Guard	Outstraints IVE	Verdict	Comments
2		Ut! MMI_CmdReq	ca_MMI_CmdReq ( "The guard timer has run out. Please take appropriate measures")		4.
3		Ut ? MMI_CmdCnf	ca_MMI_CmdCnf		
4		[ tcv_TestBody = FALSE ]			
5	DFI5	CANCEL		(I)	
6		[ tcv_TestBody = TRUE ]			
7	DFF7	CANCEL		(F)	
8		?TIMEOUT t_TimeoutInDefault			
9		(tcv_TimeoutInDefault := TRUE)			
10		RETURN			
11		?TIMEOUT			
12		[ tcv_TestBody = FALSE ]			
13	DFI8	CANCEL		(I)	
14		[ tcv_TestBody = TRUE ]			
15	DFF8	CANCEL		(F)	
16		CPHY?CPHY_Sync_IND	ca_SyncInd (?)		
17		RETURN			
18		CPHY?CPHY_Out_of_Sync_IND	ca_OutOfSyncInd (?)		
19		RETURN			
20		Dc ? RRC_DataInd[tcv_MM_TestExecution]	car_PS_InitDirectTransfer ( tsc_CellDedicated, tsc_RB3, cr_AttachReq ( c_AttachTypeAny, c_MobileIdAny_Iv, c_RAI_Any_v,?))		
21		Dc ! RRC_DataReq	ca_PS_DataReq ( tsc_CellDedicated, tsc_RB3, cs_AttachRej( '07'O))		
22		RETURN			
23		Dc ? RRC_DataInd [ tcv_ReceivePS_ServiceReq = TRUE ]	car_InitDirectTransfer ( tsc_CellDedicated , tsc_RB3, cr_ServiceRequest ( c_ServiceType_v(?), c_MobileIdAny_lv, ? ) )		SERVIC E REQUE ST
24		RETURN			

		Default Dynamic	Behaviour		
Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
25		Dc ? RRC_DataInd [ tcv_GMM_AttachExpect = TRUE] ( tcv_TmpAttachReqPDU := RRC_DataInd.msg, tcv_TmpB3:= tcv_TmpAttachReqPDU.attachType.type, tcv_CellIndInfo.start_PS := RRC_DataInd.start , tcv_GMM_AttachRec := TRUE )	car_PS_InitDirectTransfer (tsc_CellDedicated, tsc_RB3, cr_AttachReq ( c_AttachTypeAny, c_MobileIdAny_Iv, c_RAI_Any_v, ?))		ATTACH REQUE ST - Extract Attach type requeste d
26		RETURN			
27		CRLC?CRLC_Integrity_Failure_IND	car_CRLC_IntegrityFail		
28	DFF5	[ tcv_CellIndInfo.integrityStarted ]		(F)	
29		RETURN			
30		[ NOT tcv_CellIndInfo.integrityStarted ]			
31		RETURN			
32		CPHY?OTHERWISE			
33	DFI2	CANCEL		(I)	
34		CMAC?OTHERWISE			
35	DFI3	CANCEL		(I)	
36		CRLC?OTHERWISE			
37	DFI4	CANCEL		(I)	
Deta	iled Com	ments :			

Default Name: RLC\_Default : RLC\_Defaults/ Group

Objective Comments Description

<b>Nr</b> 1 2	<b>Label</b> DFI1	Behaviour Description  TM ? OTHERWISE [ tcv_TestBody = FALSE ]	Constraints Ref	Verdict	Comments
	DFI1	TM ? OTHERWISE [ tcv_TestBody = FALSE ]			
2				(1)	1
		RETURN			
3	DFF1	TM ? OTHERWISE [ tcv_TestBody = TRUE ]		(F)	2
4	DFI2	AM ? OTHERWISE [ tcv_TestBody = FALSE ]		(I)	3
5		RETURN			
6	DFF2	AM ? OTHERWISE [ tcv_TestBody = TRUE ]		(F)	4
7	DFI3	UM ? OTHERWISE [ tcv_TestBody = FALSE ]		(I)	3
8		RETURN			
9	DFF3	UM ? OTHERWISE [ tcv_TestBody = TRUE ]		(F)	4
10		CRLC?CRLC_Integrity_Failure_IND	car_CRLC_IntegrityFail		10
11	DFF4	[ tcv_CellIndInfo.integrityStarted ]		(F)	
12		RETURN			
13		[ NOT tcv_CellIndInfo.integrityStarted ]			
14		RETURN			
15	DFI4	? TIMEOUT t_Guard			5
16		Ut ! MMI_CmdReq	ca_MMI_CmdReq ( "The guard timer has run out. Please take appropriate measures")		4.
17		Ut ? MMI_CmdCnf	ca_MMI_CmdCnf		
18		[ tcv_TestBody = FALSE ]			
19	DFI5	CANCEL		(I)	
20		[ tcv_TestBody = TRUE ]			
21	DFF7	CANCEL		(F)	
22	DFI6	? TIMEOUT t_Poll		(I)	6
23	DFI7	? TIMEOUT t_Status		(I)	7
24	DFI8	? TIMEOUT t_Reset		(I)	8
25		?TIMEOUT			
26		[ tcv_TestBody = FALSE ]			
27	DFI9	CANCEL		(I)	
28		[ tcv_TestBody = TRUE ]			
29	DFF8	CANCEL		(F)	

- Detailed Comments: 1. If unexpected data is received on the TM PCO outside of the test body, the preambles / postambles have failed, and an inconclusive verdict is assigned.
  - 2. If unexpected data is received on the TM PCO within the test body, the test purpose has not been met, and a fail verdict is assigned.
  - 3. If unexpected data is received on the AM or UM PCO outside of the test body, the preambles / postambles have failed, and an inconclusive verdict is assigned.
  - 4. If unexpected data is received on the AM or UM PCO within the test body, the test purpose has not been met, and a fail verdict is assigned.
  - 5. If the guard timer expires at any time, the test case has timed out, and an

## Detailed Comments : ...

inconclusive verdict is assigned.

- 6. The poll timer is used to measure the time between poll events by using the READTIMER operation. It is not expected to expire, so if expiry of this timer occurs, an inconclusive verdict is assigned indicating a test case error.
- 7. The status timer is used to measure the time between STATUS PDUs by using the READTIMER operation. It is not expected to expire, so if expiry of this timer occurs, an inconclusive verdict is assigned indicating a test case error.
- 8. The reset timer is used to measure the time between RESET PDUs by using the READTIMER operation. It is not expected to expire, so if expiry of this timer occurs, an inconclusive verdict is assigned indicating a test case error.
- 9. If any other timer expires and is not explicitly handled in the test case, an inconclusive verdict is assigned.
- 10. If an Integrity failure indication occurrs, a fail verdict is assigned.

Default Name: MAC\_Default

Group Objective Comments Description

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		AM ? RLC_AM_DATA_IND [ (tcv_ReceiveSigConnRelInd = TRUE) AND ( tcv_TestBody = TRUE ) ]	car_RRC_SigConnRelInd ( tsc_CellDedicated, ?, cr_RRC_SigConnRelInd ( tcv_CN_Domain ) )	(P)	
2		( tcv_ReceiveSigConnRelInd := FALSE )			
3		RETURN			
4		TM ? OTHERWISE [ tcv_TestBody = FALSE ]		(I)	1
5		RETURN			
6		TM ? OTHERWISE [ tcv_TestBody = TRUE ]		(F)	2
7		AM ? OTHERWISE [ tcv_TestBody = FALSE ]		(I)	3
8		RETURN			
9		AM ? OTHERWISE [ tcv_TestBody = TRUE ]		(F)	4
10		UM ? OTHERWISE [ tcv_TestBody = FALSE ]		(I)	3
11		RETURN			
12		UM ? OTHERWISE [ tcv_TestBody = TRUE ]		(F)	4
13		CPHY ? CPHY_PRACH_Measurement_Report_IND	car_PRACH_Measurement_ Report_IND( ?, ?, ?)	(I)	6
14		? TIMEOUT t_Guard		(I)	5
15		? TIMEOUT		(I)	9
16	DFF1	CRLC?CRLC_Integrity_Failure_IND	car_CRLC_IntegrityFail	(F)	
17		RETURN			

- Detailed Comments: 1. If unexpected data is received on the TM PCO outside of the test body, the preambles / postambles have failed, and an inconclusive verdict is assigned.
  - 2. If unexpected data is received on the TM PCO within the test body, the test purpose has not been met, and a fail verdict is assigned.
  - 3. If unexpected data is received on the AM or UM PCO outside of the test body, the preambles / postambles have failed, and an inconclusive verdict is assigned.
  - 4. If unexpected data is received on the AM or UM PCO within the test body, the test purpose has not been met, and a fail verdict is assigned.
  - 5. If the guard timer expires at any time, the test case has timed out, and an inconclusive verdict is assigned.
  - 6. If any undesired PRACH measurement report is received the test case result Inconclusive
  - 9. If any other timer expires and is not explicitly handled in the test case, an inconclusive verdict is assigned.

**Default Name:** MAC\_PRACH\_MeasRecDef

Group :
Objective :
Comments :
Description :

Nr	Label	Behaviour Description	Constraints Ref	Verdict	Comments
1		CPHY? CPHY_PRACH_Measurement_Report_IND (tcv_PRACH_PreambleSigUsed :=CPHY_PRACH_Measurement_Report_IND.meas urementReport.usedPRACH_Signature, tcv_PRACH_AccessSlotUsed :=CPHY_PRACH_Measurement_Report_IND.meas urementReport.usedPRACH_AccessSlot)	car_PRACH_Measurement_ Report_IND( tsc_DefaultCellId, tsc_PRACH1, cs_PRACH_PreamMeasRep )		
2		[ ( 0 <= tcv_PRACH_PreambleSigUsed) AND ( tcv_PRACH_PreambleSigUsed <= 7) AND			
3		( tcv_PRACH_ExpAccessSlot := ( (tcv_PRACH_AccessSlotUsed + 3) MOD 15) )			
4		RETURN			
5		[ ( 0 <= tcv_PRACH_PreambleSigUsed) AND ( tcv_PRACH_PreambleSigUsed <= 7) AND			
6		( tcv_PRACH_ExpAccessSlot := ( (tcv_PRACH_AccessSlotUsed + 3) MOD 15) )			
7		RETURN			
8		CPHY ? CPHY_PRACH_Measurement_Report_IND ( tcv_PRACH_AccessSlotUsed := CPHY_PRACH_Measurement_Report_IND.measu rementReport.usedPRACH_AcessSlot )	car_PRACH_Measurement_ Report_IND( tsc_DefaultCellId, tsc_PRACH1, cs_PRACH_MsgMeasRep)		
9		[ ( tcv_PRACH_AccessSlotUsed = tcv_PRACH_ExpAccessSlot) ]		(P)	Differen ce of 3 access slot match
10		RETURN		l	
11		[TRUE]		(F)	The Differen ce of 3 access slot does not match
12		RETURN			
Data:	lad Cam	ments :			