TSG-RAN Meeting #19 Birmingham, UK, 11 - 14 March 2003

Title: CRs (Release '99 and Rel-4/Rel-5 category A) to TS 25.331 (3)

Source: TSG-RAN WG2

Agenda item: 8.2.3

Spec	CR	Rev	Phase	Subject	Cat	Version- Current	Version-New	Doc-2nd-Level	Workitem
25.331	1844	-	R99	Correction of default configurations	F	3.13.0	3.14.0	R2-030474	TEI
25.331	1845	-	Rel-4	Correction of default configurations	Α	4.8.0	4.9.0	R2-030475	TEI
25.331	1846	-	Rel-5	Correction of default configurations	Α	5.3.0	5.4.0	R2-030476	TEI
25.331	1847	-	R99	Correction to UE behaviour on entering RRC Connected mode	F	3.13.0	3.14.0	R2-030477	TEI
25.331	1848	-	Rel-4	Correction to UE behaviour on entering RRC Connected mode	Α	4.8.0	4.9.0	R2-030478	TEI
25.331	1849	-	Rel-5	Correction to UE behaviour on entering RRC Connected mode	Α	5.3.0	5.4.0	R2-030479	TEI
25.331	1853	-	R99	Update of Start values in USIM on inter-RAT transitions and transitions to idle mode	F	3.13.0	3.14.0	R2-030483	TEI
25.331	1854	-	Rel-4	Update of Start values in USIM on inter-RAT transitions and transitions to idle mode	А	4.8.0	4.9.0	R2-030484	TEI
25.331	1855	-	Rel-5	Update of Start values in USIM on inter-RAT transitions and transitions to idle mode	А	5.3.0	5.4.0	R2-030485	TEI
25.331	1881	1	R99	NAS and Integrity procedure interaction	F	3.13.0	3.14.0	R2-030638	TEI
25.331	1901	1	Rel-4	NAS and Integrity procedure interaction	Α	4.8.0	4.9.0	R2-030639	TEI
25.331	1902	1	Rel-5	NAS and Integrity procedure interaction	Α	5.3.0	5.4.0	R2-030640	TEI
25.331	1882	-	R99	Correction to Inter-RAT Measurement Report	F	3.13.0	3.14.0	R2-030577	TEI
25.331	1883	-	Rel-4	Correction to Inter-RAT Measurement Report	F	4.8.0	4.9.0	R2-030578	TEI
25.331	1884	-	Rel-5	Correction to Inter-RAT Measurement Report	A	5.3.0	5.4.0	R2-030579	TEI

NOTE: The 25.331 CRs 1856, 1857 and 1858 (Corrections to Channelisation Code TFCI Mapping for TDD) are linked with [25.423 CRs 782rev1, 783rev1 and 784rev1] and [25.433 CRs 804rev1, 805rev1 and 806rev1]. They will be presented by RAN WG3, in RP-030082.

3GPP TSG-RAN WG2 Meeting #34 Sophia Antipolis, France, 17-21 February 2003

CHANGE REQUEST								CR-Form-v7
	25.331 CR	1844	жrev	- 3	¥	Current version:	3.13.0	*

For <u>HELP</u> on using this form, see bottom of this page or look at the pop-up text over the **#** symbols.

Proposed change affects: UICC apps# ME X Radio Access Network X Core Network

Title:	\mathfrak{R}	Correction of default configurations		
Source:	¥	TSG-RAN WG2		
Work item code.	<i>:</i> Ж	TEI	Date: ૠ	11/02/2003
Category:	\mathfrak{H}	F	Release: ₩	R99
		Use one of the following categories:	Use <u>one</u> of	the following releases:
		F (correction)	2	(GSM Phase 2)
		A (corresponds to a correction in an	,	(Release 1996)
		B (addition of feature),C (functional modification of feature)	R97) R98	(Release 1997) (Release 1998)
		D (editorial modification)	R99	(Release 1990) (Release 1999)
		Detailed explanations of the above category		(Release 4)
		he found in 3GPP TR 21 900	Rel-5	(Release 5)

Reason for change: A number of errors have been identified in the default configurations

1 - For configuration 2, 3, 10, the 'numberOfTransportBlocks' is indicated as zero which is in contradiction to the transport format which is indicated as (1xTBSize).

Rel-6

(Release 6)

- 2 For configuration 4, the RLC size is currently 'type 2, part1=11, part2 = 2' which is not equivalent to the intended transport block size of 576.
- 3 For configuration 4 and 6, the 'numberOfTbSizeList' has a '(4)' in the list of numbers of transport blocks. It is not clear what this means and it does not seem to be in line with the TFS.
- 4 For configuration 8, the 'ctfcSize' is indicated as 'Ctfc2bit' but the maximum value of CTFC that needs to be signalled is 5. Hence 'Ctfc4Bit' should be used.

Summary of change: # The following changes are made:

- 1 The numberOfTransportBlocks is changed from zero to one
- 2 The part1 is changed from 11 to 9
- 3 The unnecessary '(4)' is removed
- 4 The ctfcSize is changed to Ctfc4Bit

Isolated Impact Analysis

Functionality corrected: Inter-RAT handover to UTRAN using default

configurations.

Isolated impact statement: Correction to a function where specification containing some contradictions. Would not affect implementations behaving like indicated in the CR, would affect implementations supporting the corrected functionality otherwise.

If neither UTRAN nor UE implement according to this CR the TFS in UTRAN and UE will not be correct following inter-RAT handover with default configuration. This will result in failure of the handover or radio link failure shortly after handover.

If UTRAN implements according to the CR but UE does not implement according to the CR then the TFS in UTRAN and UE will not be aligned following inter-RAT handover with default configuration. This will result in failure of the handover or radio link failure shortly after handover.

If UE implements according to the CR but UTRAN does not implement according to the CR then the TFS in UTRAN and UE will not be aligned following inter-RAT handover with default configuration. This will result in failure of the handover or radio link failure shortly after handover.

Consequences if not approved:

If the CR is not approved the definition of the TFSs in the default configurations will be incorrect. Use of an incorrect TFS in either UE or UTRAN will result in a handover to UTRAN failing or the a radio link failure shortly after the handover.

Clauses affected:	ж	13.7			
Other specs affected:	¥	Y N X X X	Other core specifications Test specifications O&M Specifications	¥	
Other comments:	×				

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at http://www.3gpp.org/specs/CR.htm. Below is a brief summary:

- 2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://fttp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

13.7 Parameter values for default radio configurations

The UE shall support the use of the default radio configurations that are specified in the following.

NOTE 1: These configurations are based on [41] and cover a number of RAB and signalling connection configurations.

In the table that is used to specify the parameter values for these default configurations, the following principles are used:

- Optional IEs that are not used are omitted;
- In case no parameter value is specified in a column, this means the value given the previous (left side) column applies.
- NOTE 2: If needed, signalling radio bearer RB4 is established after the completion of handover.
- NOTE 3: For each default configuration, the value of both FDD and TDD parameters are specified. All parameters apply to both FDD and TDD modes, unless explicitly stated otherwise. It should be noted that in this respect default configurations differ from pre-defined configurations, which only include parameter values for one mode.

NOTE 4: The transport format sizes, indicated in the following table, concern the RLC PDU size, since all configurations concern dedicated channels. The transport block sizes indicated in TS 34.108 are different since these include the size of the MAC header.

Configuration	3.4 kbps signalling	13.6 kbps signalling	7.95 kbps speech + 3.4 kbps signalling	12.2 kbps speech + 3.4 kbps signalling
Ref 34.108	2	3	6	4
Default configuration	0	1	2	3
identity				
RB INFORMATION				
rb-Identity	RB1: 1, RB2: 2,	RB1: 1, RB2: 2,	RB1: 1, RB2: 2,	RB1: 1, RB2: 2,
	RB3: 3	RB3: 3	RB3: 3, RB5: 5,	RB3: 3, RB5: 5,
			RB6: 6	RB6: 6, RB7: 7
rlc-InfoChoice	RIc-info	RIc-info	RIc-info	RIc-info
>ul-RLC-Mode	RB1: UM	RB1: UM	RB1: UM	RB1: UM
	RB2- RB3: AM	RB2- RB3: AM	RB2- RB3: AM	RB2- RB3: AM
			RB5-RB6: TM	RB5-RB7: TM
>>transmissionRLC-	RB1: N/A	RB1: N/A	RB1: N/A	RB1: N/A
DiscardMode	RB2- RB3:	RB2- RB3:	RB2- RB3:	RB2- RB3:
	NoDiscard	NoDiscard	NoDiscard	NoDiscard
_			RB5- RB6: N/A	RB5- RB7: N/A
>>>maxDat	RB1: N/A	RB1: N/A	RB1: N/A	RB1: N/A
	RB2- RB3: 15	RB2- RB3: 15	RB2- RB3: 15	RB2- RB3: 15
	55		RB5- RB6: N/A	RB5- RB7: N/A
>>transmissionWindowSiz	RB1: N/A	RB1: N/A	RB1: N/A	RB1: N/A
e	RB2- RB3: 128 for	RB2- RB3: 128 for	RB2- RB3: 128 for	RB2- RB3: 128 for
	UEs with more than	UEs with more than	UEs with more than	UEs with more than
	10 kbyte "total RLC AM buffer size" and	10 kbyte "total RLC AM buffer size" and	10 kbyte "total RLC AM buffer size" and	10 kbyte "total RLC AM buffer size" and
	32 otherwise	32 otherwise	32 otherwise	32 otherwise
	32 Offici wise	32 Otherwise	RB5- RB6: N/A	RB5- RB7: N/A
>>timerRST	RB1: N/A	RB1: N/A	RB1: N/A	RB1: N/A
>>timerk31	RB2- RB3: 300	RB2- RB3: 300	RB2- RB3: 300	RB2- RB3: 300
	ND2- ND3. 300	NB2- NB3. 300	RB5- RB6: N/A	RB5- RB7: N/A
>>max-RST	RB1: N/A	RB1: N/A	RB1: N/A	RB1: N/A
	RB2- RB3: 1	RB2- RB3: 1	RB2- RB3: 1	RB2- RB3: 1
	1,52 1,50, 1		RB5- RB6: N/A	RB5- RB7: N/A
>>pollingInfo	RB1: N/A	RB1: N/A	RB1: N/A	RB1: N/A
	RB2- RB3: as below	RB2- RB3: as below	RB2- RB3: as below	RB2- RB3: as below
			RB5- RB6: N/A	RB5- RB7: N/A

Configuration	3.4 kbps signalling	13.6 kbps	7.95 kbps speech	12.2 kbps speech
		signalling	3.4 kbps signalling	3.4 kbps signalling
>>>lastTransmissionPDU-Poll	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>lastRetransmissionPD U-Poll	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>timerPollPeriodic	RB2- RB3: 300	RB2- RB3: 100	RB2- RB3: 300	RB2- RB3: 300
>>segmentationIndication	RB1- RB3: N/A	RB1- RB3: N/A	RB1- RB3: N/A RB5- RB6: FALSE	RB1- RB3: N/A RB5- RB7: FALSE
>dl-RLC-Mode	RB1: UM RB2- RB3: AM	RB1: UM RB2- RB3: AM	RB1: UM RB2- RB3: AM RB5- RB6: TM	RB1: UM RB2- RB3: AM RB5- RB7: TM
>>inSequenceDelivery	RB1: N/A RB2- RB3: TRUE	RB1: N/A RB2- RB3: TRUE	RB1: N/A RB2- RB3: TRUE RB5- RB6: N/A	RB1: N/A RB2- RB3: TRUE RB5- RB7: N/A
>>receivingWindowSize	RB1: N/A RB2- RB3: 128 for			
	UEs with more than 10 kbyte "total RLC AM buffer size" and	UEs with more than 10 kbyte "total RLC AM buffer size" and	UEs with more than 10 kbyte "total RLC AM buffer size" and	UEs with more than 10 kbyte "total RLC AM buffer size" and
	32 otherwise	32 otherwise	32 otherwise RB5- RB6: N/A	32 otherwise RB5- RB7: N/A
>>dl-RLC-StatusInfo	RB1: N/A RB2- RB3: as below	RB1: N/A RB2- RB3: as below	RB1: N/A RB2- RB3: as below RB5- RB6: N/A	RB1: N/A RB2- RB3: as below RB5- RB7: N/A
>>>timerStatusProhibit	RB2- RB3: 100	RB2- RB3: 100	RB2- RB3: 100	RB2- RB3: 100
>>>missingPDU-Indicator	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>timerStatusPeriodic	RB2- RB3: 300	RB2- RB3: 100	RB2- RB3: 300	RB2- RB3: 300
>>segmentationIndication	RB1- RB3: N/A	RB1- RB3: N/A	RB1- RB3: N/A RB5- RB6: FALSE	RB1- RB3: N/A RB5- RB7: FALSE
rb-MappingInfo				
>UL- LogicalChannelMappings	OneLogicalChannel	OneLogicalChannel	OneLogicalChannel	OneLogicalChannel
>>ul- TransportChannelType	Dch	Dch	Dch	Dch
>>>transportChannelldentit y	RB1- RB3: 1	RB1- RB3: 1	RB1- RB3: 3 RB5: 1, RB6: 2	RB1- RB3: 4 RB5: 1, RB6: 2, RB7: 3
>>logicalChannelIdentity	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3 RB5- RB6: N/A	RB1: 1, RB2: 2, RB3: 3 RB5- RB7: N/A
>>rlc-SizeList	RB1- RB3: configured	RB1- RB3: configured	RB1- RB3: configured RB5- RB6: N/A	RB1- RB3: configured RB5- RB7: N/A
>>mac- LogicalChannelPriority	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3 RB5- RB6: 5	RB1: 1, RB2: 2, RB3: 3 RB5- RB7: 5
>DL- logicalChannelMappingList				
>>Mapping option 1 >>>dl-	One mapping option Dch			
TransportChannelType				
>>>>transportChannelIden tity	RB1- RB3: 1	RB1- RB3: 1	RB1- RB3: 3 RB5: 1, RB6: 2	RB1- RB3: 4 RB5: 1, RB6: 2, RB7: 3
>>>logicalChannelIdentity	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3 RB5- RB6: N/A	RB1: 1, RB2: 2, RB3: 3 RB5- RB7: N/A
TrCH INFORMATION PER TrCH			NDO- NDO. IV/A	NOO- NOT. IVA
UL- AddReconfTransChInfoList				
>Uplink transport channel type	dch	dch	dch	dch

Configuration	3.4 kbps signalling	13.6 kbps signalling	7.95 kbps speech	12.2 kbps speech
		orgraming	3.4 kbps signalling	3.4 kbps signalling
>transportChannelIdentity	TrCH1: 1	TrCH1: 1	TrCH1: 1, TrCH2: 2, TrCH3: 3	TrCH1: 1, TrCH2: 2, TrCH3: 3, TrCH4: 4
>transportFormatSet	DedicatedTransChT FS	DedicatedTransChT FS	DedicatedTransChT FS	DedicatedTransChT FS
>>dynamicTF-information				
>>>tf0/ tf0,1	TrCH1: (0x144, 1x144)	TrCH1: (0x144, 1x144)	TrCH1: (0x75) TrCH2: (0x 84 1x84) TrCH3: (0x144, 1x144)	TrCH1: (0x81) TrCH2: (0x 103, 1x103) TrCH3: (0x 60, 1x60) TrCH4: (0x144, 1x144)
>>>rlcSize	BitMode	BitMode	BitMode	BitMode
>>>>sizeType	TrCH1: type 2, part1= 2, part2= 0 (144)	TrCH1: type 2, part1= 2, part2= 0 (144)	TrCH1: type 1: 75 TrCH2: type 1: 84 TrCH3: 2: type 2, part1= 2, part2= 0 (144)	TrCH1: type 1: 81 TrCH2: type 1: 103 TrCH3: type 1: 60 TrCH4: 2: type 2, part1= 2, part2= 0 (144)
>>>numberOfTbSizeList	TrCH1: Zero, one	TrCH1: Zero, one	TrCH1: Zero TrCH2-3: Zero, one	TrCH1: Zero TrCH2-4: Zero, one
>>>logicalChannelList	All	All	All	All
>>>tf 1	N/A	N/A	TrCH1: (1x39) TrCH2- TrCH4: N/A	TrCH1: (1x39) TrCH2- TrCH4: N/A
>>>numberOfTransportBl			TrCH1: One	TrCH1: One
>>>rlc-Size			TrCH1: BitMode	TrCH1: BitMode
>>>>sizeType			TrCH1: 1: 39	TrCH1: 1: 39
>>>>numberOfTbSizeList			TrCH1: One	TrCH1: One
>>>logicalChannelList			TrCH1: all	TrCH1: all
>>>tf 2	N/A	N/A	TrCH1: (1x75) TrCH2- TrCH3: N/A	TrCH1: (1x81) TrCH2- TrCH4: N/A
>>>numberOfTransportBl ocks			TrCH1: ZeroOne	TrCH1: ZeroOne
>>>rlc-Size			TrCH1: BitMode	TrCH1: BitMode
>>>>sizeType			TrCH1: type 1: 75	TrCH1: type 1: 81
>>>numberOfTbSizeList			TrCH1: One	TrCH1: One
>>>logicalChannelList			TrCH1: all	TrCH1: all
>>semistaticTF-Information			110111. u.i	TIOTITI diii
>>>tti	TrCH1: 40	TrCH1: 10	TrCH1- TrCH2: 20 TrCH3: 40	TrCH1- TrCH3: 20 TrCH4: 40
>>>channelCodingType	Convolutional	Convolutional	Convolutional	Convolutional
>>>codingRate	TrCH1: Third	TrCH1: Third	TrCH1- TrCH2: Third TrCH3: Third	TrCH1- TrCH2: Third TrCH3: Half TrCH4: Third
>>>rateMatchingAttribute	TrCH1: 160	TrCH1: 160	TrCH1: 200 TrCH2: 190 TrCH3: 160	TrCH1: 200 TrCH2: 190 TrCH3: 235 TrCH4: 160
>>>crc-Size	TrCH1: 16	TrCH1: 16	TrCH1: 12 TrCH2: 0 TrCH3: 16	TrCH1: 12 TrCH2- TrCH3: 0 TrCH4: 16
DL- AddReconfTransChInfoList				
>Downlink transport channel type	dch	dch	dch	dch
>dl- TransportChannelIdentity (should be as for UL)	TrCH1: 1	TrCH1: 1	TrCH1: 1, TrCH2: 2, TrCH3: 3	TrCH1: 1, TrCH2: 2, TrCH3: 3, TrCH4: 4

Configuration	3.4 kbps signalling	13.6 kbps	7.95 kbps speech	12.2 kbps speech
		signalling	+ 3.4 kbps signalling	+ 3.4 kbps signalling
>tfs-SignallingMode	SameAsUL	SameAsUL	Explicit <only and="" below="" different="" is="" on="" shown="" tf0="" trch1=""></only>	Explicit <only and="" below="" different="" is="" on="" shown="" tf0="" trch1=""></only>
>>transportFormatSet			DedicatedTransChT FS	DedicatedTransChT FS
>>>dynamicTF-information			T 0114 (4.0)	T 0114 (4 0)
>>>tf0/ tf0,1			TrCH1: (1x0)	TrCH1: (1x0)
>>>rlcSize			BitMode	bitMode
>>>>sizeType			TrCH1: type 1: 0	TrCH1: type 1: 0
>>>numberOfTbSizeList >>>>logicalChannelList			TrCH1: One	TrCH1: One
>>>logicalChanneiList	TrCH1: 1	TrCH1: 1	TrCH1: 1, TrCH2: 2,	TrCH1: 1, TrCH2: 2,
	IICHT. I	IICHT. I	TrCH3: 3	TrCH3: 3, TrCH4: 4
>dch-QualityTarget	2		2	
>>bler-QualityValue	TrCH1: 5x10 ⁻²	TrCH1: 5x10 ⁻²	TrCH1: 7x10 ⁻³ TrCH2- TrCH3: Absent	TrCH1: 7x10 ⁻³ TrCH2- TrCH4: Absent
TrCH INFORMATION, COMMON				
ul-CommonTransChInfo				
>tfcs-ID (TDD only)	1	1	1	1
>sharedChannelIndicator (TDD only)	FALSE	FALSE	FALSE	FALSE
>tfc-Subset	Absent, not required	Absent, not required	Absent, not required	Absent, not required
>ul-TFCS	Normal TFCI signalling	Normal TFCI signalling	Normal TFCI signalling	Normal TFCI signalling
>>explicitTFCS- ConfigurationMode	Complete	Complete	Complete	Complete
>>>ctfcSize	Ctfc2Bit	Ctfc2Bit	Ctfc4Bit	Ctfc6Bit
>>>TFCS representation	Addition	Addition	Addition	Addition
>>>>TFCS list				
>>>>TFCS 1	(TF0)	(TF0)	(TF0, TF0, TF0)	(TF0, TF0, TF0, TF0)
>>>>>ctfc	0	0	0	0
>>>>>gainFactorInform ation	Computed	Computed	Computed	Computed
>>>>>>referenceTFCId	0	0	0	0
>>>>TFCS 2	(TF1)	(TF1)	(TF1, TF0, TF0)	(TF1, TF0, TF0, TF0)
>>>>>ctfc	1	1	1	1
>>>>>gainFactorInform ation	Signalled	Signalled	Computed	Computed
>>>>>βc (FDD only)	11	11	N/A	N/A
>>>>>βd	15	15	N/A	N/A
>>>>>referenceTFCld	0	0	0	0
>>>>TFCS 3			(TF2, TF1, TF0)	(TF2, TF1, TF1, TF0)
>>>>>ctfc			5	11
>>>>>gainFactorInform			Computed	Computed
>>>>>referenceTFCId			0	0
>>>>TFCS 4			(TF0, TF0, TF1)	(TF0, TF0, TF0, TF1)
>>>>>ctfc			6	12
>>>>>gainFactorInform			Computed	Computed
>>>>>βc (FDD only)			N/A	N/A
>>>>>βd			N/A	N/A
>>>>>>pd >>>>>referenceTFCId				
>>>>>>>Ielelence i FUId			0	0

Configuration	3.4 kbps signalling	13.6 kbps	7.95 kbps speech	12.2 kbps speech
		signalling	+ 3.4 kbps signalling	+ 3.4 kbps signalling
>>>>>TFCS 5			(TF1, TF0, TF1)	(TF1, TF0, TF0, TF1)
>>>>>ctfc			7	13
>>>>>gainFactorInform ation			Computed	Computed
>>>>>>referenceTFCId			0	0
>>>>TFCS 6			(TF2, TF1, TF1)	(TF2, TF1, TF1, TF1)
>>>>>ctfc			11	23
>>>>>gainFactorInform ation			Signalled	Signalled
>>>>>βc (FDD only)			11	11
>>>>>βd			15	15
>>>>>referenceTFCId			0	0
dl-CommonTransChInfo				
>tfcs-SignallingMode	Same as UL	Same as UL	Same as UL	Same as UL
PhyCH INFORMATION FDD				
UL-DPCH-InfoPredef				
>ul-DPCH- PowerControlInfo				
>>powerControlAlgorithm	Algorithm 1	Algorithm 1	Algorithm 1	Algorithm 1
>>>tpcStepSize	1	1	1	1
>tfci-Existence	TRUE	TRUE	TRUE	TRUE
>puncturingLimit	1	1	1	0.88
DL-				
CommonInformationPredef				
>dl-DPCH-InfoCommon				
>>spreadingFactor	256	128	128	128
>>tfci-Existence	FALSE	FALSE	FALSE	FALSE
>>pilotBits	4	4	4	4
>>positionFixed	N/A	N/A	Fixed	Fixed
PhyCH INFORMATION TDD				
UL-DPCH-InfoPredef				
>ul-DPCH-				
PowerControlInfo				
>>dpch-ConstantValue	-0	0	0	0
>commonTimeslotInfo				
>>secondInterleavingMode	frameRelated	frameRelated	frameRelated	frameRelated
>>tfci-Coding	4	4	16	16
>>puncturingLimit	1	0.92	0.52	0.88
>>repetitionPeriodAndLeng	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1
th				
DL-				
CommonInformationPredef				
>dl-DPCH-InfoCommon				
>>commonTimeslotInfo				
>>>secondInterleavingMod e	frameRelated	frameRelated	frameRelated	frameRelated
>>>tfci-Coding	4	4	16	16
>>>puncturingLimit	1	0.92	0.52	0.92
>>>repetitionPeriodAndLe	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1
ngth	r	,	- P	p

Configuration	28.8 kbps conv.	32 kbps conv. CS-	64kbps conv. CS-	14.4 kbps
	CS- data +	data +	data +	streaming CS-
	3.4 kbps signalling	3.4 kbps signalling	3.4 kbps signalling	data +
				3.4 kbps signalling

Configuration	28.8 kbps conv.	32 kbps conv. CS-	64kbps conv. CS-	14.4 kbps
	CS- data + 3.4 kbps signalling	data + 3.4 kbps signalling	data + 3.4 kbps signalling	streaming CS- data + 3.4 kbps signalling
Ref 34.108	12	14	13	15
Default configuration	4	5	6	7
identity				
RB INFORMATION	55/ / 55/	55 55	557 7 557	
rb-Identity	RB1: 1, RB2: 2, RB3: 3, RB5: 5			
rlc-InfoChoice	RIc-info	RIC-info	RIC-info	RIC-info
>ul-RLC-Mode	RB1: UM	RB1: UM	RB1: UM	RB1: UM
	RB2- RB3: AM	RB2- RB3: AM	RB2- RB3: AM	RB2- RB3: AM
	RB5: TM	RB5: TM	RB5: TM	RB5: TM
>>transmissionRLC-	RB1: N/A	RB1: N/A	RB1: N/A	RB1: N/A
DiscardMode	RB2- RB3: NoDiscard	RB2- RB3: NoDiscard	RB2- RB3: NoDiscard	RB2- RB3: NoDiscard
	RB5: N/A	RB5: N/A	RB5: N/A	RB5: N/A
>>>maxDat	RB1: N/A	RB1: N/A	RB1: N/A	RB1: N/A
	RB2- RB3: 15	RB2- RB3: 15	RB2- RB3: 15	RB2- RB3: 15
	RB5: N/A	RB5: N/A	RB5: N/A	RB5: N/A
>>transmissionWindowSiz	RB1: N/A	RB1: N/A	RB1: N/A	RB1: N/A
е	RB2- RB3: 128 for UEs with more than	RB2- RB3: 128 for UEs with more than	RB2- RB3: 128 for UEs with more than	RB2- RB3: 128 for UEs with more than
	10 kbyte "total RLC			
	AM buffer size" and			
	32 otherwise	32 otherwise	32 otherwise	32 otherwise
	RB5: N/A	RB5: N/A	RB5: N/A	RB5: N/A
>>timerRST	RB1: N/A	RB1: N/A	RB1: N/A	RB1: N/A
	RB2- RB3: 300 RB5: N/A			
>>max-RST	RB1: N/A	RB1: N/A	RB1: N/A	RB1: N/A
z z max rec	RB2- RB3: 1	RB2- RB3: 1	RB2- RB3: 1	RB2- RB3: 1
	RB5: N/A	RB5: N/A	RB5: N/A	RB5: N/A
>>pollingInfo	RB1: N/A	RB1: N/A	RB1: N/A	RB1: N/A
	RB2- RB3: as below			
>>>lastTransmissionPDU-	RB5: N/A RB2- RB3: FALSE			
Poll	ND2- ND3. I ALGE	ND2- ND3. I ALOL	ND2- ND3. I ALGE	ND2- ND3. I ALGE
>>>lastRetransmissionPD	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
U-Poll				
>>>timerPollPeriodic	RB2- RB3: 300	RB2- RB3: 300	RB2- RB3: 300	RB2- RB3: 300
>>segmentationIndication	RB1- RB3: N/A	RB1- RB3: N/A	RB1- RB3: N/A	RB1- RB3: N/A
>dl-RLC-Mode	RB5: FALSE RB1: UM	RB5: FALSE RB1: UM	RB5: FALSE RB1: UM	RB5: FALSE RB1: UM
Zui-IVEO-IVIOGE	RB2- RB3: AM	RB2- RB3: AM	RB2- RB3: AM	RB2- RB3: AM
	RB5: TM	RB5: TM	RB5: TM	RB5: TM
>>inSequenceDelivery	RB1: N/A	RB1: N/A	RB1: N/A	RB1: N/A
	RB2- RB3: TRUE	RB2- RB3: TRUE	RB2- RB3: TRUE	RB2- RB3: TRUE
>>receivingWindowSize	RB5: N/A RB1: N/A	RB5: N/A RB1: N/A	RB5: N/A RB1: N/A	RB5: N/A RB1: N/A
>>receivingvvindow5ize	RB2- RB3: 128 for			
	UEs with more than			
	10 kbyte "total RLC			
	AM buffer size" and			
	32 otherwise	32 otherwise	32 otherwise	32 otherwise
>>dl-RLC-StatusInfo	RB5: N/A RB1: N/A	RB5: N/A RB1: N/A	RB5: N/A RB1: N/A	RB5: N/A RB1: N/A
	RB2- RB3: as below			
	RB5: N/A	RB5: N/A	RB5: N/A	RB5: N/A
>>>timerStatusProhibit	RB2- RB3: 100	RB2- RB3: 100	RB2- RB3: 100	RB2- RB3: 100
>>>missingPDU-Indicator	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>timerStatusPeriodic	RB2- RB3: 300	RB2- RB3: 300	RB2- RB3: 300	RB2- RB3: 300
>>segmentationIndication	RB1- RB3: N/A	RB1- RB3: N/A	RB1- RB3: N/A	RB1- RB3: N/A
rh-ManningInfo	RB5: FALSE	RB5: FALSE	RB5: FALSE	RB5: FALSE
rb-MappingInfo	<u>I</u>			1

Configuration	28.8 kbps conv.	32 kbps conv. CS-	64kbps conv. CS-	14.4 kbps
	CS- data + 3.4 kbps signalling	data + 3.4 kbps signalling	data + 3.4 kbps signalling	streaming CS- data + 3.4 kbps signalling
>UL-	OneLogicalChannel	OneLogicalChannel	OneLogicalChannel	OneLogicalChannel
LogicalChannelMappings	5.1	5.1	5.1	5.1
>>ul- TransportChannelType	Dch	Dch	Dch	Dch
>>>transportChannelIdenti ty	RB1- RB3: 2 RB5: 1	RB1- RB3: 2 RB5: 1	RB1- RB3: 2 RB5: 1	RB1- RB3: 2 RB5: 1
>>logicalChannelIdentity	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5: N/A
>>rlc-SizeList	RB1- RB3: configured RB5: N/A	RB1- RB3: configured RB5: N/A	RB1- RB3: configured RB5: N/A	RB1- RB3: configured RB5: N/A
>>mac- LogicalChannelPriority	RB1: 1, RB2: 2, RB3: 3 RB5: 5	RB1: 1, RB2: 2, RB3: 3 RB5: 5	RB1: 1, RB2: 2, RB3: 3 RB5: 5	RB1: 1, RB2: 2, RB3: 3 RB5: 5
>DL- logicalChannelMappingList				
>>Mapping option 1	One mapping option	One mapping option	One mapping option	One mapping option
>>>dl- TransportChannelType	Dch	Dch	Dch	Dch
>>>>transportChannellden tity	RB1- RB3: 2 RB5: 1	RB1- RB3: 2 RB5: 1	RB1- RB3: 2 RB5: 1	RB1- RB3: 2 RB5: 1
>>>logicalChannelIdentity	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5: N/A
TrCH INFORMATION PER TrCH				
UL- AddReconfTransChInfoLis t				
> Uplink transport channel type	dch	dch	dch	dch
>transportChannelIdentity >transportFormatSet	TrCH1: 1, TrCH2: 2 DedicatedTransChT FS	TrCH1: 1, TrCH2: 2 DedicatedTransChT FS	TrCH1: 1, TrCH2: 2 DedicatedTransChT FS	TrCH1: 1, TrCH2: 2 DedicatedTransChT FS
>>dynamicTF-information				
>>>tf0/ tf0,1	TrCH1: (0x576, 1x576, 2x576) TrCH2: (0x144, 1x144)	TrCH1: (0x640, 1x640) TrCH2: (0x144, 1x144)	TrCH1: (0x640, 2x640) TrCH2: (0x144, 1x144)	TrCH1: (0x576, 1x576) TrCH2: (0x144, 1x144)
>>>rlcSize	TrCH1: OctetMode TrCH2:BitMode	TrCH1: OctetMode TrCH2:BitMode	TrCH1: OctetMode TrCH2:BitMode	TrCH1: OctetMode TrCH2:BitMode
>>>>sizeType	TrCH1: type 2, part1= 119, part2= 2 (576) TrCH2: type 2, part1= 2, part2= 0 (144)	TrCH1: type 2, part1= 11, part2= 2 (640) TrCH2: type 2, part1= 2, part2= 0 (144)	TrCH1: type 2, part1= 11, part2= 2 (640) TrCH2: type 2, part1= 2, part2= 0 (144)	TrCH1: type 2, part1= 9, part2= 2 (576) TrCH2: type 2, part1= 2, part2= 0 (144)
>>>numberOfTbSizeList	TrCH1: Zero,1, 2 (4) TrCH2: Zero, one	TrCH1: Zero, one TrCH2: Zero, one	TrCH1: Zero, 2 -(4) TrCH2: Zero, one	TrCH1: Zero, one, TrCH2: Zero, one
>>>>logicalChannelList	All	All	All	All
>>semiStaticTF- Information				
>>>tti	TrCH1: 40 TrCH2: 40	TrCH1: 20 TrCH2: 40	TrCH1: 20 TrCH2: 40	TrCH1: 40 TrCH2: 40
>>>channelCodingType	TrCH1: Turbo TrCH2: Convolutional	TrCH1: Turbo TrCH2: Convolutional	TrCH1: Turbo TrCH2: Convolutional	TrCH1: Turbo TrCH2: Convolutional
>>>codingRate	TrCH1: N/A	TrCH1: N/A	TrCH1: N/A	TrCH1: N/A
>>>rateMatchingAttribute	TrCH2: Third TrCH1: 180 TrCH2: 160	TrCH2: Third TrCH1: 185 TrCH2: 160	TrCH2: Third TrCH1: 170 TrCH2: 160	TrCH2: Third TrCH1: 165 TrCH2: 160

Configuration	28.8 kbps conv.	32 kbps conv. CS-	64kbps conv. CS-	14.4 kbps
	CS- data + 3.4 kbps signalling	data + 3.4 kbps signalling	data + 3.4 kbps signalling	streaming CS- data +
				3.4 kbps signalling
>>>crc-Size	TrCH1: 16 TrCH2: 16	TrCH1: 16 TrCH2: 16	TrCH1: 16 TrCH2: 16	TrCH1: 16 TrCH2: 16
DL-				
AddReconfTransChInfoLis t				
>Downlink transport channel type	dch	dch	dch	dch
>dl-	TrCH1: 1, TrCH2: 2			
TransportChannelIdentity (should be as for UL)				
>tfs-SignallingMode	SameAsUL	SameAsUL	SameAsUL	SameAsUL
>>transportFormatSet >>>dynamicTF-information				
>>>tf0/ tf0,1				
>>>rlcSize				
>>>>sizeType >>>>numberOfTbSizeList				
>>>>logicalChannelList				
>>ULTrCH-Id	TrCH1: 1, TrCH2: 2			
>dch-QualityTarget >>bler-QualityValue				
,	TrCH1: 2x10 ⁻³ TrCH2: Absent	TrCH1: 2x10 ⁻³ TrCH2: Absent	TrCH1: 2x10 ⁻³ TrCH2: Absent	TrCH1: 1x10 ⁻² TrCH2: Absent
TrCH INFORMATION, COMMON				
ul-CommonTransChInfo				
>tfcs-ID (TDD only)	1	1	1	1
>sharedChannelIndicator (TDD only)	FALSE	FALSE	FALSE	FALSE
>tfc-Subset	Absent, not required	Absent, not required	Absent, not required	Absent, not required
>ul-TFCS	Normal TFCI	Normal TFCI	Normal TFCI	Normal TFCI
>>explicitTFCS-	signalling Complete	signalling Complete	signalling Complete	signalling Complete
ConfigurationMode	Complete	Complete	Complete	Complete
>>>ctfcSize	Ctfc2BitCtfc4Bit	Ctfc2Bit	Ctfc2Bit	Ctfc4Bit
>>>TFCS representation	Addition	Addition	Addition	Addition
>>>>TFCS list	(TEO TEO)	(TEO, TEO)	(TEO TEO)	(TE0, TE0)
>>>>TFCS 1	(TF0, TF0)	(TF0, TF0)	(TF0, TF0)	(TF0, TF0)
>>>>>ctfc >>>>>gainFactorInform	0 Computed	0 Computed	0 Computed	0 Computed
ation	Computed	Computed	Computed	Computed
>>>>>>referenceTFCld	0	0	0	0
>>>>TFCS 2	(TF1, TF0)	(TF1, TF0)	(TF1, TF0)	(TF1, TF0)
>>>>>ctfc >>>>>gainFactorInform	1 Computed	1 Computed	1 Computed	1 Computed
ation	·			·
>>>>>βc (FDD only)	N/A	N/A	N/A	N/A
>>>>>βd	N/A	N/A	N/A	N/A
>>>>>referenceTFCld	0	0	0	0
>>>>TFCS 3	(TF2, TF0)	(TF0, TF1)	(TF0, TF1)	(TF0, TF1)
>>>>>ctfc >>>>>gainFactorInform	2 Computed	2 Computed	2 Computed	2 Computed
ation	Computed	Computed	·	·
>>>>>referenceTFCld	(TEO, TEA)	(TE4, TE4)	(TE4, TE4)	(TE4, TE4)
>>>>TFCS 4	(TF0, TF1) 3	(TF1, TF1) 3	(TF1, TF1) 3	(TF1, TF1) 3
>>>>>ctrc >>>>>gainFactorInform	Computed	Signalled	Signalled	Signalled
ation	·			
>>>>>βc (FDD only)	N/A	8	8	11
>>>>>βd	N/A	15	15	15
>>>>>referenceTFCId	0	0	0	0

Configuration	28.8 kbps conv. CS- data +	32 kbps conv. CS- data +	64kbps conv. CS- data +	14.4 kbps streaming CS-
	3.4 kbps signalling	3.4 kbps signalling	3.4 kbps signalling	data +
TF00.5	(TE4 TE4)	N1/A	N1/A	3.4 kbps signalling
>>>>TFCS 5	(TF1, TF1) 4	N/A	N/A	
>>>>>ctfc	-			
>>>>>gainFactorInform ation	Computed			
>>>>>referenceTFCId	0			
>>>>TFCS 6	(TF2, TF1)	N/A	N/A	
>>>>>ctfc	5			
>>>>>gainFactorInform ation	Signalled			
>>>>>βc (FDD only)	8			
>>>>>βd	15			
>>>>>referenceTFCId	0			
>>>>TFCS 7				
>>>>>ctfc				
>>>>>gainFactorInform				
ation				
>>>>>>referenceTFCId				
>>>>TFCS 8				
>>>>>ctfc				
>>>>>gainFactorInform				
ation				
>>>>>referenceTFCId				
>>>>TFCS 9				
>>>>>ctfc				
>>>>>gainFactorInform				
ation				
>>>>>referenceTFCId				
>>>>TFCS 10				
>>>>>ctfc				
>>>>>gainFactorInform ation				
>>>>>βc (FDD only)				
>>>>>βd				
>>>>>referenceTFCId				
dl-CommonTransChInfo				
>tfcs-SignallingMode	Same as UL	Same as UL	Same as UL	Same as UL
PhyCH INFORMATION				
FDD				
UL-DPCH-InfoPredef				
>ul-DPCH-				
PowerControlInfo	Algorith 4	Algorithms 4	Algorith 4	Algorithms 4
>>powerControlAlgorithm	Algorithm 1	Algorithm 1	Algorithm 1	Algorithm 1
>>>tpcStepSize	•	TRUE	•	•
>tfci-Existence	TRUE 0.92		TRUE	TRUE
>puncturingLimit DL-	0.92	0.8	0.92	1
CommonInformationPrede f				
>dl-DPCH-InfoCommon				
>>spreadingFactor	64	64	32	128
>>tfci-Existence	TRUE	TRUE	TRUE	TRUE
>>pilotBits	8	8	8	8
>>positionFixed	Flexible	Flexible	Flexible	Flexible
PhyCH INFORMATION TDD				
UL-DPCH-InfoPredef				
>ul-DPCH-				
PowerControlInfo				
>>dpch-ConstantValue	0	0	0	0
	1		1	ı

Configuration	28.8 kbps conv. CS- data + 3.4 kbps signalling	32 kbps conv. CS- data + 3.4 kbps signalling	64kbps conv. CS- data + 3.4 kbps signalling	14.4 kbps streaming CS- data + 3.4 kbps signalling
>commonTimeslotInfo				
>>secondInterleavingMod	frameRelated	frameRelated	frameRelated	frameRelated
е				
>>tfci-Coding	16	8	8	8
>>puncturingLimit	0.44	0.8	0.56	0.8
>>repetitionPeriodAndLen gth	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1
DL- CommonInformationPrede f				
>dl-DPCH-InfoCommon				
>>commonTimeslotInfo				
>>>secondInterleavingMo de	frameRelated	frameRelated	frameRelated	frameRelated
>>>tfci-Coding	16	8	8	8
>>>puncturingLimit	0.44	0.64	0.56	0.8
>>>repetitionPeriodAndLe ngth	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1

Configuration	28.8 kbps	57.6 kbps	12.2 kbps speech(multimode
	streaming CS- data +	streaming CS- data +) +
	3.4 kbps signalling	3.4 kbps signalling	3.4 kbps signalling
Ref 34.108	16	17	4a
Default configuration	8	9	10
identity		3	10
RB INFORMATION			
rb-Identity	RB1: 1, RB2: 2,	RB1: 1, RB2: 2,	RB1: 1, RB2: 2,
16 Identity	RB3: 3, RB5: 5	RB3: 3, RB5: 5	RB3: 3, RB5: 5,
	100.0,100.0	1100. 0, 1100. 0	RB6: 6, RB7: 7
rlc-InfoChoice	RIc-info	RIc-info	RIc-info
>ul-RLC-Mode	RB1: UM	RB1: UM	RB1: UM
Zui ILEO Mode	RB2- RB3: AM	RB2- RB3: AM	RB2- RB3: AM
	RB5: TM	RB5: TM	RB5-RB7: TM
>>transmissionRLC-	RB1: N/A	RB1: N/A	RB1: N/A
DiscardMode	RB2- RB3:	RB2- RB3:	RB2- RB3:
	NoDiscard	NoDiscard	NoDiscard
	RB5: N/A	RB5: N/A	RB5- RB7: N/A
>>>maxDat	RB1: N/A	RB1: N/A	RB1: N/A
	RB2- RB3: 15	RB2- RB3: 15	RB2- RB3: 15
	RB5: N/A	RB5: N/A	RB5- RB7: N/A
>>transmissionWindowSiz	RB1: N/A	RB1: N/A	RB1: N/A
е	RB2- RB3: 128 for	RB2- RB3: 128 for	RB2- RB3: 128 for
	UEs with more than	UEs with more than	UEs with more than
	10 kbyte "total RLC	10 kbyte "total RLC	10 kbyte "total RLC
	AM buffer size" and	AM buffer size" and	AM buffer size" and
	32 otherwise	32 otherwise	32 otherwise
	RB5: N/A	RB5: N/A	RB5- RB7: N/A
>>timerRST	RB1: N/A	RB1: N/A	RB1: N/A
	RB2- RB3: 300	RB2- RB3: 300	RB2- RB3: 300
	RB5: N/A	RB5: N/A	RB5- RB7: N/A
>>max-RST	RB1: N/A	RB1: N/A	RB1: N/A
	RB2- RB3: 1	RB2- RB3: 1	RB2- RB3: 1
	RB5: N/A	RB5: N/A	RB5- RB7: N/A
>>pollingInfo	RB1: N/A	RB1: N/A	RB1: N/A
	RB2- RB3: as below	RB2- RB3: as below	RB2- RB3: as below
	RB5: N/A	RB5: N/A	RB5- RB7: N/A
>>>lastTransmissionPDU- Poll	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>lastRetransmissionPD U-Poll	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE

Configuration	28.8 kbps streaming CS- data +	57.6 kbps streaming CS- data +	12.2 kbps speech(multimode) +
	3.4 kbps signalling	3.4 kbps signalling	3.4 kbps signalling
>>>timerPollPeriodic	RB2- RB3: 300	RB2- RB3: 300	RB2- RB3: 300
>>segmentationIndication	RB1- RB3: N/A	RB1- RB3: N/A	RB1- RB3: N/A
	RB5: FALSE	RB5: FALSE	RB5- RB7: FALSE
>dl-RLC-Mode	RB1: UM	RB1: UM	RB1: UM
	RB2- RB3: AM	RB2- RB3: AM	RB2- RB3: AM
>>inSequenceDelivery	RB5: TM RB1: N/A	RB5: TM RB1: N/A	RB5- RB7: TM RB1: N/A
>>insequenceDelivery	RB2- RB3: TRUE	RB2- RB3: TRUE	RB2- RB3: TRUE
	RB5: N/A	RB5: N/A	RB5- RB7: N/A
>>receivingWindowSize	RB1: N/A	RB1: N/A	RB1: N/A
	RB2- RB3: 128 for	RB2- RB3: 128 for	RB2- RB3: 128 for
	UEs with more than	UEs with more than	UEs with more than
	10 kbyte "total RLC	10 kbyte "total RLC	10 kbyte "total RLC
	AM buffer size" and 32 otherwise	AM buffer size" and 32 otherwise	AM buffer size" and 32 otherwise
	RB5: N/A	RB5: N/A	RB5- RB7: N/A
>>dl-RLC-StatusInfo	RB1: N/A	RB1: N/A	RB1: N/A
	RB2- RB3: as below	RB2- RB3: as below	RB2- RB3: as below
	RB5: N/A	RB5: N/A	RB5- RB7: N/A
>>>timerStatusProhibit	RB2- RB3: 100	RB2- RB3: 100	RB2- RB3: 100
>>>missingPDU-Indicator	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>timerStatusPeriodic	RB2- RB3: 300	RB2- RB3: 300	RB2- RB3: 300
>>segmentationIndication	RB1- RB3: N/A	RB1- RB3: N/A	RB1- RB3: N/A
rb-MappingInfo	RB5: FALSE	RB5: FALSE	RB5- RB7: FALSE
>UL-	OneLogicalChannel	OneLogicalChannel	OneLogicalChannel
LogicalChannelMappings	OneLogicalonaline	OneLogicalOnaline	Onceogloaionamici
>>ul-	Dch	Dch	Dch
TransportChannelType			
>>>transportChannelIdenti	RB1- RB3: 2	RB1- RB3: 2	RB1- RB3: 4
ty	RB5: 1	RB5: 1	RB5: 1, RB6: 2,
>>logicalChannelIdentity	RB1: 1, RB2: 2,	RB1: 1, RB2: 2,	RB7: 3 RB1: 1, RB2: 2,
>>logicalCriatifielidefility	RB3: 3	RB3: 3	RB3: 3
	RB5: N/A	RB5: N/A	RB5- RB7: N/A
>>rlc-SizeList	RB1- RB3:	RB1- RB3:	RB1- RB3:
	configured	configured	configured
	RB5: N/A	RB5: N/A	RB5- RB7: N/A
>>mac-	RB1: 1, RB2: 2,	RB1: 1, RB2: 2,	RB1: 1, RB2: 2,
LogicalChannelPriority	RB3: 3 RB5: 5	RB3: 3 RB5: 5	RB3: 3 RB5- RB7: 5
>DL-	NDS. 5	ND3. 3	ND3- ND1. 3
logicalChannelMappingList			
>>Mapping option 1	One mapping option	One mapping option	One mapping option
>>>dl-	Dch	Dch	Dch
TransportChannelType			
>>>>transportChannellden	RB1- RB3: 2	RB1- RB3: 2	RB1- RB3: 4
tity	RB5: 1	RB5: 1	RB5: 1, RB6: 2, RB7: 3
>>>logicalChannelIdentity	RB1: 1, RB2: 2,	RB1: 1, RB2: 2,	RB1: 1, RB2: 2,
	RB3: 3	RB3: 3	RB3: 3
	RB5: N/A	RB5: N/A	RB5- RB7: N/A
TrCH INFORMATION PER TrCH			
UL-			
AddReconfTransChInfoLis t			
>Uplink transport channel type	dch	dch	dch
>transportChannelIdentity	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2, TrCH3: 3, TrCH4: 4

Configuration	28.8 kbps streaming CS-	57.6 kbps streaming CS-	12.2 kbps speech(multimode
	data +	data +) +
. transportFormatCat	3.4 kbps signalling DedicatedTransChT	3.4 kbps signalling DedicatedTransChT	3.4 kbps signalling DedicatedTransChT
>transportFormatSet	FS	FS	FS
>>dynamicTF-information			
>>>tf0/ tf0,1	TrCH1: (0x576,	TrCH1: (0x576,	TrCH1: (0x81)
	1x576, 2x576) TrCH2: (0x144,	1x576, 2x576, 3x576, 4x576)	TrCH2: (0x 103 TrCH3: (0x 60)
	1x144)	TrCH2: (0x144,	TrCH4: (0x144)
		1x144)	5
>>>rlcSize	TrCH1: OctetMode TrCH2:BitMode	TrCH1: OctetMode TrCH2:BitMode	BitMode
>>>>sizeType	TrCH1: type 2,	TrCH1: type 2,	TrCH1: type 1: 81
	part1= 9, part2= 2 (576)	part1= 9, part2= 2 (576)	TrCH2: type 1: 103 TrCH3: type 1: 60
	TrCH2: type 2,	TrCH2: type 2,	TrCH4: 2: type 2,
	part1= 2,	part1= 2,	part1= 2, part2= 0 (144)
>>>numberOfTbSizeList	part2= 0 (144) TrCH1: Zero, one, 2	part2= 0 (144) TrCH1: Zero, one,	TrCH1-4: Zero
	TrCH2: Zero, one	2, 3, 4	
1 1 101 1111	A.II	TrCH2: Zero, one	A.II
>>>logicalChannelList	All	All	All TrCH1: (1x39)
>>>II 1			TrCH2: (1x53)
			TrCH3: (1x60)
>>>>numberOfTransportBl			TrCH4: (1x144) TrCH1-3: One
ocks			
>>>rlc-Size			TrCH1-3: BitMode TrCH1: 1: 39
>>>>sizeType			TrCH1: 1: 59
			TrCH3: 1: 60
>>>numberOfTbSizeList			TrCH1-3: One
>>>logicalChannelList			TrCH1-3: all TrCH1: (1x42)
>>>u Z			TrCH2: (1x63)
			TrCH3- TrCH4: N/A
>>>numberOfTransportBl ocks			TrCH1-2: One
>>>rlc-Size			TrCH1: BitMode
>>>>sizeType			TrCH1: type 1: 42 TrCH2: type 1: 63
>>>numberOfTbSizeList			TrCH1-2: One
>>>logicalChannelList >>>tf 3			TrCH1: all TrCH1: (1x55)
///u J			TrCH1: (1x84)
			TrCH3- TrCH4: N/A
>>>numberOfTransportBl ocks			TrCH1-2: ZeroOne
>>>rlc-Size			TrCH1: BitMode
>>>>sizeType			TrCH1: type 1: 55 TrCH2: type 1: 84
>>>>numberOfTbSizeList			TrCH1-2: One
>>>>logicalChannelList			TrCH1: all
>>>tf 4			TrCH1: (1x75)
			TrCH2: (1x103) TrCH3- TrCH4: N/A
>>>numberOfTransportBl			TrCH1-2: One
>>>rlc-Size			TrCH1: BitMode
>>>>sizeType			TrCH1: type 1: 75 TrCH2: type 1: 103
>>>>numberOfTbSizeList			TrCH1-2: One
>>>>logicalChannelList			TrCH1: all

Configuration	28.8 kbps streaming CS- data +	57.6 kbps streaming CS- data +	12.2 kbps speech(multimode
	3.4 kbps signalling	3.4 kbps signalling) + 3.4 kbps signalling
>>>tf 5		opo o.gg	TrCH1: (1x81) TrCH2- TrCH4: N/A
>>>numberOfTransportBl ocks			TrCH1: One
>>>rlc-Size			TrCH1: BitMode
>>>>sizeType			TrCH1: type 1: 81
>>>>numberOfTbSizeList			TrCH1: One
>>>logicalChannelList >>semiStaticTF-			TrCH1: all
Information			
>>>tti	TrCH1: 40 TrCH2: 40	TrCH1: 40 TrCH2: 40	TrCH1- TrCH3: 20 TrCH4: 40
>>>channelCodingType	TrCH1: Turbo TrCH2: Convolutional	TrCH1: Turbo TrCH2: Convolutional	Convolutional
>>>>codingRate	TrCH1: N/A	TrCH1: N/A	TrCH1- TrCH2:
, and	TrCH2: Third	TrCH2: Third	Third TrCH3: Half TrCH4: Third
>>>rateMatchingAttribute	TrCH1: 155 TrCH2: 160	TrCH1: 145 TrCH2: 160	TrCH1: 200 TrCH2: 190 TrCH3: 235 TrCH4: 160
>>>crc-Size	TrCH1: 16 TrCH2: 16	TrCH1: 16 TrCH2: 16	TrCH1: 12 TrCH2- TrCH3: 0 TrCH4: 16
DL- AddReconfTransChInfoLis t			
>Downlink transport channel type	dch	dch	dch
>dl- TransportChannelIdentity (should be as for UL)	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2, TrCH3: 3, TrCH4: 4
>tfs-SignallingMode	SameAsUL	SameAsUL	Independent <only and="" below="" different="" is="" on="" shown="" tf0="" trch1=""></only>
>>transportFormatSet			DedicatedTransChT FS
>>>dynamicTF-information			T::OLIA: (4::O)
>>>tf0/tf0,1 >>>>rlcSize			TrCH1: (1x0) bitMode
>>>>sizeType			TrCH1: type 1: 0
>>>>numberOfTbSizeList			TrCH1: One
>>>>logicalChannelList			All
>>ULTrCH-Id	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2, TrCH3: 3, TrCH4: 4
>dch-QualityTarget	2	_	
>>bler-QualityValue	TrCH1: 1x10 ⁻² TrCH2: Absent	TrCH1: 1x10 ⁻² TrCH2: Absent	TrCH1: 7x10 ⁻³ TrCH2- TrCH4: Absent
TrCH INFORMATION, COMMON			
ul-CommonTransChInfo			
>tfcs-ID (TDD only)	1	1	1
>sharedChannelIndicator (TDD only)	FALSE	FALSE	FALSE
>tfc-Subset	Absent, not required	Absent, not required	Absent, not required
>ul-TFCS	Normal TFCI signalling	Normal TFCI signalling	Normal TFCI signalling

Configuration	28.8 kbps streaming CS- data +	57.6 kbps streaming CS- data +	12.2 kbps speech(multimode	
	3.4 kbps signalling	3.4 kbps signalling	3.4 kbps signalling	
>>explicitTFCS- ConfigurationMode	Complete	Complete	Complete	
>>>ctfcSize	Ctfc4Bit	Ctfc4Bit	Ctfc8Bit	
>>>>TFCS representation	Addition	Addition	Addition	
>>>>TFCS list		(
>>>>>TFCS 1	(TF0, TF0)	(TF0, TF0)	(TF0, TF0, TF0, TF0)	
>>>>>ctfc	0	0	0	
>>>>> gainFactorInform ation	Computed	Computed	Computed	
>>>>>referenceTFCId	0	0	0	
>>>>>TFCS 2	(TF1, TF0)	(TF1, TF0)	(TF1, TF0, TF0, TF0)	
>>>>>ctfc	1	1	1	
>>>>>gainFactorInform ation	Computed	Computed	Computed	
>>>>>βc (FDD only)	N/A	N/A	N/A	
>>>>>βd	N/A	N/A	N/A	
>>>>>referenceTFCId	0	0	0	
>>>>>TFCS 3	(TF2, TF0)	(TF2, TF0)	(TF2, TF1, TF0, TF0)	
>>>>>ctfc	2	2	8	
>>>>>gainFactorInform ation	Computed	Computed	Computed	
>>>>>referenceTFCId	0	0	0	
>>>>TFCS 4	(TF0, TF1)	(TF3, TF0)	(TF3, TF2, TF0, TF0)	
>>>>>ctfc	3	3	15	
>>>>> gainFactorInform ation	Computed	Computed	Computed	
>>>>>>βc (FDD only)	N/A	N/A	N/A	
>>>>>βd	N/A	N/A	N/A	
>>>>>referenceTFCId	0	0	0	
>>>>>TFCS 5	(TF1, TF1)	(TF4, TF0)	(TF4, TF3, TF0, TF0)	
>>>>>ctfc	4	4	22	
>>>>> gainFactorInform ation	Computed	Computed	Computed	
>>>>>>referenceTFCld	(750, 754)	(TEO TEA)	0 (TES TEA TEA	
>>>>TFCS 6	(TF2, TF1)	(TF0, TF1)	(TF5, TF4, TF1, TF0)	
>>>>>Ctfc	5 Signalled	5 Computed	59 Computed	
>>>>>gainFactorInform ation	Signalled	Computed	Computed	
>>>>>βc (FDD only)	8	N/A	N/A	
>>>>>βd	15	N/A	N/A	
>>>>>referenceTFCId	0	(TE4, TE4)	(TEO TEO TEO TEO)	
>>>>TFCS 7		(TF1, TF1)	(TF0,TF0,TF0,TF1)	
>>>>>ctfc >>>>>gainFactorInform		6 Computed	60 Computed	
ation >>>>>referenceTFCId		0	0	
>>>>>TFCS 8		(TF2, TF1)	(TF1,TF0,TF0,TF1)	
>>>>>ctfc		7	61	
>>>>>gainFactorInform		Computed	Computed	
>>>>>>referenceTFCId		0	0	
>>>>TFCS 9		(TF3, TF1)	(TF2,TF1,TF0,TF1)	
>>>>>ctfc		8	68	

Configuration	28.8 kbps streaming CS- data +	57.6 kbps streaming CS- data +	12.2 kbps speech(multimode
	3.4 kbps signalling	3.4 kbps signalling	3.4 kbps signalling
>>>>>gainFactorInform ation	3	Computed	Computed
>>>>>>referenceTFCId		0	0
>>>>TFCS 10		(TF4, TF1)	(TF3,TF2,TF0,TF1)
>>>>>ctfc		9	75
>>>>>gainFactorInform ation		Signalled	Computed
>>>>>βc (FDD only)		8	N/A
>>>>>βd		15	N/A
>>>>>>referenceTFCld		0	0
>>>>TFCS 11			(TF4,TF3,TF0,TF1)
>>>>>ctfc			82
>>>>>gainFactorInform ation			Computed
>>>>>referenceTFCld			0
>>>>TFCS 12			(TF5,TF4,TF1,TF1)
>>>>>ctfc			119
>>>>>gainFactorInform ation			Signalled
>>>>>βc (FDD only)			11
>>>>>βd			15
>>>>>referenceTFCId			0
dl-CommonTransChInfo			
>tfcs-SignallingMode	Same as UL	Same as UL	Same as UL
PhyCH INFORMATION FDD			
UL-DPCH-InfoPredef			
>ul-DPCH-			
PowerControlInfo			
>>powerControlAlgorithm	Algorithm 1	Algorithm 1	Algorithm 1
>>>tpcStepSize	1	1	1
>tfci-Existence	TRUE	TRUE	TRUE
>puncturingLimit	1	1	0.88
DL- CommonInformationPrede f			
>dl-DPCH-InfoCommon			
>>spreadingFactor	64	32	128
>>tfci-Existence	TRUE	TRUE	FALSE
>>pilotBits	8	8	4
>>positionFixed	Flexible	Flexible	Fixed
PhyCH INFORMATION TDD			
UL-DPCH-InfoPredef			
>ul-DPCH- PowerControlInfo			
>>dpch-ConstantValue	0	0	0
>commonTimeslotInfo			
>>secondInterleavingMod	frameRelated	frameRelated	frameRelated
e s tfoi Coding	16	16	16
>>tfci-Coding	16 0.44	16 0.48	16 0.88
>>puncturingLimit >>repetitionPeriodAndLen	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1
gth DL- CommonInformationPrede	Topolition Chod	Topolition Chou	Topolition Chod I
>dl-DPCH-InfoCommon			
>>commonTimeslotInfo			

Configuration	28.8 kbps streaming CS- data + 3.4 kbps signalling	57.6 kbps streaming CS- data + 3.4 kbps signalling	12.2 kbps speech(multimode) + 3.4 kbps signalling
>>>secondInterleavingMo de	frameRelated	frameRelated	frameRelated
>>>tfci-Coding	16	16	16
>>>puncturingLimit	0.44	0.48	0.92
>>>repetitionPeriodAndLe ngth	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1

3GPP TSG-RAN WG2 Meeting #34 Sophia Antipolis, France, 17-21 February 2003

CHANGE REQUEST					CR-Form-v7			
ж	25.331 CR	1845	жrev	-	\mathfrak{R}	Current version:	4.8.0	ж

For <u>HELP</u> on using this form, see bottom of this page or look at the pop-up text over the **#** symbols.

Proposed chang	ge a	affects:	UICC apps#	ME <mark>X</mark>	Radio Aco	cess Netwo	k X Co	re Network
Title:	¥	Correct	tion of default configura	tions				
Source:	¥	TSG-R	AN WG2					
Work item code	<i>:</i>	TEI				Date: ₩	11/02/20	003
Category:	¥	Α				Release: ₩	Rel-4	
			of the following categories correction)).		Use <u>one</u> of 2	the followir (GSM Pha	ng releases: use 2)
		•	corresponds to a correction addition of feature),	n in an ear	lier release)	R96 R97	(Release 1	,
		•	functional modification of for editorial modification)	eature)		R98 R99	(Release 1	
		Detailed e	explanations of the above	categories	s can	Rel-4	(Release 4	<i>4)</i>
		be found	in 3GPP <u>TR 21.900</u> .			Rel-5 Rel-6	(Release 5	,

Reason for change: A number of errors have been identified in the default configurations

- 1 For configuration 2, 3, 10, the 'numberOfTransportBlocks' is indicated as zero which is in contradiction to the transport format which is indicated as (1xTBSize).
- 2 For configuration 4, the RLC size is currently 'type 2, part1=11, part2 = 2' which is not equivalent to the intended transport block size of 576.
- 3 For configuration 4 and 6, the 'numberOfTbSizeList' has a '(4)' in the list of numbers of transport blocks. It is not clear what this means and it does not seem to be in line with the TFS.
- 4 For configuration 8, the 'ctfcSize' is indicated as 'Ctfc2bit' but the maximum value of CTFC that needs to be signalled is 5. Hence 'Ctfc4Bit' should be used.

Summary of change: # The following changes are made:

- 1 The numberOfTransportBlocks is changed from zero to one
- 2 The part1 is changed from 11 to 9
- 3 The unnecessary '(4)' is removed
- 4 The ctfcSize is changed to Ctfc4Bit

Isolated Impact Analysis

Functionality corrected: Inter-RAT handover to UTRAN using default

configurations.

Isolated impact statement: Correction to a function where specification containing some contradictions. Would not affect implementations behaving like indicated in the CR, would affect implementations supporting the corrected functionality otherwise.

If neither UTRAN nor UE implement according to this CR the TFS in UTRAN and UE will not be correct following inter-RAT handover with default configuration. This will result in failure of the handover or radio link failure shortly after handover.

If UTRAN implements according to the CR but UE does not implement according to the CR then the TFS in UTRAN and UE will not be aligned following inter-RAT handover with default configuration. This will result in failure of the handover or radio link failure shortly after handover.

If UE implements according to the CR but UTRAN does not implement according to the CR then the TFS in UTRAN and UE will not be aligned following inter-RAT handover with default configuration. This will result in failure of the handover or radio link failure shortly after handover.

Consequences if not approved:

If the CR is not approved the definition of the TFSs in the default configurations will be incorrect. Use of an incorrect TFS in either UE or UTRAN will result in a handover to UTRAN failing or the a radio link failure shortly after the handover.

Clauses affected:	ж	13.7			
Other specs affected:	¥	Y N X X X	Other core specifications Test specifications O&M Specifications	¥	
Other comments:	×				

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at http://www.3gpp.org/specs/CR.htm. Below is a brief summary:

- 2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

13.7 Parameter values for default radio configurations

The UE shall support the use of the default radio configurations that are specified in the following.

NOTE 1: These configurations are based on [41] and cover a number of RAB and signalling connection configurations.

In the table that is used to specify the parameter values for these default configurations, the following principles are used:

- Optional IEs that are not used are omitted;
- In case no parameter value is specified in a column, this means the value given the previous (left side) column applies.
- NOTE 2: If needed, signalling radio bearer RB4 is established after the completion of handover.
- NOTE 3: For each default configuration, the value of FDD, 3.84 Mcps TDD and 1.28 Mcps TDD parameters are specified. All parameters apply to FDD, 3.84 Mcps TDD and 1.28 Mcps TDD modes, unless explicitly stated otherwise. It should be noted that in this respect default configurations differ from pre-defined configurations, which only include parameter values for one mode.
- NOTE 4: The transport format sizes, indicated in the following table, concern the RLC PDU size, since all configurations concern dedicated channels. The transport block sizes indicated in TS 34.108 are different since these include the size of the MAC header.

Configuration	3.4 kbps signalling	13.6 kbps signalling	7.95 kbps speech + 3.4 kbps signalling	12.2 kbps speech + 3.4 kbps signalling
Ref 34.108	2	3	6	4
Default configuration identity	0	1	2	3
RB INFORMATION				
rb-Identity	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3, RB5: 5, RB6: 6	RB1: 1, RB2: 2, RB3: 3, RB5: 5, RB6: 6, RB7: 7
rlc-InfoChoice	RIc-info	RIc-info	RIc-info	RIc-info
>ul-RLC-Mode	RB1: UM RB2- RB3: AM	RB1: UM RB2- RB3: AM	RB1: UM RB2- RB3: AM RB5-RB6: TM	RB1: UM RB2- RB3: AM RB5-RB7: TM
>>transmissionRLC- DiscardMode	RB1: N/A RB2- RB3: NoDiscard	RB1: N/A RB2- RB3: NoDiscard	RB1: N/A RB2- RB3: NoDiscard RB5- RB6: N/A	RB1: N/A RB2- RB3: NoDiscard RB5- RB7: N/A
>>>maxDat	RB1: N/A RB2- RB3: 15	RB1: N/A RB2- RB3: 15	RB1: N/A RB2- RB3: 15 RB5- RB6: N/A	RB1: N/A RB2- RB3: 15 RB5- RB7: N/A
>>transmissionWindowSiz e	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise RB5- RB6: N/A	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise RB5- RB7: N/A
>>timerRST	RB1: N/A RB2- RB3: 300	RB1: N/A RB2- RB3: 300	RB1: N/A RB2- RB3: 300 RB5- RB6: N/A	RB1: N/A RB2- RB3: 300 RB5- RB7: N/A
>>max-RST	RB1: N/A RB2- RB3: 1	RB1: N/A RB2- RB3: 1	RB1: N/A RB2- RB3: 1 RB5- RB6: N/A	RB1: N/A RB2- RB3: 1 RB5- RB7: N/A
>>pollingInfo	RB1: N/A RB2- RB3: as below	RB1: N/A RB2- RB3: as below	RB1: N/A RB2- RB3: as below RB5- RB6: N/A	RB1: N/A RB2- RB3: as below RB5- RB7: N/A

Configuration	3.4 kbps signalling	13.6 kbps signalling	7.95 kbps speech	12.2 kbps speech
		signaming	3.4 kbps signalling	3.4 kbps signalling
>>>lastTransmissionPDU-Poll	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>lastRetransmissionPD U-Poll	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>timerPollPeriodic	RB2- RB3: 300	RB2- RB3: 100	RB2- RB3: 300	RB2- RB3: 300
>>segmentationIndication	RB1- RB3: N/A	RB1- RB3: N/A	RB1- RB3: N/A RB5- RB6: FALSE	RB1- RB3: N/A RB5- RB7: FALSE
>dl-RLC-Mode	RB1: UM RB2- RB3: AM	RB1: UM RB2- RB3: AM	RB1: UM RB2- RB3: AM RB5- RB6: TM	RB1: UM RB2- RB3: AM RB5- RB7: TM
>>inSequenceDelivery	RB1: N/A RB2- RB3: TRUE	RB1: N/A RB2- RB3: TRUE	RB1: N/A RB2- RB3: TRUE RB5- RB6: N/A	RB1: N/A RB2- RB3: TRUE RB5- RB7: N/A
>>receivingWindowSize	RB1: N/A RB2- RB3: 128 for			
	UEs with more than 10 kbyte "total RLC AM buffer size" and	UEs with more than 10 kbyte "total RLC AM buffer size" and	UEs with more than 10 kbyte "total RLC AM buffer size" and	UEs with more than 10 kbyte "total RLC AM buffer size" and
	32 otherwise	32 otherwise	32 otherwise RB5- RB6: N/A	32 otherwise RB5- RB7: N/A
>>dl-RLC-StatusInfo	RB1: N/A RB2- RB3: as below	RB1: N/A RB2- RB3: as below	RB1: N/A RB2- RB3: as below RB5- RB6: N/A	RB1: N/A RB2- RB3: as below RB5- RB7: N/A
>>>timerStatusProhibit	RB2- RB3: 100	RB2- RB3: 100	RB2- RB3: 100	RB2- RB3: 100
>>>missingPDU-Indicator	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>timerStatusPeriodic	RB2- RB3: 300	RB2- RB3: 100	RB2- RB3: 300	RB2- RB3: 300
>>segmentationIndication	RB1- RB3: N/A	RB1- RB3: N/A	RB1- RB3: N/A RB5- RB6: FALSE	RB1- RB3: N/A RB5- RB7: FALSE
rb-MappingInfo				
>UL- LogicalChannelMappings	OneLogicalChannel	OneLogicalChannel	OneLogicalChannel	OneLogicalChannel
>>ul- TransportChannelType	Dch	Dch	Dch	Dch
>>>transportChannelldentit y	RB1- RB3: 1	RB1- RB3: 1	RB1- RB3: 3 RB5: 1, RB6: 2	RB1- RB3: 4 RB5: 1, RB6: 2, RB7: 3
>>logicalChannelIdentity	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3 RB5- RB6: N/A	RB1: 1, RB2: 2, RB3: 3 RB5- RB7: N/A
>>rlc-SizeList	RB1- RB3: configured	RB1- RB3: configured	RB1- RB3: configured RB5- RB6: N/A	RB1- RB3: configured RB5- RB7: N/A
>>mac- LogicalChannelPriority	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3 RB5- RB6: 5	RB1: 1, RB2: 2, RB3: 3 RB5- RB7: 5
>DL- logicalChannelMappingList				
>>Mapping option 1 >>>dl-	One mapping option Dch			
TransportChannelType				
>>>>transportChannelIden tity	RB1- RB3: 1	RB1- RB3: 1	RB1- RB3: 3 RB5: 1, RB6: 2	RB1- RB3: 4 RB5: 1, RB6: 2, RB7: 3
>>>logicalChannelIdentity	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3 RB5- RB6: N/A	RB1: 1, RB2: 2, RB3: 3 RB5- RB7: N/A
TrCH INFORMATION PER TrCH			NDO- NDO. IV/A	NOO- NOT. IVA
UL- AddReconfTransChInfoList				
>Uplink transport channel type	dch	dch	dch	dch

Configuration	3.4 kbps signalling	13.6 kbps signalling	7.95 kbps speech	12.2 kbps speech
		orgraming	3.4 kbps signalling	3.4 kbps signalling
>transportChannelIdentity	TrCH1: 1	TrCH1: 1	TrCH1: 1, TrCH2: 2, TrCH3: 3	TrCH1: 1, TrCH2: 2, TrCH3: 3, TrCH4: 4
>transportFormatSet	DedicatedTransChT FS	DedicatedTransChT FS	DedicatedTransChT FS	DedicatedTransChT FS
>>dynamicTF-information				
>>>tf0/ tf0,1	TrCH1: (0x144, 1x144)	TrCH1: (0x144, 1x144)	TrCH1: (0x75) TrCH2: (0x 84 1x84) TrCH3: (0x144, 1x144)	TrCH1: (0x81) TrCH2: (0x 103, 1x103) TrCH3: (0x 60, 1x60) TrCH4: (0x144, 1x144)
>>>rlcSize	BitMode	BitMode	BitMode	BitMode
>>>>sizeType	TrCH1: type 2, part1= 2, part2= 0 (144)	TrCH1: type 2, part1= 2, part2= 0 (144)	TrCH1: type 1: 75 TrCH2: type 1: 84 TrCH3: 2: type 2, part1= 2, part2= 0 (144)	TrCH1: type 1: 81 TrCH2: type 1: 103 TrCH3: type 1: 60 TrCH4: 2: type 2, part1= 2, part2= 0 (144)
>>>numberOfTbSizeList	TrCH1: Zero, one	TrCH1: Zero, one	TrCH1: Zero TrCH2-3: Zero, one	TrCH1: Zero TrCH2-4: Zero, one
>>>logicalChannelList	All	All	All	All
>>>tf 1	N/A	N/A	TrCH1: (1x39) TrCH2- TrCH4: N/A	TrCH1: (1x39) TrCH2- TrCH4: N/A
>>>numberOfTransportBl			TrCH1: One	TrCH1: One
>>>rlc-Size			TrCH1: BitMode	TrCH1: BitMode
>>>>sizeType			TrCH1: 1: 39	TrCH1: 1: 39
>>>>numberOfTbSizeList			TrCH1: One	TrCH1: One
>>>logicalChannelList			TrCH1: all	TrCH1: all
>>>tf 2	N/A	N/A	TrCH1: (1x75) TrCH2- TrCH3: N/A	TrCH1: (1x81) TrCH2- TrCH4: N/A
>>>numberOfTransportBl ocks			TrCH1: ZeroOne	TrCH1: ZeroOne
>>>rlc-Size			TrCH1: BitMode	TrCH1: BitMode
>>>>sizeType			TrCH1: type 1: 75	TrCH1: type 1: 81
>>>numberOfTbSizeList			TrCH1: One	TrCH1: One
>>>logicalChannelList			TrCH1: all	TrCH1: all
>>semistaticTF-Information			110111. u.i	TIOTITI diii
>>>tti	TrCH1: 40	TrCH1: 10	TrCH1- TrCH2: 20 TrCH3: 40	TrCH1- TrCH3: 20 TrCH4: 40
>>>channelCodingType	Convolutional	Convolutional	Convolutional	Convolutional
>>>codingRate	TrCH1: Third	TrCH1: Third	TrCH1- TrCH2: Third TrCH3: Third	TrCH1- TrCH2: Third TrCH3: Half TrCH4: Third
>>>rateMatchingAttribute	TrCH1: 160	TrCH1: 160	TrCH1: 200 TrCH2: 190 TrCH3: 160	TrCH1: 200 TrCH2: 190 TrCH3: 235 TrCH4: 160
>>>crc-Size	TrCH1: 16	TrCH1: 16	TrCH1: 12 TrCH2: 0 TrCH3: 16	TrCH1: 12 TrCH2- TrCH3: 0 TrCH4: 16
DL- AddReconfTransChInfoList				
>Downlink transport channel type	dch	dch	dch	dch
>dl- TransportChannelIdentity (should be as for UL)	TrCH1: 1	TrCH1: 1	TrCH1: 1, TrCH2: 2, TrCH3: 3	TrCH1: 1, TrCH2: 2, TrCH3: 3, TrCH4: 4

Configuration	3.4 kbps signalling	13.6 kbps	7.95 kbps speech	12.2 kbps speech
		signalling	+ 3.4 kbps signalling	+ 3.4 kbps signalling
>tfs-SignallingMode	SameAsUL	SameAsUL	Explicit <only and="" below="" different="" is="" on="" shown="" tf0="" trch1=""></only>	Explicit <only and="" below="" different="" is="" on="" shown="" tf0="" trch1=""></only>
>>transportFormatSet			DedicatedTransChT FS	DedicatedTransChT FS
>>>dynamicTF-information			T 0114 (4.0)	T 0114 (4 0)
>>>tf0/ tf0,1			TrCH1: (1x0)	TrCH1: (1x0)
>>>rlcSize			BitMode	bitMode
>>>>sizeType			TrCH1: type 1: 0	TrCH1: type 1: 0
>>>numberOfTbSizeList >>>>logicalChannelList			TrCH1: One	TrCH1: One
>>>logicalChanneiList	TrCH1: 1	TrCH1: 1	TrCH1: 1, TrCH2: 2,	TrCH1: 1, TrCH2: 2,
	IICHT. I	IICHT. I	TrCH3: 3	TrCH3: 3, TrCH4: 4
>dch-QualityTarget	2		2	
>>bler-QualityValue	TrCH1: 5x10 ⁻²	TrCH1: 5x10 ⁻²	TrCH1: 7x10 ⁻³ TrCH2- TrCH3: Absent	TrCH1: 7x10 ⁻³ TrCH2- TrCH4: Absent
TrCH INFORMATION, COMMON				
ul-CommonTransChInfo				
>tfcs-ID (TDD only)	1	1	1	1
>sharedChannelIndicator (TDD only)	FALSE	FALSE	FALSE	FALSE
>tfc-Subset	Absent, not required	Absent, not required	Absent, not required	Absent, not required
>ul-TFCS	Normal TFCI signalling	Normal TFCI signalling	Normal TFCI signalling	Normal TFCI signalling
>>explicitTFCS- ConfigurationMode	Complete	Complete	Complete	Complete
>>>ctfcSize	Ctfc2Bit	Ctfc2Bit	Ctfc4Bit	Ctfc6Bit
>>>TFCS representation	Addition	Addition	Addition	Addition
>>>>TFCS list				
>>>>TFCS 1	(TF0)	(TF0)	(TF0, TF0, TF0)	(TF0, TF0, TF0, TF0)
>>>>>ctfc	0	0	0	0
>>>>>gainFactorInform ation	Computed	Computed	Computed	Computed
>>>>>>referenceTFCId	0	0	0	0
>>>>TFCS 2	(TF1)	(TF1)	(TF1, TF0, TF0)	(TF1, TF0, TF0, TF0)
>>>>>ctfc	1	1	1	1
>>>>>gainFactorInform ation	Signalled	Signalled	Computed	Computed
>>>>>βc (FDD only)	11	11	N/A	N/A
>>>>>βd	15	15	N/A	N/A
>>>>>referenceTFCld	0	0	0	0
>>>>TFCS 3			(TF2, TF1, TF0)	(TF2, TF1, TF1, TF0)
>>>>>ctfc			5	11
>>>>>gainFactorInform			Computed	Computed
>>>>>referenceTFCId			0	0
>>>>TFCS 4			(TF0, TF0, TF1)	(TF0, TF0, TF0, TF1)
>>>>>ctfc			6	12
>>>>>gainFactorInform			Computed	Computed
>>>>>βc (FDD only)			N/A	N/A
>>>>>βd			N/A	N/A
>>>>>>pd >>>>>referenceTFCId				
>>>>>>>Ielelence i FUId			0	0

Configuration	3.4 kbps signalling	13.6 kbps	7.95 kbps speech	12.2 kbps speech
		signalling	+ 3.4 kbps signalling	+ 3.4 kbps signalling
>>>>>TFCS 5			(TF1, TF0, TF1)	(TF1, TF0, TF0, TF1)
>>>>>ctfc			7	13
>>>>>gainFactorInform ation			Computed	Computed
>>>>>>referenceTFCld			0	0
>>>>TFCS 6			(TF2, TF1, TF1)	(TF2, TF1, TF1, TF1)
>>>>>ctfc			11	23
>>>>>gainFactorInform ation			Signalled	Signalled
>>>>>βc (FDD only)			11	11
>>>>>βd			15	15
>>>>>>referenceTFCId			0	0
dl-CommonTransChInfo >tfcs-SignallingMode PhyCH INFORMATION FDD	Same as UL	Same as UL	Same as UL	Same as UL
UL-DPCH-InfoPredef				
>ul-DPCH- PowerControlInfo				
>>powerControlAlgorithm	Algorithm 1	Algorithm 1	Algorithm 1	Algorithm 1
>>>tpcStepSize	1	1	1	1
>tfci-Existence	TRUE	TRUE	TRUE	TRUE
>puncturingLimit	1	1	1	0.88
DL-				
CommonInformationPredef >dl-DPCH-InfoCommon				
>>spreadingFactor	256	128	128	128
>>tfci-Existence	FALSE	FALSE	FALSE	FALSE
>>pilotBits	4	4	4	4
>>positionFixed	N/A	N/A	Fixed	Fixed
PhyCH INFORMATION 3.84 Mcps TDD UL-DPCH-InfoPredef				
>ul-DPCH-				
PowerControlInfo				
>>dpch-ConstantValue	0	0	0	0
>commonTimeslotInfo	((5		
>>secondInterleavingMode >>tfci-Coding	frameRelated 4	frameRelated 4	frameRelated 16	frameRelated 16
>>puncturingLimit	1	0.92	0.52	0.88
>>repetitionPeriodAndLeng th	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1
DL-				
CommonInformationPredef >dl-DPCH-InfoCommon				
>>commonTimeslotInfo				
>>>secondInterleavingMod e	frameRelated	frameRelated	frameRelated	frameRelated
>>>tfci-Coding	4	4	16	16
>>>puncturingLimit >>>repetitionPeriodAndLe ngth	1 repetitionPeriod1	0.92 repetitionPeriod1	0.52 repetitionPeriod1	0.92 repetitionPeriod1
PhyCH INFORMATION 1.28 Mcps TDD				
UL-DPCH-InfoPredef				
>commonTimeslotInfo	from Deleted	from a D = l = t : 1	from Delete 1	from a District
>>secondInterleavingMode >>tfci-Coding	frameRelated 4	frameRelated 4	frameRelated 16	frameRelated 16
//uo-coding	7	7	10	10

Configuration	3.4 kbps signalling	13.6 kbps signalling	7.95 kbps speech + 3.4 kbps signalling	12.2 kbps speech + 3.4 kbps signalling
			0.4 Kbp3 Signaling	0.4 Kbp3 Signalling
>>puncturingLimit	1	0.64	0.80	0.60
>>repetitionPeriodAndLeng th	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1
DL-				
CommonInformationPredef				
>dl-DPCH-InfoCommon				
>>commonTimeslotInfo				
>>>secondInterleavingMod e	frameRelated	frameRelated	frameRelated	frameRelated
>>>tfci-Coding	4	4	16	16
>>>puncturingLimit	1	0.64	0.80	0.60
>>>repetitionPeriodAndLe ngth	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1

Configuration	28.8 kbps conv. CS- data +	32 kbps conv. CS- data +	64kbps conv. CS- data +	14.4 kbps streaming CS-
	3.4 kbps signalling	3.4 kbps signalling	3.4 kbps signalling	data + 3.4 kbps signalling
Ref 34.108	12	14	13	15
Default configuration identity	4	5	6	7
RB INFORMATION				
rb-Identity	RB1: 1, RB2: 2, RB3: 3, RB5: 5	RB1: 1, RB2: 2, RB3: 3, RB5: 5	RB1: 1, RB2: 2, RB3: 3, RB5: 5	RB1: 1, RB2: 2, RB3: 3, RB5: 5
rlc-InfoChoice	RIc-info	RIc-info	RIc-info	RIc-info
>ul-RLC-Mode	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5: TM
>>transmissionRLC- DiscardMode	RB1: N/A RB2- RB3: NoDiscard RB5: N/A	RB1: N/A RB2- RB3: NoDiscard RB5: N/A	RB1: N/A RB2- RB3: NoDiscard RB5: N/A	RB1: N/A RB2- RB3: NoDiscard RB5: N/A
>>>maxDat	RB1: N/A RB2- RB3: 15 RB5: N/A	RB1: N/A RB2- RB3: 15 RB5: N/A	RB1: N/A RB2- RB3: 15 RB5: N/A	RB1: N/A RB2- RB3: 15 RB5: N/A
>>transmissionWindowSiz e	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise RB5: N/A	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise RB5: N/A	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise RB5: N/A	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise RB5: N/A
>>timerRST	RB1: N/A RB2- RB3: 300 RB5: N/A	RB1: N/A RB2- RB3: 300 RB5: N/A	RB1: N/A RB2- RB3: 300 RB5: N/A	RB1: N/A RB2- RB3: 300 RB5: N/A
>>max-RST	RB1: N/A RB2- RB3: 1 RB5: N/A	RB1: N/A RB2- RB3: 1 RB5: N/A	RB1: N/A RB2- RB3: 1 RB5: N/A	RB1: N/A RB2- RB3: 1 RB5: N/A
>>pollingInfo	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5: N/A
>>>lastTransmissionPDU- Poll	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>lastRetransmissionPD U-Poll	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>timerPollPeriodic	RB2- RB3: 300	RB2- RB3: 300	RB2- RB3: 300	RB2- RB3: 300
>>segmentationIndication	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5: FALSE
>dl-RLC-Mode	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5: TM

Configuration	28.8 kbps conv. CS- data +	32 kbps conv. CS- data +	64kbps conv. CS- data +	14.4 kbps streaming CS-
	3.4 kbps signalling	3.4 kbps signalling	3.4 kbps signalling	data + 3.4 kbps signalling
>>inSequenceDelivery	RB1: N/A	RB1: N/A	RB1: N/A	RB1: N/A
	RB2- RB3: TRUE	RB2- RB3: TRUE	RB2- RB3: TRUE	RB2- RB3: TRUE
receiving Mindow Size	RB5: N/A RB1: N/A	RB5: N/A	RB5: N/A RB1: N/A	RB5: N/A
>>receivingWindowSize	RB2- RB3: 128 for	RB1: N/A RB2- RB3: 128 for	RB2- RB3: 128 for	RB1: N/A RB2- RB3: 128 for
	UEs with more than	UEs with more than	UEs with more than	UEs with more than
	10 kbyte "total RLC	10 kbyte "total RLC	10 kbyte "total RLC	10 kbyte "total RLC
	AM buffer size" and	AM buffer size" and	AM buffer size" and	AM buffer size" and
	32 otherwise RB5: N/A	32 otherwise RB5: N/A	32 otherwise RB5: N/A	32 otherwise RB5: N/A
>>dl-RLC-StatusInfo	RB1: N/A	RB1: N/A	RB1: N/A	RB1: N/A
Frankle Statushins	RB2- RB3: as below	RB2- RB3: as below	RB2- RB3: as below	RB2- RB3: as below
	RB5: N/A	RB5: N/A	RB5: N/A	RB5: N/A
>>>timerStatusProhibit	RB2- RB3: 100	RB2- RB3: 100	RB2- RB3: 100	RB2- RB3: 100
>>>missingPDU-Indicator	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>timerStatusPeriodic >>segmentationIndication	RB2- RB3: 300 RB1- RB3: N/A	RB2- RB3: 300 RB1- RB3: N/A	RB2- RB3: 300 RB1- RB3: N/A	RB2- RB3: 300 RB1- RB3: N/A
	RB5: FALSE	RB5: FALSE	RB5: FALSE	RB5: FALSE
rb-MappingInfo	0 1 : 101 1	0 1 : 101 1	0 1 : 101 1	0 1 : 101 1
>UL- LogicalChannelMappings	OneLogicalChannel	OneLogicalChannel	OneLogicalChannel	OneLogicalChannel
>>ul-	Dch	Dch	Dch	Dch
TransportChannelType	Don	Don	Don	Bon
>>>transportChannelIdenti	RB1- RB3: 2	RB1- RB3: 2	RB1- RB3: 2	RB1- RB3: 2
ty	RB5: 1	RB5: 1	RB5: 1	RB5: 1
>>logicalChannelIdentity	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3
	RB5: N/A	RB5: N/A	RB5: N/A	RB5: N/A
>>rlc-SizeList	RB1- RB3:	RB1- RB3:	RB1- RB3:	RB1- RB3:
	configured	configured	configured	configured
	RB5: N/A	RB5: N/A	RB5: N/A	RB5: N/A
>>mac- LogicalChannelPriority	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3
Logical Channel Friority	RB5: 5	RB5: 5	RB5: 5	RB5: 5
>DL-				
logicalChannelMappingList				
>>Mapping option 1	One mapping option	One mapping option	One mapping option	One mapping option
>>>dl-	Dch	Dch	Dch	Dch
TransportChannelType >>>>transportChannelIden	RB1- RB3: 2	RB1- RB3: 2	RB1- RB3: 2	RB1- RB3: 2
tity	RB5: 1	RB5: 1	RB5: 1	RB5: 1
>>>logicalChannelIdentity	RB1: 1, RB2: 2,	RB1: 1, RB2: 2,	RB1: 1, RB2: 2,	RB1: 1, RB2: 2,
	RB3: 3	RB3: 3	RB3: 3	RB3: 3
TrCH INFORMATION PER	RB5: N/A	RB5: N/A	RB5: N/A	RB5: N/A
TrCH				
UL- AddReconfTransChInfoLis				
t				
>Uplink transport channel	dch	dch	dch	dch
type				
>transportChannelIdentity	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2
>transportFormatSet	DedicatedTransChT FS	DedicatedTransChT FS	DedicatedTransChT FS	DedicatedTransChT FS
>>dynamicTF-information	10	13	13	13
>>>tf0/tf0,1	TrCH1: (0x576,	TrCH1: (0x640,	TrCH1: (0x640,	TrCH1: (0x576,
, .	1x576, 2x576)	1x640)	2x640)	1x576)
	TrCH2: (0x144,	TrCH2: (0x144,	TrCH2: (0x144,	TrCH2: (0x144,
rloC:	1x144)	1x144)	1x144)	1x144)
>>>rlcSize	TrCH1: OctetMode TrCH2:BitMode	TrCH1: OctetMode TrCH2:BitMode	TrCH1: OctetMode TrCH2:BitMode	TrCH1: OctetMode TrCH2:BitMode

Configuration	28.8 kbps conv.	32 kbps conv. CS-	64kbps conv. CS-	14.4 kbps
	CS- data +	data +	data +	streaming CS-
	3.4 kbps signalling	3.4 kbps signalling	3.4 kbps signalling	data + 3.4 kbps signalling
>>>>sizeType	TrCH1: type 2,	TrCH1: type 2,	TrCH1: type 2,	TrCH1: type 2,
]	part1= 419, part2=	part1= 11, part2= 2	part1= 11, part2= 2	part1= 9,
	2 (576)	(640)	(640)	part2= 2 (576)
	TrCH2: type 2,	TrCH2: type 2,	TrCH2: type 2,	TrCH2: type 2,
	part1= 2, part2= 0 (144)	part1= 2, part2= 0 (144)	part1= 2, part2= 0 (144)	part1= 2, part2= 0 (144)
>>>>numberOfTbSizeList	TrCH1: Zero,1, 2 (4)	TrCH1: Zero, one	TrCH1: Zero, 2 (4)	TrCH1: Zero, one,
	TrCH2: Zero, one	TrCH2: Zero, one	TrCH2: Zero, one	TrCH2: Zero, one
>>>logicalChannelList	All	All	All	All
>>semiStaticTF-				
Information	T 0114 40	T 0114 00	T 0114 00	T 0114 40
>>>tti	TrCH1: 40 TrCH2: 40	TrCH1: 20 TrCH2: 40	TrCH1: 20 TrCH2: 40	TrCH1: 40 TrCH2: 40
>>>channelCodingType	TrCH2: 40	TrCH2: 40	TrCH2: 40	TrCH2: 40
>>>charmerooding rype	TrCH2:	TrCH2:	TrCH2:	TrCH2:
	Convolutional	Convolutional	Convolutional	Convolutional
>>>codingRate	TrCH1: N/A	TrCH1: N/A	TrCH1: N/A	TrCH1: N/A
	TrCH2: Third	TrCH2: Third	TrCH2: Third	TrCH2: Third
>>>rateMatchingAttribute	TrCH1: 180	TrCH1: 185	TrCH1: 170	TrCH1: 165
>>>crc-Size	TrCH2: 160 TrCH1: 16	TrCH2: 160 TrCH1: 16	TrCH2: 160 TrCH1: 16	TrCH2: 160 TrCH1: 16
///OILE	TrCH1: 16	TrCH1: 16	TrCH1: 16	TrCH1: 16
DL-	110112. 10	110112. 10	110112.10	110112. 10
AddReconfTransChInfoLis				
t				
>Downlink transport	dch	dch	dch	dch
channel type	TrCH1: 1, TrCH2: 2			
TransportChannelIdentity	11011. 1, 11012. 2	110H1. 1, 110H2. 2	11011. 1, 11012. 2	110H1. 1, 110H2. 2
(should be as for UL)				
>tfs-SignallingMode	SameAsUL	SameAsUL	SameAsUL	SameAsUL
>>transportFormatSet				
>>>dynamicTF-information				
>>>tf0/tf0,1				
>>>rlcSize				
>>>>sizeType >>>>numberOfTbSizeList	-			
>>>logicalChannelList				
>>ULTrCH-Id	TrCH1: 1, TrCH2: 2			
>dch-QualityTarget		,	,	,
>>bler-QualityValue	TrCH1: 2x10 ⁻³	TrCH1: 2x10 ⁻³	TrCH1: 2x10 ⁻³	TrCH1: 1x10 ⁻²
	TrCH2: Absent	TrCH2: Absent	TrCH2: Absent	TrCH2: Absent
TrCH INFORMATION,				
COMMON				
ul-CommonTransChInfo				
>tfcs-ID (TDD only)	1	1	1	1
>sharedChannelIndicator	FALSE	FALSE	FALSE	FALSE
(TDD only) >tfc-Subset	Absent, not required	Absent, not required	Absent, not required	Absent, not required
>ul-TFCS	Normal TFCI	Normal TFCI	Normal TFCI	Normal TFCI
	signalling	signalling	signalling	signalling
>>explicitTFCS-	Complete	Complete	Complete	Complete
ConfigurationMode				
>>>ctfcSize	Ctfc2BitCtfc4Bit	Ctfc2Bit	Ctfc2Bit	Ctfc4Bit
>>>>TFCS liet	Addition	Addition	Addition	Addition
>>>>TFCS list	(TF0, TF0)	(TF0, TF0)	(TF0, TF0)	(TF0, TF0)
>>>>>ctfc	0	0	0	0
>>>>>gainFactorInform	Computed	Computed	Computed	Computed
ation				
>>>>>referenceTFCId	0	0	0	0

Section Streaming Column Section Sec	Configuration	28.8 kbps conv.	32 kbps conv. CS-	64kbps conv. CS-	14.4 kbps
Description of the computed		CS- data + 3.4 kbps signalling	data + 3.4 kbps signalling	data + 3.4 kbps signalling	streaming CS- data +
Some stands Computed Signalization Computed			(TF1, TF0)		
Allon		•	1	•	·
Section Sec		·	·		·
Seminary Seminary	>>>>>βc (FDD only)				
	>>>>>βd	N/A	N/A	N/A	N/A
>>>>>>ctfc 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	>>>>>>referenceTFCId	0	0	0	0
Some content of the computed	>>>>TFCS 3	(TF2, TF0)	(TF0, TF1)	(TF0, TF1)	(TF0, TF1)
ation					
>>>>>FICS 4 (TF0, TF1) (TF1, TF1, TF1, TF1, TF1, TF1, TF1, TF1,		Computed	Computed	Computed	Computed
>>>>>FICS 4 (TF0, TF1) (TF1, TF1, TF1, TF1, TF1, TF1, TF1, TF1,	>>>>>>referenceTFCld	0	0	0	0
Signal		(TF0, TF1)	(TF1, TF1)	(TF1, TF1)	(TF1, TF1)
ation		_			-
>>>>>>βc (FDD only) N/A 8 8 11 >>>>>>>Sp30 N/A 15 15 15 >>>>>>>FG 0 0 0 0 >>>>>>TFCS 5 (TF1, TF1) N/A N/A >>>>>>>ctfc 4 4 4 >>>>>>>ctfc 4 4 4 >>>>>>>ctfc 4 4 4 >>>>>>ctfc 4 4 4 >>>>>>>ctfc 6 4 4 >>>>>>>tfcS 6 (TF2, TF1) N/A N/A >>>>>>>>>>>ctfc 7 5 4 >>>>>>>>>>>>>>>>>bg (FDD only) 8 4 >>>>>>>>>>>>>>>>>>>>>>>>>ctfc 4 4 >>>>>>>>>>>>>>>>>>>>>>>>>>>>		Computed	Signalled	Signalled	Signalled
>>>>>>\signification		N/A	8	8	11
>>>>>>referenceTFCld			15	15	
>>>>>TFCS 5					
Some state So			-		
Some statement		· · · · · · · · · · · · · · · · · · ·	14/71	14/7	
ation		Computed			
System	ation	,			
Signal	>>>>>>referenceTFCId	0			
Signalled Sig	>>>>TFCS 6	(TF2, TF1)	N/A	N/A	
ation	>>>>>ctfc	5			
>>>>>>>βd 15 >>>>>>referenceTFCld 0 >>>>>>ctfc >>>>>>ctfc >>>>>>ctfc >>>>>ctfc >>>>>>ctfc >>>>>ctfc >>>>>>ctfc >>>>>>ctfc >>>>>>ctfc >>>>>>ctfc >>>>>>ctfc >>>>>>ctfc >>>>>>ctfc >>>>>>>>>ctfc >>>>>>>>>>ctfc >>>>>>>ctfc >>>>>>>>>>ctfc >>>>>>>>>>>>>>ctfc >>>>>>>>>>>ctfc >>>>>>>>>>>>ctfc >>>>>>>>>>>>>>>>>ctfc >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>		Signalled			
>>>>>>βd	>>>>> βc (FDD only)	8			
>>>>>>referenceTFCId 0 >>>>>>tfCS 7 >>>>>ctfc >>>>>>ctfc >>>>>>ctfc >>>>>>ctfc >>>>>>ctfc >>>>>sqainFactorInform ation >>>>>tfCS 8 >>>>>steferenceTFCId >>>>>steferenceTFCId >>>>>sqainFactorInform ation >>>>>>tfCS 8 >>>>>steferenceTFCId >>>>>>tfCS 9 >>>>>steferenceTFCId >>>>>>tfCS 9 >>>>>>ctfc >>>>>>ctfc >>>>>>sqainFactorInform ation >>>>>>tfCS 10 >>>>>>>>>>tfCS 10 >>>>>>tfCS 10 >>>>>>>>>>tfCS 10 >>>>>>>>>>tfCS 10 >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	•	15			
>>>>>TFCS 7 >>>>>>ctfc >>>>>>gainFactorInform ation >>>>>>ctfc >>>>>>>>tfcS 8 >>>>>ctfc >>>>>>tfcS 9 >>>>>ctfc >>>>>>tfcS 9 >>>>>ctfc >>>>>>tfcS 10 >>>>>stfcS 10 >>>>>stfcS 10 >>>>>>tfcS 10 >>>>>tfcS 10 >>>>>>tfcS 10 >>>>>>>tfcS 10 >>>>>>>tfcS 10 >>>>>>tfcS 10 >>>>>>>tfcS 10 >>>>>>>>>>tfcS 10 >>>>>>>>>>tfcS 10 >>>>>>>>>>>tfcS 10 >>>>>>>>>>>>>tfcS 10 >>>>>>>>>>>tfcS 10 >>>>>>>>>>>>>>>>tfcS 10 >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>		0			
>>>>>sgainFactorInform ation >>>>>>referenceTFCId >>>>>stfCS 8 >>>>>>ctfc >>>>>sgainFactorInform ation >>>>>>referenceTFCId >>>>>sreferenceTFCId >>>>>>referenceTFCId >>>>>>ctfc >>>>>>tfCS 9 >>>>>ctfc >>>>>sgainFactorInform ation >>>>>>ctfc >>>>>sgainFactorInform ation >>>>>>ctfc >>>>>sgainFactorInform ation >>>>>>referenceTFCId >>>>>>spainFactorInform ation >>>>>>referenceTFCId >>>>>>perform ation >>>>>> referenceTFCId >>>>>>>tfCS 10 >>>>>>bgainFactorInform ation >>>>>>painFactorInform ation >>>>>>>Bd >>>>>>>>>>>>>>>>>>>>>>>>>>>>					
ation >>>>>>referenceTFCId >>>>>>tfCS 8 >>>>>ctfc >>>>>>referenceTFCId >>>>>>referenceTFCId >>>>>>referenceTFCId >>>>>>tfCS 9 >>>>>ctfc >>>>>ctfc >>>>>>tfCS 10 >>>>>>tfCS 10 >>>>>>painFactorInform ation >>>>>>>tfCS 10 >>>>>>painFactorInform ation >>>>>>>tfCS 10 >>>>>>tfCS 10 >>>>>>painFactorInform ation >>>>>>>tfCS 10 >>>>>>tfCS 10 >>>>>>tfCS 10 >>>>>>tfCS 10 >>>>>>painFactorInform ation >>>>>>>painFactorInform ation >>>>>>>painFactorInform ation >>>>>>>>painFactorInform ation >>>>>>>painFactorInform ation >>>>>>>painFactorInform ation >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	>>>>>ctfc				
>>>>>referenceTFCId >>>>>TFCS 8 >>>>>sctfc >>>>>sgainFactorInform ation >>>>>stfcS 9 >>>>>sctfc >>>>>stfcS 9 >>>>>stfc >>>>>stfcS 9 >>>>>stfc >>>>>stfcS 9 >>>>>stfc >>>>>stfcS 9 >>>>>>stfcS 9 >>>>>>>>stfcS 9 >>>>>>stfcS 9 >>>>>>stfcS 9 >>>>>>stfcS 9 >>>>>>stfcS 9 >>>>>>>stfcS 9 >>>>>>>stfcS 9 >>>>>>>stfcS 9 >>>>>>>>>>stfcS 9 >>>>>>>>>>>stfcS 9 >>>>>>>>>>>>stfcS 9 >>>>>>>>>>>>stfcS 9 >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	_				
>>>>>tFCS 8 >>>>>>ctfc >>>>>>sgainFactorInform ation >>>>>>tfCS 9 >>>>>ctfc >>>>>ctfc >>>>>sgainFactorInform ation >>>>>seferenceTFCId >>>>>sgainFactorInform ation >>>>>stfc >>>>>tfCS-SignallingMode Same as UL Same as UL Same as UL Same as UL	>>>>>>referenceTFCId				
>>>>>spainFactorInform ation >>>>>>referenceTFCId >>>>>ctfc >>>>>sgainFactorInform ation >>>>>sctfc >>>>>sgainFactorInform ation >>>>>sreferenceTFCId >>>>>stfcS 10 >>>>>ctfc >>>>>sctfc >>>>>stfcS 30 >>>>>tfcS 10 >>>>>stfcS 10 >>>>>sgainFactorInform ation >>>>>sctfc >>>>>sctfc >>>>>sgainFactorInform ation >>>>>sctfc >>>>>sgainFactorInform ation >>>>>sgainFactorInform ation >>>>>sgainFactorInform ation >>>>>spainFactorInform ation >>>>>>spainFactorInform ation >>>>>>spainFactorInform ation >>>>>>spainFactorInform ation >>>>>>>spainFactorInform ation >>>>>>spainFactorInform ation >>>>>>>spainFactorInform ation >>>>>>spainFactorInform ation >>>>>>>>>>>spainFactorInform ation >>>>>>>spainFactorInform ation >>>>>>>>>>>>>spainFactorInform ation >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>					
ation >>>>>>referenceTFCId >>>>>>tFCS 9 >>>>>stfc >>>>>sgainFactorInform ation >>>>>>tfCS 10 >>>>>sgainFactorInform ation >>>>>spainFactorInform ation >>>>>>bfc (FDD only) >>>>>>pd (FDD only) >>>>>>referenceTFCId	>>>>>ctfc				
>>>>>>referenceTFCId >>>>>TFCS 9 >>>>>sctfc >>>>>sgainFactorInform ation >>>>>treferenceTFCId >>>>>tfCS 10 >>>>>ctfc >>>>>stfCS 10 >>>>>ctfc >>>>>bfC (FDD only) >>>>>>βd >>>>>>ferenceTFCId dl-CommonTransChInfo >tfcs-SignallingMode Same as UL	_				
>>>>>tFCS 9 >>>>>ctfc >>>>>>gainFactorInform ation >>>>>>tFCS 10 >>>>>ctfc >>>>>ctfc >>>>>>ctfc >>>>>>tFCS 10 >>>>>bcfc >>>>>bcfc >>>>>bcfc >>>>>bd >>>>>bd >>>>>tferenceTFCId >>>>>>bfc (FDD only) >>>>>>bfc (FDD only) >>>>>>tferenceTFCId dl-CommonTransChInfo >tfcs-SignallingMode Same as UL					
>>>>>spainFactorInform ation >>>>>>referenceTFCId >>>>>>ctfc >>>>>sgainFactorInform ation >>>>>>bg (FDD only) >>>>>>bd >>>>>>sreferenceTFCId dl-CommonTransChInfo >tfcs-SignallingMode Same as UL Same as UL Same as UL Same as UL		_		_	
ation >>>>>>referenceTFCId >>>>>>TFCS 10 >>>>>ctfc >>>>>>painFactorInform ation >>>>>>βc (FDD only) >>>>>>>βd >>>>>>>referenceTFCId dI-CommonTransChInfo dI-CommonTransChInfo Same as UL PhyCH INFORMATION FDD Same as UL			_		
>>>>>>referenceTFCId >>>>>ctfc >>>>>pgainFactorInform ation >>>>>βc (FDD only) >>>>>>βd >>>>>referenceTFCId dl-CommonTransChInfo >tfcs-SignallingMode Same as UL Same as UL Same as UL					
>>>>>TFCS 10 >>>>>ctfc >>>>>pgainFactorInform ation >>>>>βc (FDD only) >>>>>>βd >>>>>>sβd >>>>>referenceTFCId dl-CommonTransChInfo >tfcs-SignallingMode Same as UL Same as UL Same as UL PhyCH INFORMATION FDD					
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$					
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	>>>>>ctfc	_			
>>>>>>βc (FDD only) >>>>>>βd >>>>>referenceTFCId dl-CommonTransChInfo >tfcs-SignallingMode Same as UL Same as UL Same as UL Same as UL					
>>>>>>Bd >>>>>referenceTFCId dl-CommonTransChInfo >tfcs-SignallingMode Same as UL Same as UL Same as UL PhyCH INFORMATION FDD					
>>>>>referenceTFCId dl-CommonTransChInfo >tfcs-SignallingMode Same as UL Same as UL Same as UL PhyCH INFORMATION FDD					
dl-CommonTransChInfo >tfcs-SignallingMode Same as UL Same as UL Same as UL PhyCH INFORMATION FDD					
>tfcs-SignallingMode Same as UL Same as UL Same as UL Same as UL PhyCH INFORMATION FDD					
PhyCH INFORMATION FDD		Same as UL	Same as UL	Same as UL	Same as UL
FDD	. 3.00 Cigilaliniginiodo	34	24 40 02		

Configuration	28.8 kbps conv. CS- data + 3.4 kbps signalling	32 kbps conv. CS- data + 3.4 kbps signalling	64kbps conv. CS- data + 3.4 kbps signalling	14.4 kbps streaming CS- data + 3.4 kbps signalling
>ul-DPCH-				O.4 Kopo digitatiirig
PowerControlInfo				
>>powerControlAlgorithm	Algorithm 1	Algorithm 1	Algorithm 1	Algorithm 1
>>>tpcStepSize	1	1	1	1
>tfci-Existence	TRUE	TRUE	TRUE	TRUE
>puncturingLimit	0.92	0.8	0.92	1
DL- CommonInformationPrede f				
>dl-DPCH-InfoCommon				
>>spreadingFactor	64	64	32	128
>>tfci-Existence	TRUE	TRUE	TRUE	TRUE
>>pilotBits	8	8	8	8
>>positionFixed PhyCH INFORMATION 3.84 Mcps TDD	Flexible	Flexible	Flexible	Flexible
UL-DPCH-InfoPredef				
>ul-DPCH- PowerControlInfo				
>>dpch-ConstantValue	0	0	0	0
>commonTimeslotInfo				
>>secondInterleavingMod e	frameRelated	frameRelated	frameRelated	frameRelated
>>tfci-Coding	16	8	8	8
>>puncturingLimit	0.44	0.8	0.56	0.8
>>repetitionPeriodAndLen	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1
DL- CommonInformationPrede f				
>dl-DPCH-InfoCommon				
>>commonTimeslotInfo				
>>>secondInterleavingMo de	frameRelated	frameRelated	frameRelated	frameRelated
>>>tfci-Coding	16	8	8	8
>>>puncturingLimit	0.44	0.64	0.56	0.8
>>>repetitionPeriodAndLe	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1
PhyCH INFORMATION 1.28 Mcps TDD				
UL-DPCH-InfoPredef >commonTimeslotInfo				
>>secondInterleavingMod e	frameRelated	frameRelated	frameRelated	frameRelated
>>tfci-Coding	16	8	8	8
>>puncturingLimit	0.64	0.60	0.64	1
>>repetitionPeriodAndLen gth	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1
DL- CommonInformationPrede f				
>dl-DPCH-InfoCommon			_	
>>commonTimeslotInfo				
>>>secondInterleavingMo de	frameRelated	frameRelated	frameRelated	frameRelated
>>>tfci-Coding	16	8	8	8
>>>puncturingLimit	0.64	0.60	0.64	0.88
>>>repetitionPeriodAndLe ngth	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1

Configuration	28.8 kbps streaming CS-	57.6 kbps streaming CS-	12.2 kbps speech(multimode
	data + 3.4 kbps signalling	data + 3.4 kbps signalling) + 3.4 kbps signalling
	or i nope orginaling	or i kapa aigitatiing	or rape orginaling
Ref 34.108	16	17	1a
Default configuration identity	8	9	10
RB INFORMATION			
rb-Identity	RB1: 1, RB2: 2,	RB1: 1, RB2: 2,	RB1: 1, RB2: 2,
,	RB3: 3, RB5: 5	RB3: 3, RB5: 5	RB3: 3, RB5: 5, RB6: 6, RB7: 7
rlc-InfoChoice	RIc-info	RIc-info	RIc-info
>ul-RLC-Mode	RB1: UM	RB1: UM	RB1: UM
	RB2- RB3: AM RB5: TM	RB2- RB3: AM RB5: TM	RB2- RB3: AM RB5-RB7: TM
>>transmissionRLC-	RB1: N/A	RB1: N/A	RB1: N/A
DiscardMode	RB2- RB3:	RB2- RB3:	RB2- RB3:
	NoDiscard	NoDiscard	NoDiscard
	RB5: N/A	RB5: N/A	RB5- RB7: N/A
>>>maxDat	RB1: N/A RB2- RB3: 15	RB1: N/A RB2- RB3: 15	RB1: N/A RB2- RB3: 15
	RB5: N/A	RB5: N/A	RB5- RB7: N/A
>>transmissionWindowSiz	RB1: N/A	RB1: N/A	RB1: N/A
e	RB2- RB3: 128 for	RB2- RB3: 128 for	RB2- RB3: 128 for
	UEs with more than	UEs with more than	UEs with more than
	10 kbyte "total RLC	10 kbyte "total RLC	10 kbyte "total RLC
	AM buffer size" and	AM buffer size" and	AM buffer size" and
	32 otherwise	32 otherwise	32 otherwise
	RB5: N/A	RB5: N/A	RB5- RB7: N/A
>>timerRST	RB1: N/A RB2- RB3: 300	RB1: N/A RB2- RB3: 300	RB1: N/A RB2- RB3: 300
	RB5: N/A	RB5: N/A	RB5- RB7: N/A
>>max-RST	RB1: N/A	RB1: N/A	RB1: N/A
	RB2- RB3: 1	RB2- RB3: 1	RB2- RB3: 1
	RB5: N/A	RB5: N/A	RB5- RB7: N/A
>>pollingInfo	RB1: N/A	RB1: N/A	RB1: N/A
	RB2- RB3: as below	RB2- RB3: as below	RB2- RB3: as below
lootTroponicaionDDL	RB5: N/A	RB5: N/A	RB5- RB7: N/A
>>>lastTransmissionPDU- Poll	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>lastRetransmissionPD U-Poll	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>timerPollPeriodic	RB2- RB3: 300	RB2- RB3: 300	RB2- RB3: 300
>>segmentationIndication	RB1- RB3: N/A	RB1- RB3: N/A	RB1- RB3: N/A
	RB5: FALSE	RB5: FALSE	RB5- RB7: FALSE
>dl-RLC-Mode	RB1: UM	RB1: UM	RB1: UM
	RB2- RB3: AM RB5: TM	RB2- RB3: AM RB5: TM	RB2- RB3: AM RB5- RB7: TM
>>inSequenceDelivery	RB1: N/A	RB1: N/A	RB1: N/A
/// // // // // // // // // // // // //	RB2- RB3: TRUE	RB2- RB3: TRUE	RB2- RB3: TRUE
	RB5: N/A	RB5: N/A	RB5- RB7: N/A
>>receivingWindowSize	RB1: N/A	RB1: N/A	RB1: N/A
]	RB2- RB3: 128 for	RB2- RB3: 128 for	RB2- RB3: 128 for
	UEs with more than	UEs with more than	UEs with more than
	10 kbyte "total RLC	10 kbyte "total RLC	10 kbyte "total RLC
	AM buffer size" and 32 otherwise	AM buffer size" and 32 otherwise	AM buffer size" and 32 otherwise
	RB5: N/A	RB5: N/A	RB5- RB7: N/A
>>dl-RLC-StatusInfo	RB1: N/A	RB1: N/A	RB1: N/A
	RB2- RB3: as below	RB2- RB3: as below	RB2- RB3: as below
	RB5: N/A	RB5: N/A	RB5- RB7: N/A
>>>timerStatusProhibit	RB2- RB3: 100	RB2- RB3: 100	RB2- RB3: 100
>>>missingPDU-Indicator	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>timerStatusPeriodic	RB2- RB3: 300	RB2- RB3: 300	RB2- RB3: 300
>>segmentationIndication	RB1- RB3: N/A	RB1- RB3: N/A	RB1- RB3: N/A
	RB5: FALSE	RB5: FALSE	RB5- RB7: FALSE

Configuration	28.8 kbps streaming CS- data +	57.6 kbps streaming CS- data +	12.2 kbps speech(multimode) +
	3.4 kbps signalling	3.4 kbps signalling	3.4 kbps signalling
rb-MappingInfo			
>UL- LogicalChannelMappings	OneLogicalChannel	OneLogicalChannel	OneLogicalChannel
>>ul- TransportChannelType	Dch	Dch	Dch
>>>transportChannelIdenti ty	RB1- RB3: 2 RB5: 1	RB1- RB3: 2 RB5: 1	RB1- RB3: 4 RB5: 1, RB6: 2, RB7: 3
>>logicalChannelIdentity	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5- RB7: N/A
>>rlc-SizeList	RB1- RB3: configured RB5: N/A	RB1- RB3: configured RB5: N/A	RB1- RB3: configured RB5- RB7: N/A
>>mac- LogicalChannelPriority	RB1: 1, RB2: 2, RB3: 3 RB5: 5	RB1: 1, RB2: 2, RB3: 3 RB5: 5	RB1: 1, RB2: 2, RB3: 3 RB5- RB7: 5
logicalChannelMappingList			
>>Mapping option 1 >>>dl-	One mapping option Dch	One mapping option Dch	One mapping option Dch
TransportChannelType >>>>transportChannelIden tity	RB1- RB3: 2 RB5: 1	RB1- RB3: 2 RB5: 1	RB1- RB3: 4 RB5: 1, RB6: 2, RB7: 3
>>>logicalChannelIdentity	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5- RB7: N/A
TrCH INFORMATION PER TrCH			
UL- AddReconfTransChInfoLis t			
>Uplink transport channel type	dch	dch	dch
>transportChannelIdentity	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2, TrCH3: 3, TrCH4: 4
>transportFormatSet	DedicatedTransChT FS	DedicatedTransChT FS	DedicatedTransChT FS
>>dynamicTF-information	- O	- 0.11. (0	= 0. (0)
>>>tf0/ tf0,1	TrCH1: (0x576, 1x576, 2x576) TrCH2: (0x144, 1x144)	TrCH1: (0x576, 1x576, 2x576, 3x576, 4x576) TrCH2: (0x144, 1x144)	TrCH1: (0x81) TrCH2: (0x 103 TrCH3: (0x 60) TrCH4: (0x144)
>>>rlcSize	TrCH1: OctetMode TrCH2:BitMode	TrCH1: OctetMode TrCH2:BitMode	BitMode
>>>>sizeType	TrCH1: type 2, part1= 9, part2= 2 (576) TrCH2: type 2, part1= 2, part2= 0 (144)	TrCH1: type 2, part1= 9, part2= 2 (576) TrCH2: type 2, part1= 2, part2= 0 (144)	TrCH1: type 1: 81 TrCH2: type 1: 103 TrCH3: type 1: 60 TrCH4: 2: type 2, part1= 2, part2= 0 (144)
>>>>numberOfTbSizeList	TrCH1: Zero, one, 2 TrCH2: Zero, one	TrCH1: Zero, one, 2, 3, 4 TrCH2: Zero, one	TrCH1-4: Zero
>>>>logicalChannelList	All	All	All
>>>tf 1			TrCH1: (1x39) TrCH2: (1x53) TrCH3: (1x60) TrCH4: (1x144)

>>>>numberOfTransportBl ocks >>>>ic-Size >>>>ic-Size >>>>ic-Size >>>>ic-Size >>>>ic-Size >>>>ic-Size >>>>ic-Size >>>>ic-Size >>>>numberOfTbSizeList >>>>ic-Size	Configuration	28.8 kbps streaming CS- data +	57.6 kbps streaming CS- data +	12.2 kbps speech(multimode) +
Docks		3.4 kbps signalling	3.4 kbps signalling	3.4 kbps signalling
Seminary Seminary				TrCH1-3: One
Tr.CH2: 1: 53 Tr.CH3: 1: 60 >>>>numberOfTbSizeList	>>>rlc-Size			TrCH1-3: BitMode
TrCH3: 1: 60	>>>>sizeType			TrCH1: 1: 39
>>>IogicalChannelList				
>>>if 2	>>>numberOfTbSizeList			TrCH1-3: One
TrCH2: (1x63) TrCH3: TrCH4: N/A TrCH1: CONe	>>>logicalChannelList			
TrCH3- TrCH4: N/A	>>>tf 2			
Social Content				TrCH3- TrCH4: N/A
>>>>sizeType				TrCH1-2: One
TrCH2: type 1: 63	>>>rlc-Size			
>>>IogicalChannelList TrCH1: (1x55) >>>If 3 TrCH2: (1x84) TrCH2: (1x84) TrCH3- TrCH4: N/A TrCH3- TrCH4: N/A TrCH1-2: ZereOne ocks TrCH1: BitMode >>>>rlc-Size TrCH1: type 1: 55 TrCH2: type 1: 84 TrCH1: 2: One >>>>logicalChannelList TrCH1: all >>>>InumberOfTbSizeList TrCH1: (1x75) TrCH1: 3 TrCH1: RitMode TrCH1: SitMode TrCH1: SitMode >>>>rlc-Size TrCH1: BitMode >>>>sizeType TrCH1: BitMode >>>>sizeType TrCH1: Rit	>>>>sizeType			
>>>tf 3	>>>numberOfTbSizeList			TrCH1-2: One
TrCH2: (1x84) TrCH3: TrCH4: N/A TrCH1: 2 ZereOne TrCH1: BitMode TrCH1: type 1: 55 TrCH2: type 1: 84 TrCH1: type 1: 55 TrCH2: type 1: 84 TrCH1: all TrCH1: all TrCH1: all TrCH1: all TrCH1: all TrCH1: (1x75) TrCH2: (1x103) TrCH3: TrCH4: N/A TrCH1: Cone TrCH1: TrCH1: Cone TrCH1: Cone TrCH1: TrCH1: Cone TrCH1: TrCH1: Cone TrCH1:				
TrCH3- TrCH4: N/A TrCH1-2: ZereOne TrCH1-2: ZereOne TrCH1-2: ZereOne TrCH1: BitMode TrCH1: BitMode TrCH2: type 1: 55 TrCH2: type 1: 84	>>>tf 3			
>>>numberOfTransportBl ooks				
ocks TrCH1: BitMode >>>>srlc-Size TrCH1: type 1: 55 TrCH2: type 1: 84 TrCH2: type 1: 84 >>>>logicalChannelList TrCH1: all >>>tf 4 TrCH1: (1x75) TrCH2: (1x103) TrCH3: TrCH4: N/A >>>>numberOfTransportBl ocks TrCH1: BitMode >>>>srlc-Size TrCH1: BitMode >>>>sizeType TrCH1: BitMode >>>>logicalChannelList TrCH1: type 1: 75 TrCH2: type 1: 103 TrCH1: BitMode >>>>logicalChannelList TrCH1: CH1: RitM1 >>>>numberOfTbSizeList TrCH1: CH2: TrCH4: N/A >>>>numberOfTransportBl ocks TrCH1: CH2: TrCH4: N/A >>>>numberOfTransportBl ocks TrCH1: BitMode >>>>sizeType TrCH1: BitMode >>>>sizeType TrCH1: CH2: TrCH4: N/A >>>>numberOfTbSizeList TrCH1: BitMode >>>>sizeType TrCH1: TrCH1: BitMode >>>>sizeType TrCH1: TrCH1: BitMode >>>semiStaticTF- Information TrCH1: TrCH2: Au >>>tti TrCH1: Au TrCH2: Au TrCH2: Au TrCH2: Au TrCH2	L OCT (D)			
Semiport Semiport	ocks			
TrCH2: type 1: 84				
Soort Soor	>>>>sizeType			
TrCH1: (1x75) TrCH2: (1x103) TrCH3- TrCH4: N/A TrCH3- TrCH4: N/A TrCH3- TrCH4: N/A TrCH3- TrCH4: N/A TrCH1-2: One TrCH1: BitMode TrCH1: type 1: 75 TrCH2: type 1: 103 TrCH1: type 1: 103 TrCH1: cone TrCH1: all TrCH1: all TrCH1: all TrCH1: noe TrC				
TrCH2: (1x103) TrCH3- TrCH4: N/A TrCH3- TrCH4: N/A TrCH3- TrCH4: N/A TrCH3- TrCH4: N/A TrCH1-2: One TrCH1: BitMode TrCH1: type 1: 75 TrCH2: type 1: 103 TrCH2: type 1: 103 TrCH1: all TrCH1: all TrCH1: One TrCH1:				
TrCH1-2: One	>>>tf 4			TrCH2: (1x103)
ocks TrCH1: BitMode >>>>sizeType TrCH1: type 1: 75 TrCH2: type 1: 103 >>>>numberOfTbSizeList TrCH1-2: One >>>slogicalChannelList TrCH1: all >>>tf 5 TrCH1: (1x81) TrCH2- TrCH4: N/A >>>>numberOfTransportBl ocks TrCH1: One >>>>rlc-Size TrCH1: BitMode >>>>sizeType TrCH1: type 1: 81 >>>>numberOfTbSizeList TrCH1: type 1: 81 >>>sogicalChannelList TrCH1: One >>>semiStaticTF- Information TrCH2: 40 TrCH2: 40 TrCH3: 40 >>>channelCodingType TrCH1: Turbo TrCH2: 40 TrCH4: 40 >>>channelCodingType TrCH1: Turbo TrCH1: Turbo Convolutional >>>convolutional TrCH2: TorCH2: TorCH2: TorCH2: Third TrCH1: TrCH2: Third TrCH1: TrCH2: Third >>>>codingRate TrCH1: N/A TrCH1: N/A TrCH1: TrCH2: Third TrCH3: Half TrCH4: Third >>>rateMatchingAttribute TrCH1: 155 TrCH1: 145 TrCH1: 200 TrCH2: 190				
TrCH1: type 1: 75 TrCH2: type 1: 103 TrCH1-2: One				
TrCH2: type 1: 103				
>>>>numberOfTbSizeList TrCH1-2: One >>>logicalChannelList TrCH1: all >>>tf 5 TrCH1: (1x81) TrCH2- TrCH4: N/A >>>>numberOfTransportBl ocks TrCH1: One >>>>rlc-Size TrCH1: BitMode >>>>sizeType TrCH1: type 1: 81 >>>numberOfTbSizeList TrCH1: One >>>>logicalChannelList TrCH1: all >>semiStaticTF- Information TrCH2: 40 TrCH2: 40 TrCH2: 40 TrCH2: 40 TrCH4: 40 >>>channelCodingType TrCH1: Turbo TrCH2: Turbo TrCH2: Convolutional TrCH2: TirCH2: TrCH2: TrCH2: TrCH2: TrCH2: TrCH2: TrCH2: TrCH2: TrCH2: TrCH2: TrCH3: Half TrCH4: TrCH3: Half TrCH4: TricH3: Half TrCH4: TricH3: Half TrCH4: TricH3: Half TrCH4: TricH3: TrCH3: 160 >>>rateMatchingAttribute TrCH1: 155 TrCH1: 145 TrCH2: 160 TrCH2: 190	>>>>sizeType			
>>>tf 5 TrCH1: (1x81)	>>>>numberOfTbSizeList			
TrCH2- TrCH4: N/A N/A TrCH1: One TrCH1: One TrCH1: One TrCH1: One TrCH1: BitMode TrCH1: type 1: 81 TrCH1: type 1: 81 TrCH1: One TrCH1: One TrCH1: One TrCH1: One TrCH1: One TrCH1: all TrCH1: all TrCH1: all TrCH2: 40 TrCH2: 40 TrCH4: 40 TrCH4: 40 TrCH4: 40 TrCH2: 40 TrCH2: TrCH2: Convolutional TrCH2: Tr	>>>logicalChannelList			
>>>>numberOfTransportBl ocks TrCH1: One >>>>rlc-Size TrCH1: BitMode >>>>sizeType TrCH1: type 1: 81 >>>numberOfTbSizeList TrCH1: One >>>>logicalChannelList TrCH1: all >>semiStaticTF- Information TrCH1: 40	>>>tf 5			TrCH1: (1x81)
ocks TrCH1: BitMode >>>>rlc-Size TrCH1: type 1: 81 >>>>sizeType TrCH1: type 1: 81 >>>>logicalChannelList TrCH1: One >>>semiStaticTF- Information TrCH1: 40				
>>>>sizeType TrCH1: type 1: 81 >>>numberOfTbSizeList TrCH1: One >>>>logicalChannelList TrCH1: all >>semiStaticTF- Information TrCH1: 40	ocks			TrCH1: One
>>>>numberOfTbSizeList TrCH1: One >>>>logicalChannelList TrCH1: all >>>semiStaticTF- Information TrCH1: 40				
>>>logicalChannelList TrCH1: all >>semiStaticTF- Information TrCH1: 40 TrCH1: 40 TrCH1: TrCH3: 20 >>>tti TrCH2: 40 TrCH2: 40 TrCH4: 40 >>>channelCodingType TrCH1: Turbo TrCH2: TrCH2: TrCH2: Convolutional Convolutional Convolutional >>>>codingRate TrCH1: N/A TrCH2: Third TrCH1: N/A TrCH2: Third TrCH1: TrCH2: Third Third TrCH3: Half TrCH4: Third >>>rateMatchingAttribute TrCH1: 155 TrCH2: 160 TrCH1: 145 TrCH2: 160 TrCH1: 200 TrCH2: 190				· .
>>semiStaticTF- Information TrCH1: 40 TrCH2: 40 TrCH1: 40 TrCH2: 40 TrCH1: 40 TrCH2: 40 TrCH4: 40 >>>channelCodingType TrCH1: Turbo TrCH2: Turbo TrCH2: Convolutional TrCH1: Turbo TrCH2: Convolutional Convolutional >>>>codingRate TrCH1: N/A TrCH2: Third TrCH1: N/A TrCH2: Third TrCH1: Third TrCH3: Half TrCH4: Third >>>rateMatchingAttribute TrCH1: 155 TrCH2: 160 TrCH1: 145 TrCH2: 160 TrCH1: 200 TrCH2: 190				
Information				TrCH1: all
TrCH2: 40 TrCH2: 40 TrCH4: 40				
>>>channelCodingType TrCH1: Turbo TrCH2: Convolutional TrCH1: Turbo TrCH2: Convolutional Convolutional >>>>codingRate TrCH1: N/A TrCH1: N/A TrCH2: Third TrCH2: Third TrCH3: Half TrCH4: Third >>>rateMatchingAttribute TrCH1: 155 TrCH2: 160 TrCH1: 145 TrCH2: 190 TrCH2: 190	>>>tti			
>>>>codingRate TrCH1: N/A TrCH2: Third TrCH1: N/A TrCH2: Third TrCH1: TrCH2: Third TrCH3: Half TrCH4: Third >>>rateMatchingAttribute TrCH1: 155 TrCH2: 160 TrCH1: 145 TrCH2: 160 TrCH2: 190	>>>channelCodingType	TrCH1: Turbo TrCH2:	TrCH1: Turbo TrCH2:	
TrCH2: Third TrCH2: Third Third TrCH3: Half TrCH4: Third TrCH4: Third TrCH4: Third TrCH4: Third TrCH4: Third TrCH2: 160 TrCH2: 160 TrCH2: 190 TrCH2:	>>>codingRate			TrCH1- TrCH2·
>>>rateMatchingAttribute	and the second s			Third TrCH3: Half
TrCH2: 160 TrCH2: 160 TrCH2: 190	>>>rateMatchingAttribute	TrCH1: 155	TrCH1: 145	
TrCH3: 235 TrCH4: 160				TrCH2: 190 TrCH3: 235

Configuration	28.8 kbps	57.6 kbps	12.2 kbps
	streaming CS- data +	streaming CS- data +	speech(multimode) +
	3.4 kbps signalling	3.4 kbps signalling	3.4 kbps signalling
>>>crc-Size	TrCH1: 16 TrCH2: 16	TrCH1: 16 TrCH2: 16	TrCH1: 12 TrCH2- TrCH3: 0 TrCH4: 16
DL- AddReconfTransChInfoLis t			
>Downlink transport channel type	dch	dch	dch
>dl- TransportChannelIdentity (should be as for UL)	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2, TrCH3: 3, TrCH4: 4
>tfs-SignallingMode	SameAsUL	SameAsUL	Independent <only and="" below="" different="" is="" on="" shown="" tf0="" trch1=""></only>
>>transportFormatSet			DedicatedTransChT FS
>>>dynamicTF-information			T=014. (4::0)
>>>tf0/ tf0,1 >>>>rlcSize			TrCH1: (1x0) bitMode
>>>ricSize >>>>sizeType			TrCH1: type 1: 0
>>>size rype >>>>numberOfTbSizeList			TrCH1: type 1: 0
>>>logicalChannelList			All
>>ULTrCH-Id	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2, TrCH3: 3, TrCH4: 4
>dch-QualityTarget			
>>bler-QualityValue	TrCH1: 1x10 ⁻² TrCH2: Absent	TrCH1: 1x10 ⁻² TrCH2: Absent	TrCH1: 7x10 ⁻³ TrCH2- TrCH4: Absent
TrCH INFORMATION, COMMON			
ul-CommonTransChInfo			
>tfcs-ID (TDD only)	1	1	1
>sharedChannelIndicator (TDD only)	FALSE	FALSE	FALSE
>tfc-Subset	Absent, not required	Absent, not required	Absent, not required
>ul-TFCS	Normal TFCI signalling	Normal TFCI signalling	Normal TFCI signalling
>>explicitTFCS- ConfigurationMode	Complete	Complete	Complete
>>>ctfcSize	Ctfc4Bit	Ctfc4Bit	Ctfc8Bit
>>>>TFCS representation	Addition	Addition	Addition
>>>>TFCS list >>>>>TFCS 1	(TF0, TF0)	(TF0, TF0)	(TF0, TF0, TF0, TF0)
>>>>>ctfc	0	0	0
>>>>>gainFactorInform ation	Computed	Computed	Computed
>>>>>referenceTFCld	0	0	0
>>>>TFCS 2	(TF1, TF0)	(TF1, TF0)	(TF1, TF0, TF0, TF0)
>>>>>ctfc	1	1	1
>>>>>gainFactorInform ation	Computed	Computed	Computed
>>>>>βc (FDD only)	N/A	N/A	N/A
>>>>>βd	N/A	N/A	N/A
>>>>>referenceTFCld	0	0	0
>>>>TFCS 3	(TF2, TF0)	(TF2, TF0)	(TF2, TF1, TF0, TF0)
>>>>>ctfc	2	2	8

Configuration	28.8 kbps streaming CS-	57.6 kbps streaming CS-	12.2 kbps speech(multimode
	data + 3.4 kbps signalling	data + 3.4 kbps signalling) + 3.4 kbps signalling
>>>>> sgainFactorInform ation	Computed	Computed	Computed
>>>>>referenceTFCId	0	0	0
>>>>TFCS 4	(TF0, TF1)	(TF3, TF0)	(TF3, TF2, TF0, TF0)
>>>>>ctfc	3	3	15
>>>>>gainFactorInform ation	Computed	Computed	Computed
>>>>>βc (FDD only)	N/A	N/A	N/A
>>>>>βd	N/A	N/A	N/A
>>>>>referenceTFCld	0	0	0
>>>>TFCS 5	(TF1, TF1)	(TF4, TF0)	(TF4, TF3, TF0, TF0)
>>>>>ctfc	4	4	22
>>>>>gainFactorInform ation	Computed	Computed	Computed
>>>>>>referenceTFCld	0	0	0
>>>>TFCS 6	(TF2, TF1)	(TF0, TF1)	(TF5, TF4, TF1, TF0)
>>>>>ctfc	5	5	59
>>>>>gainFactorInform	Signalled	Computed	Computed
>>>>>βc (FDD only)	8	N/A	N/A
>>>>>βd	15	N/A	N/A
>>>>>referenceTFCId	0	0	0
>>>>TFCS 7		(TF1, TF1)	(TF0,TF0,TF0,TF1)
>>>>>ctfc		6	60
>>>>>gainFactorInform ation		Computed	Computed
>>>>>referenceTFCld		0	0
>>>>TFCS 8		(TF2, TF1)	(TF1,TF0,TF0,TF1)
>>>>>ctfc		7	61
>>>>>gainFactorInform ation		Computed	Computed
>>>>>referenceTFCld		0	0
>>>>TFCS 9		(TF3, TF1)	(TF2,TF1,TF0,TF1)
>>>>>ctfc >>>>>gainFactorInform		8 Computed	68 Computed
ation		·	·
>>>>>>referenceTFCld		(TE4 TE4)	(TE2 TE2 TE0 TE4)
>>>>TFCS 10		(TF4, TF1) 9	(TF3,TF2,TF0,TF1) 75
>>>>>gainFactorInform		Signalled	Computed
ation >>>>>βc (FDD only)		8	N/A
>>>>>βd		15	N/A
>>>>>referenceTFCld		0	0
>>>>TFCS 11			(TF4,TF3,TF0,TF1)
>>>>>ctfc			82
>>>>>gainFactorInform ation			Computed
>>>>>referenceTFCld			0
>>>>TFCS 12			(TF5,TF4,TF1,TF1) 119
>>>>>ctfc >>>>>gainFactorInform			Signalled
ation			-
>>>>>βc (FDD only)			11
>>>>>βd			15
>>>>>>referenceTFCld			0

Configuration	28.8 kbps streaming CS-	57.6 kbps streaming CS-	12.2 kbps speech(multimode
	data +	data +) +
	3.4 kbps signalling	3.4 kbps signalling	3.4 kbps signalling
dl-CommonTransChInfo			
>tfcs-SignallingMode	Same as UL	Same as UL	Same as UL
PhyCH INFORMATION FDD			
UL-DPCH-InfoPredef			
>ul-DPCH-			
PowerControlInfo			
>>powerControlAlgorithm	Algorithm 1	Algorithm 1	Algorithm 1
>>>tpcStepSize	1	1	1
>tfci-Existence	TRUE	TRUE	TRUE
>puncturingLimit	1	1	0.88
DL- CommonInformationPrede f			
>dl-DPCH-InfoCommon			
>>spreadingFactor	64	32	128
>>tfci-Existence	TRUE	TRUE	FALSE
>>pilotBits	8	8	4
>>positionFixed	Flexible	Flexible	Fixed
PhyCH INFORMATION 3.84 Mcps TDD			
UL-DPCH-InfoPredef			
>ul-DPCH- PowerControlInfo			
>>dpch-ConstantValue	0	0	0
>commonTimeslotInfo			
>>secondInterleavingMod e	frameRelated	frameRelated	frameRelated
>>tfci-Coding	16	16	16
>>puncturingLimit	0.44	0.48	0.88
>>repetitionPeriodAndLen gth	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1
DL-			
CommonInformationPrede f			
>dl-DPCH-InfoCommon			
>>commonTimeslotInfo			
>>>secondInterleavingMo de	frameRelated	frameRelated	frameRelated
>>>tfci-Coding	16	16	16
>>>puncturingLimit	0.44	0.48	0.92
>>>repetitionPeriodAndLe ngth	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1
PhyCH INFORMATION 1.28 Mcps TDD			
UL-DPCH-InfoPredef			
>commonTimeslotInfo			
>>secondInterleavingMod e	frameRelated	frameRelated	
>>tfci-Coding	16	16	
>>puncturingLimit	0.64	0.72	
>>repetitionPeriodAndLen gth	repetitionPeriod1	repetitionPeriod1	
DL- CommonInformationPrede			
f			
>dl-DPCH-InfoCommon			
>>commonTimeslotInfo			
>>>secondInterleavingMo de	frameRelated	frameRelated	frameRelated

Configuration	28.8 kbps streaming CS- data + 3.4 kbps signalling	57.6 kbps streaming CS- data + 3.4 kbps signalling	12.2 kbps speech(multimode) + 3.4 kbps signalling
>>>tfci-Coding	16	16	16
>>>puncturingLimit	0.64	0.72	0.92
>>>repetitionPeriodAndLe ngth	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1

Configuration	Configuration 10.2/6.7/5.9/4.75 kbps speech + 3.4 kbps signalling	
Ref 34.108	N/A	N/A
Default configuration	11	12
identity		
RB INFORMATION		
rb-Identity	RB1: 1, RB2: 2,	RB1: 1, RB2: 2,
	RB3: 3, RB5: 5,	RB3: 3, RB5: 5,
	RB6: 6, RB7: 7,	RB6: 6, RB7: 7
	RB8: 8	5
rlc-InfoChoice	RIc-info	RIc-info
>ul-RLC-Mode	RB1: UM RB2- RB3: AM	RB1: UM RB2- RB3: AM
	RB5-RB7: TM	RB5-RB6: TM
>>transmissionRLC-	RB1: N/A	RB1: N/A
DiscardMode	RB2- RB3:	RB2- RB3:
	NoDiscard	NoDiscard
	RB5- RB7: N/A	RB5- RB6: N/A
>>>maxDat	RB1: N/A	RB1: N/A
	RB2- RB3: 15	RB2- RB3: 15
	RB5- RB7: N/A	RB5- RB6: N/A
>>transmissionWindowSiz	RB1: N/A RB2- RB3: 128 for	RB1: N/A RB2- RB3: 128 for
е	UEs with more than	UEs with more than
	10 kbyte "total RLC	10 kbyte "total RLC
	AM buffer size" and	AM buffer size" and
	32 otherwise	32 otherwise
	RB5- RB7: N/A	RB5- RB6: N/A
>>timerRST	RB1: N/A	RB1: N/A
	RB2- RB3: 300	RB2- RB3: 300
DOT.	RB5- RB7: N/A	RB5- RB6: N/A
>>max-RST	RB1: N/A RB2- RB3: 1	RB1: N/A RB2- RB3: 1
	RB5- RB7: N/A	RB5- RB6: N/A
>>pollingInfo	RB1: N/A	RB1: N/A
l r r p a m a g m a	RB2- RB3: as below	RB2- RB3: as below
	RB5- RB7: N/A	RB5- RB6: N/A
>>>lastTransmissionPDU- Poll	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>lastRetransmissionPD U-Poll	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>timerPollPeriodic	RB2- RB3: 300	RB2- RB3: 300
>>segmentationIndication	RB1- RB3: N/A	RB1- RB3: N/A
# DI O I : :	RB5- RB7: FALSE	RB5- RB6: FALSE
>dl-RLC-Mode	RB1: UM	RB1: UM
	RB2- RB3: AM RB5- RB7: TM	RB2- RB3: AM RB5- RB6: TM
	RB8: TM	RB7: TM
>>inSequenceDelivery	RB1: N/A	RB1: N/A
Inoquonococivery	RB2- RB3: TRUE	RB2- RB3: TRUE
	RB5- RB8: N/A	RB5- RB7: N/A
>>receivingWindowSize	RB1: N/A	RB1: N/A
	RB2- RB3: 128 for	RB2- RB3: 128 for
	UEs with more than	UEs with more than
	10 kbyte "total RLC	10 kbyte "total RLC
	AM buffer size" and 32 otherwise	AM buffer size" and 32 otherwise
	RB5- RB8: N/A	RB5- RB7: N/A
>>dl-RLC-StatusInfo	RB1: N/A	RB1: N/A
	RB2- RB3: as below	RB2- RB3: as below
	RB5- RB8: N/A	RB5- RB7: N/A
>>>timerStatusProhibit	RB2- RB3: 100	RB2- RB3: 100
>>>missingPDU-Indicator	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>timerStatusPeriodic	RB2- RB3: 300	RB2- RB3: 300

	DD4 DD6 N/A	DD4 DD0 N/A
>>segmentationIndication	RB1- RB3: N/A	RB1- RB3: N/A
	RB5- RB8: FALSE	RB5- RB7: FALSE
rb-MappingInfo		
>UL-	OneLogicalChannel	OneLogicalChannel
LogicalChannelMappings		
>>ul-	Dch	Dch
TransportChannelType		
>>>transportChannelIdentit	RB1- RB3: 4	RB1- RB3: 3
у	RB5: 1, RB6: 2,	RB5: 1, RB6: 2
	RB7: 3,	
>>logicalChannelIdentity	RB1: 1, RB2: 2,	RB1: 1, RB2: 2,
	RB3: 3	RB3: 3
	RB5- RB7: N/A	RB5- RB6: N/A
>>rlc-SizeList	RB1- RB3:	RB1- RB3:
	configured	configured
	RB5- RB7: N/A	RB5- RB6: N/A
>>mac-	RB1: 1, RB2: 2,	RB1: 1, RB2: 2,
LogicalChannelPriority	RB3: 3	RB3: 3
	RB5- RB7: 5	RB5- RB6: 5
>DL-		
logicalChannelMappingList		
>>Mapping option 1	One mapping option	One mapping option
>>>dl-	Dch	Dch
TransportChannelType		
>>>transportChannelIden	RB1- RB3: 4	RB1- RB3: 3
tity	RB5: 1, RB6: 2,	RB5: 1, RB6: 2,
	RB7: 3, RB8: 5	RB7:4
>>>logicalChannelIdentity	RB1: 1, RB2: 2,	RB1: 1, RB2: 2,
	RB3: 3	RB3: 3
	RB5- RB8: N/A	RB5- RB7: N/A
TrCH INFORMATION PER		
TrCH		
UL-		
AddReconfTransChInfoList		
>Uplink transport channel	dch	dch
type		
>transportChannelIdentity	TrCH1: 1, TrCH2: 2,	TrCH1: 1, TrCH2: 2,
	TrCH3: 3, TrCH4: 4	TrCH3: 3
>transportFormatSet	DedicatedTransChT	DedicatedTransChT
·	FS	FS
>>dynamicTF-information		
>>>tf0/ tf0,1	TrCH1: (0x65)	TrCH1: (0x61)
·	TrCH2: (0x 99)	TrCH2: (0x 87)
	TrCH3: (0x 40,	TrCH3: (0x 144,
	1x40)	1x144) `
	TrCH4: (0x144,	,
	1x144) `	
>>>>rlcSize	BitMode	BitMode
>>>>sizeType	TrCH1: type 1: 65	TrCH1: type 1: 61
<u> </u>	TrCH2: type 1: 99	TrCH2: type 1: 87
	TrCH3: type 1: 40	TrCH3: 2: type 2,
	TrCH4: 2: type 2,	part1= 2, part2= 0
	part1= 2, part2= 0	(144)
	(144)	` '
>>>numberOfTbSizeList	TrCH1-2: Zero	TrCH1-2: Zero
	TrCH3-4: Zero, one	TrCH3: Zero, one
>>>>logicalChannelList	All	All
>>>tf 1	TrCH1: (1x39)	TrCH1: (1x39)
	TrCH2: (1x 53)	TrCH2: (1x53)
	TrCH3- TrCH4: N/A	TrCH3: N/A
>>>>numberOfTransportBl	TrCH1: One	TrCH1: One
ocks	TrCH2: One	TrCH2: One
		
>>>rlc-Size	L TrCH1-2: BitMode	LTCH1-2: BitMode
>>>rlc-Size	TrCH1-2: BitMode	TrCH1-2: BitMode TrCH1: 1: 39
>>>rlc-Size >>>>sizeType	TrCH1: 1: 39	TrCH1: 1: 39

>>>logicalChannelList	TrCH1: all	TrCH1: all
>>>tf 2	TrCH1: (1x42)	TrCH1: (1x42)
	TrCH2: (1x63)	TrCH2: (1x63)
	TrCH3- TrCH4: N/A	TrCH3: N/A
>>>>numberOfTransportBl	TrCH1: One	TrCH1: One
ocks	TrCh2: One	TrCh2: One
>>>rlc-Size	TrCH1: BitMode	TrCH1: BitMode
>>>>sizeType	TrCH1: type 1: 42	TrCH1: type 1: 42
>>>>Size i ype	TrCH2: type 1: 42	TrCH2: type 1: 42
>>>>numberOfTbSizeList	TrCH1: One	TrCH1: One
// / / / / / / / / / / / / / / / / / /	TrCH2: One	TrCH2: One
>>>logicalChannelList	TrCH1: all	TrCH1: all
/// / / / / / / / / / / / / / / / / /	TrCH2: all	TrCH2: all
>>>tf 3	TrCH1: (1x55)	TrCH1: (1x55)
ti 5	TrCH2: (1x76)	TrCH2: (1x76)
	TrCH3- TrCH4: N/A	TrCH3: N/A
>>>>numberOfTransportBl	TrCH1: One	TrCH1: One
ocks	TrCh2: One	TrCh2: One
>>>rlc-Size	TrCH1: BitMode	TrCH1: BitMode
>>>>sizeType	TrCH1: type 1: 55	TrCH1: type 1: 55
////3126 i ype	TrCH2: type 1: 76	TrCH2: type 1: 76
>>>numberOfTbSizeList	TrCH1: One	TrCH1: One
	TrCH1: One	TrCH1: One
>>>>logicalChannelList	TrCH1: all	TrCH2: Offe
////ogicalCriatifietList	TrCH1: all	TrCH1: all
>>>tf 4	TrCH2. all	TrCH2: all
>>>II 4	TrCH1: (1x96)	TrCH1: (1x87)
	TrCH2. (1x99)	TrCH3: N/A
numberOfTransportDl	TrCH1: One	TrCH3: N/A
>>>>numberOfTransportBl		
ocks >>>rlc-Size	TrCh2: One	TrCh2: One
	TrCH1: BitMode	TrCH1: BitMode
>>>>sizeType	TrCH1: type 1: 58	TrCH1: type 1: 58
	TrCH2: type 1: 99	TrCH2: type 1: 87
>>>>numberOfTbSizeList	TrCH1: One	TrCH1: One
la sia al Channall iat	TrCH2: One	TrCH2: One TrCH1: all
>>>>logicalChannelList	TrCH1: all TrCH2: all	TrCH1. all
>>>tf 5		TrCH1: (1x61)
>>>॥ 5	TrCH1: (1x65) TrCH2- TrCH4: N/A	TrCH1. (1x61)
> > > numberOfTransportDl	TrCH1: One	TrCH1: One
>>>>numberOfTransportBl	TICHT. One	TICHT. One
ocks	TrOUIA: DitMode	TrOUA: DiaModo
>>>rlc-Size	TrCH1: BitMode	TrCH1: BitMode
>>>>sizeType	TrCH1: type 1: 42	TrCH1: type 1: 42
>>>>numberOfTbSizeList	TrCH1: One	TrCH1: One
	T 0114 "	
>>>>logicalChannelList	TrCH1: all	TrCH1: all
>>semistaticTF-Information		TrCH1: all
	TrCH1- TrCH3: 20	TrCH1: all TrCH1- TrCH2: 20
>>semistaticTF-Information >>>tti	TrCH1- TrCH3: 20 TrCH4: 40	TrCH1: all TrCH1- TrCH2: 20 TrCH3: 40
>>semistaticTF-Information >>>tti >>>channelCodingType	TrCH1- TrCH3: 20 TrCH4: 40 Convolutional	TrCH1: all TrCH1- TrCH2: 20 TrCH3: 40 Convolutional
>>semistaticTF-Information >>>tti	TrCH1- TrCH3: 20 TrCH4: 40 Convolutional TrCH1- TrCH2:	TrCH1: all TrCH1- TrCH2: 20 TrCH3: 40 Convolutional TrCH1- TrCH2:
>>semistaticTF-Information >>>tti >>>channelCodingType	TrCH1- TrCH3: 20 TrCH4: 40 Convolutional TrCH1- TrCH2: Third	TrCH1: all TrCH1- TrCH2: 20 TrCH3: 40 Convolutional TrCH1- TrCH2: Third
>>semistaticTF-Information >>>tti >>>channelCodingType	TrCH1- TrCH3: 20 TrCH4: 40 Convolutional TrCH1- TrCH2: Third TrCH3: Half	TrCH1: all TrCH1- TrCH2: 20 TrCH3: 40 Convolutional TrCH1- TrCH2:
>>semistaticTF-Information >>>tti >>channelCodingType >>>codingRate	TrCH1- TrCH3: 20 TrCH4: 40 Convolutional TrCH1- TrCH2: Third TrCH3: Half TrCH4: Third	TrCH1: all TrCH1- TrCH2: 20 TrCH3: 40 Convolutional TrCH1- TrCH2: Third TrCH3: Third
>>semistaticTF-Information >>>tti >>>channelCodingType	TrCH1- TrCH3: 20 TrCH4: 40 Convolutional TrCH1- TrCH2: Third TrCH3: Half TrCH4: Third TrCH1: 200	TrCH1: all TrCH1- TrCH2: 20 TrCH3: 40 Convolutional TrCH1- TrCH2: Third TrCH3: Third TrCH1: 200
>>semistaticTF-Information >>>tti >>channelCodingType >>>codingRate	TrCH1- TrCH3: 20 TrCH4: 40 Convolutional TrCH1- TrCH2: Third TrCH3: Half TrCH4: Third TrCH4: T00 TrCH1: 200 TrCH2: 190	TrCH1: all TrCH1- TrCH2: 20 TrCH3: 40 Convolutional TrCH1- TrCH2: Third TrCH3: Third TrCH1: 200 TrCH2: 190
>>semistaticTF-Information >>>tti >>channelCodingType >>>codingRate	TrCH1- TrCH3: 20 TrCH4: 40 Convolutional TrCH1- TrCH2: Third TrCH3: Half TrCH4: Third TrCH4: 190 TrCH2: 190 TrCH3: 235	TrCH1: all TrCH1- TrCH2: 20 TrCH3: 40 Convolutional TrCH1- TrCH2: Third TrCH3: Third TrCH1: 200
>>semistaticTF-Information >>>tti >>channelCodingType >>>codingRate >>>rateMatchingAttribute	TrCH1- TrCH3: 20 TrCH4: 40 Convolutional TrCH1- TrCH2: Third TrCH3: Half TrCH4: Third TrCH1: 200 TrCH2: 190 TrCH3: 235 TrCH4: 160	TrCH1: all TrCH1- TrCH2: 20 TrCH3: 40 Convolutional TrCH1- TrCH2: Third TrCH3: Third TrCH1: 200 TrCH2: 190 TrCH3: 160
>>semistaticTF-Information >>>tti >>channelCodingType >>>codingRate	TrCH1- TrCH3: 20 TrCH4: 40 Convolutional TrCH1- TrCH2: Third TrCH3: Half TrCH4: Third TrCH1: 200 TrCH2: 190 TrCH2: 190 TrCH3: 235 TrCH4: 160 TrCH1: 12	TrCH1: all TrCH1- TrCH2: 20 TrCH3: 40 Convolutional TrCH1- TrCH2: Third TrCH3: Third TrCH1: 200 TrCH2: 190 TrCH3: 160 TrCH1: 12
>>semistaticTF-Information >>>tti >>channelCodingType >>>codingRate >>>rateMatchingAttribute	TrCH1- TrCH3: 20 TrCH4: 40 Convolutional TrCH1- TrCH2: Third TrCH3: Half TrCH4: Third TrCH1: 200 TrCH2: 190 TrCH3: 235 TrCH4: 160 TrCH1: 12 TrCH2- TrCH3: 0	TrCH1: all TrCH1- TrCH2: 20 TrCH3: 40 Convolutional TrCH1- TrCH2: Third TrCH3: Third TrCH1: 200 TrCH2: 190 TrCH3: 160 TrCH1: 12 TrCH1: 12 TrCH2: 0
>>semistaticTF-Information >>>tti >>>channelCodingType >>>codingRate >>>rateMatchingAttribute >>>crc-Size	TrCH1- TrCH3: 20 TrCH4: 40 Convolutional TrCH1- TrCH2: Third TrCH3: Half TrCH4: Third TrCH1: 200 TrCH2: 190 TrCH2: 190 TrCH3: 235 TrCH4: 160 TrCH1: 12	TrCH1: all TrCH1- TrCH2: 20 TrCH3: 40 Convolutional TrCH1- TrCH2: Third TrCH3: Third TrCH1: 200 TrCH2: 190 TrCH3: 160 TrCH1: 12
>>semistaticTF-Information >>>tti >>schannelCodingType >>>codingRate >>>rateMatchingAttribute >>crc-Size	TrCH1- TrCH3: 20 TrCH4: 40 Convolutional TrCH1- TrCH2: Third TrCH3: Half TrCH4: Third TrCH1: 200 TrCH2: 190 TrCH3: 235 TrCH4: 160 TrCH1: 12 TrCH2- TrCH3: 0	TrCH1: all TrCH1- TrCH2: 20 TrCH3: 40 Convolutional TrCH1- TrCH2: Third TrCH3: Third TrCH1: 200 TrCH2: 190 TrCH3: 160 TrCH1: 12 TrCH1: 12 TrCH2: 0
>>semistaticTF-Information >>>tti >>>channelCodingType >>>codingRate >>>rateMatchingAttribute >>>crc-Size DL- AddReconfTransChInfoList	TrCH1- TrCH3: 20 TrCH4: 40 Convolutional TrCH1- TrCH2: Third TrCH3: Half TrCH4: Third TrCH1: 200 TrCH2: 190 TrCH3: 235 TrCH4: 160 TrCH1: 12 TrCH2- TrCH3: 0 TrCH4: 16	TrCH1: all TrCH1- TrCH2: 20 TrCH3: 40 Convolutional TrCH1- TrCH2: Third TrCH3: Third TrCH1: 200 TrCH2: 190 TrCH3: 160 TrCH1: 12 TrCH2: 0 TrCH3: 16
>>semistaticTF-Information >>>tti >>>channelCodingType >>>codingRate >>>rateMatchingAttribute >>>crc-Size DL- AddReconfTransChInfoList >Downlink transport	TrCH1- TrCH3: 20 TrCH4: 40 Convolutional TrCH1- TrCH2: Third TrCH3: Half TrCH4: Third TrCH1: 200 TrCH2: 190 TrCH3: 235 TrCH4: 160 TrCH1: 12 TrCH2- TrCH3: 0	TrCH1: all TrCH1- TrCH2: 20 TrCH3: 40 Convolutional TrCH1- TrCH2: Third TrCH3: Third TrCH1: 200 TrCH2: 190 TrCH3: 160 TrCH1: 12 TrCH1: 12 TrCH2: 0
>>semistaticTF-Information >>>tti >>>channelCodingType >>>codingRate >>>rateMatchingAttribute >>>crc-Size DL- AddReconfTransChInfoList >Downlink transport channel type	TrCH1- TrCH3: 20 TrCH4: 40 Convolutional TrCH1- TrCH2: Third TrCH3: Half TrCH4: Third TrCH1: 200 TrCH2: 190 TrCH3: 235 TrCH4: 160 TrCH1: 12 TrCH2- TrCH3: 0 TrCH4: 16	TrCH1: all TrCH1- TrCH2: 20 TrCH3: 40 Convolutional TrCH1- TrCH2: Third TrCH3: Third TrCH1: 200 TrCH2: 190 TrCH3: 160 TrCH1: 12 TrCH2: 0 TrCH3: 16
>>semistaticTF-Information >>>tti >>>channelCodingType >>>codingRate >>>rateMatchingAttribute >>>crc-Size DL- AddReconfTransChInfoList >Downlink transport	TrCH1- TrCH3: 20 TrCH4: 40 Convolutional TrCH1- TrCH2: Third TrCH3: Half TrCH4: Third TrCH1: 200 TrCH2: 190 TrCH3: 235 TrCH4: 160 TrCH1: 12 TrCH2- TrCH3: 0 TrCH4: 16	TrCH1: all TrCH1- TrCH2: 20 TrCH3: 40 Convolutional TrCH1- TrCH2: Third TrCH3: Third TrCH1: 200 TrCH2: 190 TrCH3: 160 TrCH1: 12 TrCH2: 0 TrCH3: 16

	la de se se de set	lin along an along	
>tfs-SignallingMode	Independent	Independent	
	<only on="" td="" tf0="" trch1<=""><td><only on="" td="" tf0="" trch1<=""></only></td></only>	<only on="" td="" tf0="" trch1<=""></only>	
	and tf0/tf1 on	and tf0/tf1 on	
	TrCH5 are different	TrCH4 are different	
	and shown below>	and shown below>	
>>transportFormatSet			
>>>dynamicTF-information			
>>>tf0/tf0,1	TrCH1: (1x0)	TrCH1: (1x0)	
>>>ti0/ ti0, i			
	TrCH5: (0x3, 1x3)	TrCH4: (0x3, 1x3)	
>>>rlcSize	BitMode	bitMode	
>>>>sizeType	TrCH1: type 1: 0	TrCH1: type 1: 0	
	TrCH5: type 1: 3	TrCH4: type 1: 3	
>>>>numberOfTbSizeList	TrCH1: One	TrCH1: One	
	TrCH5: Zero, one	TrCH4: Zero, one	
>>>>logicalChannelList	All	All	
>>>semistaticTF-			
	same as UL except	same as DL except	
Information	for TrCH5	for TrCH4	
>>>>tti	TrCH5: 20	TrCH4: 20	
>>>>channelCodingType	Convolutional	Convolutional	
>>>>codingRate	TrCH5: Third	TrCH4: Third	
>>>rateMatchingAttribute	TrCH5: 200	TrCH4: 200	
	TrCH5: 12	TrCH4: 12	
>>>crc-Size			
>>ULTrCH-Id	TrCH1: 1, TrCH2: 2,	TrCH1: 1, TrCH2: 2,	
	TrCH3: 3, TrCH4: 4,	TrCH3: 3	
>dch-QualityTarget			
>>bler-QualityValue	TrCH1: 7x10 ⁻³	TrCH1: 7x10 ⁻³	
	TrCH2- TrCH5:	TrCH2- TrCH4:	
	Absent	Absent	
TrCH INFORMATION,			
COMMON			
ul-CommonTransChInfo			
>tfcs-ID (TDD only)	1	1	
	•	•	
>sharedChannelIndicator	FALSE	FALSE	
(TDD only)			
> tfc-Subset	Absent, not required	Absent, not required	
>ul-TFCS	Normal TFCI	Normal TFCI	
	signalling	signalling	
>>explicitTFCS-	Complete	Complete	
ConfigurationMode			
>>>ctfcSize	Ctfc6Bit	Ctfc6Bit	
>>>TFCS representation	Addition	Addition	
>>>>TFC list			
	(TF0, TF0, TF0,	(TF0, TF0, TF0)	
>>>>TFC 1	(10, 10, 10,	(TF0, TF0, TF0)	
>>>>>TFC 1	TF0)	(TF0, TF0, TF0)	
-		(TF0, TF0, TF0) 0	
>>>>>ctfc	TF0) 0	0	
>>>>>ctfc >>>>>gainFactorInform	TF0)	_	
>>>>>ctfc >>>>>gainFactorInform ation	TF0) 0 Computed	0 Computed	
>>>>>ctfc >>>>>gainFactorInform ation >>>>referenceTFCId	TF0) 0 Computed 0	0 Computed	
>>>>>ctfc >>>>>gainFactorInform ation	TF0) 0 Computed 0 (TF1, TF0, TF0,	0 Computed	
>>>>>ctfc >>>>>gainFactorInform ation >>>>referenceTFCId	TF0) 0 Computed 0	0 Computed	
>>>>>ctfc >>>>>gainFactorInform ation >>>>referenceTFCId	TF0) 0 Computed 0 (TF1, TF0, TF0,	0 Computed	
>>>>>ctfc >>>>>gainFactorInform ation >>>>>TFC 2 >>>>>ctfc	TF0) Computed (TF1, TF0, TF0, TF0) 1	0 Computed 0 (TF1, TF0, TF0)	
>>>>>ctfc >>>>>gainFactorInform ation >>>>>FeferenceTFCId >>>>>TFC 2 >>>>>ctfc >>>>>>gainFactorInform	TF0) Computed (TF1, TF0, TF0, TF0)	0 Computed 0 (TF1, TF0, TF0)	
>>>>>ctfc >>>>>gainFactorInform ation >>>>>TFC 2 >>>>>ctfc >>>>>ctfc >>>>>ctfc >>>>>gainFactorInform ation	TF0) Computed O (TF1, TF0, TF0, TF0) 1 Computed	0 Computed 0 (TF1, TF0, TF0) 1 Computed	
>>>>>ctfc >>>>>gainFactorInform ation >>>>>TFC 2 >>>>>ctfc >>>>>ctfc >>>>>>ctfc >>>>>>ctfc	TF0) 0 Computed 0 (TF1, TF0, TF0, TF0) 1 Computed	0 Computed 0 (TF1, TF0, TF0) 1 Computed N/A	
>>>>>ctfc >>>>>gainFactorInform ation >>>>>TFC 2 >>>>>ctfc >>>>>ctfc >>>>>ctfc >>>>>gainFactorInform ation	TF0) Computed O (TF1, TF0, TF0, TF0) 1 Computed	0 Computed 0 (TF1, TF0, TF0) 1 Computed	
>>>>>ctfc >>>>>gainFactorInform ation >>>>>TFC 2 >>>>>ctfc >>>>>ctfc >>>>>ctfc >>>>>ctfc >>>>>bgainFactorInform ation >>>>>bgainFactorInform ation >>>>>bβc (FDD only) >>>>>>bd	TF0) 0 Computed 0 (TF1, TF0, TF0, TF0) 1 Computed	0 Computed 0 (TF1, TF0, TF0) 1 Computed N/A	
>>>>>ctfc >>>>>pgainFactorInform ation >>>>>TeferenceTFCId >>>>>ctfc >>>>>ctfc >>>>>ctfc >>>>>bgainFactorInform ation >>>>>ctfc >>>>>bgainFactorInform ation >>>>>>βc (FDD only) >>>>>>βd >>>>>referenceTFCId	TF0) 0 Computed 0 (TF1, TF0, TF0, TF0) 1 Computed N/A N/A 0	0 Computed 0 (TF1, TF0, TF0) 1 Computed N/A N/A 0	
>>>>>ctfc >>>>>gainFactorInform ation >>>>>TFC 2 >>>>>ctfc >>>>>ctfc >>>>>ctfc >>>>>ctfc >>>>>ctfc >>>>>bgainFactorInform ation >>>>>βc (FDD only) >>>>>>βd	TF0) Computed O (TF1, TF0, TF0, TF0) 1 Computed N/A N/A O (TF2, TF1, TF0,	0 Computed 0 (TF1, TF0, TF0) 1 Computed N/A N/A	
>>>>>ctfc >>>>>gainFactorInform ation >>>>>TFC 2 >>>>>ctfc >>>>>ctfc >>>>>bgainFactorInform ation >>>>>TFC 2	TF0) Computed O (TF1, TF0, TF0, TF0) 1 Computed N/A N/A O (TF2, TF1, TF0, TF0, TF0)	0 Computed 0 (TF1, TF0, TF0) 1 Computed N/A N/A 0 (TF2, TF1, TF0)	
>>>>>ctfc >>>>>>gainFactorInform ation >>>>>TFC 2 >>>>>ctfc >>>>>ctfc >>>>>>βainFactorInform ation >>>>>TFC 2	TF0) Computed O (TF1, TF0, TF0, TF0) 1 Computed N/A N/A O (TF2, TF1, TF0, TF0, TF0) 8	0 Computed 0 (TF1, TF0, TF0) 1 Computed N/A N/A 0 (TF2, TF1, TF0)	
>>>>>ctfc >>>>>gainFactorInform ation >>>>>TFC 2 >>>>>ctfc >>>>>ctfc >>>>>sgainFactorInform ation >>>>>TFC 2	TF0) Computed O (TF1, TF0, TF0, TF0) 1 Computed N/A N/A O (TF2, TF1, TF0, TF0, TF0)	0 Computed 0 (TF1, TF0, TF0) 1 Computed N/A N/A 0 (TF2, TF1, TF0)	
>>>>>ctfc >>>>>>gainFactorInform ation >>>>>TFC 2 >>>>>ctfc >>>>>ctfc >>>>>>βainFactorInform ation >>>>>TFC 2	TF0) Computed O (TF1, TF0, TF0, TF0) 1 Computed N/A N/A O (TF2, TF1, TF0, TF0, TF0) 8	0 Computed 0 (TF1, TF0, TF0) 1 Computed N/A N/A 0 (TF2, TF1, TF0)	
>>>>>ctfc >>>>>painFactorInform ation >>>>>TFC 2 >>>>>ctfc >>>>>ctfc >>>>>>βainFactorInform ation >>>>>TFC 2	TF0) Computed O (TF1, TF0, TF0, TF0) 1 Computed N/A N/A O (TF2, TF1, TF0, TF0, TF0) 8	0 Computed 0 (TF1, TF0, TF0) 1 Computed N/A N/A 0 (TF2, TF1, TF0)	
>>>>>ctfc >>>>>>gainFactorInform ation >>>>>referenceTFCId >>>>>tFC 2 >>>>>ctfc >>>>>>pgainFactorInform ation >>>>>pctfc >>>>>pgainFactorInform ation >>>>>pd >>>>>pd >>>>>referenceTFCId >>>>>tfc (FDD only) >>>>>TFC 3	TF0) Computed Computed (TF1, TF0, TF0, TF0) Computed N/A N/A 0 (TF2, TF1, TF0, TF0) 8 Computed	0 Computed 0 (TF1, TF0, TF0) 1 Computed N/A N/A 0 (TF2, TF1, TF0) 8 Computed 0	
>>>>>ctfc >>>>>painFactorInform ation >>>>>TFC 2 >>>>>ctfc >>>>>ctfc >>>>>>βainFactorInform ation >>>>>TFC 2	TF0) 0 Computed 0 (TF1, TF0, TF0, TF0, TF0) 1 Computed N/A N/A 0 (TF2, TF1, TF0, TF0, TF0) 8 Computed 0 (TF3, TF2, TF0,	0 Computed 0 (TF1, TF0, TF0) 1 Computed N/A N/A 0 (TF2, TF1, TF0) 8 Computed	
>>>>>ctfc >>>>>gainFactorInform ation >>>>>referenceTFCId >>>>>tFC 2 >>>>>ctfc >>>>>>gainFactorInform ation >>>>>pctfc >>>>>pgainFactorInform ation >>>>>pbc (FDD only) >>>>>TFC 3 >>>>>ctfc >>>>>referenceTFCId >>>>>referenceTFCId >>>>>referenceTFCId >>>>>>>ctfc >>>>>referenceTFCId	TF0) Computed Computed (TF1, TF0, TF0, TF0) Computed N/A N/A 0 (TF2, TF1, TF0, TF0) 8 Computed	0 Computed 0 (TF1, TF0, TF0) 1 Computed N/A N/A 0 (TF2, TF1, TF0) 8 Computed 0	

>>>>>gainFactorInform	Computed	Computed
ation (FDD anks)		
>>>>>βc (FDD only)		
>>>>>βd >>>>>referenceTFCId	0	0
>>>>>TFC 5	(TF4, TF3, TF0,	(TF4, TF3, TF0)
	TF0)	(11 1, 11 0, 11 0)
>>>>>ctfc	22	22
>>>>>gainFactorInform ation	Computed	Computed
>>>>>>referenceTFCId	0	0
>>>>TFC 6	(TF5, TF4, TF1, TF0)	(TF5, TF4, TF0)
>>>>>ctfc	59	29
>>>>>gainFactorInform ation	Computed	Computed
>>>>>βc (FDD only)		
>>>>>βd		
>>>>>referenceTFCId	0	0
>>>>TFC 7	(TF0, TF0, TF0, TF1)	(TF0, TF0, TF1)
>>>>>ctfc	60	30
>>>>>gainFactorInform	Computed	Computed
ation		·
>>>>>referenceTFCld	0	0
>>>>TFC 8	(TF1, TF0, TF0, TF1)	(TF1, TF0, TF1)
>>>>>ctfc	61	31
>>>>>gainFactorInform	computed	computed
ation		
>>>>>βc (FDD only)		
>>>>>βd >>>>>referenceTFCId	0	0
>>>>>TFC 9	(TF2, TF1, TF0,	(TF2, TF1, TF1)
	TF1)	(11 2, 11 1, 11 1)
>>>>>ctfc	68	38
>>>>>gainFactorInform ation	computed	computed
>>>>>referenceTFCId	0	0
>>>>TFC 10	(TF3, TF2, TF0,	(TF3, TF2, TF1)
	TF1)	
>>>>>ctfc	75	45
>>>>>gainFactorInform	computed	computed
ation		
>>>>>βc (FDD only)		
>>>>>βd >>>>>referenceTFCId	0	0
>>>>>TFC 11	(TF4, TF3, TF0,	(TF4, TF3, TF1)
>>>>>	TF1) 82	52
>>>>>ctfc >>>>>gainFactorInform	computed	computed
ation		-
>>>>>referenceTFCId	0 /TEE TE4 TE4	(TEE TEA TEA)
>>>>TFC 12	(TF5, TF4, TF1, TF1)	(TF5, TF4, TF1)
>>>>>ctfc	97	59
>>>>>gainFactorInform ation	signalled	signalled
>>>>>βc (FDD only)	11	11
>>>>>βd	15	15
>>>>>referenceTFCId	0	0
> TFC subset list		
>>TFC subset 1	(speech rate 10.2)	(speech rate 7.4)

>>> Allowed transport	(TFC1, TFC2,	(TFC1, TFC2,
format combination list	TFC7, TFC8, TFC6, TFC12)	TFC7, TFC8, TFC6, TFC12)
>>TFC subset 2	(speech rate 6.7)	(speech rate 6.7)
>>> Allowed transport	(TFC1, TFC2,	(TFC1, TFC2,
format combination list	TFC7, TFC8, TFC5,	TFC7, TFC8, TFC5,
	TFC11)	TFC11)
>>TFC subset 3	(speech rate 5.9)	(speech rate 5.9)
>>> Allowed transport	(TFC1, TFC2,	(TFC1, TFC2,
format combination list	TFC7, TFC8, TFC4,	TFC7, TFC8, TFC4,
	TFC10)	TFC10)
>>TFC subset 4	(speech rate 4.75)	(speech rate 4.75)
>>> Allowed transport	(TFC1, TFC2,	(TFC1, TFC2,
format combination list	TFC7, TFC8, TFC3,	TFC7, TFC8, TFC3,
	TFC9)	TFC9)
dl-CommonTransChInfo		
>tfcs-SignallingMode	Independent	Independent
ul-CommonTransChInfo		
>tfcs-ID (TDD only)	1	1
>sharedChannelIndicator	FALSE	FALSE
(TDD only)	Absort	About water
> tfc-Subset	Absent, not required	Absent, not required
>dl-TFCS	Normal TFCI	Normal TFCI
>>explicitTFCS-	signalling	signalling
>>explicit FCS- ConfigurationMode	Complete	Complete
>>>ctfcSize	Ctfc6Bit	Ctfc6Bit
>>>TFCS representation	Addition	Addition
>>>>TFCS list	Addition	Addition
>>>>TFC 1	(TF0, TF0, TF0,	(TF0, TF0, TF0,
777771101	TF0, TF0)	TF0)
>>>>>ctfc	0	0
>>>>TFC 2	(TF1, TF0, TF0,	(TF1, TF0, TF0,
	TF0, TF0)	TF0)
>>>>>ctfc	1	1
>>>>TFC 3	(TF2, TF1, TF0,	(TF2, TF1, TF0,
	TF0, TF0)	TF0)
>>>>>ctfc	8	8
>>>>TFC 4	(TF3, TF2, TF0,	(TF3, TF2, TF0,
	TF0, TF0)	TF0)
>>>>>ctfc	15	15
>>>>TFC 5	(TF4, TF3, TF0,	(TF4, TF3, TF0,
>>>>>ctfc	TF0, TF0) 22	TF0) 22
>>>>>TFC 6	(TF5, TF4, TF1,	(TF5, TF4, TF0,
	TF0, TF0)	TF0)
>>>>>ctfc	59	29
>>>>TFC 7	(TF0, TF0, TF0,	(TF0, TF0, TF1,
_	TF1, TF0)	TF0)
>>>>>ctfc	60	30
>>>>TFC 8	(TF1, TF0, TF0,	(TF1, TF0, TF1,
	TF1, TF0)	TF0)
>>>>>ctfc	61	31
>>>>TFC 9	(TF2, TF1, TF0,	(TF2, TF1, TF1,
	TF1, TF0)	TF0)
>>>>>ctfc	68	37
>>>>TFC 10	(TF3, TF2, TF0,	(TF3, TF2, TF1,
>>>>> otfo	TF1, TF0)	TF0)
>>>>>ctfc	75 (TE4 TE3 TE0	55 (TEA TE3 TE1
>>>>> FU	(TF4, TF3, TF0, TF1, TF0)	(TF4, TF3, TF1, TF0)
>>>>>ctfc	82	52
>>>>>TFC 12	(TF5, TF4, TF1,	(TF5, TF4, TF1,
	TF1, TF0)	TF0)
>>>>>ctfc	119	59
	1	

>>>>TFC 13	(TF0, TF0, TF0,	(TF0, TF0, TF0,
	TF0, TF1)	TF1)
>>>>>ctfc	120	60
>>>>TFC 14	(TF1, TF0, TF0,	(TF1, TF0, TF0,
	TF0, TF1)	TF1)
>>>>>ctfc	121	61
>>>>TFC 15	(TF2, TF1, TF0,	(TF2, TF1, TF0,
>>>>> IFC 15		TF1)
.,	TF0, TF1)	/
>>>>>ctfc	128	68
>>>>TFC 16	(TF3, TF2, TF0,	(TF3, TF2, TF0,
	TF0, TF1)	TF1)
>>>>>ctfc	135	75
>>>>TFC 17	(TF4, TF3, TF0,	(TF4, TF3, TF0,
	TF0, TF1)	TF1)
>>>>>ctfc	152	82
>>>>TFC 18	(TF5, TF4, TF1,	(TF5, TF4, TF0,
*************************************	TF0, TF1)	TF1)
>>>>>ctfc	189	89
>>>>TFC 19	(TF0, TF0, TF0,	(TF0, TF0, TF1,
	TF1, TF1)	TF1)
>>>>>ctfc	180	90
>>>>TFC 20	(TF1, TF0, TF0,	(TF1, TF0, TF1,
	TF1, TF1)	TF1)
>>>>>ctfc	181	91
>>>>TFC 21	(TF2, TF1, TF0,	(TF2, TF1, TF1,
· · · · · · · · · · · · · · · · · · ·	TF1, TF1)	TF1)
>>>>>ctfc	188	98
>>>>TFC 22	(TF3, TF2, TF0,	
>>>>> 1FC 22		(TF3, TF2, TF1,
	TF1, TF1)	TF1)
>>>>>ctfc	195	105
>>>>>TFC 23	(TF4, TF3, TF0,	(TF4, TF3, TF1,
	TF1, TF1)	TF1)
>>>>>ctfc	239	112
>>>>TFC 24	(TF5, TF4, TF1,	(TF5, TF4, TF1,
	TF1, TF1)	TF1)
>>>>>ctfc	218	119
PhyCH INFORMATION	-	-
FDD		
UL-DPCH-InfoPredef		
>ul-DPCH-		
PowerControlInfo		
>>powerControlAlgorithm	Algorithm 1	Algorithm 1
>>>tpcStepSize	1	1
>tfci-Existence	TRUE	TRUE
>puncturingLimit	0.88	0.88
DL-		
CommonInformationPredef		
>dl-DPCH-InfoCommon		
	120	120
>>spreadingFactor	128	128
>>tfci-Existence	FALSE	FALSE
>>pilotBits	4	4
>>positionFixed	Fixed	Fixed
PhyCH INFORMATION		
3.84 Mcps TDD		
UL-DPCH-InfoPredef		
>ul-DPCH-	 	
		ı
PowerControlInfo		0
PowerControlInfo >>dpch-ConstantValue	0	0
PowerControlInfo >>dpch-ConstantValue >commonTimeslotInfo	-	· ·
PowerControlInfo >>dpch-ConstantValue	0 frameRelated	0 frameRelated
PowerControlInfo >>dpch-ConstantValue >commonTimeslotInfo	-	·
PowerControlInfo >>dpch-ConstantValue >commonTimeslotInfo >>secondInterleavingMode >>tfci-Coding	frameRelated 16	frameRelated 16
PowerControlInfo >>dpch-ConstantValue >commonTimeslotInfo >>secondInterleavingMode >>tfci-Coding >>puncturingLimit	frameRelated 16 0.60	frameRelated 16 0.60
PowerControlInfo >>dpch-ConstantValue >commonTimeslotInfo >>secondInterleavingMode >>tfci-Coding	frameRelated 16	frameRelated 16

Tr.		•
DL-		
CommonInformationPredef		
>dl-DPCH-InfoCommon		
>>commonTimeslotInfo		
>>>secondInterleavingMod	frameRelated	frameRelated
е		
>>>tfci-Coding	16	16
>>>puncturingLimit	0.60	0.60
>>>repetitionPeriodAndLe	repetitionPeriod1	repetitionPeriod1
ngth		
PhyCH INFORMATION		
1.28 Mcps TDD		
UL-DPCH-InfoPredef		
>commonTimeslotInfo		
>>secondInterleavingMode	frame Related	frame Related
>>tfci-Coding	16	16
>>puncturingLimit	0.64	0.64
>>repetitionPeriodAndLeng	repetitionPeriod1	repetitionPeriod1
th		
DL-		
CommonInformationPredef		
>dl-DPCH-InfoCommon		
>>commonTimeslotInfo		
>>>secondInterleavingMod	frame Related	frame Related
е		
>>>tfci-Coding	16	16
>>>puncturingLimit	0.64	0.64
>>>repetitionPeriodAndLe	repetitionPeriod1	repetitionPeriod1
ngth		

3GPP TSG-RAN WG2 Meeting #34 Sophia Antipolis, France, 17-21 February 2003

CHANGE REQUEST					CR-Form-v7			
*	25.331 CR	1846	жrev	-	\mathbb{H}	Current version:	5.3.0	æ

For <u>HELP</u> on using this form, see bottom of this page or look at the pop-up text over the **#** symbols.

Proposed change affects:			UICC apps第	ME	X Radio Acc	ess Networ	k X Core Net	work
Title:	\aleph	Correct	ion of default config	gurations				
Source:	\mathbb{H}	TSG-R	AN WG2					
Work item code	:₩	TEI				Date: ₩	11/02/2003	
Category:	\mathfrak{H}	Α			ŀ	Release: ₩		
			of the following categ	ories:			the following relea	ases:
		•	orrection)			2	(GSM Phase 2)	
		•	corresponds to a corre	ection in an	earlier release)		(Release 1996)	
			nddition of feature),			R97	(Release 1997)	
		•	unctional modificatior	of feature)		R98	(Release 1998)	
		•	editorial modification)			R99	(Release 1999)	
		Detailed 6	explanations of the ab	ove catego	ries can	Rel-4	(Release 4)	
		be found	in 3GPP <u>TR 21.900</u> .			Rel-5	(Release 5)	

Reason for change: A number of errors have been identified in the default configurations

1 - For configuration 2, 3, 10, the 'numberOfTransportBlocks' is indicated as zero which is in contradiction to the transport format which is indicated as (1xTBSize).

Rel-6 (Release 6)

- 2 For configuration 4, the RLC size is currently 'type 2, part1=11, part2 = 2' which is not equivalent to the intended transport block size of 576.
- 3 For configuration 4 and 6, the 'numberOfTbSizeList' has a '(4)' in the list of numbers of transport blocks. It is not clear what this means and it does not seem to be in line with the TFS.
- 4 For configuration 8, the 'ctfcSize' is indicated as 'Ctfc2bit' but the maximum value of CTFC that needs to be signalled is 5. Hence 'Ctfc4Bit' should be used.

Summary of change: # The following changes are made:

- 1 The numberOfTransportBlocks is changed from zero to one
- 2 The part1 is changed from 11 to 9
- 3 The unnecessary '(4)' is removed
- 4 The ctfcSize is changed to Ctfc4Bit

Isolated Impact Analysis

Functionality corrected: Inter-RAT handover to UTRAN using default

configurations.

Isolated impact statement: Correction to a function where specification containing some contradictions. Would not affect implementations behaving like indicated in the CR, would affect implementations supporting the corrected functionality otherwise.

If neither UTRAN nor UE implement according to this CR the TFS in UTRAN and UE will not be correct following inter-RAT handover with default configuration. This will result in failure of the handover or radio link failure shortly after handover.

If UTRAN implements according to the CR but UE does not implement according to the CR then the TFS in UTRAN and UE will not be aligned following inter-RAT handover with default configuration. This will result in failure of the handover or radio link failure shortly after handover.

If UE implements according to the CR but UTRAN does not implement according to the CR then the TFS in UTRAN and UE will not be aligned following inter-RAT handover with default configuration. This will result in failure of the handover or radio link failure shortly after handover.

Consequences if not approved:

If the CR is not approved the definition of the TFSs in the default configurations will be incorrect. Use of an incorrect TFS in either UE or UTRAN will result in a handover to UTRAN failing or the a radio link failure shortly after the handover.

Clauses affected:	ж	13.7			
Other specs affected:	¥	Y N X X X	Other core specifications Test specifications O&M Specifications	×	
Other comments:	×				

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at http://www.3gpp.org/specs/CR.htm. Below is a brief summary:

- 2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

13.7 Parameter values for default radio configurations

The UE shall support the use of the default radio configurations that are specified in the following.

NOTE 1: These configurations are based on [41] and cover a number of RAB and signalling connection configurations.

In the table that is used to specify the parameter values for these default configurations, the following principles are used:

- Optional IEs that are not used are omitted;
- In case no parameter value is specified in a column, this means the value given the previous (left side) column applies.
- NOTE 2: If needed, signalling radio bearer RB4 is established after the completion of handover.
- NOTE 3: For each default configuration, the value of FDD, 3.84 Mcps TDD and 1.28 Mcps TDD parameters are specified. All parameters apply to FDD, 3.84 Mcps TDD and 1.28 Mcps TDD modes, unless explicitly stated otherwise. It should be noted that in this respect default configurations differ from pre-defined configurations, which only include parameter values for one mode.
- NOTE 4: The transport format sizes, indicated in the following table, concern the RLC PDU size, since all configurations concern dedicated channels. The transport block sizes indicated in TS 34.108 are different since these include the size of the MAC header.

Configuration	3.4 kbps signalling	13.6 kbps signalling	7.95 kbps speech + 3.4 kbps signalling	12.2 kbps speech + 3.4 kbps signalling
Ref 34.108	2	3	6	4
Default configuration identity	0	1	2	3
RB INFORMATION				
rb-Identity	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3, RB5: 5, RB6: 6	RB1: 1, RB2: 2, RB3: 3, RB5: 5, RB6: 6, RB7: 7
rlc-InfoChoice	RIc-info	RIc-info	RIc-info	RIc-info
>ul-RLC-Mode	RB1: UM RB2- RB3: AM	RB1: UM RB2- RB3: AM	RB1: UM RB2- RB3: AM RB5-RB6: TM	RB1: UM RB2- RB3: AM RB5-RB7: TM
>>transmissionRLC- DiscardMode	RB1: N/A RB2- RB3: NoDiscard	RB1: N/A RB2- RB3: NoDiscard	RB1: N/A RB2- RB3: NoDiscard RB5- RB6: N/A	RB1: N/A RB2- RB3: NoDiscard RB5- RB7: N/A
>>>maxDat	RB1: N/A RB2- RB3: 15	RB1: N/A RB2- RB3: 15	RB1: N/A RB2- RB3: 15 RB5- RB6: N/A	RB1: N/A RB2- RB3: 15 RB5- RB7: N/A
>>transmissionWindowSiz e	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise RB5- RB6: N/A	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise RB5- RB7: N/A
>>timerRST	RB1: N/A RB2- RB3: 300	RB1: N/A RB2- RB3: 300	RB1: N/A RB2- RB3: 300 RB5- RB6: N/A	RB1: N/A RB2- RB3: 300 RB5- RB7: N/A
>>max-RST	RB1: N/A RB2- RB3: 1	RB1: N/A RB2- RB3: 1	RB1: N/A RB2- RB3: 1 RB5- RB6: N/A	RB1: N/A RB2- RB3: 1 RB5- RB7: N/A
>>pollingInfo	RB1: N/A RB2- RB3: as below	RB1: N/A RB2- RB3: as below	RB1: N/A RB2- RB3: as below RB5- RB6: N/A	RB1: N/A RB2- RB3: as below RB5- RB7: N/A

Configuration	3.4 kbps signalling	13.6 kbps signalling	7.95 kbps speech	12.2 kbps speech
		signaming	3.4 kbps signalling	3.4 kbps signalling
>>>lastTransmissionPDU-Poll	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>lastRetransmissionPD U-Poll	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>timerPollPeriodic	RB2- RB3: 300	RB2- RB3: 100	RB2- RB3: 300	RB2- RB3: 300
>>segmentationIndication	RB1- RB3: N/A	RB1- RB3: N/A	RB1- RB3: N/A RB5- RB6: FALSE	RB1- RB3: N/A RB5- RB7: FALSE
>dl-RLC-Mode	RB1: UM RB2- RB3: AM	RB1: UM RB2- RB3: AM	RB1: UM RB2- RB3: AM RB5- RB6: TM	RB1: UM RB2- RB3: AM RB5- RB7: TM
>>inSequenceDelivery	RB1: N/A RB2- RB3: TRUE	RB1: N/A RB2- RB3: TRUE	RB1: N/A RB2- RB3: TRUE RB5- RB6: N/A	RB1: N/A RB2- RB3: TRUE RB5- RB7: N/A
>>receivingWindowSize	RB1: N/A RB2- RB3: 128 for			
	UEs with more than 10 kbyte "total RLC AM buffer size" and	UEs with more than 10 kbyte "total RLC AM buffer size" and	UEs with more than 10 kbyte "total RLC AM buffer size" and	UEs with more than 10 kbyte "total RLC AM buffer size" and
	32 otherwise	32 otherwise	32 otherwise RB5- RB6: N/A	32 otherwise RB5- RB7: N/A
>>dl-RLC-StatusInfo	RB1: N/A RB2- RB3: as below	RB1: N/A RB2- RB3: as below	RB1: N/A RB2- RB3: as below RB5- RB6: N/A	RB1: N/A RB2- RB3: as below RB5- RB7: N/A
>>>timerStatusProhibit	RB2- RB3: 100	RB2- RB3: 100	RB2- RB3: 100	RB2- RB3: 100
>>>missingPDU-Indicator	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>timerStatusPeriodic	RB2- RB3: 300	RB2- RB3: 100	RB2- RB3: 300	RB2- RB3: 300
>>segmentationIndication	RB1- RB3: N/A	RB1- RB3: N/A	RB1- RB3: N/A RB5- RB6: FALSE	RB1- RB3: N/A RB5- RB7: FALSE
rb-MappingInfo				
>UL- LogicalChannelMappings	OneLogicalChannel	OneLogicalChannel	OneLogicalChannel	OneLogicalChannel
>>ul- TransportChannelType	Dch	Dch	Dch	Dch
>>>transportChannelIdentit y	RB1- RB3: 1	RB1- RB3: 1	RB1- RB3: 3 RB5: 1, RB6: 2	RB1- RB3: 4 RB5: 1, RB6: 2, RB7: 3
>>logicalChannelIdentity	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3 RB5- RB6: N/A	RB1: 1, RB2: 2, RB3: 3 RB5- RB7: N/A
>>rlc-SizeList	RB1- RB3: configured	RB1- RB3: configured	RB1- RB3: configured RB5- RB6: N/A	RB1- RB3: configured RB5- RB7: N/A
>>mac- LogicalChannelPriority	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3 RB5- RB6: 5	RB1: 1, RB2: 2, RB3: 3 RB5- RB7: 5
>DL- logicalChannelMappingList				
>>Mapping option 1 >>>dl-	One mapping option Dch			
TransportChannelType				
>>>>transportChannelIden tity	RB1- RB3: 1	RB1- RB3: 1	RB1- RB3: 3 RB5: 1, RB6: 2	RB1- RB3: 4 RB5: 1, RB6: 2, RB7: 3
>>>logicalChannelIdentity	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3 RB5- RB6: N/A	RB1: 1, RB2: 2, RB3: 3 RB5- RB7: N/A
TrCH INFORMATION PER TrCH			NDO- NDO. IV/A	NOO- NOT. IVA
UL- AddReconfTransChInfoList				
>Uplink transport channel type	dch	dch	dch	dch

Configuration	3.4 kbps signalling	13.6 kbps signalling	7.95 kbps speech	12.2 kbps speech
		orgraming	3.4 kbps signalling	3.4 kbps signalling
>transportChannelIdentity	TrCH1: 1	TrCH1: 1	TrCH1: 1, TrCH2: 2, TrCH3: 3	TrCH1: 1, TrCH2: 2, TrCH3: 3, TrCH4: 4
>transportFormatSet	DedicatedTransChT FS	DedicatedTransChT FS	DedicatedTransChT FS	DedicatedTransChT FS
>>dynamicTF-information				
>>>tf0/ tf0,1	TrCH1: (0x144, 1x144)	TrCH1: (0x144, 1x144)	TrCH1: (0x75) TrCH2: (0x 84 1x84) TrCH3: (0x144, 1x144)	TrCH1: (0x81) TrCH2: (0x 103, 1x103) TrCH3: (0x 60, 1x60) TrCH4: (0x144, 1x144)
>>>rlcSize	BitMode	BitMode	BitMode	BitMode
>>>>sizeType	TrCH1: type 2, part1= 2, part2= 0 (144)	TrCH1: type 2, part1= 2, part2= 0 (144)	TrCH1: type 1: 75 TrCH2: type 1: 84 TrCH3: 2: type 2, part1= 2, part2= 0 (144)	TrCH1: type 1: 81 TrCH2: type 1: 103 TrCH3: type 1: 60 TrCH4: 2: type 2, part1= 2, part2= 0 (144)
>>>numberOfTbSizeList	TrCH1: Zero, one	TrCH1: Zero, one	TrCH1: Zero TrCH2-3: Zero, one	TrCH1: Zero TrCH2-4: Zero, one
>>>logicalChannelList	All	All	All	All
>>>tf 1	N/A	N/A	TrCH1: (1x39) TrCH2- TrCH4: N/A	TrCH1: (1x39) TrCH2- TrCH4: N/A
>>>numberOfTransportBl			TrCH1: One	TrCH1: One
>>>rlc-Size			TrCH1: BitMode	TrCH1: BitMode
>>>>sizeType			TrCH1: 1: 39	TrCH1: 1: 39
>>>>numberOfTbSizeList			TrCH1: One	TrCH1: One
>>>logicalChannelList			TrCH1: all	TrCH1: all
>>>tf 2	N/A	N/A	TrCH1: (1x75) TrCH2- TrCH3: N/A	TrCH1: (1x81) TrCH2- TrCH4: N/A
>>>numberOfTransportBl ocks			TrCH1: ZeroOne	TrCH1: ZeroOne
>>>rlc-Size			TrCH1: BitMode	TrCH1: BitMode
>>>>sizeType			TrCH1: type 1: 75	TrCH1: type 1: 81
>>>numberOfTbSizeList			TrCH1: One	TrCH1: One
>>>logicalChannelList			TrCH1: all	TrCH1: all
>>semistaticTF-Information			110111. u.i	TIOTITI diii
>>>tti	TrCH1: 40	TrCH1: 10	TrCH1- TrCH2: 20 TrCH3: 40	TrCH1- TrCH3: 20 TrCH4: 40
>>>channelCodingType	Convolutional	Convolutional	Convolutional	Convolutional
>>>codingRate	TrCH1: Third	TrCH1: Third	TrCH1- TrCH2: Third TrCH3: Third	TrCH1- TrCH2: Third TrCH3: Half TrCH4: Third
>>>rateMatchingAttribute	TrCH1: 160	TrCH1: 160	TrCH1: 200 TrCH2: 190 TrCH3: 160	TrCH1: 200 TrCH2: 190 TrCH3: 235 TrCH4: 160
>>>crc-Size	TrCH1: 16	TrCH1: 16	TrCH1: 12 TrCH2: 0 TrCH3: 16	TrCH1: 12 TrCH2- TrCH3: 0 TrCH4: 16
DL- AddReconfTransChInfoList				
>Downlink transport channel type	dch	dch	dch	dch
>dl- TransportChannelIdentity (should be as for UL)	TrCH1: 1	TrCH1: 1	TrCH1: 1, TrCH2: 2, TrCH3: 3	TrCH1: 1, TrCH2: 2, TrCH3: 3, TrCH4: 4

Configuration	3.4 kbps signalling	13.6 kbps	7.95 kbps speech	12.2 kbps speech
		signalling	+ 3.4 kbps signalling	+ 3.4 kbps signalling
>tfs-SignallingMode	SameAsUL	SameAsUL	Explicit <only and="" below="" different="" is="" on="" shown="" tf0="" trch1=""></only>	Explicit <only and="" below="" different="" is="" on="" shown="" tf0="" trch1=""></only>
>>transportFormatSet			DedicatedTransChT FS	DedicatedTransChT FS
>>>dynamicTF-information			T 0114 (4.0)	T 0114 (4 0)
>>>tf0/ tf0,1			TrCH1: (1x0)	TrCH1: (1x0)
>>>rlcSize			BitMode	bitMode
>>>>sizeType			TrCH1: type 1: 0	TrCH1: type 1: 0
>>>numberOfTbSizeList >>>>logicalChannelList			TrCH1: One	TrCH1: One
>>>logicalChanneiList	TrCH1: 1	TrCH1: 1	TrCH1: 1, TrCH2: 2,	TrCH1: 1, TrCH2: 2,
	IICHT. I	IICHT. I	TrCH3: 3	TrCH3: 3, TrCH4: 4
>dch-QualityTarget	2		2	
>>bler-QualityValue	TrCH1: 5x10 ⁻²	TrCH1: 5x10 ⁻²	TrCH1: 7x10 ⁻³ TrCH2- TrCH3: Absent	TrCH1: 7x10 ⁻³ TrCH2- TrCH4: Absent
TrCH INFORMATION, COMMON				
ul-CommonTransChInfo				
>tfcs-ID (TDD only)	1	1	1	1
>sharedChannelIndicator (TDD only)	FALSE	FALSE	FALSE	FALSE
>tfc-Subset	Absent, not required	Absent, not required	Absent, not required	Absent, not required
>ul-TFCS	Normal TFCI signalling	Normal TFCI signalling	Normal TFCI signalling	Normal TFCI signalling
>>explicitTFCS- ConfigurationMode	Complete	Complete	Complete	Complete
>>>ctfcSize	Ctfc2Bit	Ctfc2Bit	Ctfc4Bit	Ctfc6Bit
>>>TFCS representation	Addition	Addition	Addition	Addition
>>>>TFCS list				
>>>>TFCS 1	(TF0)	(TF0)	(TF0, TF0, TF0)	(TF0, TF0, TF0, TF0)
>>>>>ctfc	0	0	0	0
>>>>>gainFactorInform ation	Computed	Computed	Computed	Computed
>>>>>>referenceTFCId	0	0	0	0
>>>>TFCS 2	(TF1)	(TF1)	(TF1, TF0, TF0)	(TF1, TF0, TF0, TF0)
>>>>>ctfc	1	1	1	1
>>>>>gainFactorInform ation	Signalled	Signalled	Computed	Computed
>>>>>βc (FDD only)	11	11	N/A	N/A
>>>>>βd	15	15	N/A	N/A
>>>>>referenceTFCld	0	0	0	0
>>>>TFCS 3			(TF2, TF1, TF0)	(TF2, TF1, TF1, TF0)
>>>>>ctfc			5	11
>>>>>gainFactorInform			Computed	Computed
>>>>>referenceTFCId			0	0
>>>>TFCS 4			(TF0, TF0, TF1)	(TF0, TF0, TF0, TF1)
>>>>>ctfc			6	12
>>>>>gainFactorInform			Computed	Computed
>>>>>βc (FDD only)			N/A	N/A
>>>>>βd			N/A	N/A
>>>>>>pd >>>>>referenceTFCId				
>>>>>>>Ielelence i FUId			0	0

Configuration	3.4 kbps signalling	13.6 kbps	7.95 kbps speech	12.2 kbps speech
		signalling	+ 3.4 kbps signalling	+ 3.4 kbps signalling
>>>>>TFCS 5			(TF1, TF0, TF1)	(TF1, TF0, TF0, TF1)
>>>>>ctfc			7	13
>>>>>gainFactorInform ation			Computed	Computed
>>>>>>referenceTFCld			0	0
>>>>TFCS 6			(TF2, TF1, TF1)	(TF2, TF1, TF1, TF1)
>>>>>ctfc			11	23
>>>>>gainFactorInform ation			Signalled	Signalled
>>>>>βc (FDD only)			11	11
>>>>>βd			15	15
>>>>>>referenceTFCId			0	0
dl-CommonTransChInfo >tfcs-SignallingMode PhyCH INFORMATION FDD	Same as UL	Same as UL	Same as UL	Same as UL
UL-DPCH-InfoPredef				
>ul-DPCH- PowerControlInfo				
>>powerControlAlgorithm	Algorithm 1	Algorithm 1	Algorithm 1	Algorithm 1
>>>tpcStepSize	1	1	1	1
>tfci-Existence	TRUE	TRUE	TRUE	TRUE
>puncturingLimit	1	1	1	0.88
DL-				
CommonInformationPredef >dl-DPCH-InfoCommon				
>>spreadingFactor	256	128	128	128
>>tfci-Existence	FALSE	FALSE	FALSE	FALSE
>>pilotBits	4	4	4	4
>>positionFixed	N/A	N/A	Fixed	Fixed
PhyCH INFORMATION 3.84 Mcps TDD UL-DPCH-InfoPredef				
>ul-DPCH-				
PowerControlInfo				
>>dpch-ConstantValue	0	0	0	0
>commonTimeslotInfo	((5		
>>secondInterleavingMode >>tfci-Coding	frameRelated 4	frameRelated 4	frameRelated 16	frameRelated 16
>>puncturingLimit	1	0.92	0.52	0.88
>>repetitionPeriodAndLeng th	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1
DL-				
CommonInformationPredef >dl-DPCH-InfoCommon				
>>commonTimeslotInfo				
>>>secondInterleavingMod e	frameRelated	frameRelated	frameRelated	frameRelated
>>>tfci-Coding	4	4	16	16
>>>puncturingLimit >>>repetitionPeriodAndLe ngth	1 repetitionPeriod1	0.92 repetitionPeriod1	0.52 repetitionPeriod1	0.92 repetitionPeriod1
PhyCH INFORMATION 1.28 Mcps TDD				
UL-DPCH-InfoPredef				
>commonTimeslotInfo	from Deleted	from a D = l = t : 1	from Delete 1	from a District
>>secondInterleavingMode >>tfci-Coding	frameRelated 4	frameRelated 4	frameRelated 16	frameRelated 16
//uo-coding	7	7	10	10

Configuration	3.4 kbps signalling	13.6 kbps signalling	7.95 kbps speech + 3.4 kbps signalling	12.2 kbps speech + 3.4 kbps signalling
			0.4 Kbp3 Signaling	0.4 Kbp3 Signalling
>>puncturingLimit	1	0.64	0.80	0.60
>>repetitionPeriodAndLeng th	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1
DL-				
CommonInformationPredef				
>dl-DPCH-InfoCommon				
>>commonTimeslotInfo				
>>>secondInterleavingMod e	frameRelated	frameRelated	frameRelated	frameRelated
>>>tfci-Coding	4	4	16	16
>>>puncturingLimit	1	0.64	0.80	0.60
>>>repetitionPeriodAndLe ngth	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1

Configuration	28.8 kbps conv. CS- data +	32 kbps conv. CS- data +	64kbps conv. CS- data +	14.4 kbps streaming CS-
	3.4 kbps signalling	3.4 kbps signalling	3.4 kbps signalling	data + 3.4 kbps signalling
Ref 34.108	12	14	13	15
Default configuration identity	4	5	6	7
RB INFORMATION				
rb-Identity	RB1: 1, RB2: 2, RB3: 3, RB5: 5	RB1: 1, RB2: 2, RB3: 3, RB5: 5	RB1: 1, RB2: 2, RB3: 3, RB5: 5	RB1: 1, RB2: 2, RB3: 3, RB5: 5
rlc-InfoChoice	RIc-info	RIc-info	RIc-info	RIc-info
>ul-RLC-Mode	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5: TM
>>transmissionRLC- DiscardMode	RB1: N/A RB2- RB3: NoDiscard RB5: N/A	RB1: N/A RB2- RB3: NoDiscard RB5: N/A	RB1: N/A RB2- RB3: NoDiscard RB5: N/A	RB1: N/A RB2- RB3: NoDiscard RB5: N/A
>>>maxDat	RB1: N/A RB2- RB3: 15 RB5: N/A	RB1: N/A RB2- RB3: 15 RB5: N/A	RB1: N/A RB2- RB3: 15 RB5: N/A	RB1: N/A RB2- RB3: 15 RB5: N/A
>>transmissionWindowSiz e	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise RB5: N/A	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise RB5: N/A	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise RB5: N/A	RB1: N/A RB2- RB3: 128 for UEs with more than 10 kbyte "total RLC AM buffer size" and 32 otherwise RB5: N/A
>>timerRST	RB1: N/A RB2- RB3: 300 RB5: N/A	RB1: N/A RB2- RB3: 300 RB5: N/A	RB1: N/A RB2- RB3: 300 RB5: N/A	RB1: N/A RB2- RB3: 300 RB5: N/A
>>max-RST	RB1: N/A RB2- RB3: 1 RB5: N/A	RB1: N/A RB2- RB3: 1 RB5: N/A	RB1: N/A RB2- RB3: 1 RB5: N/A	RB1: N/A RB2- RB3: 1 RB5: N/A
>>pollingInfo	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5: N/A	RB1: N/A RB2- RB3: as below RB5: N/A
>>>lastTransmissionPDU- Poll	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>lastRetransmissionPD U-Poll	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>timerPollPeriodic	RB2- RB3: 300	RB2- RB3: 300	RB2- RB3: 300	RB2- RB3: 300
>>segmentationIndication	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5: FALSE	RB1- RB3: N/A RB5: FALSE
>dl-RLC-Mode	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5: TM	RB1: UM RB2- RB3: AM RB5: TM

Configuration	28.8 kbps conv. CS- data +	32 kbps conv. CS- data +	64kbps conv. CS- data +	14.4 kbps streaming CS-
	3.4 kbps signalling	3.4 kbps signalling	3.4 kbps signalling	data + 3.4 kbps signalling
>>inSequenceDelivery	RB1: N/A	RB1: N/A	RB1: N/A	RB1: N/A
	RB2- RB3: TRUE	RB2- RB3: TRUE	RB2- RB3: TRUE	RB2- RB3: TRUE
receiving Mindow Size	RB5: N/A RB1: N/A	RB5: N/A	RB5: N/A RB1: N/A	RB5: N/A
>>receivingWindowSize	RB2- RB3: 128 for	RB1: N/A RB2- RB3: 128 for	RB2- RB3: 128 for	RB1: N/A RB2- RB3: 128 for
	UEs with more than	UEs with more than	UEs with more than	UEs with more than
	10 kbyte "total RLC	10 kbyte "total RLC	10 kbyte "total RLC	10 kbyte "total RLC
	AM buffer size" and	AM buffer size" and	AM buffer size" and	AM buffer size" and
	32 otherwise RB5: N/A	32 otherwise RB5: N/A	32 otherwise RB5: N/A	32 otherwise RB5: N/A
>>dl-RLC-StatusInfo	RB1: N/A	RB1: N/A	RB1: N/A	RB1: N/A
Frankle Statushins	RB2- RB3: as below	RB2- RB3: as below	RB2- RB3: as below	RB2- RB3: as below
	RB5: N/A	RB5: N/A	RB5: N/A	RB5: N/A
>>>timerStatusProhibit	RB2- RB3: 100	RB2- RB3: 100	RB2- RB3: 100	RB2- RB3: 100
>>>missingPDU-Indicator	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>timerStatusPeriodic >>segmentationIndication	RB2- RB3: 300 RB1- RB3: N/A	RB2- RB3: 300 RB1- RB3: N/A	RB2- RB3: 300 RB1- RB3: N/A	RB2- RB3: 300 RB1- RB3: N/A
	RB5: FALSE	RB5: FALSE	RB5: FALSE	RB5: FALSE
rb-MappingInfo	0 1 : 101 1	0 1 : 101 1	0 1 : 101 1	0 1 : 101 1
>UL- LogicalChannelMappings	OneLogicalChannel	OneLogicalChannel	OneLogicalChannel	OneLogicalChannel
>>ul-	Dch	Dch	Dch	Dch
TransportChannelType	Don	Don	Don	Bon
>>>transportChannelIdenti	RB1- RB3: 2	RB1- RB3: 2	RB1- RB3: 2	RB1- RB3: 2
ty	RB5: 1	RB5: 1	RB5: 1	RB5: 1
>>logicalChannelIdentity	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3
	RB5: N/A	RB5: N/A	RB5: N/A	RB5: N/A
>>rlc-SizeList	RB1- RB3:	RB1- RB3:	RB1- RB3:	RB1- RB3:
	configured	configured	configured	configured
	RB5: N/A	RB5: N/A	RB5: N/A	RB5: N/A
>>mac- LogicalChannelPriority	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3	RB1: 1, RB2: 2, RB3: 3
Logical Channel Friority	RB5: 5	RB5: 5	RB5: 5	RB5: 5
>DL-				
logicalChannelMappingList				
>>Mapping option 1	One mapping option	One mapping option	One mapping option	One mapping option
>>>dl-	Dch	Dch	Dch	Dch
TransportChannelType >>>>transportChannelIden	RB1- RB3: 2	RB1- RB3: 2	RB1- RB3: 2	RB1- RB3: 2
tity	RB5: 1	RB5: 1	RB5: 1	RB5: 1
>>>logicalChannelIdentity	RB1: 1, RB2: 2,	RB1: 1, RB2: 2,	RB1: 1, RB2: 2,	RB1: 1, RB2: 2,
	RB3: 3	RB3: 3	RB3: 3	RB3: 3
TrCH INFORMATION PER	RB5: N/A	RB5: N/A	RB5: N/A	RB5: N/A
TrCH				
UL- AddReconfTransChInfoLis				
t				
>Uplink transport channel	dch	dch	dch	dch
type				
>transportChannelIdentity	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2
>transportFormatSet	DedicatedTransChT FS	DedicatedTransChT FS	DedicatedTransChT FS	DedicatedTransChT FS
>>dynamicTF-information	13	13	13	13
>>>tf0/tf0,1	TrCH1: (0x576,	TrCH1: (0x640,	TrCH1: (0x640,	TrCH1: (0x576,
, .	1x576, 2x576)	1x640)	2x640)	1x576)
	TrCH2: (0x144,	TrCH2: (0x144,	TrCH2: (0x144,	TrCH2: (0x144,
rloC:	1x144)	1x144)	1x144)	1x144)
>>>rlcSize	TrCH1: OctetMode TrCH2:BitMode	TrCH1: OctetMode TrCH2:BitMode	TrCH1: OctetMode TrCH2:BitMode	TrCH1: OctetMode TrCH2:BitMode

Configuration	28.8 kbps conv.	32 kbps conv. CS-	64kbps conv. CS-	14.4 kbps
	CS- data +	data +	data +	streaming CS-
	3.4 kbps signalling	3.4 kbps signalling	3.4 kbps signalling	data + 3.4 kbps signalling
>>>>sizeType	TrCH1: type 2,	TrCH1: type 2,	TrCH1: type 2,	TrCH1: type 2,
]	part1= 419, part2=	part1= 11, part2= 2	part1= 11, part2= 2	part1= 9,
	2 (576)	(640)	(640)	part2= 2 (576)
	TrCH2: type 2,	TrCH2: type 2,	TrCH2: type 2,	TrCH2: type 2,
	part1= 2, part2= 0 (144)	part1= 2, part2= 0 (144)	part1= 2, part2= 0 (144)	part1= 2, part2= 0 (144)
>>>>numberOfTbSizeList	TrCH1: Zero,1, 2 (4)	TrCH1: Zero, one	TrCH1: Zero, 2 (4)	TrCH1: Zero, one,
	TrCH2: Zero, one	TrCH2: Zero, one	TrCH2: Zero, one	TrCH2: Zero, one
>>>logicalChannelList	All	All	All	All
>>semiStaticTF-				
Information	T 0114 40	T 0114 00	T 0114 00	T 0114 40
>>>tti	TrCH1: 40 TrCH2: 40	TrCH1: 20 TrCH2: 40	TrCH1: 20 TrCH2: 40	TrCH1: 40 TrCH2: 40
>>>channelCodingType	TrCH2: 40	TrCH2: 40	TrCH2: 40	TrCH2: 40
>>>charmerooding rype	TrCH2:	TrCH2:	TrCH2:	TrCH2:
	Convolutional	Convolutional	Convolutional	Convolutional
>>>codingRate	TrCH1: N/A	TrCH1: N/A	TrCH1: N/A	TrCH1: N/A
	TrCH2: Third	TrCH2: Third	TrCH2: Third	TrCH2: Third
>>>rateMatchingAttribute	TrCH1: 180	TrCH1: 185	TrCH1: 170	TrCH1: 165
>>>crc-Size	TrCH2: 160 TrCH1: 16	TrCH2: 160 TrCH1: 16	TrCH2: 160 TrCH1: 16	TrCH2: 160 TrCH1: 16
///OILE	TrCH1: 16	TrCH1: 16	TrCH1: 16	TrCH1: 16
DL-	110112. 10	110112. 10	110112.10	110112. 10
AddReconfTransChInfoLis				
t				
>Downlink transport	dch	dch	dch	dch
channel type	TrCH1: 1, TrCH2: 2			
TransportChannelIdentity	11011. 1, 11012. 2	110H1. 1, 110H2. 2	11011. 1, 11012. 2	110H1. 1, 110H2. 2
(should be as for UL)				
>tfs-SignallingMode	SameAsUL	SameAsUL	SameAsUL	SameAsUL
>>transportFormatSet				
>>>dynamicTF-information				
>>>tf0/tf0,1				
>>>rlcSize				
>>>>sizeType >>>>numberOfTbSizeList	-			
>>>logicalChannelList				
>>ULTrCH-Id	TrCH1: 1, TrCH2: 2			
>dch-QualityTarget		,	,	,
>>bler-QualityValue	TrCH1: 2x10 ⁻³	TrCH1: 2x10 ⁻³	TrCH1: 2x10 ⁻³	TrCH1: 1x10 ⁻²
	TrCH2: Absent	TrCH2: Absent	TrCH2: Absent	TrCH2: Absent
TrCH INFORMATION,				
COMMON				
ul-CommonTransChInfo				
>tfcs-ID (TDD only)	1	1	1	1
>sharedChannelIndicator	FALSE	FALSE	FALSE	FALSE
(TDD only) >tfc-Subset	Absent, not required	Absent, not required	Absent, not required	Absent, not required
>ul-TFCS	Normal TFCI	Normal TFCI	Normal TFCI	Normal TFCI
	signalling	signalling	signalling	signalling
>>explicitTFCS-	Complete	Complete	Complete	Complete
ConfigurationMode				
>>>ctfcSize	Ctfc2BitCtfc4Bit	Ctfc2Bit	Ctfc2Bit	Ctfc4Bit
>>>>TFCS liet	Addition	Addition	Addition	Addition
>>>>TFCS list	(TF0, TF0)	(TF0, TF0)	(TF0, TF0)	(TF0, TF0)
>>>>>ctfc	0	0	0	0
>>>>>gainFactorInform	Computed	Computed	Computed	Computed
ation				
>>>>>referenceTFCId	0	0	0	0

Configuration	28.8 kbps conv.	32 kbps conv. CS-	64kbps conv. CS-	14.4 kbps
	CS- data + 3.4 kbps signalling	data + 3.4 kbps signalling	data + 3.4 kbps signalling	streaming CS- data + 3.4 kbps signalling
>>>>TFCS 2	(TF1, TF0)	(TF1, TF0)	(TF1, TF0)	(TF1, TF0)
>>>>>ctfc	1	1	1	1
>>>>>gainFactorInform ation	Computed	Computed	Computed	Computed
>>>>>βc (FDD only)	N/A	N/A	N/A	N/A
>>>>>βd	N/A	N/A	N/A	N/A
>>>>>>referenceTFCId	0	0	0	0
>>>>TFCS 3	(TF2, TF0)	(TF0, TF1)	(TF0, TF1)	(TF0, TF1)
>>>>>ctfc	2	2	2	2
>>>>>gainFactorInform ation	Computed	Computed	Computed	Computed
>>>>>referenceTFCld	0	0	0	0
>>>>TFCS 4	(TF0, TF1)	(TF1, TF1)	(TF1, TF1)	(TF1, TF1)
>>>>>ctfc	3	3	3	3
>>>>>gainFactorInform ation	Computed	Signalled	Signalled	Signalled
>>>>>βc (FDD only)	N/A	8	8	11
>>>>>βd	N/A	15	15	15
>>>>>>referenceTFCld	0	0	0	0
>>>>TFCS 5	(TF1, TF1)	N/A	N/A	
>>>>>ctfc	4			
>>>>>gainFactorInform ation	Computed			
>>>>>referenceTFCId	0			
>>>>TFCS 6	(TF2, TF1)	N/A	N/A	
>>>>>ctfc	5			
>>>>>gainFactorInform ation	Signalled			
>>>>>βc (FDD only)	8			
>>>>>βd	15			
>>>>>referenceTFCld	0			
>>>>TFCS 7				
>>>>>ctfc				
>>>>>gainFactorInform ation				
>>>>>>referenceTFCId				
>>>>TFCS 8				
>>>>>ctfc >>>>>gainFactorInform				
ation				
>>>>>referenceTFCld				
>>>>>TFCS 9				
>>>>>sgainFactorInform				
ation				
>>>>>referenceTFCId				
>>>>TFCS 10				
>>>>>ctfc				
>>>>>gainFactorInform ation				
>>>>>βc (FDD only)				
>>>>>βd				
>>>>>referenceTFCId				
dl-CommonTransChInfo				
>tfcs-SignallingMode	Same as UL	Same as UL	Same as UL	Same as UL
PhyCH INFORMATION				
FDD				
UL-DPCH-InfoPredef				

Configuration	28.8 kbps conv. CS- data + 3.4 kbps signalling	32 kbps conv. CS- data + 3.4 kbps signalling	64kbps conv. CS- data + 3.4 kbps signalling	14.4 kbps streaming CS- data + 3.4 kbps signalling
>ul-DPCH-				O.4 Ropo digitaliting
PowerControlInfo				
>>powerControlAlgorithm	Algorithm 1	Algorithm 1	Algorithm 1	Algorithm 1
>>>tpcStepSize	1	1	1	1
>tfci-Existence	TRUE	TRUE	TRUE	TRUE
>puncturingLimit	0.92	0.8	0.92	1
DL- CommonInformationPrede f				
>dl-DPCH-InfoCommon				
>>spreadingFactor	64	64	32	128
>>tfci-Existence	TRUE	TRUE	TRUE	TRUE
>>pilotBits	8	8	8	8
>>positionFixed PhyCH INFORMATION 3.84 Mcps TDD	Flexible	Flexible	Flexible	Flexible
UL-DPCH-InfoPredef				
>ul-DPCH- PowerControlInfo				
>>dpch-ConstantValue	0	0	0	0
>commonTimeslotInfo				
>>secondInterleavingMod e	frameRelated	frameRelated	frameRelated	frameRelated
>>tfci-Coding	16	8	8	8
>>puncturingLimit	0.44	0.8	0.56	0.8
>>repetitionPeriodAndLen	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1
DL- CommonInformationPrede f				
>dl-DPCH-InfoCommon				
>>commonTimeslotInfo				
>>>secondInterleavingMo de	frameRelated	frameRelated	frameRelated	frameRelated
>>>tfci-Coding	16	8	8	8
>>>puncturingLimit	0.44	0.64	0.56	0.8
>>>repetitionPeriodAndLe	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1
PhyCH INFORMATION 1.28 Mcps TDD				
UL-DPCH-InfoPredef >commonTimeslotInfo				
>>secondInterleavingMod	frameRelated	frameRelated	frameRelated	frameRelated
e >>tfci-Coding	16	8	8	8
>>puncturingLimit	0.64	0.60	0.64	1
>>repetitionPeriodAndLen gth	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1
DL- CommonInformationPrede				
>dl-DPCH-InfoCommon				
>>commonTimeslotInfo				
>>>secondInterleavingMo de	frameRelated	frameRelated	frameRelated	frameRelated
>>>tfci-Coding	16	8	8	8
>>>puncturingLimit	0.64	0.60	0.64	0.88
>>>repetitionPeriodAndLe ngth	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1

Configuration	28.8 kbps streaming CS-	57.6 kbps streaming CS-	12.2 kbps speech(multimode
	data + 3.4 kbps signalling	data + 3.4 kbps signalling) + 3.4 kbps signalling
	or i nope orginaling	or i kapa aigitatiing	or r kispo orginaming
Ref 34.108	16	17	1a
Default configuration identity	8	9	10
RB INFORMATION			
rb-Identity	RB1: 1, RB2: 2,	RB1: 1, RB2: 2,	RB1: 1, RB2: 2,
,	RB3: 3, RB5: 5	RB3: 3, RB5: 5	RB3: 3, RB5: 5, RB6: 6, RB7: 7
rlc-InfoChoice	RIc-info	RIc-info	RIc-info
>ul-RLC-Mode	RB1: UM	RB1: UM	RB1: UM
	RB2- RB3: AM RB5: TM	RB2- RB3: AM RB5: TM	RB2- RB3: AM RB5-RB7: TM
>>transmissionRLC-	RB1: N/A	RB1: N/A	RB1: N/A
DiscardMode	RB2- RB3:	RB2- RB3:	RB2- RB3:
	NoDiscard	NoDiscard	NoDiscard
	RB5: N/A	RB5: N/A	RB5- RB7: N/A
>>>maxDat	RB1: N/A RB2- RB3: 15	RB1: N/A RB2- RB3: 15	RB1: N/A RB2- RB3: 15
	RB2- RB3: 15 RB5: N/A	RB5: N/A	RB5- RB3: 15 RB5- RB7: N/A
>>transmissionWindowSiz	RB1: N/A	RB1: N/A	RB1: N/A
e	RB2- RB3: 128 for	RB2- RB3: 128 for	RB2- RB3: 128 for
	UEs with more than	UEs with more than	UEs with more than
	10 kbyte "total RLC	10 kbyte "total RLC	10 kbyte "total RLC
	AM buffer size" and	AM buffer size" and	AM buffer size" and
	32 otherwise	32 otherwise	32 otherwise
.: DOT	RB5: N/A	RB5: N/A	RB5- RB7: N/A
>>timerRST	RB1: N/A RB2- RB3: 300	RB1: N/A RB2- RB3: 300	RB1: N/A RB2- RB3: 300
	RB5: N/A	RB5: N/A	RB5- RB7: N/A
>>max-RST	RB1: N/A	RB1: N/A	RB1: N/A
	RB2- RB3: 1	RB2- RB3: 1	RB2- RB3: 1
	RB5: N/A	RB5: N/A	RB5- RB7: N/A
>>pollingInfo	RB1: N/A	RB1: N/A	RB1: N/A
	RB2- RB3: as below	RB2- RB3: as below	RB2- RB3: as below
lootTroponicaionDDL	RB5: N/A	RB5: N/A	RB5- RB7: N/A
>>>lastTransmissionPDU- Poll	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>lastRetransmissionPD U-Poll	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>timerPollPeriodic	RB2- RB3: 300	RB2- RB3: 300	RB2- RB3: 300
>>segmentationIndication	RB1- RB3: N/A	RB1- RB3: N/A	RB1- RB3: N/A
	RB5: FALSE	RB5: FALSE	RB5- RB7: FALSE
>dl-RLC-Mode	RB1: UM	RB1: UM	RB1: UM
	RB2- RB3: AM RB5: TM	RB2- RB3: AM RB5: TM	RB2- RB3: AM RB5- RB7: TM
>>inSequenceDelivery	RB1: N/A	RB1: N/A	RB1: N/A
>>inoequenceDelivery	RB2- RB3: TRUE	RB2- RB3: TRUE	RB2- RB3: TRUE
	RB5: N/A	RB5: N/A	RB5- RB7: N/A
>>receivingWindowSize	RB1: N/A	RB1: N/A	RB1: N/A
	RB2- RB3: 128 for	RB2- RB3: 128 for	RB2- RB3: 128 for
	UEs with more than	UEs with more than	UEs with more than
	10 kbyte "total RLC	10 kbyte "total RLC	10 kbyte "total RLC
	AM buffer size" and 32 otherwise	AM buffer size" and 32 otherwise	AM buffer size" and 32 otherwise
	RB5: N/A	RB5: N/A	RB5- RB7: N/A
>>dl-RLC-StatusInfo	RB1: N/A	RB1: N/A	RB1: N/A
	RB2- RB3: as below	RB2- RB3: as below	RB2- RB3: as below
	RB5: N/A	RB5: N/A	RB5- RB7: N/A
>>>timerStatusProhibit	RB2- RB3: 100	RB2- RB3: 100	RB2- RB3: 100
>>>missingPDU-Indicator	RB2- RB3: FALSE	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>timerStatusPeriodic	RB2- RB3: 300	RB2- RB3: 300	RB2- RB3: 300
>>segmentationIndication	RB1- RB3: N/A	RB1- RB3: N/A	RB1- RB3: N/A
	RB5: FALSE	RB5: FALSE	RB5- RB7: FALSE

Configuration	28.8 kbps streaming CS- data +	57.6 kbps streaming CS- data +	12.2 kbps speech(multimode) +
	3.4 kbps signalling	3.4 kbps signalling	3.4 kbps signalling
rb-MappingInfo			
>UL- LogicalChannelMappings	OneLogicalChannel	OneLogicalChannel	OneLogicalChannel
>>ul- TransportChannelType	Dch	Dch	Dch
>>>transportChannelIdenti ty	RB1- RB3: 2 RB5: 1	RB1- RB3: 2 RB5: 1	RB1- RB3: 4 RB5: 1, RB6: 2, RB7: 3
>>logicalChannelIdentity	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5- RB7: N/A
>>rlc-SizeList	RB1- RB3: configured RB5: N/A	RB1- RB3: configured RB5: N/A	RB1- RB3: configured RB5- RB7: N/A
>>mac- LogicalChannelPriority	RB1: 1, RB2: 2, RB3: 3 RB5: 5	RB1: 1, RB2: 2, RB3: 3 RB5: 5	RB1: 1, RB2: 2, RB3: 3 RB5- RB7: 5
logicalChannelMappingList			
>>Mapping option 1 >>>dl-	One mapping option Dch	One mapping option Dch	One mapping option Dch
TransportChannelType >>>>transportChannelIden tity	RB1- RB3: 2 RB5: 1	RB1- RB3: 2 RB5: 1	RB1- RB3: 4 RB5: 1, RB6: 2, RB7: 3
>>>logicalChannelIdentity	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5: N/A	RB1: 1, RB2: 2, RB3: 3 RB5- RB7: N/A
TrCH INFORMATION PER TrCH			
UL- AddReconfTransChInfoLis t			
>Uplink transport channel type	dch	dch	dch
>transportChannelIdentity	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2, TrCH3: 3, TrCH4: 4
>transportFormatSet	DedicatedTransChT FS	DedicatedTransChT FS	DedicatedTransChT FS
>>dynamicTF-information			
>>>tf0/ tf0,1	TrCH1: (0x576, 1x576, 2x576) TrCH2: (0x144, 1x144)	TrCH1: (0x576, 1x576, 2x576, 3x576, 4x576) TrCH2: (0x144, 1x144)	TrCH1: (0x81) TrCH2: (0x 103 TrCH3: (0x 60) TrCH4: (0x144)
>>>rlcSize	TrCH1: OctetMode TrCH2:BitMode	TrCH1: OctetMode TrCH2:BitMode	BitMode
>>>>sizeType	TrCH1: type 2, part1= 9, part2= 2 (576) TrCH2: type 2, part1= 2, part2= 0 (144)	TrCH1: type 2, part1= 9, part2= 2 (576) TrCH2: type 2, part1= 2, part2= 0 (144)	TrCH1: type 1: 81 TrCH2: type 1: 103 TrCH3: type 1: 60 TrCH4: 2: type 2, part1= 2, part2= 0 (144)
>>>>numberOfTbSizeList	TrCH1: Zero, one, 2 TrCH2: Zero, one	TrCH1: Zero, one, 2, 3, 4 TrCH2: Zero, one	TrCH1-4: Zero
>>>>logicalChannelList	All	All	All
>>>tf 1			TrCH1: (1x39) TrCH2: (1x53) TrCH3: (1x60) TrCH4: (1x144)

>>>>numberOfTransportBl ocks >>>>ic-Size >>>>ic-Size >>>>ic-Size >>>>ic-Size >>>>ic-Size >>>>numberOfTbSizeList >>>>ic-CH1: 1: 39 incH2: 1: 53 incH2: 1: 54 incH2: 1: 55 incH2: 1: 55 incH2: 1: 55 incH2: 1: 56 incH	Configuration	28.8 kbps streaming CS- data +	57.6 kbps streaming CS- data +	12.2 kbps speech(multimode) +
Docks		3.4 kbps signalling	3.4 kbps signalling	3.4 kbps signalling
Seminary				TrCH1-3: One
Tr.CH2: 1: 53 Tr.CH3: 1: 60 S>>>Image: First Street	>>>rlc-Size			TrCH1-3: BitMode
TrCH3: 1: 60	>>>>sizeType			TrCH1: 1: 39
>>>IogicalChannelList				
>>>if 2	>>>>numberOfTbSizeList			TrCH1-3: One
TrCH2: (1x63) TrCH3: TrCH4: N/A TrCH1: One	>>>logicalChannelList			TrCH1-3: all
TrCH3- TrCH4: N/A TrCH1-2: One TrCH1: Signode TrC	>>>tf 2			
Docks System Sy				TrCH3- TrCH4: N/A
Some content of the				TrCH1-2: One
TrCH2: type 1: 63	>>>rlc-Size			
>>>logicalChannelList >>>tf 3	>>>>sizeType			
>>>tf 3	>>>numberOfTbSizeList			TrCH1-2: One
TrCH2: (1x84) TrCH3: TrCH4: N/A TrCH3: TrCH4: N/A TrCH3: TrCH4: N/A TrCH3: TrCH4: N/A TrCH1: 2: ZereOne TrCH1: BitMode TrCH1: type 1: 55 TrCH2: type 1: 84 TrCH1: type 1: 55 TrCH2: type 1: 84 TrCH1: all TrCH1: all TrCH1: all TrCH1: all TrCH1: all TrCH1: cone Tr				
TrCH3- TrCH4: N/A TrCH1-2: ZereOne TrCH1-2: ZereOne TrCH1-2: ZereOne TrCH1: BitMode TrCH1: BitMode TrCH2: type 1: 55 TrCH2: type 1: 84 S>>>numberOfTbSizeList TrCH1: type 1: 84 TrCH1: type 1: 84 TrCH1: dil TrCH1: d	>>>tf 3			
S>>>numberOfTransportBl ooks TrCH1-2: ZereOne ooks				
ocks TrCH1: BitMode >>>>srlc-Size TrCH1: type 1: 55 TrCH2: type 1: 84 TrCH2: type 1: 84 >>>>logicalChannelList TrCH1: all >>>tf 4 TrCH1: (1x75) TrCH2: (1x103) TrCH3: TrCH4: N/A >>>>numberOfTransportBl ocks TrCH1: BitMode >>>>srlc-Size TrCH1: BitMode >>>>sizeType TrCH1: type 1: 75 TrCH2: type 1: 103 TrCH1: type 1: 75 >>>logicalChannelList TrCH1: (1x81) >>>sizeType TrCH1: (1x81) >>>soxnumberOfTransportBl ocks TrCH1: Cne >>>sizeType TrCH1: BitMode >>>sizeType TrCH1: Cne >>>sizeType TrCH1: Cne >>>>sizeType TrCH1: Cne >>>>sizeType TrCH1: BitMode >>>>numberOfTbSizeList TrCH1: BitMode >>>>sizeType TrCH1: Cne >>>>sizeType TrCH1: Cne >>>>sizeType TrCH1: BitMode >>>>sizeType TrCH1: Cne TrCH1: Cne TrCH1: Cne TrCH1: Cne TrCH1: Cne	L OCT (D)			
Semiport	ocks			
TrCH2: type 1: 84				
S>>>logicalChannelList TrCH1: all	>>>>sizeType			
Some state Som				
TrCH2: (1x103) TrCH3: TrCH4: N/A TrCH3: TrCH4: N/A TrCH3: TrCH4: N/A TrCH3: TrCH4: N/A TrCH1: 2: One TrCH1: BitMode TrCH1: type 1: 75 TrCH2: type 1: 103 TrCH2: One TrCH1: type 1: 75 TrCH2: One TrCH1: all TrCH1: all TrCH1: (1x81) TrCH2: TrCH4: N/A TrCH2: TrCH4: N/A TrCH3: Dit TrCH1: all TrCH1: One TrCH3: Dit TrCH1: One TrCH3: Dit TrCH4: N/A TrCH3: Dit TrCH4: Dit TrCH1: Dit TrCH3: Dit TrCH4: Dit TrCH3: Dit TrCH4: Dit TrCH3: Dit TrCH3: Dit TrCH3: Dit TrCH3: Dit TrCH4: Dit TrCH3: Dit TrC				
TrCH1-2: One	>>>tf 4			TrCH2: (1x103)
ocks TrCH1: BitMode >>>>sizeType TrCH1: type 1: 75 TrCH2: type 1: 103 >>>>numberOfTbSizeList TrCH1-2: One >>>slogicalChannelList TrCH1: all >>>tf 5 TrCH1: (1x81) TrCH2- TrCH4: N/A >>>>numberOfTransportBl ocks TrCH1: One >>>>rlc-Size TrCH1: BitMode >>>>sizeType TrCH1: type 1: 81 >>>>numberOfTbSizeList TrCH1: type 1: 81 >>>sogicalChannelList TrCH1: One >>>semiStaticTF- Information TrCH2: 40 TrCH2: 40 TrCH3: 20 TrCH2: 40 >>>channelCodingType TrCH1: Turbo TrCH2: TrCH2: 40 TrCH4: 40 TrCH4: 40 >>>convolutional Convolutional Convolutional >>>>codingRate TrCH1: N/A TrCH2: Third TrCH2: Third TrCH3: Half TrCH4: Third >>>rateMatchingAttribute TrCH1: 155 TrCH2: 160 TrCH2: 190 TrCH2: 190				
TrCH1: type 1: 75 TrCH2: type 1: 103 TrCH1-2: One				
TrCH2: type 1: 103				
>>>>numberOfTbSizeList TrCH1-2: One >>>logicalChannelList TrCH1: all >>>tf 5 TrCH1: (1x81) TrCH2- TrCH4: N/A >>>>numberOfTransportBl ocks TrCH1: One >>>>rlc-Size TrCH1: BitMode >>>>sizeType TrCH1: type 1: 81 >>>numberOfTbSizeList TrCH1: One >>>slogicalChannelList TrCH1: all >>semiStaticTF- Information TrCH2: 40 TrCH2: 40 TrCH2: 40 TrCH2: 40 TrCH4: 40 >>>channelCodingType TrCH1: Turbo TrCH2: Turbo TrCH2: Convolutional TrCH2: Third TrCH1: TrCH2: Third >>>codingRate TrCH1: N/A TrCH1: N/A TrCH1: N/A TrCH2: Third TrCH3: Half TrCH3: Half TrCH4: Third >>>rateMatchingAttribute TrCH1: 155 TrCH1: 145 TrCH2: 160 TrCH2: 190	>>>>sizeType			
>>>tf 5 TrCH1: (1x81)	>>>>numberOfTbSizeList			
TrCH2- TrCH4: N/A N/A TrCH1: One TrCH1: One	>>>logicalChannelList			
>>>>numberOfTransportBl ocks TrCH1: One >>>>rlc-Size TrCH1: BitMode >>>>sizeType TrCH1: type 1: 81 >>>numberOfTbSizeList TrCH1: One >>>>logicalChannelList TrCH1: all >>semiStaticTF- Information TrCH1: 40	>>>tf 5			TrCH1: (1x81)
ocks TrCH1: BitMode >>>>rlc-Size TrCH1: BitMode >>>>sizeType TrCH1: type 1: 81 >>>>numberOfTbSizeList TrCH1: One >>>>logicalChannelList TrCH1: all >>semiStaticTF- Information TrCH1: 40 TrCH1: 40 TrCH1: 40 >>>tti TrCH2: 40 TrCH2: 40 TrCH4: 40 >>>channelCodingType TrCH1: Turbo TrCH2: 40 Convolutional TrCH2: Convolutional Convolutional Convolutional >>>>codingRate TrCH1: N/A TrCH1: N/A TrCH1: N/A TrCH2: Third TrCH3: Half TrCH3: Half TrCH4: Third >>>rateMatchingAttribute TrCH1: 155 TrCH1: 145 TrCH2: 190 TrCH1: 200 TrCH2: 190				
>>>>sizeType TrCH1: type 1: 81 >>>numberOfTbSizeList TrCH1: One >>>>logicalChannelList TrCH1: all >>semiStaticTF- Information TrCH1: 40	ocks			TrCH1: One
>>>>numberOfTbSizeList TrCH1: One >>>>logicalChannelList TrCH1: all >>>semiStaticTF- Information TrCH1: 40				
>>>logicalChannelList TrCH1: all >>semiStaticTF- Information TrCH1: 40 TrCH1: 40 TrCH1: TrCH3: 20 >>>tti TrCH2: 40 TrCH2: 40 TrCH4: 40 >>>channelCodingType TrCH1: Turbo TrCH2: TrCH2: TrCH2: Convolutional TrCH1: Turbo TrCH2: TrCH2: TrCH2: TrCH2: TrCH2: TrCH2: TrCH2: Third TrCH1- TrCH2: Third >>>codingRate TrCH1: N/A TrCH2: Third TrCH2: Third TrCH3: Half TrCH4: Third >>>rateMatchingAttribute TrCH1: 155 TrCH2: 160 TrCH1: 145 TrCH2: 160 TrCH1: 200 TrCH2: 190				· .
>>semiStaticTF- Information TrCH1: 40 TrCH2: 40 TrCH1: 40 TrCH2: 40 TrCH1: 40 TrCH2: 40 TrCH1: Turba TrCH4: 40 TrCH2: 40 TrCH1: Turbo TrCH2: Convolutional TrCH2: TCH2: TCH2: TCH2: TCH2: TCH2: TCH2: Third TrCH1: N/A TrCH1: N/A TrCH2: Third TrCH1: TCH2: Third TrCH3: Half TrCH4: Third TrCH4: Third TrCH4: Third TrCH1: 200 TrCH2: 190				
Information				TrCH1: all
TrCH2: 40 TrCH2: 40 TrCH4: 40				
>>>channelCodingType TrCH1: Turbo TrCH2: Convolutional TrCH1: Turbo TrCH2: Convolutional Convolutional >>>>codingRate TrCH1: N/A TrCH1: N/A TrCH2: Third TrCH2: Third TrCH3: Half TrCH4: Third >>>rateMatchingAttribute TrCH1: 155 TrCH2: 160 TrCH1: 145 TrCH2: 190	>>>tti			
>>>>codingRate TrCH1: N/A TrCH2: Third TrCH1: N/A TrCH2: Third TrCH1: N/A TrCH2: Third TrCH1: TrCH2: TrCH3: Half TrCH4: Third >>>rateMatchingAttribute TrCH1: 155 TrCH2: 160 TrCH1: 145 TrCH2: 160 TrCH2: 190	>>>channelCodingType	TrCH1: Turbo TrCH2:	TrCH1: Turbo TrCH2:	
TrCH2: Third TrCH2: Third Third TrCH3: Half TrCH4: Third TrCH4: Third TrCH4: Third TrCH4: Third TrCH4: Third TrCH2: 160 TrCH2: 160 TrCH2: 190 TrCH2:	>>>codingRate			TrCH1- TrCH2·
>>>rateMatchingAttribute	and the second s			Third TrCH3: Half
TrCH2: 160 TrCH2: 160 TrCH2: 190	>>>rateMatchingAttribute	TrCH1: 155	TrCH1: 145	
TrCH3: 235 TrCH4: 160	, and the second			TrCH2: 190 TrCH3: 235

Configuration	28.8 kbps	57.6 kbps	12.2 kbps
	streaming CS- data +	streaming CS- data +	speech(multimode) +
	3.4 kbps signalling	3.4 kbps signalling	3.4 kbps signalling
>>>crc-Size	TrCH1: 16 TrCH2: 16	TrCH1: 16 TrCH2: 16	TrCH1: 12 TrCH2- TrCH3: 0 TrCH4: 16
DL- AddReconfTransChInfoLis t			
>Downlink transport channel type	dch	dch	dch
>dl- TransportChannelIdentity (should be as for UL)	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2, TrCH3: 3, TrCH4: 4
>tfs-SignallingMode	SameAsUL	SameAsUL	Independent <only on="" tf0="" trch1<br="">is different and shown below></only>
>>transportFormatSet			DedicatedTransChT FS
>>>dynamicTF-information			
>>>tf0/ tf0,1			TrCH1: (1x0)
>>>rlcSize			bitMode
>>>>sizeType			TrCH1: type 1: 0
>>>>numberOfTbSizeList			TrCH1: One
>>>>logicalChannelList			All
>>ULTrCH-Id	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2	TrCH1: 1, TrCH2: 2, TrCH3: 3, TrCH4: 4
>dch-QualityTarget			
>>bler-QualityValue	TrCH1: 1x10 ⁻² TrCH2: Absent	TrCH1: 1x10 ⁻² TrCH2: Absent	TrCH1: 7x10 ⁻³ TrCH2- TrCH4: Absent
TrCH INFORMATION, COMMON			
ul-CommonTransChInfo			
>tfcs-ID (TDD only)	1	1	1
>sharedChannelIndicator (TDD only)	FALSE	FALSE	FALSE
>tfc-Subset	Absent, not required		Absent, not required
>ul-TFCS	Normal TFCI	Normal TFCI	Normal TFCI
	signalling	signalling	signalling
>>explicitTFCS- ConfigurationMode	Complete	Complete	Complete
>>>ctfcSize	Ctfc4Bit	Ctfc4Bit	Ctfc8Bit
>>>TFCS representation	Addition	Addition	Addition
>>>>TFCS list	(TF0, TF0)	(TF0, TF0)	(TF0, TF0, TF0, TF0)
>>>>>ctfc	0	0	0
>>>>>gainFactorInform ation	Computed	Computed	Computed
>>>>>>referenceTFCId	0	0	0
>>>>TFCS 2	(TF1, TF0)	(TF1, TF0)	(TF1, TF0, TF0, TF0)
>>>>>ctfc	1	1	1
>>>>>gainFactorInform ation	Computed	Computed	Computed
>>>>>βc (FDD only)	N/A	N/A	N/A
>>>>>βd	N/A	N/A	N/A
>>>>>>>referenceTFCld	0	0	0
>>>>TFCS 3	(TF2, TF0)	(TF2, TF0)	(TF2, TF1, TF0, TF0)
>>>>>ctfc	2	2	8

Configuration	28.8 kbps streaming CS-	57.6 kbps streaming CS-	12.2 kbps speech(multimode
	data + 3.4 kbps signalling	data + 3.4 kbps signalling) + 3.4 kbps signalling
>>>>> sgainFactorInform ation	Computed	Computed	Computed
>>>>>referenceTFCId	0	0	0
>>>>TFCS 4	(TF0, TF1)	(TF3, TF0)	(TF3, TF2, TF0, TF0)
>>>>>ctfc	3	3	15
>>>>>gainFactorInform ation	Computed	Computed	Computed
>>>>>βc (FDD only)	N/A	N/A	N/A
>>>>>βd	N/A	N/A	N/A
>>>>>referenceTFCld	0	0	0
>>>>TFCS 5	(TF1, TF1)	(TF4, TF0)	(TF4, TF3, TF0, TF0)
>>>>>ctfc	4	4	22
>>>>>gainFactorInform ation	Computed	Computed	Computed
>>>>>>referenceTFCld	0	0	0
>>>>TFCS 6	(TF2, TF1)	(TF0, TF1)	(TF5, TF4, TF1, TF0)
>>>>>ctfc	5	5	59
>>>>>gainFactorInform	Signalled	Computed	Computed
>>>>>βc (FDD only)	8	N/A	N/A
>>>>>βd	15	N/A	N/A
>>>>>referenceTFCId	0	0	0
>>>>TFCS 7		(TF1, TF1)	(TF0,TF0,TF0,TF1)
>>>>>ctfc		6	60
>>>>>gainFactorInform ation		Computed	Computed
>>>>>referenceTFCld		0	0
>>>>TFCS 8		(TF2, TF1)	(TF1,TF0,TF0,TF1)
>>>>>ctfc		7	61
>>>>>gainFactorInform ation		Computed	Computed
>>>>>referenceTFCld		0	0
>>>>TFCS 9		(TF3, TF1)	(TF2,TF1,TF0,TF1)
>>>>>ctfc >>>>>gainFactorInform		8 Computed	68 Computed
ation		·	·
>>>>>>referenceTFCld		(TE4 TE4)	(TE2 TE2 TE0 TE4)
>>>>TFCS 10		(TF4, TF1) 9	(TF3,TF2,TF0,TF1) 75
>>>>>gainFactorInform		Signalled	Computed
ation >>>>>βc (FDD only)		8	N/A
>>>>>βd		15	N/A
>>>>>referenceTFCld		0	0
>>>>TFCS 11			(TF4,TF3,TF0,TF1)
>>>>>ctfc			82
>>>>>gainFactorInform ation			Computed
>>>>>referenceTFCld			0
>>>>TFCS 12			(TF5,TF4,TF1,TF1) 119
>>>>>ctfc >>>>>gainFactorInform			Signalled
ation			-
>>>>>βc (FDD only)			11
>>>>>βd			15
>>>>>>referenceTFCld			0

Configuration	28.8 kbps streaming CS-	57.6 kbps streaming CS-	12.2 kbps speech(multimode
	data +	data +) +
	3.4 kbps signalling	3.4 kbps signalling	3.4 kbps signalling
dl-CommonTransChInfo			
>tfcs-SignallingMode	Same as UL	Same as UL	Same as UL
PhyCH INFORMATION FDD			
UL-DPCH-InfoPredef			
>ul-DPCH-			
PowerControlInfo			
>>powerControlAlgorithm	Algorithm 1	Algorithm 1	Algorithm 1
>>>tpcStepSize	1	1	1
>tfci-Existence	TRUE	TRUE	TRUE
>puncturingLimit	1	1	0.88
DL- CommonInformationPrede f			
>dl-DPCH-InfoCommon			
>>spreadingFactor	64	32	128
>>tfci-Existence	TRUE	TRUE	FALSE
>>pilotBits	8	8	4
>>positionFixed	Flexible	Flexible	Fixed
PhyCH INFORMATION 3.84 Mcps TDD			
UL-DPCH-InfoPredef			
>ul-DPCH- PowerControlInfo			
>>dpch-ConstantValue	0	0	0
>commonTimeslotInfo			
>>secondInterleavingMod e	frameRelated	frameRelated	frameRelated
>>tfci-Coding	16	16	16
>>puncturingLimit	0.44	0.48	0.88
>>repetitionPeriodAndLen gth	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1
DL-			
CommonInformationPrede f			
>dl-DPCH-InfoCommon			
>>commonTimeslotInfo			
>>>secondInterleavingMo de	frameRelated	frameRelated	frameRelated
>>>tfci-Coding	16	16	16
>>>puncturingLimit	0.44	0.48	0.92
>>>repetitionPeriodAndLe ngth	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1
PhyCH INFORMATION 1.28 Mcps TDD			
UL-DPCH-InfoPredef			
>commonTimeslotInfo			
>>secondInterleavingMod e	frameRelated	frameRelated	
>>tfci-Coding	16	16	
>>puncturingLimit	0.64	0.72	
>>repetitionPeriodAndLen gth	repetitionPeriod1	repetitionPeriod1	
DL- CommonInformationPrede			
f			
>dl-DPCH-InfoCommon			
>>commonTimeslotInfo			
>>>secondInterleavingMo de	frameRelated	frameRelated	frameRelated

Configuration	28.8 kbps streaming CS- data + 3.4 kbps signalling	57.6 kbps streaming CS- data + 3.4 kbps signalling	12.2 kbps speech(multimode) + 3.4 kbps signalling
>>>tfci-Coding	16	16	16
>>>puncturingLimit	0.64	0.72	0.92
>>>repetitionPeriodAndLe ngth	repetitionPeriod1	repetitionPeriod1	repetitionPeriod1

Configuration	10.2/6.7/5.9/4.75 kbps speech + 3.4 kbps signalling	7.4/6.7/5.9/4.75 kbps speech + 3.4 kbps signalling
Ref 34.108	N/A	N/A
Default configuration	11	12
identity		
RB INFORMATION		
rb-Identity	RB1: 1, RB2: 2,	RB1: 1, RB2: 2,
	RB3: 3, RB5: 5,	RB3: 3, RB5: 5,
	RB6: 6, RB7: 7,	RB6: 6, RB7: 7
	RB8: 8	5
rlc-InfoChoice	RIc-info	RIc-info
>ul-RLC-Mode	RB1: UM RB2- RB3: AM	RB1: UM RB2- RB3: AM
	RB5-RB7: TM	RB5-RB6: TM
>>transmissionRLC-	RB1: N/A	RB1: N/A
DiscardMode	RB2- RB3:	RB2- RB3:
	NoDiscard	NoDiscard
	RB5- RB7: N/A	RB5- RB6: N/A
>>>maxDat	RB1: N/A	RB1: N/A
	RB2- RB3: 15	RB2- RB3: 15
	RB5- RB7: N/A	RB5- RB6: N/A
>>transmissionWindowSiz	RB1: N/A RB2- RB3: 128 for	RB1: N/A RB2- RB3: 128 for
е	UEs with more than	UEs with more than
	10 kbyte "total RLC	10 kbyte "total RLC
	AM buffer size" and	AM buffer size" and
	32 otherwise	32 otherwise
	RB5- RB7: N/A	RB5- RB6: N/A
>>timerRST	RB1: N/A	RB1: N/A
	RB2- RB3: 300	RB2- RB3: 300
DOT.	RB5- RB7: N/A	RB5- RB6: N/A
>>max-RST	RB1: N/A RB2- RB3: 1	RB1: N/A RB2- RB3: 1
	RB5- RB7: N/A	RB5- RB6: N/A
>>pollingInfo	RB1: N/A	RB1: N/A
l r r p a m a g m a	RB2- RB3: as below	RB2- RB3: as below
	RB5- RB7: N/A	RB5- RB6: N/A
>>>lastTransmissionPDU- Poll	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>lastRetransmissionPD U-Poll	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>timerPollPeriodic	RB2- RB3: 300	RB2- RB3: 300
>>segmentationIndication	RB1- RB3: N/A	RB1- RB3: N/A
# DI O I : :	RB5- RB7: FALSE	RB5- RB6: FALSE
>dl-RLC-Mode	RB1: UM	RB1: UM
	RB2- RB3: AM RB5- RB7: TM	RB2- RB3: AM RB5- RB6: TM
	RB8: TM	RB7: TM
>>inSequenceDelivery	RB1: N/A	RB1: N/A
Inoquonococivery	RB2- RB3: TRUE	RB2- RB3: TRUE
	RB5- RB8: N/A	RB5- RB7: N/A
>>receivingWindowSize	RB1: N/A	RB1: N/A
	RB2- RB3: 128 for	RB2- RB3: 128 for
	UEs with more than	UEs with more than
	10 kbyte "total RLC	10 kbyte "total RLC
	AM buffer size" and 32 otherwise	AM buffer size" and 32 otherwise
	RB5- RB8: N/A	RB5- RB7: N/A
>>dl-RLC-StatusInfo	RB1: N/A	RB1: N/A
	RB2- RB3: as below	RB2- RB3: as below
	RB5- RB8: N/A	RB5- RB7: N/A
>>>timerStatusProhibit	RB2- RB3: 100	RB2- RB3: 100
>>>missingPDU-Indicator	RB2- RB3: FALSE	RB2- RB3: FALSE
>>>timerStatusPeriodic	RB2- RB3: 300	RB2- RB3: 300

	DD4 DD6 N/A	DD4 DD0 N/A
>>segmentationIndication	RB1- RB3: N/A	RB1- RB3: N/A
	RB5- RB8: FALSE	RB5- RB7: FALSE
rb-MappingInfo		
>UL-	OneLogicalChannel	OneLogicalChannel
LogicalChannelMappings		
>>ul-	Dch	Dch
TransportChannelType		
>>>transportChannelIdentit	RB1- RB3: 4	RB1- RB3: 3
у	RB5: 1, RB6: 2,	RB5: 1, RB6: 2
	RB7: 3,	
>>logicalChannelIdentity	RB1: 1, RB2: 2,	RB1: 1, RB2: 2,
	RB3: 3	RB3: 3
	RB5- RB7: N/A	RB5- RB6: N/A
>>rlc-SizeList	RB1- RB3:	RB1- RB3:
	configured	configured
	RB5- RB7: N/A	RB5- RB6: N/A
>>mac-	RB1: 1, RB2: 2,	RB1: 1, RB2: 2,
LogicalChannelPriority	RB3: 3	RB3: 3
	RB5- RB7: 5	RB5- RB6: 5
>DL-		
logicalChannelMappingList		
>>Mapping option 1	One mapping option	One mapping option
>>>dl-	Dch	Dch
TransportChannelType		
>>>transportChannelIden	RB1- RB3: 4	RB1- RB3: 3
tity	RB5: 1, RB6: 2,	RB5: 1, RB6: 2,
,	RB7: 3, RB8: 5	RB7:4
>>>logicalChannelIdentity	RB1: 1, RB2: 2,	RB1: 1, RB2: 2,
	RB3: 3	RB3: 3
	RB5- RB8: N/A	RB5- RB7: N/A
TrCH INFORMATION PER		
TrCH		
UL-		
AddReconfTransChInfoList		
>Uplink transport channel	dch	dch
type		
>transportChannelIdentity	TrCH1: 1, TrCH2: 2,	TrCH1: 1, TrCH2: 2,
	TrCH3: 3, TrCH4: 4	TrCH3: 3
>transportFormatSet	DedicatedTransChT	DedicatedTransChT
·	FS	FS
>>dynamicTF-information		
>>>tf0/ tf0,1	TrCH1: (0x65)	TrCH1: (0x61)
·	TrCH2: (0x 99)	TrCH2: (0x 87)
	TrCH3: (0x 40,	TrCH3: (0x 144,
	1x40)	1x144) `
	TrCH4: (0x144,	,
	1x144) `	
>>>>rlcSize	BitMode	BitMode
>>>>sizeType	TrCH1: type 1: 65	TrCH1: type 1: 61
<u> </u>	TrCH2: type 1: 99	TrCH2: type 1: 87
	TrCH3: type 1: 40	TrCH3: 2: type 2,
	TrCH4: 2: type 2,	part1= 2, part2= 0
	part1= 2, part2= 0	(144)
	(144)	` '
>>>numberOfTbSizeList	TrCH1-2: Zero	TrCH1-2: Zero
	TrCH3-4: Zero, one	TrCH3: Zero, one
>>>>logicalChannelList	All	All
>>>tf 1	TrCH1: (1x39)	TrCH1: (1x39)
	TrCH2: (1x 53)	TrCH2: (1x53)
	TrCH3- TrCH4: N/A	TrCH3: N/A
>>>>numberOfTransportBl	TrCH1: One	TrCH1: One
ocks	TrCH2: One	TrCH2: One
		
>>>rlc-Size	L TrCH1-2: BitMode	LTCH1-2: BitMode
>>>rlc-Size	TrCH1-2: BitMode	TrCH1-2: BitMode TrCH1: 1: 39
>>>rlc-Size >>>>sizeType	TrCH1: 1: 39	TrCH1: 1: 39

>>>logicalChannelList	TrCH1: all	TrCH1: all
>>>tf 2	TrCH1: (1x42)	TrCH1: (1x42)
	TrCH2: (1x63)	TrCH2: (1x63)
	TrCH3- TrCH4: N/A	TrCH3: N/A
>>>>numberOfTransportBl	TrCH1: One	TrCH1: One
ocks	TrCh2: One	TrCh2: One
>>>rlc-Size	TrCH1: BitMode	TrCH1: BitMode
>>>>sizeType	TrCH1: type 1: 42	TrCH1: type 1: 42
>>>>Size i ype	TrCH2: type 1: 42	TrCH2: type 1: 42
>>>>numberOfTbSizeList	TrCH1: One	TrCH1: One
// / / / / / / / / / / / / / / / / / /	TrCH2: One	TrCH2: One
>>>logicalChannelList	TrCH1: all	TrCH1: all
/// / / / / / / / / / / / / / / / / /	TrCH2: all	TrCH2: all
>>>tf 3	TrCH1: (1x55)	TrCH1: (1x55)
ti 5	TrCH2: (1x76)	TrCH2: (1x76)
	TrCH3- TrCH4: N/A	TrCH3: N/A
>>>>numberOfTransportBl	TrCH1: One	TrCH1: One
ocks	TrCh2: One	TrCh2: One
>>>rlc-Size	TrCH1: BitMode	TrCH1: BitMode
>>>>sizeType	TrCH1: type 1: 55	TrCH1: type 1: 55
////3126 i ype	TrCH2: type 1: 76	TrCH2: type 1: 76
>>>numberOfTbSizeList	TrCH1: One	TrCH1: One
	TrCH1: One	TrCH1: One
>>>>logicalChannelList	TrCH1: all	TrCH2: Offe
////ogicalCriatifietList	TrCH1: all	TrCH1: all
>>>tf 4	TrCH2. all	TrCH2: all
>>>II 4	TrCH1: (1x96)	TrCH1: (1x87)
	TrCH2. (1x99)	TrCH3: N/A
numberOfTransportDl	TrCH1: One	TrCH3: N/A
>>>>numberOfTransportBl		
ocks >>>rlc-Size	TrCh2: One	TrCh2: One
	TrCH1: BitMode	TrCH1: BitMode
>>>>sizeType	TrCH1: type 1: 58	TrCH1: type 1: 58
	TrCH2: type 1: 99	TrCH2: type 1: 87
>>>>numberOfTbSizeList	TrCH1: One	TrCH1: One
la sia al Channall iat	TrCH2: One	TrCH2: One TrCH1: all
>>>>logicalChannelList	TrCH1: all TrCH2: all	TrCH1. all
>>>tf 5		TrCH1: (1x61)
>>>॥ 5	TrCH1: (1x65) TrCH2- TrCH4: N/A	TrCH1. (1x61)
> > > numberOfTransportDl	TrCH1: One	TrCH1: One
>>>>numberOfTransportBl	TICHT. One	TICHT. One
ocks	TrOUIA: DitMode	TrOUA: DiaMode
>>>rlc-Size	TrCH1: BitMode	TrCH1: BitMode
>>>>sizeType	TrCH1: type 1: 42	TrCH1: type 1: 42
>>>>numberOfTbSizeList	TrCH1: One	TrCH1: One
	T 0114 "	
>>>>logicalChannelList	TrCH1: all	TrCH1: all
>>semistaticTF-Information		TrCH1: all
	TrCH1- TrCH3: 20	TrCH1: all TrCH1- TrCH2: 20
>>semistaticTF-Information >>>tti	TrCH1- TrCH3: 20 TrCH4: 40	TrCH1: all TrCH1- TrCH2: 20 TrCH3: 40
>>semistaticTF-Information >>>tti >>>channelCodingType	TrCH1- TrCH3: 20 TrCH4: 40 Convolutional	TrCH1: all TrCH1- TrCH2: 20 TrCH3: 40 Convolutional
>>semistaticTF-Information >>>tti	TrCH1- TrCH3: 20 TrCH4: 40 Convolutional TrCH1- TrCH2:	TrCH1: all TrCH1- TrCH2: 20 TrCH3: 40 Convolutional TrCH1- TrCH2:
>>semistaticTF-Information >>>tti >>>channelCodingType	TrCH1- TrCH3: 20 TrCH4: 40 Convolutional TrCH1- TrCH2: Third	TrCH1: all TrCH1- TrCH2: 20 TrCH3: 40 Convolutional TrCH1- TrCH2: Third
>>semistaticTF-Information >>>tti >>>channelCodingType	TrCH1- TrCH3: 20 TrCH4: 40 Convolutional TrCH1- TrCH2: Third TrCH3: Half	TrCH1: all TrCH1- TrCH2: 20 TrCH3: 40 Convolutional TrCH1- TrCH2:
>>semistaticTF-Information >>>tti >>channelCodingType >>>codingRate	TrCH1- TrCH3: 20 TrCH4: 40 Convolutional TrCH1- TrCH2: Third TrCH3: Half TrCH4: Third	TrCH1: all TrCH1- TrCH2: 20 TrCH3: 40 Convolutional TrCH1- TrCH2: Third TrCH3: Third
>>semistaticTF-Information >>>tti >>>channelCodingType	TrCH1- TrCH3: 20 TrCH4: 40 Convolutional TrCH1- TrCH2: Third TrCH3: Half TrCH4: Third TrCH1: 200	TrCH1: all TrCH1- TrCH2: 20 TrCH3: 40 Convolutional TrCH1- TrCH2: Third TrCH3: Third TrCH1: 200
>>semistaticTF-Information >>>tti >>channelCodingType >>>codingRate	TrCH1- TrCH3: 20 TrCH4: 40 Convolutional TrCH1- TrCH2: Third TrCH3: Half TrCH4: Third TrCH4: T00 TrCH1: 200 TrCH2: 190	TrCH1: all TrCH1- TrCH2: 20 TrCH3: 40 Convolutional TrCH1- TrCH2: Third TrCH3: Third TrCH1: 200 TrCH2: 190
>>semistaticTF-Information >>>tti >>channelCodingType >>>codingRate	TrCH1- TrCH3: 20 TrCH4: 40 Convolutional TrCH1- TrCH2: Third TrCH3: Half TrCH4: Third TrCH4: 190 TrCH2: 190 TrCH3: 235	TrCH1: all TrCH1- TrCH2: 20 TrCH3: 40 Convolutional TrCH1- TrCH2: Third TrCH3: Third TrCH1: 200
>>semistaticTF-Information >>>tti >>channelCodingType >>>codingRate >>>rateMatchingAttribute	TrCH1- TrCH3: 20 TrCH4: 40 Convolutional TrCH1- TrCH2: Third TrCH3: Half TrCH4: Third TrCH1: 200 TrCH2: 190 TrCH3: 235 TrCH4: 160	TrCH1: all TrCH1- TrCH2: 20 TrCH3: 40 Convolutional TrCH1- TrCH2: Third TrCH3: Third TrCH1: 200 TrCH2: 190 TrCH3: 160
>>semistaticTF-Information >>>tti >>channelCodingType >>>codingRate	TrCH1- TrCH3: 20 TrCH4: 40 Convolutional TrCH1- TrCH2: Third TrCH3: Half TrCH4: Third TrCH1: 200 TrCH2: 190 TrCH2: 190 TrCH3: 235 TrCH4: 160 TrCH1: 12	TrCH1: all TrCH1- TrCH2: 20 TrCH3: 40 Convolutional TrCH1- TrCH2: Third TrCH3: Third TrCH1: 200 TrCH2: 190 TrCH3: 160 TrCH1: 12
>>semistaticTF-Information >>>tti >>channelCodingType >>>codingRate >>>rateMatchingAttribute	TrCH1- TrCH3: 20 TrCH4: 40 Convolutional TrCH1- TrCH2: Third TrCH3: Half TrCH4: Third TrCH1: 200 TrCH2: 190 TrCH3: 235 TrCH4: 160 TrCH1: 12 TrCH2- TrCH3: 0	TrCH1: all TrCH1- TrCH2: 20 TrCH3: 40 Convolutional TrCH1- TrCH2: Third TrCH3: Third TrCH1: 200 TrCH2: 190 TrCH3: 160 TrCH1: 12 TrCH1: 12 TrCH2: 0
>>semistaticTF-Information >>>tti >>>channelCodingType >>>codingRate >>>rateMatchingAttribute >>>crc-Size	TrCH1- TrCH3: 20 TrCH4: 40 Convolutional TrCH1- TrCH2: Third TrCH3: Half TrCH4: Third TrCH1: 200 TrCH2: 190 TrCH2: 190 TrCH3: 235 TrCH4: 160 TrCH1: 12	TrCH1: all TrCH1- TrCH2: 20 TrCH3: 40 Convolutional TrCH1- TrCH2: Third TrCH3: Third TrCH1: 200 TrCH2: 190 TrCH3: 160 TrCH1: 12
>>semistaticTF-Information >>>tti >>schannelCodingType >>>codingRate >>>rateMatchingAttribute >>crc-Size	TrCH1- TrCH3: 20 TrCH4: 40 Convolutional TrCH1- TrCH2: Third TrCH3: Half TrCH4: Third TrCH1: 200 TrCH2: 190 TrCH3: 235 TrCH4: 160 TrCH1: 12 TrCH2- TrCH3: 0	TrCH1: all TrCH1- TrCH2: 20 TrCH3: 40 Convolutional TrCH1- TrCH2: Third TrCH3: Third TrCH1: 200 TrCH2: 190 TrCH3: 160 TrCH1: 12 TrCH1: 12 TrCH2: 0
>>semistaticTF-Information >>>tti >>>channelCodingType >>>codingRate >>>rateMatchingAttribute >>>crc-Size DL- AddReconfTransChInfoList	TrCH1- TrCH3: 20 TrCH4: 40 Convolutional TrCH1- TrCH2: Third TrCH3: Half TrCH4: Third TrCH1: 200 TrCH2: 190 TrCH3: 235 TrCH4: 160 TrCH1: 12 TrCH2- TrCH3: 0 TrCH4: 16	TrCH1: all TrCH1- TrCH2: 20 TrCH3: 40 Convolutional TrCH1- TrCH2: Third TrCH3: Third TrCH1: 200 TrCH2: 190 TrCH3: 160 TrCH1: 12 TrCH2: 0 TrCH3: 16
>>semistaticTF-Information >>>tti >>>channelCodingType >>>codingRate >>>rateMatchingAttribute >>>crc-Size DL- AddReconfTransChInfoList >Downlink transport	TrCH1- TrCH3: 20 TrCH4: 40 Convolutional TrCH1- TrCH2: Third TrCH3: Half TrCH4: Third TrCH1: 200 TrCH2: 190 TrCH3: 235 TrCH4: 160 TrCH1: 12 TrCH2- TrCH3: 0	TrCH1: all TrCH1- TrCH2: 20 TrCH3: 40 Convolutional TrCH1- TrCH2: Third TrCH3: Third TrCH1: 200 TrCH2: 190 TrCH3: 160 TrCH1: 12 TrCH1: 12 TrCH2: 0
>>semistaticTF-Information >>>tti >>>channelCodingType >>>codingRate >>>rateMatchingAttribute >>>crc-Size DL- AddReconfTransChInfoList >Downlink transport channel type	TrCH1- TrCH3: 20 TrCH4: 40 Convolutional TrCH1- TrCH2: Third TrCH3: Half TrCH4: Third TrCH1: 200 TrCH2: 190 TrCH3: 235 TrCH4: 160 TrCH1: 12 TrCH2- TrCH3: 0 TrCH4: 16	TrCH1: all TrCH1- TrCH2: 20 TrCH3: 40 Convolutional TrCH1- TrCH2: Third TrCH3: Third TrCH1: 200 TrCH2: 190 TrCH3: 160 TrCH1: 12 TrCH2: 0 TrCH3: 16
>>semistaticTF-Information >>>tti >>>channelCodingType >>>codingRate >>>rateMatchingAttribute >>>crc-Size DL- AddReconfTransChInfoList >Downlink transport	TrCH1- TrCH3: 20 TrCH4: 40 Convolutional TrCH1- TrCH2: Third TrCH3: Half TrCH4: Third TrCH1: 200 TrCH2: 190 TrCH3: 235 TrCH4: 160 TrCH1: 12 TrCH2- TrCH3: 0 TrCH4: 16	TrCH1: all TrCH1- TrCH2: 20 TrCH3: 40 Convolutional TrCH1- TrCH2: Third TrCH3: Third TrCH1: 200 TrCH2: 190 TrCH3: 160 TrCH1: 12 TrCH2: 0 TrCH3: 16

>tfs-SignallingMode	Independent <only on="" tf0="" trch1<br="">and tf0/tf1 on</only>	Independent <only on="" tf0="" trch1<br="">and tf0/tf1 on</only>
	TrCH5 are different and shown below>	TrCH4 are different and shown below>
>>transportFormatSet		
>>>dynamicTF-information	— • • • • • • • • • • • • • • • • • • •	— — — — — — — — — —
>>>tf0/tf0,1	TrCH1: (1x0)	TrCH1: (1x0)
>>>rlcSize	TrCH5: (0x3, 1x3) BitMode	TrCH4: (0x3, 1x3) bitMode
>>>sizeType	TrCH1: type 1: 0	TrCH1: type 1: 0
>>>>size i ype	TrCH5: type 1: 3	TrCH4: type 1: 3
>>>numberOfTbSizeList	TrCH1: One	TrCH1: One
	TrCH5: Zero, one	TrCH4: Zero, one
>>>>logicalChannelList	All	All
>>>semistaticTF-	same as UL except	same as DL except
Information	for TrCH5	for TrCH4
>>>>tti	TrCH5: 20	TrCH4: 20
>>>channelCodingType	Convolutional	Convolutional
>>>>codingRate	TrCH5: Third	TrCH4: Third
>>>rateMatchingAttribute	TrCH5: 200	TrCH4: 200
>>>crc-Size	TrCH5: 12	TrCH4: 12
>>ULTrCH-ld	TrCH1: 1, TrCH2: 2, TrCH3: 3, TrCH4: 4,	TrCH1: 1, TrCH2: 2, TrCH3: 3
>dch-QualityTarget		_
>>bler-QualityValue	TrCH1: 7x10 ⁻³	TrCH1: 7x10 ⁻³
	TrCH2- TrCH5:	TrCH2- TrCH4:
	Absent	Absent
TrCH INFORMATION, COMMON		
ul-CommonTransChInfo		
>tfcs-ID (TDD only)	1	1
>sharedChannelIndicator (TDD only)	FALSE	FALSE
> tfc-Subset	Absent, not required	Absent, not required
>ul-TFCS	Normal TFCI	Normal TFCI
	signalling	signalling
>>explicitTFCS-	Complete	Complete
ConfigurationMode		
>>>ctfcSize	Ctfc6Bit	Ctfc6Bit
>>>>TFCS representation	Addition	Addition
>>>>TFC list	(TEO TEO TEO	(TEO TEO TEO)
>>>>TFC 1	(TF0, TF0, TF0, TF0)	(TF0, TF0, TF0)
>>>>>ctfc	0	0
>>>>>gainFactorInform ation	Computed	Computed
>>>>>>referenceTFCId	0	0
>>>>TFC 2	(TF1, TF0, TF0, TF0)	(TF1, TF0, TF0)
>>>>>ctfc	1	1
>>>>> sgainFactorInform ation	Computed	Computed
>>>>>βc (FDD only)	N/A	N/A
>>>>>βd	N/A	N/A
>>>>>referenceTFCId	0	0
>>>>TFC 3	(TF2, TF1, TF0, TF0)	(TF2, TF1, TF0)
>>>>>ctfc	8	8
>>>>>gainFactorInform	Computed	Computed
>>>>>referenceTFCId	0	0
>>>>TFC 4	(TF3, TF2, TF0, TF0)	(TF3, TF2, TF0)
>>>>>ctfc	15	15

>>>>>gainFactorInform	Computed	Computed
ation (FDD anks)		
>>>>>βc (FDD only)		
>>>>>βd >>>>>referenceTFCId	0	0
>>>>TFC 5	(TF4, TF3, TF0,	(TF4, TF3, TF0)
	TF0)	(, 6, 6)
>>>>>ctfc	22	22
>>>>>gainFactorInform ation	Computed	Computed
>>>>>referenceTFCId	0	0
>>>>TFC 6	(TF5, TF4, TF1,	(TF5, TF4, TF0)
	TF0)	, ,
>>>>>ctfc	59	29
>>>>>gainFactorInform ation	Computed	Computed
>>>>>βc (FDD only)		
>>>>>βd		
>>>>>referenceTFCld	0	0
>>>>TFC 7	(TF0, TF0, TF0, TF1)	(TF0, TF0, TF1)
>>>>>ctfc	60	30
>>>>>gainFactorInform	Computed	Computed
ation	0	0
>>>>>referenceTFCId	(TF1, TF0, TF0,	(TF1, TF0, TF1)
	TF1)	(11 1, 11 0, 11 1)
>>>>>ctfc	61	31
>>>>>gainFactorInform	computed	computed
ation		
>>>>>βc (FDD only)		
>>>>>βd	0	0
>>>>>referenceTFCld	0 (TF2, TF1, TF0,	(TF2, TF1, TF1)
	TF1)	(11 2, 11 1, 11 1)
>>>>>ctfc	68	38
>>>>>gainFactorInform ation	computed	computed
>>>>>>referenceTFCId	0	0
>>>>TFC 10	(TF3, TF2, TF0,	(TF3, TF2, TF1)
	TF1)	
>>>>>ctfc	75	45
>>>>>gainFactorInform	computed	computed
>>>>>>βc (FDD only)		
>>>>>>βd		
>>>>>>referenceTFCId	0	0
>>>>TFC 11	(TF4, TF3, TF0, TF1)	(TF4, TF3, TF1)
>>>>>ctfc	82	52
>>>>>gainFactorInform	computed	computed
ation	ļ	
>>>>>referenceTFCId	0 (TF5, TF4, TF1,	0 (TF5, TF4, TF1)
	TF1)	(150, 154, 151)
>>>>>ctfc	97	59
>>>>>gainFactorInform ation	signalled	signalled
>>>>>βc (FDD only)	11	11
>>>>>βd	15	15
>>>>>referenceTFCId	0	0
> TFC subset list	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
>>TFC subset 1	(speech rate 10.2)	(speech rate 7.4)

>>> Allowed transport	(TFC1, TFC2,	(TFC1, TFC2,
format combination list	TFC7, TFC8, TFC6, TFC12)	TFC7, TFC8, TFC6, TFC12)
>>TFC subset 2	(speech rate 6.7)	(speech rate 6.7)
>>> Allowed transport	(TFC1, TFC2,	(TFC1, TFC2,
format combination list	TFC7, TFC8, TFC5,	TFC7, TFC8, TFC5,
	TFC11)	TFC11)
>>TFC subset 3	(speech rate 5.9)	(speech rate 5.9)
>>> Allowed transport	(TFC1, TFC2,	(TFC1, TFC2,
format combination list	TFC7, TFC8, TFC4,	TFC7, TFC8, TFC4,
	TFC10)	TFC10)
>>TFC subset 4	(speech rate 4.75)	(speech rate 4.75)
>>> Allowed transport	(TFC1, TFC2,	(TFC1, TFC2,
format combination list	TFC7, TFC8, TFC3,	TFC7, TFC8, TFC3,
	TFC9)	TFC9)
dl-CommonTransChInfo		
>tfcs-SignallingMode	Independent	Independent
ul-CommonTransChInfo		
>tfcs-ID (TDD only)	1	1
>sharedChannelIndicator	FALSE	FALSE
(TDD only)	About with	About water
> tfc-Subset	Absent, not required	Absent, not required
>dl-TFCS	Normal TFCI	Normal TFCI
>>explicitTFCS-	signalling	signalling
>>explicit FCS- ConfigurationMode	Complete	Complete
>>>ctfcSize	Ctfc6Bit	Ctfc6Bit
>>>TFCS representation	Addition	Addition
>>>>TFCS list	Addition	Addition
>>>>TFC 1	(TF0, TF0, TF0,	(TF0, TF0, TF0,
	TF0, TF0)	TF0)
>>>>>ctfc	0	0
>>>>TFC 2	(TF1, TF0, TF0,	(TF1, TF0, TF0,
	TF0, TF0)	TF0)
>>>>>ctfc	1	1
>>>>TFC 3	(TF2, TF1, TF0,	(TF2, TF1, TF0,
	TF0, TF0)	TF0)
>>>>>ctfc	8	8
>>>>TFC 4	(TF3, TF2, TF0,	(TF3, TF2, TF0,
	TF0, TF0)	TF0)
>>>>>ctfc	15	15
>>>>TFC 5	(TF4, TF3, TF0,	(TF4, TF3, TF0,
>>>>>ctfc	TF0, TF0) 22	TF0) 22
>>>>TFC 6	(TF5, TF4, TF1,	(TF5, TF4, TF0,
	TF0, TF0)	TF0)
>>>>>ctfc	59	29
>>>>TFC 7	(TF0, TF0, TF0,	(TF0, TF0, TF1,
_	TF1, TF0)	TF0)
>>>>>ctfc	60	30
>>>>TFC 8	(TF1, TF0, TF0,	(TF1, TF0, TF1,
	TF1, TF0)	TF0)
>>>>>ctfc	61	31
>>>>TFC 9	(TF2, TF1, TF0,	(TF2, TF1, TF1,
	TF1, TF0)	TF0)
>>>>>ctfc	68	37
>>>>TFC 10	(TF3, TF2, TF0,	(TF3, TF2, TF1,
>>>>> otfo	TF1, TF0)	TF0)
>>>>>ctfc	75 (TE4 TE3 TE0	55 (TEA TE3 TE1
>>>>> FU	(TF4, TF3, TF0, TF1, TF0)	(TF4, TF3, TF1, TF0)
>>>>>ctfc	82	52
>>>>>TFC 12	(TF5, TF4, TF1,	(TF5, TF4, TF1,
	TF1, TF0)	TF0)
>>>>>ctfc	119	59
	1	- -

>>>>TFC 13	(TF0, TF0, TF0,	(TF0, TF0, TF0,
	TF0, TF1)	TF1)
>>>>>ctfc	120	60
>>>>TFC 14	(TF1, TF0, TF0,	(TF1, TF0, TF0,
	TF0, TF1)	TF1)
>>>>>ctfc	121	61
>>>>TFC 15	(TF2, TF1, TF0,	(TF2, TF1, TF0,
>>>>> IFC 15		TF1)
.,	TF0, TF1)	/
>>>>>ctfc	128	68
>>>>TFC 16	(TF3, TF2, TF0,	(TF3, TF2, TF0,
	TF0, TF1)	TF1)
>>>>>ctfc	135	75
>>>>TFC 17	(TF4, TF3, TF0,	(TF4, TF3, TF0,
	TF0, TF1)	TF1)
>>>>>ctfc	152	82
>>>>TFC 18	(TF5, TF4, TF1,	(TF5, TF4, TF0,
*************************************	TF0, TF1)	TF1)
>>>>>ctfc	189	89
>>>>TFC 19	(TF0, TF0, TF0,	(TF0, TF0, TF1,
	TF1, TF1)	TF1)
>>>>>ctfc	180	90
>>>>TFC 20	(TF1, TF0, TF0,	(TF1, TF0, TF1,
	TF1, TF1)	TF1)
>>>>>ctfc	181	91
>>>>TFC 21	(TF2, TF1, TF0,	(TF2, TF1, TF1,
· · · · · · · · · · · · · · · · · · ·	TF1, TF1)	TF1)
>>>>>ctfc	188	98
>>>>TFC 22	(TF3, TF2, TF0,	
>>>>> 1FC 22		(TF3, TF2, TF1,
	TF1, TF1)	TF1)
>>>>>ctfc	195	105
>>>>>TFC 23	(TF4, TF3, TF0,	(TF4, TF3, TF1,
	TF1, TF1)	TF1)
>>>>>ctfc	239	112
>>>>TFC 24	(TF5, TF4, TF1,	(TF5, TF4, TF1,
	TF1, TF1)	TF1)
>>>>>ctfc	218	119
PhyCH INFORMATION	-	-
FDD		
UL-DPCH-InfoPredef		
>ul-DPCH-		
PowerControlInfo		
>>powerControlAlgorithm	Algorithm 1	Algorithm 1
>>>tpcStepSize	1	1
>tfci-Existence	TRUE	TRUE
>puncturingLimit	0.88	0.88
DL-		
CommonInformationPredef		
>dl-DPCH-InfoCommon		
	120	120
>>spreadingFactor	128	128
>>tfci-Existence	FALSE	FALSE
>>pilotBits	4	4
>>positionFixed	Fixed	Fixed
PhyCH INFORMATION		
3.84 Mcps TDD		
UL-DPCH-InfoPredef		
>ul-DPCH-	 	
		ı
PowerControlInfo		0
PowerControlInfo >>dpch-ConstantValue	0	0
PowerControlInfo >>dpch-ConstantValue >commonTimeslotInfo	-	Ţ.
PowerControlInfo >>dpch-ConstantValue	0 frameRelated	0 frameRelated
PowerControlInfo >>dpch-ConstantValue >commonTimeslotInfo	-	·
PowerControlInfo >>dpch-ConstantValue >commonTimeslotInfo >>secondInterleavingMode >>tfci-Coding	frameRelated 16	frameRelated 16
PowerControlInfo >>dpch-ConstantValue >commonTimeslotInfo >>secondInterleavingMode >>tfci-Coding >>puncturingLimit	frameRelated 16 0.60	frameRelated 16 0.60
PowerControlInfo >>dpch-ConstantValue >commonTimeslotInfo >>secondInterleavingMode >>tfci-Coding	frameRelated 16	frameRelated 16

T		•
DL-		
CommonInformationPredef		
>dl-DPCH-InfoCommon		
>>commonTimeslotInfo		
>>>secondInterleavingMod	frameRelated	frameRelated
е		
>>>tfci-Coding	16	16
>>>puncturingLimit	0.60	0.60
>>>repetitionPeriodAndLe	repetitionPeriod1	repetitionPeriod1
ngth		
PhyCH INFORMATION		
1.28 Mcps TDD		
UL-DPCH-InfoPredef		
>commonTimeslotInfo		
>>secondInterleavingMode	frame Related	frame Related
>>tfci-Coding	16	16
>>puncturingLimit	0.64	0.64
>>repetitionPeriodAndLeng	repetitionPeriod1	repetitionPeriod1
th		
DL-		
CommonInformationPredef		
>dl-DPCH-InfoCommon		
>>commonTimeslotInfo		
>>>secondInterleavingMod	frame Related	frame Related
е		
>>>tfci-Coding	16	16
>>>puncturingLimit	0.64	0.64
>>>repetitionPeriodAndLe	repetitionPeriod1	repetitionPeriod1
ngth		

TSG-RAN Working Group 2 meeting #34 Sophia-Antipolis, France 17th – 21rd February 2003

R2-030477

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Proposed change affe	<i>cts:</i> UICC a	ppsж	ME <mark>X</mark> R	adio A	ccess Networ	k Core Network
Title:	orrection to UE	behaviour on e	ntering RF	RC Cor	nnected mode	
Source: # TS	SG-RAN WG2					
Work item code:	El				Date: ₩	February 2003
Det	F (correction) A (correspond B (addition of C (functional in D (editorial me	modification of fea odification) ns of the above ca	ture)		2 R96 R97 R98 R99 Rel-4	R99 the following releases: (GSM Phase 2) (Release 1996) (Release 1997) (Release 1998) (Release 1999) (Release 4) (Release 5)

Currently, according to section 8.1.3.6 "Reception of an RRC CONNECTION SETUP message by the UE", a UE shall (in case the UE remains in Cell_FACH at the conclusion of the procedure) select PRACH and Secondary CCPCH <u>prior</u> to enter UTRA RRC Connected Mode. A UE implementation, strictly following these sequence of actions, will select PRACH and Secondary CCPCH according to the rules applicable for UE in Idle Mode (use information from SIB5), not the rules applicable for a UE in Connected Mode (use information from SIB6).

It should be noted that in case the RRC connection establishment procedure is completed (UE has entered UTRAN RRC Connected Mode), and UE selects a cell in order to access the RACH (e.g. at cell re-selection, RL failure etc), UE will select PRACH and Secondary CCPCH according to the rules applicable for UE in Connected Mode.

Summary of change: ₩

In Section 8.1.3.6, the sequence of actions is corrected, such that a UE first enters UTRAN RRC Connected Mode, then selects PRACH and secondary CCPCH.

T1 impact:

No impact on T1 specifications is foreseen.

Backward compatibility:

A UE not supporting the CR will not use the PRACH and S-CCPCH that are applicable for a UE in RRC connected mode.

Consequences if not approved:

In the cell where the UE enters UTRA Connected mode, after having received the RRC CONNECTION SETUP message, the UE will not use the PRACH and Secondary CCPCH configuration that are applicable for UE in RRC Connected Mode.

Clauses affected:	第 8.1.3.6
Other specs affected:	Y N X Other core specifications
Other comments:	$oldsymbol{lpha}$

How to create CRs using this form:

- 1) Fill out the above form. The symbols above marked \(\mathcal{H} \) contain pop-up help information about the field that they are closest to.
- 2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

8.1.3.6 Reception of an RRC CONNECTION SETUP message by the UE

The UE shall compare the value of the IE "Initial UE identity" in the received RRC CONNECTION SETUP message with the value of the variable INITIAL_UE_IDENTITY.

If the values are different, the UE shall:

1> ignore the rest of the message.

If the values are identical, the UE shall:

- 1> stop timer T300, and act upon all received information elements as specified in subclause 8.6, unless specified otherwise in the following:
 - 2> if the UE, according to subclause 8.6.3.3, will be in the CELL_FACH state at the conclusion of this procedure:
 - 3> if the IE "Frequency info" is included:
 - 4> select a suitable UTRA cell according to [4] on that frequency;
 - 3> enter UTRA RRC connected mode;
 - 3> select PRACH according to subclause 8.5.17;
 - 3> select Secondary CCPCH according to subclause 8.5.19;
 - 3> ignore the IE "UTRAN DRX cycle length coefficient" and stop using DRX.
- 1> if the UE, according to subclause 8.6.3.3, will be in the CELL_DCH state at the conclusion of this procedure:
 - 2> perform the physical layer synchronisation procedure A as specified in [29] (FDD only).
 - 2+>enter UTRA RRC connected mode, in a state according to subclause 8.6.3.3; [CHANGED INDENTATION]
- 1> submit an RRC CONNECTION SETUP COMPLETE message to the lower layers on the uplink DCCH after successful state transition per subclause 8.6.3.3, with the contents set as specified below:
 - 2> set the IE "RRC transaction identifier" to:
 - 3> the value of "RRC transaction identifier" in the entry for the RRC CONNECTION SETUP message in the table "Accepted transactions" in the variable TRANSACTIONS; and
 - 3> clear that entry.
 - 2> if the USIM or SIM is present:
 - 3> set the "START" for each CN domain in the IE "START list" in the RRC CONNECTION SETUP COMPLETE message with the corresponding START value that is stored in the USIM [50] if present, or as stored in the UE if the SIM is present; and then
 - 3> set the START value stored in the USIM [50] if present, and as stored in the UE if the SIM is present for any CN domain to the value "THRESHOLD" of the variable START_THRESHOLD.
 - 2> if neither the USIM nor SIM is present:
 - 3> set the "START" for each CN domain in the IE "START list" in the RRC CONNECTION SETUP COMPLETE message to zero;
 - 3> set the value of "THRESHOLD" in the variable "START_THRESHOLD" to the default value [40].
 - 2> retrieve its UTRA UE radio access capability information elements from variable UE_CAPABILITY_REQUESTED; and then

- 2> include this in IE "UE radio access capability" and IE "UE radio access capability extension", provided this IE is included in variable UE_CAPABILITY_REQUESTED;
- 2> retrieve its inter-RAT-specific UE radio access capability information elements from variable UE_CAPABILITY_REQUESTED; and then
- 2> include this in IE "UE system specific capability".

When the RRC CONNECTION SETUP COMPLETE message has been submitted to lower layers for transmission the UE shall:

- 1> if the UE has entered CELL_FACH state:
 - 2> start timer T305 using its initial value if periodical update has been configured by T305 in the IE "UE Timers and constants in connected mode" set to any other value than "infinity" in the variable TIMERS AND CONSTANTS.
- 1> store the contents of the variable UE_CAPABILITY_REQUESTED in the variable UE_CAPABILITY_TRANSFERRED;
- 1> initialise variables upon entering UTRA RRC connected mode as specified in subclause 13.4;
- 1> consider the procedure to be successful;

And the procedure ends.

TSG-RAN Working Group 2 meeting #34 Sophia-Antipolis, France 17th – 21rd February 2003

R2-030478

CHANGE REQUEST									CR-Form-v7		
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Rel-6

(Release 6)

It should be noted that in case the RRC connection establishment procedure is completed (UE has entered UTRAN RRC Connected Mode), and UE selects a cell in order to access the RACH (e.g. at cell re-selection, RL failure etc), UE will select PRACH and Secondary CCPCH according to the rules applicable for UE in Connected Mode.

Summary of change: ₩

In Section 8.1.3.6, the sequence of actions is corrected, such that a UE first enters UTRAN RRC Connected Mode, then selects PRACH and secondary CCPCH.

T1 impact:

No impact on T1 specifications is foreseen.

Backward compatibility:

A UE not supporting the CR will not use the PRACH and S-CCPCH that are applicable for a UE in RRC connected mode.

Consequences if not approved:

In the cell where the UE enters UTRA Connected mode, after having received the RRC CONNECTION SETUP message, the UE will not use the PRACH and Secondary CCPCH configuration that are applicable for UE in RRC Connected Mode.

Clauses affected:	第 8.1.3.6
Other specs affected:	Y N X Other core specifications
Other comments:	$oldsymbol{lpha}$

How to create CRs using this form:

- 1) Fill out the above form. The symbols above marked \(\mathcal{H} \) contain pop-up help information about the field that they are closest to.
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 - 3> enter UTRA RRC connected mode;
 - 3> select PRACH according to subclause 8.5.17;
 - 3> select Secondary CCPCH according to subclause 8.5.19;
 - 3> ignore the IE "UTRAN DRX cycle length coefficient" and stop using DRX.
- 1> if the UE, according to subclause 8.6.3.3, will be in the CELL_DCH state at the conclusion of this procedure:
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 - 2+>enter UTRA RRC connected mode, in a state according to subclause 8.6.3.3; [CHANGED INDENTATION]
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- 1> consider the procedure to be successful;

And the procedure ends.

TSG-RAN Working Group 2 meeting #34 Sophia-Antipolis, France 17th – 21rd February 2003

R2-030479

CHANGE REQUEST									CR-Form-v7			
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Source:	₩ TS	G-RAN	WG2									
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Currently, according to section 8.1.3.6 "Reception of an RRC CONNECTION SETUP message by the UE", a UE shall (in case the UE remains in Cell_FACH at the conclusion of the procedure) select PRACH and Secondary CCPCH <u>prior</u> to enter UTRA RRC Connected Mode. A UE implementation, strictly following these sequence of actions, will select PRACH and Secondary CCPCH according to the rules applicable for UE in Idle Mode (use information from SIB5), not the rules applicable for a UE in Connected Mode (use information from SIB6).

It should be noted that in case the RRC connection establishment procedure is completed (UE has entered UTRAN RRC Connected Mode), and UE selects a cell in order to access the RACH (e.g. at cell re-selection, RL failure etc), UE will select PRACH and Secondary CCPCH according to the rules applicable for UE in Connected Mode.

Summary of change: ₩

In Section 8.1.3.6, the sequence of actions is corrected, such that a UE first enters UTRAN RRC Connected Mode, then selects PRACH and secondary CCPCH.

T1 impact:

No impact on T1 specifications is foreseen.

Backward compatibility:

A UE not supporting the CR will not use the PRACH and S-CCPCH that are applicable for a UE in RRC connected mode.

Consequences if not approved:

In the cell where the UE enters UTRA Connected mode, after having received the RRC CONNECTION SETUP message, the UE will not use the PRACH and Secondary CCPCH configuration that are applicable for UE in RRC Connected Mode.

Clauses affected:	第 8.1.3.6
Other specs affected:	Y N X Other core specifications
Other comments:	$oldsymbol{lpha}$

How to create CRs using this form:

- 1) Fill out the above form. The symbols above marked \(\mathcal{H} \) contain pop-up help information about the field that they are closest to.
- 2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

8.1.3.6 Reception of an RRC CONNECTION SETUP message by the UE

The UE shall compare the value of the IE "Initial UE identity" in the received RRC CONNECTION SETUP message with the value of the variable INITIAL_UE_IDENTITY.

If the values are different, the UE shall:

1> ignore the rest of the message.

If the values are identical, the UE shall:

- 1> stop timer T300, and act upon all received information elements as specified in subclause 8.6, unless specified otherwise in the following:
 - 2> if the UE, according to subclause 8.6.3.3, will be in the CELL_FACH state at the conclusion of this procedure:
 - 3> if the IE "Frequency info" is included:
 - 4> select a suitable UTRA cell according to [4] on that frequency;
 - 3> enter UTRA RRC connected mode;
 - 3> select PRACH according to subclause 8.5.17;
 - 3> select Secondary CCPCH according to subclause 8.5.19;
 - 3> ignore the IE "UTRAN DRX cycle length coefficient" and stop using DRX.
- 1> if the UE, according to subclause 8.6.3.3, will be in the CELL_DCH state at the conclusion of this procedure:
 - 2> perform the physical layer synchronisation procedure A as specified in [29] (FDD only).
 - 2+>enter UTRA RRC connected mode, in a state according to subclause 8.6.3.3; [CHANGED INDENTATION]
- 1> submit an RRC CONNECTION SETUP COMPLETE message to the lower layers on the uplink DCCH after successful state transition per subclause 8.6.3.3, with the contents set as specified below:
 - 2> set the IE "RRC transaction identifier" to:
 - 3> the value of "RRC transaction identifier" in the entry for the RRC CONNECTION SETUP message in the table "Accepted transactions" in the variable TRANSACTIONS; and
 - 3> clear that entry.
 - 2> if the USIM or SIM is present:
 - 3> set the "START" for each CN domain in the IE "START list" in the RRC CONNECTION SETUP COMPLETE message with the corresponding START value that is stored in the USIM [50] if present, or as stored in the UE if the SIM is present; and then
 - 3> set the START value stored in the USIM [50] if present, and as stored in the UE if the SIM is present for any CN domain to the value "THRESHOLD" of the variable START_THRESHOLD.
 - 2> if neither the USIM nor SIM is present:
 - 3> set the "START" for each CN domain in the IE "START list" in the RRC CONNECTION SETUP COMPLETE message to zero;
 - 3> set the value of "THRESHOLD" in the variable "START_THRESHOLD" to the default value [40].
 - 2> retrieve its UTRA UE radio access capability information elements from variable UE_CAPABILITY_REQUESTED; and then

- 1
- 2> include this in IE "UE radio access capability" and IE "UE radio access capability extension", provided this IE is included in variable UE_CAPABILITY_REQUESTED;
- 2> retrieve its inter-RAT-specific UE radio access capability information elements from variable UE_CAPABILITY_REQUESTED; and then
- 2> include this in IE "UE system specific capability".

When the RRC CONNECTION SETUP COMPLETE message has been submitted to lower layers for transmission the UE shall:

- 1> if the UE has entered CELL_FACH state:
 - 2> start timer T305 using its initial value if periodical update has been configured by T305 in the IE "UE Timers and constants in connected mode" set to any other value than "infinity" in the variable TIMERS_AND_CONSTANTS.
- 1> store the contents of the variable UE_CAPABILITY_REQUESTED in the variable UE_CAPABILITY_TRANSFERRED;
- 1> initialise variables upon entering UTRA RRC connected mode as specified in subclause 13.4;
- 1> consider the procedure to be successful;

And the procedure ends.

3GPP TSG-RAN WG2 Meeting #34 Sophia Antipolis, France, 17-21 February 2003

Summary of change: ₩

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THRESHOLD.

1, 2. The text related to START value storage in the USIM on HANDOVER to GSM is deleted and moved to a new section that applies for all cases where the UE is in connected mode and moves to another RAT. The new text does not

Actions similar to those in subclause 8.5.2 (actions on entering idle mode) are

include the action of deleting keys if the START value has reached

now added for the cases – Handover from UTRAN, Inter-RAT cell Reselection, Inter-RAT cell change order.

- 3. Actions are added in case new keys are received but not used, when transitioning to idle, when SIM is present.
- 4. It is clarified that the actions in case SIM is present are to be perfoirmed are on per CN domain basis when transitioning to idle.

Isolated Impact Analysis

Functionality corrected: Security, storage of START in USIM

The CR has impact on UE impact only. Ciphering capability wold be lost in GSM in the case where the START value as reached THRESHOLD while in UTRAN prior to HANDOVER FROM UTRAN. In the case of Inter-RAT procedures, if a UE does not implement this CR, the lifetime of the new keys would be shortened. In the case where the START value has reached threshold, any newly received and un-used keys would be made unusable the next time around, requiring another Authentication from the network.

Consequences if not approved:

If a UE does not implement the change related to #1 no ciphering key would be available in the case where the START value has reached threshold, until Authentication is performed in GSM, leading to loss of ciphering capability.

If a UE does not implement this CR, the lifetime of the new keys would be shortened. For Inter-RAT cell reselection from UTRAN and Inter-RAT cell change order from UTRAN, requirements for writing the latest START value are missing thus causing an incorrect value to be stored in the USIM (THRESHOLD) potentially triggering premature Authentication.

Clauses affected:	第 8.3.7.4, 8.5.x(new); 8.5.2
Other specs affected:	Y N X Other core specifications Test specifications O&M Specifications
Other comments:	$m{lpha}$

How to create CRs using this form:

- 1) Fill out the above form. The symbols above marked \(\mathcal{H} \) contain pop-up help information about the field that they are closest to.
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- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

8.3.7 Inter-RAT handover from UTRAN



Figure 8.3.7-1: Inter-RAT handover from UTRAN, successful case



Figure 8.3.7-2: Inter-RAT handover from UTRAN, failure case

8.3.7.1 General

The purpose of the inter-RAT handover procedure is to, under the control of the network, transfer a connection between the UE and UTRAN to another radio access technology (e.g. GSM). This procedure may be used in CELL_DCH state. This procedure may be used when no RABs are established or when the established RABs are only in the CS domain or when the established RABs are in both CS and PS domains.

8.3.7.2 Initiation

The procedure is initiated when UTRAN orders a UE in CELL_DCH state, to make a handover to a radio access technology other than UTRAN, e.g. GSM.

To initiate the procedure, UTRAN sends a HANDOVER FROM UTRAN COMMAND message.

8.3.7.3 Reception of a HANDOVER FROM UTRAN COMMAND message by the UE

The UE shall be able to receive a HANDOVER FROM UTRAN COMMAND message and perform an inter-RAT handover, even if no prior UE measurements have been performed on the target cell.

The UE shall:

1> establish the connection to the target radio access technology, by using the contents of the IE "Inter-RAT message". This IE contains a message specified in another standard, as indicated by the IE "System type", and carries information about the candidate/ target cell identifier(s) and radio parameters relevant for the target radio access technology. The correspondence between the value of the IE "System type", the standard to apply and the message contained within IE "Inter RAT message" is shown in the following:

Value of the IE "System type"	Standard to apply	Inter RAT Message
GSM	GSM TS 04.18, version 8.5.0 or later	HANDOVER COMMAND
cdma2000	TIA/EIA/IS-2000 or later, TIA/EIA/IS-833 or later, TIA/EIQ/IS-834 or later	

- 1> if the IE "System type" has the value "GSM":
 - 2> if the IE "Frequency band" has the value "GSM /DCS 1800 band used":
 - 3> set the BAND_INDICATOR [45] to "ARFCN indicates 1800 band".
 - 2> if the IE "Frequency band" has the value " GSM /PCS 1900 band used":
 - 3> set the BAND_INDICATOR [45] to "ARFCN indicates 1900 band".
- 1> apply the "Inter RAT Message" according to the "standard to apply" in the table above.
- 1> if the IE "RAB information List" is included in the HANDOVER FROM UTRAN COMMAND message:
 - 2> if the IE "RAB information List" includes one IE "RAB Info" with the IE "CN domain Identity" set to "CS domain":
 - 3> connect upper layer entities corresponding to the indicated CS domain RAB to the radio resources indicated in the inter-RAT message.
- NOTE: In this version of the specification the maximum number of CS domain RABs which may be included in the IE "RAB information List" is limited to 1.
- NOTE: Requirements concerning the establishment of the radio connection towards the other radio access technology and the signalling procedure are outside the scope of this specification.

8.3.7.4 Successful completion of the inter-RAT handover

Upon successfully completing the handover, UTRAN should:

- 1> release the radio connection; and
- 1> remove all context information for the concerned UE.

Upon successfully completing the handover, the UE shall:

- 1> if the USIM is present:
 - 2> store the current START value for every CN domain in the USIM [50];
 - 2> if the "START" stored in the USIM [50] for a CN domain is greater than or equal to the value "THRESHOLD" of the variable START THRESHOLD:
 - 3> delete the ciphering and integrity keys that are stored in the USIM for that CN domain;
 - 3> inform the deletion of these keys to upper layers.

1> if the SIM is present:

- 2> store the current START value for every CN domain in the UE;
- 2> if the "START" stored in the UE for a CN domain is greater than or equal to the value "THRESHOLD" of the variable START THRESHOLD:
 - 3> delete the ciphering and integrity keys that are stored in the SIM for that CN domain;
 - 3> inform the deletion of these keys to upper layers.
- 1> if there are any NAS messages with the IE "CN domain identity" set to "CS domain" for which the successful delivery of the INITIAL DIRECT TRANSFER message or UPLINK DIRECT TRANSFER message on signalling radio bearer RB3 or signalling radio bearer RB4 that have not yet been confirmed by RLC:
 - 2> retransmit those NAS messages to the network on the newly established radio connection to the target radio access technology.
- 1> clear or set variables upon leaving UTRA RRC connected mode as specified in subclause 13.4.

NOTE: The release of the UMTS radio resources is initiated from the target RAT.

8.5.2 Actions when entering idle mode from connected mode

When entering idle mode from connected mode, the UE shall:

- 1> clear or set variables upon leaving UTRA RRC connected mode as specified in subclause 13.4;
- 1> attempt to select a suitable cell to camp on.

When leaving connected mode according to [4], the UE shall:

1> perform cell selection.

While camping on a cell, the UE shall:

- 1> acquire system information according to the system information procedure in subclause 8.1;
- 1> perform measurements according to the measurement control procedure specified in subclause 8.4; and
- 1> if the UE is registered:
 - 2> be prepared to receive paging messages according to the paging procedure in subclause 8.2.

If IE "PLMN identity" within variable SELECTED_PLMN has the value "GSM-MAP", the UE shall:

- 1> delete any NAS system information received in connected mode;
- 1> acquire the NAS system information in system information block type 1; and
- 1> proceed according to subclause 8.6.1.2.

When entering idle mode, the UE shall:

- 1> if the USIM is present, for each CN domain:
 - 2> if a new security key set was received for this CN domain but was not used either for integrity protection or ciphering during this RRC connection:
 - 3> set the START value for this domain to zero; and
 - 3> store this START value for this domain in the USIM.

2> else:

- 3> if the current "START" value, according to subclause 8.5.9 for a CN domain, is greater than or equal to the value "THRESHOLD" of the variable START_THRESHOLD:
 - 4> delete the ciphering and integrity keys that are stored in the USIM for that CN domain;
 - 4> inform the deletion of these keys to upper layers.
- 3> else:
 - 4> store the current "START" value for this CN domain on the USIM.

1> else:

- 2> if the SIM is present, for each CN domain:
 - 3> if a new security key set was received for this CN domain but was not used either for integrity protection or ciphering during this RRC connection, the UE should:
 - 4> set the START value for this domain to zero; and
 - 4> store this START value for this domain in the UE
 - 3> else, the UE shall:
 - 34> if the current "START" value, according to subclause 8.5.9 for a-this CN domain, is greater than or equal to the value "THRESHOLD" of the variable START_THRESHOLD:
 - 45> delete the Kc key for this CN domain that is stored in the SIM for this CN domain;
 - 4> delete the ciphering and integrity keys that are stored in the UE for that CN domain;
 - 45> set the "START" values for both this CN domains to zero and store them it in the UE;
 - 4<u>5</u>> inform the deletion of these keys to upper layers.
 - $\frac{34}{}$ else:
 - 45> store the current "START" value for thisevery CN domain in the UE.

8.5.x Actions when entering another RAT from connected mode

When entering another RAT from connected mode (due to Inter-RAT handover from UTRAN, Inter-RAT cell change order from UTRAN or Inter-RAT cell reselection from UTRAN), after successful completion of the procedure causing the transition to the other RAT, the UE shall:

- 1> if the USIM is present, for each CN domain:
 - 2> if a new security key set was received for this CN domain but was not used either for integrity protection or ciphering during this RRC connection:
 - 3> set the START value for this domain to zero and;
 - 3> store this START value for this domain in the USIM;
 - <u>2> else</u>
 - 3> store the current START value for this every CN domain in the USIM [50];
 - 3> if the "START" stored in the USIM [50] for a CN domain is greater than or equal to the value "THRESHOLD" of the variable START THRESHOLD:
 - 4> delete the ciphering and integrity keys that are stored in the USIM for that CN domain;

4> inform the deletion of these keys to upper layers.

1> if the SIM is present, for each CN domain:

- 2> if a new security key was received for this CN domain but was not used either for integrity protection or ciphering during this RRC connection:
 - 3> set the START value for this domain to zero and;
 - 3> store this START value for this domain in the UEUSIM;

2> else

- 3> store the current START value for thisevery CN domain in the UE;
- 3> if the "START" stored in the UE for a CN domain is greater than or equal to the value "THRESHOLD" of the variable START THRESHOLD:
 - 4> delete the Kc key that is stored for that CN domain;
 - 4> delete the ciphering and integrity keys that are stored in the UE for that CN domain;
 - 4> inform the deletion of these keys to upper layers.

Annex A (informative): USIM parameters

A.1 Introduction

This annex contains recommendations about the RRC parameters to be stored in the USIM.

A.2 Ciphering information

Information Element/Group name	Need	Multi	Type and reference	Semantics description
Cipher key for each CN domain	MP	<1 to maxCNDo mains>		Cipher key is described in [40].
>CK	MP		Bit string (128)	
Integrity key for each CN domain	MP	<1 to maxCNDo mains>		Integrity key is described in [40].
>IK	MP		Bit string (128)	
THRESHOLD	MP		Bit string (20)	
START value for each CN domain	MP	<1 to maxCNDo mains>		START value is described in [40].
>START	MP		Bit string (20)	
KSI, Key set identifier for each CN domain	MP	<1 to maxCNDo mains>		Key set identifier is described in [40].
>KSI	MP		Bit string (3)	

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			(CHANGE	RE	QU	ES	ST				CR-Form-v7
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Reason for change: # 1.

- The current specification requires that in case of HANDOVER FROM UTRAN, the UE shall delete the security keys in case START has reached the value THRESHOLD. This will however, lead to no key being available on transitioning to GSM and loss of ciphering capability in GSM until Authentication is performed by the network.
- 2. In the case where new keys are received but not activated with a Security Mode Command message, the specifications provides actions for the UE on the appropriate value of START to be stored in the USIM only in the case where the UE transitions to idle mode. Actions are missing in the case the UE moves to another RAT via a Handover from UTRAN, Inter-RAT cell selection and Inter-RAT cell change order.
- 3. In the case of moving to idle mode, the actions in case new keys are received but not used, are missing.
- 4. It is not clear, that in case SIM is used, when transitioning to idle mode, the actions need to be performed on a per CN domain basis.

Summary of change: ₩

1, 2. The text related to START value storage in the USIM on HANDOVER to GSM is deleted and moved to a new section that applies for all cases where the UE is in connected mode and moves to another RAT. The new text does not include the action of deleting keys if the START value has reached THRESHOLD.

Actions similar to those in subclause 8.5.2 (actions on entering idle mode) are

now added for the cases – Handover from UTRAN, Inter-RAT cell Reselection, Inter-RAT cell change order.

- 3. Actions are added in case new keys are received but not used, when transitioning to idle, when SIM is present.
- 4. It is clarified that the actions in case SIM is present are to be perfoirmed are on per CN domain basis when transitioning to idle.

Isolated Impact Analysis

Functionality corrected: Security, storage of START in USIM
The CR has impact on UE impact only. Ciphering capability wold be lost in GSM in the case where the START value as reached THRESHOLD while in UTRAN prior to HANDOVER FROM UTRAN. In the case of Inter-RAT procedures, iff a UE does not implement this CR, the lifetime of the new keys would be shortened. In the case where the START value has reached threshold, anythe newly received and un-used keys would be made unusable the next time around, requiring another Authentication from the network.

Consequences if not approved:

If a UE does not implement the change related to #1 no ciphering key would be available in the case where the START value has reached threshold, until Authentication is performed in GSM, leading to loss of ciphering capability.

If a UE does not implement this CR, the lifetime of the new keys would be shortened. For Inter-RAT cell reslection from UTRAN and Inter-RAT cell change order from UTRAN, requirements for writing the latest START value are missing thus causing an incorrect value to be stored in the USIM (THRESHOLD) potentially triggering premature Authentication.

Clauses affected:	第 8.3.7.4, 8.5.x(new); 8.5.2
Other specs affected:	Y N X Other core specifications
Other comments:	lpha

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8.3.7.4 Successful completion of the inter-RAT handover

Upon successfully completing the handover, UTRAN should:

- 1> release the radio connection; and
- 1> remove all context information for the concerned UE.

Upon successfully completing the handover, the UE shall:

- 1> if the USIM is present:
 - 2> store the current START value for every CN domain in the USIM [50];
 - 2> if the "START" stored in the USIM [50] for a CN domain is greater than or equal to the value "THRESHOLD" of the variable START_THRESHOLD:
 - 3> delete the ciphering and integrity keys that are stored in the USIM for that CN domain;
 - 3> inform the deletion of these keys to upper layers.
- 1> if the SIM is present:
 - 2> store the current START value for every CN domain in the UE;
 - 2> if the "START" stored in the UE for a CN domain is greater than or equal to the value "THRESHOLD" of the variable START_THRESHOLD:
 - 3> delete the ciphering and integrity keys that are stored in the SIM for that CN domain;
 - 3> inform the deletion of these keys to upper layers.
- 1> if there are any NAS messages with the IE "CN domain identity" set to "CS domain" for which the successful delivery of the INITIAL DIRECT TRANSFER message or UPLINK DIRECT TRANSFER message on signalling radio bearer RB3 or signalling radio bearer RB4 that have not yet been confirmed by RLC:
 - 2> retransmit those NAS messages to the network on the newly established radio connection to the target radio access technology.
- 1> clear or set variables upon leaving UTRA RRC connected mode as specified in subclause 13.4.

NOTE: The release of the UMTS radio resources is initiated from the target RAT.

8.5.2 Actions when entering idle mode from connected mode

When entering idle mode from connected mode, the UE shall:

- 1> clear or set variables upon leaving UTRA RRC connected mode as specified in subclause 13.4;
- 1> attempt to select a suitable cell to camp on.

When leaving connected mode according to [4], the UE shall:

1> perform cell selection.

While camping on a cell, the UE shall:

- 1> acquire system information according to the system information procedure in subclause 8.1;
- 1> perform measurements according to the measurement control procedure specified in subclause 8.4; and
- 1> if the UE is registered:
 - 2> be prepared to receive paging messages according to the paging procedure in subclause 8.2.

If IE "PLMN identity" within variable SELECTED_PLMN has the value "GSM-MAP", the UE shall:

- 1> delete any NAS system information received in connected mode;
- 1> acquire the NAS system information in system information block type 1; and
- 1> proceed according to subclause 8.6.1.2.

When entering idle mode, the UE shall:

- 1> if the USIM is present, for each CN domain:
 - 2> if a new security key set was received for this CN domain but was not used either for integrity protection or ciphering during this RRC connection:
 - 3> set the START value for this domain to zero; and
 - 3> store this START value for this domain in the USIM.
 - 2> else:
 - 3> if the current "START" value, according to subclause 8.5.9 for a CN domain, is greater than or equal to the value "THRESHOLD" of the variable START THRESHOLD:
 - 4> delete the ciphering and integrity keys that are stored in the USIM for that CN domain;
 - 4> inform the deletion of these keys to upper layers.
 - 3> else:
 - 4> store the current "START" value for this CN domain on the USIM.

1> else:

- 2> if the SIM is present, for each CN domain:
 - 3> if a new security key set was received for this CN domain but was not used either for integrity protection or ciphering during this RRC connection:
 - 4> set the START value for this domain to zero; and
 - 4> store this START value for this domain in the UE
 - 3> else, the UE shall:
 - 34> if the current "START" value, according to subclause 8.5.9 for a this CN domain, is greater than or equal to the value "THRESHOLD" of the variable START_THRESHOLD:
 - 45> delete the Kc key for this CN domainthat is stored in the SIM for this CN domain;
 - 4> delete the ciphering and integrity keys that are stored in the UE for that CN domain;
 - 45> set the "START" values for both this CN domains to zero and store them it in the UE;
 - 45> inform the deletion of these keys to upper layers.
 - $\frac{34}{}$ else:
 - 45> store the current "START" value for thisevery CN domain in the UE.

8.5.x Actions when entering another RAT from connected mode

When entering another RAT from connected mode (due to Inter-RAT handover from UTRAN, Inter-RAT cell change order from UTRAN or Inter-RAT cell reselection from UTRAN), after successful completion of the procedure causing the transition to the other RAT, the UE shall:

1> if the USIM is present, for each CN domain:

- 2> if a new security key set was received for this CN domain but was not used either for integrity protection or ciphering during this RRC connection:
 - 3> set the START value for this domain to zero and;
 - 3> store this START value for this domain in the USIM;
- 2> else
 - 3> store the current START value for every CN domain in the USIM [50];
- 1> if the SIM is present, for each CN domain:
 - 2> if a new security key was received for this CN domain but was not used either for integrity protection or ciphering during this RRC connection:
 - 3> set the START value for this domain to zero and;
 - 3> store this START value for this domain in the USIM;
 - <u>2> else</u>
 - 3> store the current START value for this CN domain in the UE;

3GPP TSG-RAN WG2 Meeting #34 Sophia Antipolis, France, 17-21 February 2003

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			(CHANGE	ERE	ΞQ	UE	ST				CR-Form-v7
*		25.331	CR	1855	жre	ev	-	\mathfrak{H}	Current vers	ion:	5.3.0	*
For <u>HELP</u> on				_							-	
Proposed chang	e a	offects:	JICC a	ıppsЖ <mark></mark>	M	E <mark>X</mark>	Rad	lio A	ccess Networ	k	Core Ne	twork
Title:	\mathfrak{H}	Update of	f Start	values in USIN	M on i	inter-	RAT	tran	sitions and tra	ansitic	ons to idle	mode
Source:	\mathbb{H}	TSG-RAN	WG2									
Work item code:	\mathbb{H}	TEI							Date: ₩	07/0	02/2003	
Category:	#	F (cor. A (cor. B (add C (fun. D (edi	rection) respond dition of ctional torial m olanatio	ds to a correction feature), modification of a odification of the source of the shower t	on in a	e)		elease	Release: 光 Use <u>one</u> of 2 e) R96 R97 R98 R99 Rel-4 Rel-5 Rel-6	the fol (GSM (Relea (Relea (Relea (Relea (Relea (Relea	llowing rele I Phase 2) ase 1996) ase 1997) ase 1998) ase 1999) ase 4)	eases:

Reason for change: # 1.

- The current specification requires that in case of HANDOVER FROM UTRAN, the UE shall delete the security keys in case START has reached the value THRESHOLD. This will however, lead to no key being available on transitioning to GSM and loss of ciphering capability in GSM until Authentication is performed by the network.
- 2. In the case where new keys are received but not activated with a Security Mode Command message, the specifications provides actions for the UE on the appropriate value of START to be stored in the USIM only in the case where the UE transitions to idle mode. Actions are missing in the case the UE moves to another RAT via a Handover from UTRAN, Inter-RAT cell selection and Inter-RAT cell change order.
- 3. In the case of moving to idle mode, the actions in case new keys are received but not used, are missing.
- 4. It is not clear, that in case SIM is used, when transitioning to idle mode, the actions need to be performed on a per CN domain basis.

Summary of change: ₩

1, 2. The text related to START value storage in the USIM on HANDOVER to GSM is deleted and moved to a new section that applies for all cases where the UE is in connected mode and moves to another RAT. The new text does not include the action of deleting keys if the START value has reached THRESHOLD.

Actions similar to those in subclause 8.5.2 (actions on entering idle mode) are now added for the cases – Handover from UTRAN, Inter-RAT cell Reselection,

Inter-RAT cell change order.

- 3. Actions are added in case new keys are received but not used, when transitioning to idle, when SIM is present.
- 4. It is clarified that the actions in case SIM is present are to be perfoirmed are on per CN domain basis when transitioning to idle.

Isolated Impact Analysis

Functionality corrected: Security, storage of START in USIM

Inter op Issues: The CR has impact on UE impact only. Ciphering capability wold be lost in GSM in the case where the START value as reached THRESHOLD while in UTRAN prior to HANDOVER FROM UTRAN. In the case of Inter-RAT procedures, iff a UE does not implement this CR, the lifetime of the new keys would be shortened. In the case where the START value has reached threshold, anythe newly received and un-used keys would be made unusable the next time around, requiring another Authentication from the network.

Consequences if not approved:

If a UE does not implement the change related to #1 no ciphering key would be available in the case where the START value has reached threshold, until Authentication is performed in GSM, leading to loss of ciphering capability.

If a UE does not implement this CR, the lifetime of the new keys would be shortened. For Inter-RAT cell reslection from UTRAN and Inter-RAT cell change order from UTRAN, requirements for writing the latest START value are missing thus causing an incorrect value to be stored in the USIM (THRESHOLD) potentially triggering premature Authentication.

Clauses affected:	第 8.3.7.4, 8.5.x(new); 8.5.2
Other specs affected:	Y N X Other core specifications
Other comments:	lpha

How to create CRs using this form:

- 1) Fill out the above form. The symbols above marked # contain pop-up help information about the field that they are closest to.
- 2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

8.3.7.4 Successful completion of the inter-RAT handover

Upon successfully completing the handover, UTRAN should:

- 1> release the radio connection; and
- 1> remove all context information for the concerned UE.

Upon successfully completing the handover, the UE shall:

- 1> if the USIM is present:
 - 2> store the current START value for every CN domain in the USIM [50];
 - 2> if the "START" stored in the USIM [50] for a CN domain is greater than or equal to the value "THRESHOLD" of the variable START_THRESHOLD:
 - 3> delete the ciphering and integrity keys that are stored in the USIM for that CN domain;
 - 3> inform the deletion of these keys to upper layers.
- 1> if the SIM is present:
 - 2> store the current START value for every CN domain in the UE;
 - 2> if the "START" stored in the UE for a CN domain is greater than or equal to the value "THRESHOLD" of the variable START_THRESHOLD:
 - 3> delete the ciphering and integrity keys that are stored in the SIM for that CN domain;
 - 3> inform the deletion of these keys to upper layers.
- 1> if there are any NAS messages with the IE "CN domain identity" set to "CS domain" for which the successful delivery of the INITIAL DIRECT TRANSFER message or UPLINK DIRECT TRANSFER message on signalling radio bearer RB3 or signalling radio bearer RB4 that have not yet been confirmed by RLC:
 - 2> retransmit those NAS messages to the network on the newly established radio connection to the target radio access technology.
- 1> clear or set variables upon leaving UTRA RRC connected mode as specified in subclause 13.4.

NOTE: The release of the UMTS radio resources is initiated from the target RAT.

8.5.2 Actions when entering idle mode from connected mode

When entering idle mode from connected mode, the UE shall:

- 1> clear or set variables upon leaving UTRA RRC connected mode as specified in subclause 13.4;
- 1> attempt to select a suitable cell to camp on.

When leaving connected mode according to [4], the UE shall:

1> perform cell selection.

While camping on a cell, the UE shall:

- 1> acquire system information according to the system information procedure in subclause 8.1;
- 1> perform measurements according to the measurement control procedure specified in subclause 8.4; and
- 1> if the UE is registered:
 - 2> be prepared to receive paging messages according to the paging procedure in subclause 8.2.

If IE "PLMN identity" within variable SELECTED_PLMN has the value "GSM-MAP", the UE shall:

- 1> delete any NAS system information received in connected mode;
- 1> acquire the NAS system information in system information block type 1; and
- 1> proceed according to subclause 8.6.1.2.

When entering idle mode, the UE shall:

- 1> if the USIM is present, for each CN domain:
 - 2> if a new security key set was received for this CN domain but was not used either for integrity protection or ciphering during this RRC connection:
 - 3> set the START value for this domain to zero; and
 - 3> store this START value for this domain in the USIM.
 - 2> else:
 - 3> if the current "START" value, according to subclause 8.5.9 for a CN domain, is greater than or equal to the value "THRESHOLD" of the variable START THRESHOLD:
 - 4> delete the ciphering and integrity keys that are stored in the USIM for that CN domain;
 - 4> inform the deletion of these keys to upper layers.
 - 3> else:
 - 4> store the current "START" value for this CN domain on the USIM.

1> else:

- 2> if the SIM is present, for each CN domain:
 - 3> if a new security key set was received for this CN domain but was not used either for integrity protection or ciphering during this RRC connection:
 - 4> set the START value for this domain to zero; and
 - 4> store this START value for this domain in the UE
 - 3> else, the UE shall:
 - 34> if the current "START" value, according to subclause 8.5.9 for a-this CN domain, is greater than or equal to the value "THRESHOLD" of the variable START_THRESHOLD:
 - 45> delete the Kc key for this CN domainthat is stored in the SIM for this CN domain;
 - 4> delete the ciphering and integrity keys that are stored in the UE for that CN domain;
 - 45> set the "START" values for both this CN domains to zero and store them it in the UE;
 - 45> inform the deletion of these keys to upper layers.
 - **34**> else:
 - 45> store the current "START" value for thisevery CN domain in the UE.

8.5.x Actions when entering another RAT from connected mode

When entering another RAT from connected mode (due to Inter-RAT handover from UTRAN, Inter-RAT cell change order from UTRAN or Inter-RAT cell reselection from UTRAN), after successful completion of the procedure causing the transition to the other RAT, the UE shall:

1> if the USIM is present, for each CN domain:

- 2> if a new security key set was received for this CN domain but was not used either for integrity protection or ciphering during this RRC connection:
 - 3> set the START value for this domain to zero and;
 - 3> store this START value for this domain in the USIM;
- 2> else
 - 3> store the current START value for every CN domain in the USIM [50];
- 1> if the SIM is present, for each CN domain:
 - 2> if a new security key was received for this CN domain but was not used either for integrity protection or ciphering during this RRC connection:
 - 3> set the START value for this domain to zero and;
 - 3> store this START value for this domain in the USIM;
 - <u>2> else</u>
 - 3> store the current START value for this CN domain in the UE;:

	CHANGE REQUEST
3 25	5.331 CR 1881 # rev 1 # Current version: 3.13.0 #
For <u>HELP</u> on using	this form, see bottom of this page or look at the pop-up text over the \ symbols.
Proposed change affec	cts: UICC apps第 ME X Radio Access Network Core Network
Title:	AS and Integrity procedure interaction
Source: # TS	SG-RAN WG2
Work item code:	El Date: ## 4 March 2003
Deta	before receiving the L2 ACK of the SECURITY MODE COMPLETE message. This causes the NAS to ignore the DL message on SRB3 leading to a dropped call.
Summary of change.	when the SECURITY MODE COMPLETE message is delivered to the lower layers. Isolated Impact Change Analysis. This change clarifies the integrity protection procedure. There are no interoperability impacts if the UE implements or does not implement this CR.
Consequences if # mot approved:	Some connections may be lost.
Clauses affected: #	8.1.12.3
Other specs # affected:	Y N X Other core specifications X Test specifications O&M Specifications
Other comments: #	e e e e e e e e e e e e e e e e e e e

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- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

[...]

8.1.12.3 Reception of SECURITY MODE COMMAND message by the UE

Upon reception of the SECURITY MODE COMMAND message, the UE shall:

- 1> if neither IE "Ciphering mode info" nor IE "Integrity protection mode info" is included in the SECURITY MODE COMMAND:
 - 2> set the variable INVALID_CONFIGURATION to TRUE.
- 1> if the IE "Security capability" is the same as indicated by variable UE_CAPABILITY_TRANSFERRED, and the IE "GSM security capability" (if included in the SECURITY MODE COMMAND) is the same as indicated by the variable UE_CAPABILITY_TRANSFERRED:
 - 2> set the variable LATEST_CONFIGURED_CN_DOMAIN equal to the IE "CN domain identity";
 - 2> set the IE "Status" in the variable SECURITY_MODIFICATION for the CN domain indicated in the IE "CN domain identity" in the received SECURITY MODE COMMAND to the value "Affected";
 - 2> set the IE "Status" in the variable SECURITY_MODIFICATION for all CN domains other than the CN domain indicated in the IE "CN domain identity" to "Not affected";
 - 2> set the IE "RRC transaction identifier" in the SECURITY MODE COMPLETE message to the value of "RRC transaction identifier" in the entry for the SECURITY MODE COMMAND message in the table "Accepted transactions" in the variable TRANSACTIONS; and
 - 2> clear that entry;
 - 2> if the SECURITY MODE COMMAND message contained the IE "Ciphering mode info":
 - 3> perform the actions as specified in subclause 8.6.3.4.
 - 2> if the SECURITY MODE COMMAND message contained the IE "Integrity protection mode info":
 - 3> perform the actions as specified in subclause 8.6.3.5.
- 1> prior to sending the SECURITY MODE COMPLETE message:
 - 2> use the old ciphering configuration for this message;
 - 2> if the SECURITY MODE COMMAND message contained the IE "Ciphering mode info":
 - 3> include and set the IE "Radio bearer uplink ciphering activation time info" to the value of the variable RB_UPLINK_CIPHERING_ACTIVATION_TIME_INFO;
 - 3> for each radio bearer and signalling radio bearer that belongs to the CN domain as indicated in the variable LATEST_CONFIGURED_CN_DOMAIN:
 - 4> start or continue incrementing the COUNT-C values for all RLC-AM and RLC-UM signalling radio bearers at the ciphering activation time as specified in the procedure;
 - 4> start or continue incrementing the COUNT-C values common for all transparent mode radio bearers for this CN domain at the ciphering activation time as specified in the procedure;
 - 4> continue incrementing the COUNT-C values for all RLC-AM and RLC-UM radio bearers.
 - 3> if no new security key set (new ciphering and integrity protection keys) has been received from the upper layers [40] for the CN domain as indicated in the variable LATEST_CONFIGURED_CN_DOMAIN:
 - 4> for ciphering on signalling radio bearers using RLC-AM and RLC-UM in the downlink, at the RLC sequence number indicated in IE "Radio bearer downlink ciphering activation time info" in the IE "Ciphering mode info" included in the SECURITY MODE COMMAND, for each signalling radio bearer:

- 5> set the 20 most significant bits of the HFN component of the downlink COUNT-C to the value "START" in the most recently transmitted IE "START list" or IE "START", at the reception of the SECURITY MODE COMMAND, that belongs to the CN domain as indicated in the variable LATEST_CONFIGURED_CN_DOMAIN;
- 5> set the remaining bits of the hyper frame numbers to zero.
- 3> if new keys have been received:
 - 4> perform the actions in subclause 8.1.12.3.1.
- 2> if the SECURITY MODE COMMAND message contained the IE "Integrity protection mode info":
 - 3> include and set the IE "Uplink integrity protection activation info" to the value of the variable INTEGRITY_PROTECTION_ACTIVATION_INFO for each signalling radio bearer;
 - 3> if no new security key set (new ciphering and integrity protection keys) has been received from the upper layers [40] for the CN domain as indicated in the variable LATEST_CONFIGURED_CN_DOMAIN, for RB2:
 - 4> in the downlink, for the received SECURITY MODE COMMAND message:
 - 5> set the 20 most significant bits of the IE "Downlink RRC HFN" in the variable INTEGRITY_PROTECTION_INFO of the downlink COUNT-I to the value "START" in the most recently transmitted IE "START list" or IE "START", at the reception of the SECURITY MODE COMMAND, that belongs to the CN domain as indicated in the variable LATEST_CONFIGURED_CN_DOMAIN;
 - 5> set the remaining bits of the IE "Downlink RRC HFN" to zero.
 - 4> in the uplink, for the transmitted response message, SECURITY MODE COMPLETE:
 - 5> set the 20 most significant bits of the IE "Uplink RRC HFN" in the variable INTEGRITY_PROTECTION_INFO of the uplink COUNT-I to the value "START" in the most recently transmitted IE "START list" or IE "START", at the reception of the SECURITY MODE COMMAND, that belongs to the CN domain as indicated in the variable LATEST_CONFIGURED_CN_DOMAIN;
 - 5> set the remaining bits of the IE "Uplink RRC HFN" to zero.
 - 3> if no new security key set (new ciphering and integrity protection keys) has been received from the upper layers [40] for the CN domain indicated in the variable LATEST_CONFIGURED_CN_DOMAIN, for each signalling radio bearer other than RB2:
 - 4> if the IE "Integrity protection mode command" has the value "start":
 - 5> in the downlink, for this signalling radio bearer:
 - 6> set the 20 most significant bits of IE "Downlink RRC HFN" in the variable INTEGRITY_PROTECTION_INFO of the downlink COUNT-I to the value START transmitted in the most recently transmitted IE "START list" or IE "START", at the reception of the SECURITY MODE COMMAND, that belongs to the CN domain as indicated in the variable LATEST_CONFIGURED_CN_DOMAIN;
 - 6> set the remaining bits of the IE "Downlink RRC HFN" in the variable INTEGRITY_PROTECTION_INFO of the downlink COUNT-I to zero;

4> else:

- 5> in the downlink, for the first message for which the RRC sequence number in a received RRC message for this signalling radio bearer is equal to or greater than the activation time as indicated in IE "Downlink integrity protection activation info" as included in the IE "Integrity protection mode info", for this signalling radio bearer:
 - 6> set the 20 most significant bits of the IE "Downlink RRC HFN" in the variable INTEGRITY_PROTECTION_INFO of the downlink COUNT-I to the value "START" in the

most recently transmitted IE "START list" or IE "START", at the reception of the SECURITY MODE COMMAND, that belongs to the CN domain as indicated in the variable LATEST_CONFIGURED_CN_DOMAIN;

- 6> set the remaining bits of the IE "Downlink RRC HFN" to zero.
- 3> if new keys have been received:
 - 4> perform the actions in subclause 8.1.12.3.1.
- 2> start applying the new integrity protection configuration in the uplink for signalling radio bearer RB2 from and including the transmitted SECURITY MODE COMPLETE message;
- 2> transmit the SECURITY MODE COMPLETE message on the uplink DCCH in AM RLC;
- NOTE: After submission of the SECURITY MODE COMPLETE message to the lower layers, the UE should accept messages received in the DL which require the new security configuration to be applied on them. If the received message is successfully integrity checked, the UE should not discard the message due to lack of completion of the security procedure, caused by the successful delivery of the SECURITY MODE COMPLETE not having yet been confirmed by lower layers, unless the security configuration to be applied has been aborted and the message received requires integrity protection [5].
- 1> when the successful delivery of the SECURITY MODE COMPLETE message has been confirmed by RLC:
 - 2> if the SECURITY MODE COMMAND message contained the IE "Ciphering mode info":
 - 3> if no new security key set (new ciphering and integrity protection keys) has been received from the upper layers [40] for the CN domain as indicated in the variable LATEST_CONFIGURED_CN_DOMAIN:
 - 4> for ciphering on signalling radio bearers using RLC-AM and RLC-UM in the uplink, at the RLC sequence number indicated in IE "Radio bearer uplink ciphering activation time info" included in the SECURITY MODE COMPLETE, for each signalling radio bearer:
 - 5> set the HFN component of the uplink COUNT-C to the value "START" in the most recently transmitted IE "START list" or IE "START", at the reception of the SECURITY MODE COMMAND, that belongs to the CN domain as indicated in the variable LATEST_CONFIGURED_CN_DOMAIN;
 - 5> set the remaining bits of the hyper frame numbers to zero.
 - 3> if new keys have been received:
 - 4> perform the actions in subclause 8.1.12.3.1.
 - 3> resume data transmission on any suspended radio bearer and signalling radio bearer mapped on RLC-AM or RLC-UM:
 - 3> set the IE "Reconfiguration" in the variable CIPHERING_STATUS to FALSE; and
 - 3> clear the variable RB_UPLINK_CIPHERING_ACTIVATION_TIME_INFO.
 - 2> if the SECURITY MODE COMMAND message contained the IE "Integrity protection mode info":
 - 3> if no new security key set (new ciphering and integrity protection keys) has been received from the upper layers [40] for the CN domain indicated in the variable LATEST_CONFIGURED_CN_DOMAIN, for each signalling radio bearer other than RB2:
 - 4> if the IE "Integrity protection mode command" has the value "start":
 - 5> in the uplink, for this signalling radio bearer:
 - 6> set the 20 most significant bits of IE "Uplink RRC HFN" in the variable INTEGRITY_PROTECTION_INFO of the uplink COUNT-I to the value START transmitted in the most recently transmitted IE "START list" or IE "START", at the reception of the SECURITY MODE COMMAND, that belongs to the CN domain as indicated in the variable LATEST_CONFIGURED_CN_DOMAIN;

6> set the remaining bits of the IE "Uplink RRC HFN" in the variable INTEGRITY_PROTECTION_INFO of the uplink COUNT-I to zero.

4> else:

- 5> in the uplink, for the first transmitted RRC message for this signalling radio bearer with RRC sequence number equal to the activation time as indicated in IE "Uplink integrity protection activation info" included in the transmitted SECURITY MODE COMPLETE, for this signalling radio bearer:
 - 6> set the 20 most significant bits of the IE "Uplink RRC HFN" in the variable INTEGRITY_PROTECTION_INFO of the uplink COUNT-I to the value "START" in the most recently transmitted IE "START list" or IE "START", at the reception of the SECURITY MODE COMMAND, that belongs to the CN domain as indicated in the variable LATEST_CONFIGURED_CN_DOMAIN;
 - 6> set the remaining bits of the IE "Uplink RRC HFN" to zero.
- 3> if new keys have been received:
 - 4> perform the actions in subclause 8.1.12.3.1.
- 3> allow the transmission of RRC messages on all signalling radio bearers with any RRC SN;
- 3> set "Uplink RRC Message sequence number" for signalling radio bearer RB0 in the variable INTEGRITY_PROTECTION_INFO to a value such that next RRC message to be sent on uplink RB0 will use the new integrity protection configuration;
- 3> set the IE "Reconfiguration" in the variable INTEGRITY_PROTECTION_INFO to FALSE; and
- 3> clear the variable INTEGRITY_PROTECTION_ACTIVATION_INFO.
- 2> clear the variable SECURITY_MODIFICATION;
- 2> notify upper layers upon change of the security configuration;
- 2> and the procedure ends.
- 1> if the IE "Security capability" is not the same as indicated by the variable UE_CAPABILITY_TRANSFERRED, or the IE "GSM security capability" (if included in the SECURITY MODE COMMAND) is not the same as indicated by the variable UE_CAPABILITY_TRANSFERRED, or if the IE "GSM security capability" is not included in the SECURITY MODE COMMAND and is included in the variable UE_CAPABILITY_TRANSFERRED:
 - 2> release all its radio resources;
 - 2> indicate the release of the established signalling connections (as stored in the variable ESTABLISHED_SIGNALLING_CONNECTIONS) and established radio access bearers (as stored in the variable ESTABLISHED_RABS) to upper layers;
 - 2> clear the variable ESTABLISHED SIGNALLING CONNECTIONS;
 - 2> clear the variable ESTABLISHED RABS;
 - 2> clear the variable SECURITY_MODIFICATION;
 - 2> enter idle mode;
 - 2> perform actions when entering idle mode as specified in subclause 8.5.2;
 - 2> and the procedure ends.

[...]

3GPP TSG-RAN WG2 Meeting #34 Sophia Antipolis, France, 17-21 February 2003

CHANGE REQUEST								
×	25.331 C	R 1882	⊭rev	- #	Current version:	3.13.0 #		
For <u>HELP</u> on using this form, see bottom of this page or look at the pop-up text over the % symbols.								

ME X Radio Access Network X Core Network Proposed change affects:

Title:	\mathbb{H}	Correction to Inter-RAT Measurement Report		
Source:	\mathbb{H}	TSG-RAN WG2		
Work item code	:₩	TEI	Date: ₩	10/02/2003
Category:	\mathbb{H}	F	Release: ₩	R99
		Use one of the following categories:	Use one of	the following releases:
		F (correction)	2	(GSM Phase 2)
		A (corresponds to a correction in an earlier release) R96	(Release 1996)
		B (addition of feature),	R97	(Release 1997)
		C (functional modification of feature)	R98	(Release 1998)
		D (editorial modification)	R99	(Release 1999)
		Detailed explanations of the above categories can	Rel-4	(Release 4)
		be found in 3GPP <u>TR 21.900</u> .	Rel-5	(Release 5)
			Rel-6	(Release 6)

Reason for change: # The UTRAN can set the IE 'BSIC verification' for an inter-RAT measurement to either 'required' or 'not required'. In the IE 'inter-RAT measured results' the UE has a choice between reporting a cell as 'verified' in which case the cell id is signalled, or reporting the cell as 'not verified' in which case the ARFCN is signalled. However, the specification does not currently state all the conditions under which the UE should report the cell as 'verified' or 'not-verified'. Section 14.3.1.x states the measured results should be set according to section 8.4.2 but this section is very general and does not give details on setting individual IEs.

> If the UTRAN has set the IE 'BSIC verification' to 'required', then section 8.6.7.5 does state that for periodical reporting the UE is permitted to report cells that are either 'verified' or 'non verified' in the IE 'inter-RAT measured results'. However, for the case of event triggered reporting the specification does not clearly state how the UE should signal the cells in the measured results.

Furthermore, if the UTRAN has set the IE 'BSIC verification' to 'not required', but the UE has been able to verify the BSIC then it is not clear if the UE is permitted to report these cells as 'verified'.

Note the for event triggered reporting, it is very clearly stated which cells are permitted to trigger events and how the UE should set contents of the IE 'inter-RAT event results'.

Summary of change:

It is proposed that when the IE 'BSIC verification' is set to 'required' then the UE only reports BSIC verified cells in the IE 'inter-RAT measured results'. This applies for both for periodic and event triggered reporting. However, due to the

late addition of this requirement, the behaviour is not mandated in the current release, but will be mandated in subsequent releases. This is added to section 8.6.7.5

When the IE 'BSIC verification' is set to 'not required' then the UE is permitted to report cells as BSIC verified if it has been able to verify the BSIC of the cell. This is added to section 8.6.7.5.

The references in section 14.3.1.x are updated to also reference 8.6.7.5 where the setting of 'inter RAT measured results' is now described.

Isolated Impact Analysis

Functionality corrected: Inter RAT Measurements

Isolated impact statement: Correction to a function where specification was not sufficiently explicit. Would not affect implementations behaving like indicated in the CR, would affect implementations supporting the corrected functionality otherwise.

Consequences if not approved:

If the CR is not approved it will not be clear from the spec how the UE is intended to report cells in the 'inter-RAT measured results'. If the UE sends a cell as 'verified' with a cell id when the UTRAN is expecting cells to be reported as 'non verified' with an ARFCN (or vice versa) then the UTRAN could fail to interpret the measurement report correctly thus preventing an inter-RAT handover from taking place.

Clauses affected:	第 8.6.7.5, 14.3.1.1, 14.3.1.2, 14.3.1.3, 14.3.1.4
Other specs affected:	Y N X Other core specifications Test specifications O&M Specifications
Other comments:	x

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at http://www.3gpp.org/specs/CR.htm. Below is a brief summary:

- 2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

8.6.7.5 Inter-RAT measurement quantity

If the IE "Inter-RAT measurement quantity" is received in a MEASUREMENT CONTROL message and CHOICE system is GSM, the UE shall:

- 1> if IE "BSIC verification required" is set to "required", for cells that match any of the BCCH ARFCN and BSIC combinations in the list of inter-RAT cells that the UE has received in IE "Inter-RAT cell info list", and that has a "verified" BSIC:
 - 2> report measurement quantities according to IE "inter-RAT reporting quantity" taking into account the restrictions defined in subclause 8.6.7.6;
 - 2> trigger inter-RAT events according to IE "inter-RAT measurement reporting criteria"; and
 - 2> perform event evaluation for event-triggered reporting after BSIC has been verified for a GSM cell as defined in [19]; and
 - 2> trigger periodical reports according to the given "Reporting interval" even if the BSIC of GSM cell has not been verified; and
 - 2> when a periodical measurement report is triggered the UE may include non BSIC verified GSM cells in the IE "Inter-RAT measured results list"; and
 - indicate non-verified BSIC for a GSM cell in the <u>IE</u> "Inter-RAT measured results list" as defined in subclause 8.6.7.6.
 - 2> when a periodical measurement report is triggered the UE shall include BSIC verified GSM cells in the IE "Inter-RAT measured results list"; and
 - 3> indicate verified BSIC for a GSM cell in the IE "Inter-RAT measured results list" as defined in subclause 8.6.7.6.
 - 2> when an event triggered measurement report is triggered:
 - 3> the UE should include only BSIC verified GSM cells in the IE "Inter-RAT measured results list"; and
 - 4> indicate verified BSIC for a GSM cell in the IE "Inter-RAT measured results list" as defined in subclause 8.6.7.6.
 - 3> if the GSM cell that triggered the measurement report in included in the IE "Inter-RAT measured results list" the UE shall indicate verified BSIC for this GSM cell as defined in subclause 8.6.7.6.
- 1> if IE "BSIC verification required" is set to "not required", for cells that match any of the BCCH ARFCN in the list of inter-RAT cells that the UE has received in IE "Inter-RAT cell info list", regardless if the BSIC is "verified" or "non-verified":
 - 2> report measurement quantities according to IE "inter-RAT reporting quantity";
 - 2> trigger inter-RAT events according to IE "inter-RAT measurement reporting criteria" -:
 - 2> when an event triggered or periodical measurement report is triggered include GSM cells in the IE "Inter-RAT measured results list" regardless of whether the BSIC of the GSM cell has been verified or not; and
 - 3> for any GSM cell that has not been verified, indicate non-verified BSIC for a GSM cell in the "Inter-RAT measured results list" IE as defined in subclause 8.6.7.6.
 - 3> for any GSM cell that has been verified, indicate verified BSIC for a GSM cell in the "Inter-RAT measured results list" IE as defined in subclause 8.6.7.6.
- 1> if the IE "Measurement quantity" is set to "pathloss":
 - 2> set the variable CONFIGURATION_INCOMPLETE to TRUE.
- NOTE: The requirements for a cell to be considered "verified" or "non-verified" can be found in [19].

8.6.7.6 Inter-RAT reporting quantity

If the IE "Inter-RAT reporting quantity" is received by the UE, the UE shall:

1> store the content of the IE to the variable MEASUREMENT_IDENTITY.

If the IE "Inter-RAT measurement quantity" is received and CHOICE system is GSM, the UE shall check each quantity in the GSM choice. The UE shall include measured results in MEASUREMENT REPORT as specified in the IE "Inter-RAT reporting quantity" with the following restrictions:

- 1> if the UE has not confirmed the BSIC of the measured cell:
 - 2> if no compressed mode pattern sequence specified with measurement purpose "Initial BSIC identification" is active and according to its capabilities the UE requires compressed mode to measure this, the UE is not required to include the "inter-RAT cell id" nor "Observed time difference to GSM cell" in the IE "Inter-RAT measured results list", when a MEASUREMENT REPORT is triggered.
- 1> if the UE has confirmed the BSIC of the measured cell, then:
 - 2> if no compressed mode pattern sequence specified with measurement purpose "Initial BSIC identification" nor "BSIC re-confirmation" is active and according to its capabilities the UE requires compressed mode to measure this, the UE is not required to include the "inter-RAT cell id" nor "Observed time difference to GSM cell" in the IE "Inter-RAT measured results", when a MEASUREMENT REPORT is triggered. If no compressed mode pattern sequence with measurement purpose "GSM carrier RSSI measurements" is active and according to its capabilities the UE requires compressed mode to measure this, the UE may include "inter-RAT cell id" or "Observed time difference to GSM cell" in MEASUMENT REPORT without "GSM carrier RSSI" even if it is defined in the IE "Inter-RAT reporting quantity".
- 1> if the IE "UTRAN estimated quality" is set to "TRUE":
 - 2> ignore that IE.
- 1> if IE "Observed time difference to GSM cell Reporting indicator " is set to "TRUE":
 - 2> include optional IE "Observed time difference to GSM cell" with the value set to the time difference to that GSM cell for the GSM cells that have a BSIC that is "verified", and that match any of the BCCH ARFCN and BSIC combinations in the list of inter-RAT cells that the UE has received in IE "Inter-RAT cell info list". Observed time difference to GSM cells with "non-verified" BSIC shall not be included.
- 1> if IE "GSM Carrier RSSI" is set to "TRUE":
 - 2> include optional IE "GSM Carrier RSSI" with a value set to the measured RXLEV to that GSM cell in IE "Inter-RAT measured results list". If no compressed mode pattern sequence specified with measurement purpose "GSM carrier RSSI measurements" is active and according to its capabilities the UE requires compressed mode to measure this, the UE is not required to include the "GSM carrier RSSI" in the IE " Inter-RAT measured results list ", when a MEASUREMENT REPORT is triggered.
- 1> if the BSIC of reported GSM cell is "verified":
 - 2> set the CHOICE BSIC to "Verified BSIC" and IE "inter-RAT cell id" to the value that GSM cell had in the IE "Inter-RAT cell info list".
- 1> if the BSIC of reported GSM cell is "non-verified":
 - 2> set the CHOICE BSIC to "Non verified BSIC" and the IE "BCCH ARFCN" to the value of that GSM cells ARFCN.

The requirements for a cell to be considered "verified" or "non-verified" can be found in [19].

14.3.1.1 Event 3a: The estimated quality of the currently used UTRAN frequency is below a certain threshold **and** the estimated quality of the other system is above a certain threshold.

When an inter-RAT measurement configuring event 3a is set up, the UE shall:

- 1> create a variable TRIGGERED_3A_EVENT related to that measurement, which shall initially be empty;
- 1> delete this variable when the measurement is released.

When event 3a is configured in the UE within a measurement, the UE shall:

- 1> if the other RAT is GSM, and if IE "BSIC verification required" is set to "required":
 - 2> if equations 1 and 2 below have both been fulfilled for a time period indicated by "Time to trigger" from the same instant, respectively for the used UTRAN frequency and for one or several GSM cells that match any of the BCCH ARFCN and BSIC combinations considered in that inter-RAT measurement:
 - 3> if the Inter-RAT cell id of any of those GSM cells is not stored in the variable TRIGGERED_3A_EVENT:
 - 4> store the Inter-RAT cell ids of the GSM cells that triggered the event and that were not previously stored in the variable TRIGGERED_3A_EVENT into that variable.
 - 4> send a measurement report with IEs set as below:
 - 5> in "inter-RAT measurement event result": "inter-RAT event identity" to "3a", "CHOICE BSIC" to "verified BSIC" and "Inter-RAT cell id" to the GSM cells that triggered the event (best one first), taking into account the cell individual offset of the GSM cells;
 - 5> "measured results" and possible "additional measured results" according to <u>8.6.7.5 and</u> 8.4.2 respectively, not taking into account the cell individual offset.
 - 2> if equation 4 is fulfilled for a GSM cell whose inter-RAT cell id is stored in the variable TRIGGERED_3A_EVENT:
 - 3> remove the inter-RAT cell id of that GSM cell from the variable TRIGGERED_3A_EVENT.
 - 2> if equation 3 is fulfilled for the used frequency in UTRAN:
 - 3> clear the variable TRIGGERED_3A_EVENT.
- 1> if the other RAT is GSM, and if IE "BSIC verification required" is set to "not required":
 - 2> if equations 1 and 2 below have been fulfilled for a time period indicated by "Time to trigger" from the same instant, respectively for the used UTRAN frequency and for one or several BCCH ARFCNs considered in that inter-RAT measurement:
 - 3> if any of those BCCH ARFCNs is not stored into the variable TRIGGERED_3A_EVENT:
 - 4> store the BCCH ARFCNs that triggered the event and that were not previously stored in the variable TRIGGERED_3A_EVENT into that variable;
 - 4> send a measurement report with IEs set as below:
 - 5> in "inter-RAT measurement event result": "inter-RAT event identity" to "3a", "CHOICE BSIC" to "non verified BSIC" and "BCCH ARFCN" to BCCH ARFCNs that triggered the event (best one first), taking into account the cell individual offset of the GSM cells;
 - 5> "measured results" and possible "additional measured results" according to <u>8.6.7.5 and</u> 8.4.2 <u>respectively</u>, not taking into account the cell individual offset.
 - 2> if equation 4 is fulfilled for a BCCH ARFCN that is stored in the variable TRIGGERED_3A_EVENT:
 - 3> remove that BCCH ARFCN from the variable TRIGGERED_3A_EVENT.

2> if equation 3 is fulfilled for the used frequency in UTRAN:

3> clear the variable TRIGGERED_3A_EVENT.

Triggering conditions:

Equation 1:

$$Q_{Used} \leq T_{Used} - H_{3a}/2$$

The variables in the formula are defined as follows:

 Q_{Used} is the quality estimate of the used UTRAN frequency.

 T_{Used} is the absolute threshold that applies for the used frequency in that measurement.

 H_{3a} is the hysteresis parameter for event 3a.

Equation 2:

$$M_{OtherRAT} + CIQ_{theRAT} \ge T_{OtherRAT} + H_{3a}/2$$

The variables in the formula are defined as follows:

 $M_{Other\,RAT}$ is the measurement quantity for the cell of the other system.

 $CIO_{Other\ RAT}$ is the cell individual offset for the cell of the other system.

 $T_{Other\,RAT}$ is the absolute threshold that applies for the other system in that measurement.

 H_{3a} is the hysteresis parameter for event 3a.

Leaving triggered state conditions:

Equation 3:

$$Q_{Ised} > T_{IIsed} + H_{3d}/2$$

The variables in the formula are defined as follows:

 Q_{Used} is the quality estimate of the used UTRAN frequency.

 T_{Used} is the absolute threshold that applies for the used frequency in that measurement.

 H_{3a} is the hysteresis parameter for event 3a.

Equation 4:

$$M_{OtherRAT} + CIQ_{theRAT} < T_{OtherRAT} - H_{3a}/2$$

The variables in the formula are defined as follows:

 $M_{Other\ RAT}$ is the measurement quantity for the cell of the other system. $M_{Other\ RAT}$ is expressed in dBm.

 $CIO_{Other\,RAT}$ is the cell individual offset for the cell of the other system.

 $T_{Other\,RAT}$ is the absolute threshold that applies for the other system in that measurement.

 H_{3a} is the hysteresis parameter for event 3a.

14.3.1.2 Event 3b: The estimated quality of other system is below a certain threshold

When an inter-RAT measurement configuring event 3b is set up, the UE shall:

- 1> create a variable TRIGGERED_3B_EVENT related to that measurement, which shall initially be empty;
- 1> delete this variable when the measurement is released.

When event 3b is configured in the UE within a measurement, the UE shall:

- 1> if the other RAT is GSM, and if IE "BSIC verification required" is set to "required":
 - 2> if equation 1 below has been fulfilled for a time period indicated by "time to trigger" for one or several GSM cells that match any of the BCCH ARFCN and BSIC combinations considered in that inter-RAT measurement:
 - 3> if the inter-RAT cell id of any of those GSM cell is not stored in the variable TRIGGERED 3B EVENT:
 - 4> store the inter-RAT cell ids of the GSM cells that triggered the event and that were not previously stored in the variable TRIGGERED_3B_EVENT into that variable;
 - 4> send a measurement report with IEs set as below:
 - 5> set in "inter-RAT measurement event result": "inter-RAT event identity" to "3b", "CHOICE BSIC" to "verified BSIC" and "Inter-RAT cell id" to the GSM cells that triggered the event (worst one first), taking into account the cell individual offset of the GSM cells;
 - 5> set the IE "measured results" and the IE "additional measured results" according to <u>8.6.7.5 and</u> 8.4.2 respectively, not taking into account the cell individual offset.
 - 2> if equation 2 below is fulfilled for a GSM cell whose inter-RAT cell id is stored in the variable TRIGGERED_3B_EVENT:
 - 3> remove the inter-RAT cell id of that GSM cell from the variable TRIGGERED_3B_EVENT.
- 1> if the other RAT is GSM, and if IE "BSIC verification required" is set to "not required":
 - 2> if equation 1 below has been fulfilled for a time period indicated by "time to trigger" for one or several of the BCCH ARFCNs considered in that inter-RAT measurement:
 - 3> if any of those BCCH ARFCN is not stored into the variable TRIGGERED_3B_EVENT:
 - 4> store the BCCH ARFCNs that triggered the event and that were not previously stored in the variable TRIGGERED_3B_EVENT into that variable;
 - 4> send a measurement report with IEs set as below:
 - 5> set in "inter-RAT measurement event result": "inter-RAT event identity" to "3b", "CHOICE BSIC" to "non verified BSIC" and "BCCH ARFCN" to BCCH ARFCNs that triggered the event (worst one first), taking into account the cell individual offset of the GSM cells;
 - 5> set the IE "measured results" and the IE "additional measured results" according to <u>8.6.7.5 and</u> 8.4.2 <u>respectively</u>, not taking into account the cell individual offset.
 - 2> if equation 2 below is fulfilled for a BCCH ARFCN that is stored in the variable TRIGGERED_3B_EVENT:
 - 3> remove that BCCH ARFCN from the variable TRIGGERED_3B_EVENT.

Triggering condition:

Equation 1:

$$M_{OtherRAT} + CIQ_{therRAT} \leq T_{OtherRAT} - H_{3b}/2$$

The variables in the formula are defined as follows:

 $M_{Other\,RAT}$ is the measurement quantity for the cell of the other system.

CIO_{Other RAT} is the cell individual offset for the cell of the other system.

 $T_{Other\ RAT}$ is the absolute threshold that applies for the other system in that measurement.

 H_{3b} is the hysteresis parameter for event 3b.

Leaving triggered state condition:

Equation 2:

$$M_{OtherRAT} + CIQ_{therRAT} > T_{OtherRAT} + H_{3b}/2$$

The variables in the formula are defined as follows:

 $M_{Other\ RAT}$ is the measurement quantity for the cell of the other system. $M_{Other\ RAT}$ is expressed in dBm.

CIO_{Other RAT} is the cell individual offset for the cell of the other system.

 $T_{Other\ RAT}$ is the absolute threshold that applies for the other system in that measurement.

 H_{3b} is the hysteresis parameter for event 3b.

14.3.1.3 Event 3c: The estimated quality of other system is above a certain threshold

When an inter-RAT measurement configuring event 3c is set up, the UE shall:

- 1> create a variable TRIGGERED 3C EVENT related to that measurement, which shall initially be empty;
- 1> delete this variable when the measurement is released.

When event 3c is configured in the UE within a measurement, the UE shall:

- 1> if the other RAT is GSM, and if IE "BSIC verification required" is set to "required":
 - 2> if equation 1 below has been fulfilled for a time period indicated by "time to trigger" for one or several GSM cells that match any of the BCCH ARFCN and BSIC combinations considered in that inter-RAT measurement:
 - 3> if the inter-RAT cell id of any of those GSM cell is not stored in the variable TRIGGERED_3C_EVENT:
 - 4> store the Inter-RAT cell ids of the GSM cells that triggered the event and that were not previously stored in the variable TRIGGERED_3C_EVENT into that variable;
 - 4> send a measurement report with IEs set as below:
 - 5> set in "inter-RAT measurement event result": "inter-RAT event identity" to "3c", "CHOICE BSIC" to "verified BSIC" and "Inter-RAT cell id" to the GSM cells that triggered the event (best one first), taking into account the cell individual offset of the GSM cells;
 - 5> set the IE "measured results" and the IE "additional measured results" according to <u>8.6.7.5 and</u> 8.4.2 <u>respectively</u>, not taking into account the cell individual offset.
 - 2> if equation 2 below is fulfilled for a GSM cell whose inter-RAT cell id is stored in the variable TRIGGERED_3C_EVENT:
 - 3> remove the inter-RAT cell id of that GSM cell from the variable TRIGGERED 3C EVENT.
- 1> if the other RAT is GSM, and if IE "BSIC verification required" is set to "not required":
 - 2> if equation 1 below has been fulfilled for a time period indicated by "time to trigger" for one or several of the BCCH ARFCNs considered in that inter-RAT measurement:
 - 3> if any of those BCCH ARFCN is not stored into the variable TRIGGERED_3C_EVENT:
 - 4> store the BCCH ARFCNs that triggered the event and that were not previously stored in the variable TRIGGERED_3C_EVENT into that variable;
 - 4> send a measurement report with IEs set as below:

- 5> set in "inter-RAT measurement event result": "inter-RAT event identity" to "3c", "CHOICE BSIC" to "non verified BSIC" and "BCCH ARFCN" to BCCH ARFCNs that triggered the event (best one first), taking into account the cell individual offset of the GSM cells;
- 5> set the IE "measured results" and the IE "additional measured results" according to <u>8.6.7.5 and</u> 8.4.2 <u>respectively</u>, not taking into account the cell individual offset.
- 2> if equation 2 is fulfilled for a BCCH ARFCN that is stored in the variable TRIGGERED_3C_EVENT:
 - 3> remove that BCCH ARFCN from the variable TRIGGERED_3C_EVENT.

Triggering condition:

Equation 1:

$$M_{OtherRAT} + CIQ_{therRAT} \ge T_{OtherRAT} + H_{\chi}/2$$

The variables in the formula are defined as follows:

 $M_{Other\ RAT}$ is the measurement quantity for the cell of the other system. $M_{Other\ RAT}$ is expressed in dBm.

CIO_{Other RAT} is the cell individual offset for the cell of the other system.

 $T_{Other\ RAT}$ is the absolute threshold that applies for the other system in that measurement.

 H_{3c} is the hysteresis parameter for event 3c.

Leaving triggered state condition:

Equation 2:

$$M_{OtherRAT} + CIQ_{therRAT} < T_{OtherRAT} - H_{3c}/2$$

The variables in the formula are defined as follows:

 $M_{Other\ RAT}$ is the measurement quantity for the cell of the other system. $M_{Other\ RAT}$ is expressed in dBm.

CIO_{Other RAT} is the cell individual offset for the cell of the other system.

 $T_{Other\,RAT}$ is the absolute threshold that applies for the other system in that measurement.

 H_{3c} is the hysteresis parameter for event 3c.

14.3.1.4 Event 3d: Change of best cell in other system

When an inter-RAT measurement configuring event 3d is set up, the UE shall:

- 1> create a variable BEST_CELL_3D_EVENT related to that measurement;
- 1> delete this variable when the measurement is released.

When event 3d is configured in the UE within a measurement, the UE shall:

- 1> if the other RAT is GSM, and if IE "BSIC verification required" is set to "required":
 - 2> when the measurement is initiated or resumed:
 - 3> store in the variable BEST_CELL_3D_EVENT the Inter-RAT cell id of the GSM cell that has the best measured quantity among the GSM cells that match any of the BCCH ARFCN and BSIC combinations considered in that inter-RAT measurement, not taking into account the cell individual offset of the GSM cells;
 - 3> send a measurement report with IE set as below:

- 4> set in "inter-RAT measurement event result": "inter-RAT event identity" to "3d", "CHOICE BSIC" to "verified BSIC" and "Inter-RAT cell id" to the GSM cell that is stored in the variable BEST_CELL_3D_EVENT;
- 4> set the IE "measured results" and the IE "additional measured results" according to subclause <u>8.6.7.5</u> and <u>8.4.2 respectively</u>, not taking into account the cell individual offset.
- 2> if equation 1 has been fulfilled for a time period indicated by "time to trigger" for a GSM cell that is different from the one stored in BEST_CELL_3D_EVENT and that matches any of the BCCH ARFCN and BSIC combinations considered in that inter-RAT measurement:
 - 3> store the Inter-RAT cell id of that GSM cell in the variable BEST CELL 3D EVENT;
 - 3> send a measurement report with IEs set as below:
 - 4> set in "inter-RAT measurement event result": "inter-RAT event identity" to "3d", "CHOICE BSIC" to "verified BSIC" and "Inter-RAT cell id" to the GSM cell is now stored in BEST_CELL_3D_EVENT;
 - 4> set the IE "measured results" and the IE "additional measured results" according to subclause <u>8.6.7.5</u> and 8.4.2 respectively, not taking into account the cell individual offset.
- 1> if the other RAT is GSM, and if IE "BSIC verification required" is set to "not required":
 - 2> when the measurement is initiated or resumed:
 - 3> store in the variable BEST_CELL_3D_EVENT the BCCH ARFCN of the GSM cell that has the best measured quantity among the BCCH ARFCNs considered in that inter-RAT measurement;
 - 3> send a measurement report with IE set as below:
 - 4> set in "inter-RAT measurement event result": "inter-RAT event identity" to "3d", "CHOICE BSIC" to "non verified BSIC" and "BCCH ARFCN" to the BCH ARFCN that is stored in the variable BEST_CELL_3D_EVENT;
 - 4> set the IE "measured results" and the IE "additional measured results" according to subclause <u>8.6.7.5</u> and 8.4.2 respectively, not taking into account the cell individual offset.
 - 2> if equation 1 below has been fulfilled for a time period indicated by "time to trigger" for one of the BCCH ARFCNs considered in that inter-RAT measurement and different from the one stored in BEST_CELL_3D_EVENT:
 - 3> store the BCCH ARFCN of that GSM cell in the variable BEST_CELL_3D_EVENT;
 - 3> send a measurement report with IEs set as below:
 - 4> set in "inter-RAT measurement event result": "inter-RAT event identity" to "3d", "CHOICE BSIC" to "non verified BSIC" and "BCCH ARFCN" to the BCCH ARFCN that is now stored in the variable BEST_CELL_3D_EVENT;
 - 4> set the IE "measured results" and the IE "additional measured results" according to subclause 8.4.2, not taking into account the cell individual offset.

Equation 1:

$$M_{Nov} \ge M_{Rost} + H_{3d}/2$$

The variables in the formula are defined as follows:

 M_{New} is the measurement quantity for a GSM cell that is not stored in the variable BEST CELL 3D EVENT.

 M_{Best} is the measurement quantity for a GSM cell that is stored in the variable BEST_CELL_3D_EVENT.

 H_{3d} is the hysteresis parameter for event 3d.

3GPP TSG-RAN WG2 Meeting #34 Sophia Antipolis, France, 17-21 February 2003

CHANGE REQUEST								CR-Form-v7	
*	25.331	CR	1883	жrev	-	æ	Current version:	4.8.0	ж
For <u>HELP</u> on using this form, see bottom of this page or look at the pop-up text over the \mathbb{H} symbols.									

Proposed change affects: UICC apps# ME X Radio Access Network X Core Network

Title:

**Correction to Inter-RAT Measurement Report*

Source: ₩ TSG-RAN WG2 Date: 第 10/02/2003 ж **F** Release: # Rel-4 Category: Use one of the following releases: Use one of the following categories: F (correction) 2 (GSM Phase 2) **A** (corresponds to a correction in an earlier release) R96 (Release 1996) **B** (addition of feature), R97 (Release 1997) **C** (functional modification of feature) R98 (Release 1998) **D** (editorial modification) R99 (Release 1999) Detailed explanations of the above categories can Rel-4 (Release 4) Rel-5 be found in 3GPP TR 21.900. (Release 5) Rel-6 (Release 6)

Reason for change:
The UTRAN can set the IE 'BSIC verification' for an inter-RAT measurement to either 'required' or 'not required'. In the IE 'inter-RAT measured results' the UE has a choice between reporting a cell as 'verified' in which case the cell id is signalled, or reporting the cell as 'not verified' in which case the ARFCN is signalled. However, the specification does not currently state all the conditions under which the UE should report the cell as 'verified' or 'not-verified'. Section 14.3.1.x states the measured results should be set according to section 8.4.2 but this section is very general and does not give details on setting individual IEs.

If the UTRAN has set the IE 'BSIC verification' to 'required', then section 8.6.7.5 does state that for periodical reporting the UE is permitted to report cells that are either 'verified' or 'non verified' in the IE 'inter-RAT measured results'. However, for the case of event triggered reporting the specification does not clearly state how the UE should signal the cells in the measured results.

Furthermore, if the UTRAN has set the IE 'BSIC verification' to 'not required', but the UE has been able to verify the BSIC then it is not clear if the UE is permitted to report these cells as 'verified'.

Note the for event triggered reporting, it is very clearly stated which cells are permitted to trigger events and how the UE should set contents of the IE 'inter-RAT event results'.

Summary of change: %

It is proposed that when the IE 'BSIC verification' is set to 'required' then the UE only reports BSIC verified cells in the IE 'inter-RAT measured results'. This applies for both for periodic and event triggered reporting. This is added to section 8.6.7.5. Note that this is different from the release 99 behaviour in which the UE is not mandated to report on BSIC verified cells but is permitted to also

report non verified cells.

When the IE 'BSIC verification' is set to 'not required' then the UE is permitted to report cells as BSIC verified if it has been able to verify the BSIC of the cell. This is added to section 8.6.7.5.

The references in section 14.3.1.x are updated to also reference 8.6.7.5 where the setting of 'inter RAT measured results' is now described.

Isolated Impact Analysis

Functionality corrected: Inter RAT Measurements

Isolated impact statement: Correction to a function where specification was not sufficiently explicit. Would not affect implementations behaving like indicated in the CR, would affect implementations supporting the corrected functionality otherwise.

Consequences if not approved:

If the CR is not approved it will not be clear from the spec how the UE is intended to report cells in the 'inter-RAT measured results'. If the UE sends a cell as 'verified' with a cell id when the UTRAN is expecting cells to be reported as 'non verified' with an ARFCN (or vice versa) then the UTRAN could fail to interpret the measurement report correctly thus preventing an inter-RAT handover from taking place.

Clauses affected:	第 8.6.7.5, 14.3.1.1, 14.3.1.2, 14.3.1.3, 14.3.1.4
Other specs affected:	Y N X Other core specifications
Other comments:	x

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at http://www.3gpp.org/specs/CR.htm. Below is a brief summary:

- 1) Fill out the above form. The symbols above marked \(\mathcal{H} \) contain pop-up help information about the field that they are closest to.
- 2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

8.6.7.5 Inter-RAT measurement quantity

If the IE "Inter-RAT measurement quantity" is received in a MEASUREMENT CONTROL message and CHOICE system is GSM, the UE shall:

- 1> if IE "BSIC verification required" is set to "required", for cells that match any of the BCCH ARFCN and BSIC combinations in the list of inter-RAT cells that the UE has received in IE "Inter-RAT cell info list", and that has a "verified" BSIC:
 - 2> report measurement quantities according to IE "inter-RAT reporting quantity" taking into account the restrictions defined in subclause 8.6.7.6;
 - 2> trigger inter-RAT events according to IE "inter-RAT measurement reporting criteria"; and
 - 2> perform event evaluation for event-triggered reporting after BSIC has been verified for a GSM cell as defined in [19]; and
 - 2> trigger periodical reports according to the given "Reporting interval" even if the BSIC of GSM cell has not been verified; and
 - 2> indicate non-verified BSIC for a GSM cell in the "Inter-RAT measured results list" IE as defined in subclause 8.6.7.6.
 - 2> when a periodical measurement report is triggered the UE shall include only BSIC verified GSM cells in the IE "Inter-RAT measured results list"; and
 - 3> indicate verified BSIC for a GSM cell in the IE "Inter-RAT measured results list" as defined in subclause 8.6.7.6.
 - 2> when an event triggered measurement report is triggered the UE shall include only BSIC verified GSM cells in the IE "Inter-RAT measured results list"; and
 - 3> indicate verified BSIC for a GSM cell in the IE "Inter-RAT measured results list" as defined in subclause 8.6.7.6.
- 1> if IE "BSIC verification required" is set to "not required", for cells that match any of the BCCH ARFCN in the list of inter-RAT cells that the UE has received in IE "Inter-RAT cell info list", regardless if the BSIC is "verified" or "non-verified":
 - 2> report measurement quantities according to IE "inter-RAT reporting quantity";
 - 2> trigger inter-RAT events according to IE "inter-RAT measurement reporting criteria";
 - 2> when an event triggered or periodical measurement report is triggered include GSM cells in the IE "Inter-RAT measured results list" regardless of whether the BSIC of the GSM cell has been verified or not; and
 - 3> for any GSM cell that has not been verified, indicate non-verified BSIC for a GSM cell in the "Inter-RAT measured results list" IE as defined in subclause 8.6.7.6.
 - 3> for any GSM cell that has been verified, indicate verified BSIC for a GSM cell in the "Inter-RAT measured results list" IE as defined in subclause 8.6.7.6.
- 1> if the IE "Measurement quantity" is set to "pathloss":
 - 2> set the variable CONFIGURATION_INCOMPLETE to TRUE.

NOTE: The requirements for a cell to be considered "verified" or "non-verified" can be found in [19].

8.6.7.6 Inter-RAT reporting quantity

If the IE "Inter-RAT reporting quantity" is received by the UE, the UE shall:

1> store the content of the IE to the variable MEASUREMENT_IDENTITY.

If the IE "Inter-RAT measurement quantity" is received and CHOICE system is GSM, the UE shall check each quantity in the GSM choice. The UE shall include measured results in MEASUREMENT REPORT as specified in the IE "Inter-RAT reporting quantity" with the following restrictions:

- 1> if the UE has not confirmed the BSIC of the measured cell:
 - 2> if no compressed mode pattern sequence specified with measurement purpose "Initial BSIC identification" is active and according to its capabilities the UE requires compressed mode to measure this, the UE is not required to include the "inter-RAT cell id" nor "Observed time difference to GSM cell" in the IE "Inter-RAT measured results list", when a MEASUREMENT REPORT is triggered.
- 1> if the UE has confirmed the BSIC of the measured cell, then:
 - 2> if no compressed mode pattern sequence specified with measurement purpose "Initial BSIC identification" nor "BSIC re-confirmation" is active and according to its capabilities the UE requires compressed mode to measure this, the UE is not required to include the "inter-RAT cell id" nor "Observed time difference to GSM cell" in the IE "Inter-RAT measured results", when a MEASUREMENT REPORT is triggered. If no compressed mode pattern sequence with measurement purpose "GSM carrier RSSI measurements" is active and according to its capabilities the UE requires compressed mode to measure this, the UE may include "inter-RAT cell id" or "Observed time difference to GSM cell" in MEASUMENT REPORT without "GSM carrier RSSI" even if it is defined in the IE "Inter-RAT reporting quantity".
- 1> if the IE "UTRAN estimated quality" is set to "TRUE":
 - 2> ignore that IE.
- 1> if IE "Observed time difference to GSM cell Reporting indicator " is set to "TRUE":
 - 2> include optional IE "Observed time difference to GSM cell" with the value set to the time difference to that GSM cell for the GSM cells that have a BSIC that is "verified", and that match any of the BCCH ARFCN and BSIC combinations in the list of inter-RAT cells that the UE has received in IE "Inter-RAT cell info list". Observed time difference to GSM cells with "non-verified" BSIC shall not be included.
- 1> if IE "GSM Carrier RSSI" is set to "TRUE":
 - 2> include optional IE "GSM Carrier RSSI" with a value set to the measured RXLEV to that GSM cell in IE "Inter-RAT measured results list". If no compressed mode pattern sequence specified with measurement purpose "GSM carrier RSSI measurements" is active and according to its capabilities the UE requires compressed mode to measure this, the UE is not required to include the "GSM carrier RSSI" in the IE " Inter-RAT measured results list ", when a MEASUREMENT REPORT is triggered.
- 1> if the BSIC of reported GSM cell is "verified":
 - 2> set the CHOICE BSIC to "Verified BSIC" and IE "inter-RAT cell id" to the value that GSM cell had in the IE "Inter-RAT cell info list".
- 1> if the BSIC of reported GSM cell is "non-verified":
 - 2> set the CHOICE BSIC to "Non verified BSIC" and the IE "BCCH ARFCN" to the value of that GSM cells ARFCN.

The requirements for a cell to be considered "verified" or "non-verified" can be found in [19].

14.3.1.1 Event 3a: The estimated quality of the currently used UTRAN frequency is below a certain threshold **and** the estimated quality of the other system is above a certain threshold.

When an inter-RAT measurement configuring event 3a is set up, the UE shall:

- 1> create a variable TRIGGERED_3A_EVENT related to that measurement, which shall initially be empty;
- 1> delete this variable when the measurement is released.

When event 3a is configured in the UE within a measurement, the UE shall:

- 1> if the other RAT is GSM, and if IE "BSIC verification required" is set to "required":
 - 2> if equations 1 and 2 below have both been fulfilled for a time period indicated by "Time to trigger" from the same instant, respectively for the used UTRAN frequency and for one or several GSM cells that match any of the BCCH ARFCN and BSIC combinations considered in that inter-RAT measurement:
 - 3> if the Inter-RAT cell id of any of those GSM cells is not stored in the variable TRIGGERED_3A_EVENT:
 - 4> store the Inter-RAT cell ids of the GSM cells that triggered the event and that were not previously stored in the variable TRIGGERED_3A_EVENT into that variable.
 - 4> send a measurement report with IEs set as below:
 - 5> in "inter-RAT measurement event result": "inter-RAT event identity" to "3a", "CHOICE BSIC" to "verified BSIC" and "Inter-RAT cell id" to the GSM cells that triggered the event (best one first), taking into account the cell individual offset of the GSM cells;
 - 5> "measured results" and possible "additional measured results" according to <u>8.6.7.5 and</u> 8.4.2 respectively, not taking into account the cell individual offset.
 - 2> if equation 4 is fulfilled for a GSM cell whose inter-RAT cell id is stored in the variable TRIGGERED_3A_EVENT:
 - 3> remove the inter-RAT cell id of that GSM cell from the variable TRIGGERED_3A_EVENT.
 - 2> if equation 3 is fulfilled for the used frequency in UTRAN:
 - 3> clear the variable TRIGGERED_3A_EVENT.
- 1> if the other RAT is GSM, and if IE "BSIC verification required" is set to "not required":
 - 2> if equations 1 and 2 below have been fulfilled for a time period indicated by "Time to trigger" from the same instant, respectively for the used UTRAN frequency and for one or several BCCH ARFCNs considered in that inter-RAT measurement:
 - 3> if any of those BCCH ARFCNs is not stored into the variable TRIGGERED_3A_EVENT:
 - 4> store the BCCH ARFCNs that triggered the event and that were not previously stored in the variable TRIGGERED_3A_EVENT into that variable;
 - 4> send a measurement report with IEs set as below:
 - 5> in "inter-RAT measurement event result": "inter-RAT event identity" to "3a", "CHOICE BSIC" to "non verified BSIC" and "BCCH ARFCN" to BCCH ARFCNs that triggered the event (best one first), taking into account the cell individual offset of the GSM cells;
 - 5> "measured results" and possible "additional measured results" according to <u>8.6.7.5 and</u> 8.4.2 <u>respectively</u>, not taking into account the cell individual offset.
 - 2> if equation 4 is fulfilled for a BCCH ARFCN that is stored in the variable TRIGGERED_3A_EVENT:
 - 3> remove that BCCH ARFCN from the variable TRIGGERED_3A_EVENT.

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2> if equation 3 is fulfilled for the used frequency in UTRAN:

3> clear the variable TRIGGERED_3A_EVENT.

Triggering conditions:

Equation 1:

$$Q_{Used} \leq T_{Used} - H_{3a}/2$$

The variables in the formula are defined as follows:

 Q_{Used} is the quality estimate of the used UTRAN frequency.

 T_{Used} is the absolute threshold that applies for the used frequency in that measurement.

 H_{3a} is the hysteresis parameter for event 3a.

Equation 2:

$$M_{OtherRAT} + CIQ_{theRAT} \ge T_{OtherRAT} + H_{3a}/2$$

The variables in the formula are defined as follows:

 $M_{Other\,RAT}$ is the measurement quantity for the cell of the other system.

 $CIO_{Other\ RAT}$ is the cell individual offset for the cell of the other system.

 $T_{Other\,RAT}$ is the absolute threshold that applies for the other system in that measurement.

 H_{3a} is the hysteresis parameter for event 3a.

Leaving triggered state conditions:

Equation 3:

$$Q_{Ised} > T_{IIsed} + H_{3d}/2$$

The variables in the formula are defined as follows:

 Q_{Used} is the quality estimate of the used UTRAN frequency.

 T_{Used} is the absolute threshold that applies for the used frequency in that measurement.

 H_{3a} is the hysteresis parameter for event 3a.

Equation 4:

$$M_{OtherRAT} + CIQ_{theRAT} < T_{OtherRAT} - H_{3a}/2$$

The variables in the formula are defined as follows:

 $M_{Other\ RAT}$ is the measurement quantity for the cell of the other system. $M_{Other\ RAT}$ is expressed in dBm.

 $CIO_{Other\,RAT}$ is the cell individual offset for the cell of the other system.

 $T_{Other\,RAT}$ is the absolute threshold that applies for the other system in that measurement.

 H_{3a} is the hysteresis parameter for event 3a.

14.3.1.2 Event 3b: The estimated quality of other system is below a certain threshold

When an inter-RAT measurement configuring event 3b is set up, the UE shall:

- 1> create a variable TRIGGERED_3B_EVENT related to that measurement, which shall initially be empty;
- 1> delete this variable when the measurement is released.

When event 3b is configured in the UE within a measurement, the UE shall:

- 1> if the other RAT is GSM, and if IE "BSIC verification required" is set to "required":
 - 2> if equation 1 below has been fulfilled for a time period indicated by "time to trigger" for one or several GSM cells that match any of the BCCH ARFCN and BSIC combinations considered in that inter-RAT measurement:
 - 3> if the inter-RAT cell id of any of those GSM cell is not stored in the variable TRIGGERED 3B EVENT:
 - 4> store the inter-RAT cell ids of the GSM cells that triggered the event and that were not previously stored in the variable TRIGGERED_3B_EVENT into that variable;
 - 4> send a measurement report with IEs set as below:
 - 5> set in "inter-RAT measurement event result": "inter-RAT event identity" to "3b", "CHOICE BSIC" to "verified BSIC" and "Inter-RAT cell id" to the GSM cells that triggered the event (worst one first), taking into account the cell individual offset of the GSM cells;
 - 5> set the IE "measured results" and the IE "additional measured results" according to <u>8.6.7.5 and</u> 8.4.2 respectively, not taking into account the cell individual offset.
 - 2> if equation 2 below is fulfilled for a GSM cell whose inter-RAT cell id is stored in the variable TRIGGERED_3B_EVENT:
 - 3> remove the inter-RAT cell id of that GSM cell from the variable TRIGGERED_3B_EVENT.
- 1> if the other RAT is GSM, and if IE "BSIC verification required" is set to "not required":
 - 2> if equation 1 below has been fulfilled for a time period indicated by "time to trigger" for one or several of the BCCH ARFCNs considered in that inter-RAT measurement:
 - 3> if any of those BCCH ARFCN is not stored into the variable TRIGGERED_3B_EVENT:
 - 4> store the BCCH ARFCNs that triggered the event and that were not previously stored in the variable TRIGGERED_3B_EVENT into that variable;
 - 4> send a measurement report with IEs set as below:
 - 5> set in "inter-RAT measurement event result": "inter-RAT event identity" to "3b", "CHOICE BSIC" to "non verified BSIC" and "BCCH ARFCN" to BCCH ARFCNs that triggered the event (worst one first), taking into account the cell individual offset of the GSM cells;
 - 5> set the IE "measured results" and the IE "additional measured results" according to <u>8.6.7.5 and</u> 8.4.2 <u>respectively</u>, not taking into account the cell individual offset.
 - 2> if equation 2 below is fulfilled for a BCCH ARFCN that is stored in the variable TRIGGERED_3B_EVENT:
 - 3> remove that BCCH ARFCN from the variable TRIGGERED_3B_EVENT.

Triggering condition:

Equation 1:

$$M_{OtherRAT} + CIQ_{therRAT} \leq T_{OtherRAT} - H_{3b}/2$$

The variables in the formula are defined as follows:

 $M_{Other\,RAT}$ is the measurement quantity for the cell of the other system.

CIO_{Other RAT} is the cell individual offset for the cell of the other system.

 $T_{Other\ RAT}$ is the absolute threshold that applies for the other system in that measurement.

 H_{3b} is the hysteresis parameter for event 3b.

Leaving triggered state condition:

Equation 2:

$$M_{OtherRAT} + CIQ_{therRAT} > T_{OtherRAT} + H_{3b}/2$$

The variables in the formula are defined as follows:

 $M_{Other\ RAT}$ is the measurement quantity for the cell of the other system. $M_{Other\ RAT}$ is expressed in dBm.

CIO_{Other RAT} is the cell individual offset for the cell of the other system.

 $T_{Other\ RAT}$ is the absolute threshold that applies for the other system in that measurement.

 H_{3b} is the hysteresis parameter for event 3b.

14.3.1.3 Event 3c: The estimated quality of other system is above a certain threshold

When an inter-RAT measurement configuring event 3c is set up, the UE shall:

- 1> create a variable TRIGGERED 3C EVENT related to that measurement, which shall initially be empty;
- 1> delete this variable when the measurement is released.

When event 3c is configured in the UE within a measurement, the UE shall:

- 1> if the other RAT is GSM, and if IE "BSIC verification required" is set to "required":
 - 2> if equation 1 below has been fulfilled for a time period indicated by "time to trigger" for one or several GSM cells that match any of the BCCH ARFCN and BSIC combinations considered in that inter-RAT measurement:
 - 3> if the inter-RAT cell id of any of those GSM cell is not stored in the variable TRIGGERED_3C_EVENT:
 - 4> store the Inter-RAT cell ids of the GSM cells that triggered the event and that were not previously stored in the variable TRIGGERED_3C_EVENT into that variable;
 - 4> send a measurement report with IEs set as below:
 - 5> set in "inter-RAT measurement event result": "inter-RAT event identity" to "3c", "CHOICE BSIC" to "verified BSIC" and "Inter-RAT cell id" to the GSM cells that triggered the event (best one first), taking into account the cell individual offset of the GSM cells;
 - 5> set the IE "measured results" and the IE "additional measured results" according to <u>8.6.7.5 and</u> 8.4.2 <u>respectively</u>, not taking into account the cell individual offset.
 - 2> if equation 2 below is fulfilled for a GSM cell whose inter-RAT cell id is stored in the variable TRIGGERED_3C_EVENT:
 - 3> remove the inter-RAT cell id of that GSM cell from the variable TRIGGERED 3C EVENT.
- 1> if the other RAT is GSM, and if IE "BSIC verification required" is set to "not required":
 - 2> if equation 1 below has been fulfilled for a time period indicated by "time to trigger" for one or several of the BCCH ARFCNs considered in that inter-RAT measurement:
 - 3> if any of those BCCH ARFCN is not stored into the variable TRIGGERED_3C_EVENT:
 - 4> store the BCCH ARFCNs that triggered the event and that were not previously stored in the variable TRIGGERED_3C_EVENT into that variable;
 - 4> send a measurement report with IEs set as below:

- 5> set in "inter-RAT measurement event result": "inter-RAT event identity" to "3c", "CHOICE BSIC" to "non verified BSIC" and "BCCH ARFCN" to BCCH ARFCNs that triggered the event (best one first), taking into account the cell individual offset of the GSM cells;
- 5> set the IE "measured results" and the IE "additional measured results" according to <u>8.6.7.5 and</u> 8.4.2 <u>respectively</u>, not taking into account the cell individual offset.
- 2> if equation 2 is fulfilled for a BCCH ARFCN that is stored in the variable TRIGGERED_3C_EVENT:
 - 3> remove that BCCH ARFCN from the variable TRIGGERED_3C_EVENT.

Triggering condition:

Equation 1:

$$M_{OtherRAT} + CIQ_{therRAT} \ge T_{OtherRAT} + H_{\chi}/2$$

The variables in the formula are defined as follows:

 $M_{Other\ RAT}$ is the measurement quantity for the cell of the other system. $M_{Other\ RAT}$ is expressed in dBm.

CIO_{Other RAT} is the cell individual offset for the cell of the other system.

 $T_{Other\,RAT}$ is the absolute threshold that applies for the other system in that measurement.

 H_{3c} is the hysteresis parameter for event 3c.

Leaving triggered state condition:

Equation 2:

$$M_{OtherRAT} + CIQ_{therRAT} < T_{OtherRAT} - H_{3c}/2$$

The variables in the formula are defined as follows:

 $M_{Other\ RAT}$ is the measurement quantity for the cell of the other system. $M_{Other\ RAT}$ is expressed in dBm.

CIO_{Other RAT} is the cell individual offset for the cell of the other system.

 $T_{Other\,RAT}$ is the absolute threshold that applies for the other system in that measurement.

 H_{3c} is the hysteresis parameter for event 3c.

14.3.1.4 Event 3d: Change of best cell in other system

When an inter-RAT measurement configuring event 3d is set up, the UE shall:

- 1> create a variable BEST_CELL_3D_EVENT related to that measurement;
- 1> delete this variable when the measurement is released.

When event 3d is configured in the UE within a measurement, the UE shall:

- 1> if the other RAT is GSM, and if IE "BSIC verification required" is set to "required":
 - 2> when the measurement is initiated or resumed:
 - 3> store in the variable BEST_CELL_3D_EVENT the Inter-RAT cell id of the GSM cell that has the best measured quantity among the GSM cells that match any of the BCCH ARFCN and BSIC combinations considered in that inter-RAT measurement, not taking into account the cell individual offset of the GSM cells;
 - 3> send a measurement report with IE set as below:

- 4> set in "inter-RAT measurement event result": "inter-RAT event identity" to "3d", "CHOICE BSIC" to "verified BSIC" and "Inter-RAT cell id" to the GSM cell that is stored in the variable BEST_CELL_3D_EVENT;
- 4> set the IE "measured results" and the IE "additional measured results" according to subclause <u>8.6.7.5</u> and <u>8.4.2 respectively</u>, not taking into account the cell individual offset.
- 2> if equation 1 has been fulfilled for a time period indicated by "time to trigger" for a GSM cell that is different from the one stored in BEST_CELL_3D_EVENT and that matches any of the BCCH ARFCN and BSIC combinations considered in that inter-RAT measurement:
 - 3> store the Inter-RAT cell id of that GSM cell in the variable BEST_CELL_3D_EVENT;
 - 3> send a measurement report with IEs set as below:
 - 4> set in "inter-RAT measurement event result": "inter-RAT event identity" to "3d", "CHOICE BSIC" to "verified BSIC" and "Inter-RAT cell id" to the GSM cell is now stored in BEST_CELL_3D_EVENT;
 - 4> set the IE "measured results" and the IE "additional measured results" according to subclause <u>8.6.7.5</u> and <u>8.4.2 respectively</u>, not taking into account the cell individual offset.
- 1> if the other RAT is GSM, and if IE "BSIC verification required" is set to "not required":
 - 2> when the measurement is initiated or resumed:
 - 3> store in the variable BEST_CELL_3D_EVENT the BCCH ARFCN of the GSM cell that has the best measured quantity among the BCCH ARFCNs considered in that inter-RAT measurement;
 - 3> send a measurement report with IE set as below:
 - 4> set in "inter-RAT measurement event result": "inter-RAT event identity" to "3d", "CHOICE BSIC" to "non verified BSIC" and "BCCH ARFCN" to the BCH ARFCN that is stored in the variable BEST_CELL_3D_EVENT;
 - 4> set the IE "measured results" and the IE "additional measured results" according to subclause <u>8.6.7.5</u> and <u>8.4.2 respectively</u>, not taking into account the cell individual offset.
 - 2> if equation 1 below has been fulfilled for a time period indicated by "time to trigger" for one of the BCCH ARFCNs considered in that inter-RAT measurement and different from the one stored in BEST_CELL_3D_EVENT:
 - 3> store the BCCH ARFCN of that GSM cell in the variable BEST_CELL_3D_EVENT;
 - 3> send a measurement report with IEs set as below:
 - 4> set in "inter-RAT measurement event result": "inter-RAT event identity" to "3d", "CHOICE BSIC" to "non verified BSIC" and "BCCH ARFCN" to the BCCH ARFCN that is now stored in the variable BEST_CELL_3D_EVENT;
 - 4> set the IE "measured results" and the IE "additional measured results" according to subclause 8.4.2, not taking into account the cell individual offset.

Equation 1:

$$M_{Nov} \ge M_{Rost} + H_{3d}/2$$

The variables in the formula are defined as follows:

 M_{New} is the measurement quantity for a GSM cell that is not stored in the variable BEST CELL 3D EVENT.

 M_{Best} is the measurement quantity for a GSM cell that is stored in the variable BEST_CELL_3D_EVENT.

 H_{3d} is the hysteresis parameter for event 3d.

3GPP TSG-RAN WG2 Meeting #34 Sophia Antipolis, France, 17-21 February 2003

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CHANGE REQUEST									CR-Form-v7
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*	25.33	1 CR	1884	жrev	-	¥	Current version:	5.3.0	¥
For <u>HL</u>	ELP on using this	form, see	e bottom of th	nis page or l	look	at th	e pop-up text over	r the	nbols.
Proposed	l change affects:	UICC a	apps#	ME X	Rac	dio A	ccess Network X	Core Ne	etwork

Title:	\mathfrak{R}	Correction to Inter-RAT Measurement Report		
Source:	æ	TSG-RAN WG2		
000.00.		1001011102		
Work item code:	. 90	TCI	Data: 9	10/02/2003
Work item code.	. ж	I CI	Date. &	10/02/2003
Category:	\mathfrak{R}	A	Release: ₩	Rel-5
		Use <u>one</u> of the following categories:	Use one of	the following releases:
		F (correction)		(GSM Phase 2)
		A (corresponds to a correction in an earlier release)	R96	(Release 1996)
		B (addition of feature),	R97	(Release 1997)
		C (functional modification of feature)	R98	(Release 1998)
		D (editorial modification)	R99	(Release 1999)
		Detailed explanations of the above categories can	Rel-4	(Release 4)
		be found in 3GPP TR 21.900.	Rel-5	(Release 5)
			Rel-6	(Release 6)

Reason for change:
The UTRAN can set the IE 'BSIC verification' for an inter-RAT measurement to either 'required' or 'not required'. In the IE 'inter-RAT measured results' the UE has a choice between reporting a cell as 'verified' in which case the cell id is signalled, or reporting the cell as 'not verified' in which case the ARFCN is signalled. However, the specification does not currently state all the conditions under which the UE should report the cell as 'verified' or 'not-verified'. Section 14.3.1.x states the measured results should be set according to section 8.4.2 but this section is very general and does not give details on setting individual IEs.

If the UTRAN has set the IE 'BSIC verification' to 'required', then section 8.6.7.5 does state that for periodical reporting the UE is permitted to report cells that are either 'verified' or 'non verified' in the IE 'inter-RAT measured results'. However, for the case of event triggered reporting the specification does not clearly state how the UE should signal the cells in the measured results.

Furthermore, if the UTRAN has set the IE 'BSIC verification' to 'not required', but the UE has been able to verify the BSIC then it is not clear if the UE is permitted to report these cells as 'verified'.

Note the for event triggered reporting, it is very clearly stated which cells are permitted to trigger events and how the UE should set contents of the IE 'inter-RAT event results'.

Summary of change: ₩

It is proposed that when the IE 'BSIC verification' is set to 'required' then the UE only reports BSIC verified cells in the IE 'inter-RAT measured results'. This applies for both for periodic and event triggered reporting. This is added to section 8.6.7.5. Note that this is different from the release 99 behaviour in which the UE is not mandated to report on BSIC verified cells but is permitted to also

report non verified cells.

When the IE 'BSIC verification' is set to 'not required' then the UE is permitted to report cells as BSIC verified if it has been able to verify the BSIC of the cell. This is added to section 8.6.7.5.

The references in section 14.3.1.x are updated to also reference 8.6.7.5 where the setting of 'inter RAT measured results' is now described.

Isolated Impact Analysis

Functionality corrected: Inter RAT Measurements

Isolated impact statement: Correction to a function where specification was not sufficiently explicit. Would not affect implementations behaving like indicated in the CR, would affect implementations supporting the corrected functionality otherwise.

Consequences if not approved:

If the CR is not approved it will not be clear from the spec how the UE is intended to report cells in the 'inter-RAT measured results'. If the UE sends a cell as 'verified' with a cell id when the UTRAN is expecting cells to be reported as 'non verified' with an ARFCN (or vice versa) then the UTRAN could fail to interpret the measurement report correctly thus preventing an inter-RAT handover from taking place.

Clauses affected:	第 8.6.7.5, 14.3.1.1, 14.3.1.2, 14.3.1.3, 14.3.1.4
Other specs affected:	Y N X Other core specifications
Other comments:	x

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at http://www.3gpp.org/specs/CR.htm. Below is a brief summary:

- 1) Fill out the above form. The symbols above marked \(\mathcal{H} \) contain pop-up help information about the field that they are closest to.
- 2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

8.6.7.5 Inter-RAT measurement quantity

If the IE "Inter-RAT measurement quantity" is received in a MEASUREMENT CONTROL message and CHOICE system is GSM, the UE shall:

- 1> if IE "BSIC verification required" is set to "required", for cells that match any of the BCCH ARFCN and BSIC combinations in the list of inter-RAT cells that the UE has received in IE "Inter-RAT cell info list", and that has a "verified" BSIC:
 - 2> report measurement quantities according to IE "inter-RAT reporting quantity" taking into account the restrictions defined in subclause 8.6.7.6;
 - 2> trigger inter-RAT events according to IE "inter-RAT measurement reporting criteria"; and
 - 2> perform event evaluation for event-triggered reporting after BSIC has been verified for a GSM cell as defined in [19]; and
 - 2> trigger periodical reports according to the given "Reporting interval" even if the BSIC of GSM cell has not been verified; and
 - 2> indicate non-verified BSIC for a GSM cell in the "Inter-RAT measured results list" IE as defined in subclause 8.6.7.6.
 - 2> when a periodical measurement report is triggered the UE shall include only BSIC verified GSM cells in the IE "Inter-RAT measured results list"; and
 - 3> indicate verified BSIC for a GSM cell in the IE "Inter-RAT measured results list" as defined in subclause 8.6.7.6.
 - 2> when an event triggered measurement report is triggered the UE shall include only BSIC verified GSM cells in the IE "Inter-RAT measured results list"; and
 - 3> indicate verified BSIC for a GSM cell in the IE "Inter-RAT measured results list" as defined in subclause 8.6.7.6.
- 1> if IE "BSIC verification required" is set to "not required", for cells that match any of the BCCH ARFCN in the list of inter-RAT cells that the UE has received in IE "Inter-RAT cell info list", regardless if the BSIC is "verified" or "non-verified":
 - 2> report measurement quantities according to IE "inter-RAT reporting quantity";
 - 2> trigger inter-RAT events according to IE "inter-RAT measurement reporting criteria";
 - 2> when an event triggered or periodical measurement report is triggered include GSM cells in the IE "Inter-RAT measured results list" regardless of whether the BSIC of the GSM cell has been verified or not; and
 - 3> for any GSM cell that has not been verified, indicate non-verified BSIC for a GSM cell in the "Inter-RAT measured results list" IE as defined in subclause 8.6.7.6.
 - 3> for any GSM cell that has been verified, indicate verified BSIC for a GSM cell in the "Inter-RAT measured results list" IE as defined in subclause 8.6.7.6.
- 1> if the IE "Measurement quantity" is set to "pathloss":
 - 2> set the variable CONFIGURATION_INCOMPLETE to TRUE.

NOTE: The requirements for a cell to be considered "verified" or "non-verified" can be found in [19].

8.6.7.6 Inter-RAT reporting quantity

If the IE "Inter-RAT reporting quantity" is received by the UE, the UE shall:

1> store the content of the IE to the variable MEASUREMENT_IDENTITY.

If the IE "Inter-RAT measurement quantity" is received and CHOICE system is GSM, the UE shall check each quantity in the GSM choice. The UE shall include measured results in MEASUREMENT REPORT as specified in the IE "Inter-RAT reporting quantity" with the following restrictions:

- 1> if the UE has not confirmed the BSIC of the measured cell:
 - 2> if no compressed mode pattern sequence specified with measurement purpose "Initial BSIC identification" is active and according to its capabilities the UE requires compressed mode to measure this, the UE is not required to include the "inter-RAT cell id" nor "Observed time difference to GSM cell" in the IE "Inter-RAT measured results list", when a MEASUREMENT REPORT is triggered.
- 1> if the UE has confirmed the BSIC of the measured cell, then:
 - 2> if no compressed mode pattern sequence specified with measurement purpose "Initial BSIC identification" nor "BSIC re-confirmation" is active and according to its capabilities the UE requires compressed mode to measure this, the UE is not required to include the "inter-RAT cell id" nor "Observed time difference to GSM cell" in the IE "Inter-RAT measured results", when a MEASUREMENT REPORT is triggered. If no compressed mode pattern sequence with measurement purpose "GSM carrier RSSI measurements" is active and according to its capabilities the UE requires compressed mode to measure this, the UE may include "inter-RAT cell id" or "Observed time difference to GSM cell" in MEASUMENT REPORT without "GSM carrier RSSI" even if it is defined in the IE "Inter-RAT reporting quantity".
- 1> if the IE "UTRAN estimated quality" is set to "TRUE":
 - 2> ignore that IE.
- 1> if IE "Observed time difference to GSM cell Reporting indicator " is set to "TRUE":
 - 2> include optional IE "Observed time difference to GSM cell" with the value set to the time difference to that GSM cell for the GSM cells that have a BSIC that is "verified", and that match any of the BCCH ARFCN and BSIC combinations in the list of inter-RAT cells that the UE has received in IE "Inter-RAT cell info list". Observed time difference to GSM cells with "non-verified" BSIC shall not be included.
- 1> if IE "GSM Carrier RSSI" is set to "TRUE":
 - 2> include optional IE "GSM Carrier RSSI" with a value set to the measured RXLEV to that GSM cell in IE "Inter-RAT measured results list". If no compressed mode pattern sequence specified with measurement purpose "GSM carrier RSSI measurements" is active and according to its capabilities the UE requires compressed mode to measure this, the UE is not required to include the "GSM carrier RSSI" in the IE " Inter-RAT measured results list ", when a MEASUREMENT REPORT is triggered.
- 1> if the BSIC of reported GSM cell is "verified":
 - 2> set the CHOICE BSIC to "Verified BSIC" and IE "inter-RAT cell id" to the value that GSM cell had in the IE "Inter-RAT cell info list".
- 1> if the BSIC of reported GSM cell is "non-verified":
 - 2> set the CHOICE BSIC to "Non verified BSIC" and the IE "BCCH ARFCN" to the value of that GSM cells ARFCN.

The requirements for a cell to be considered "verified" or "non-verified" can be found in [19].

14.3.1.1 Event 3a: The estimated quality of the currently used UTRAN frequency is below a certain threshold **and** the estimated quality of the other system is above a certain threshold.

When an inter-RAT measurement configuring event 3a is set up, the UE shall:

- 1> create a variable TRIGGERED_3A_EVENT related to that measurement, which shall initially be empty;
- 1> delete this variable when the measurement is released.

When event 3a is configured in the UE within a measurement, the UE shall:

- 1> if the other RAT is GSM, and if IE "BSIC verification required" is set to "required":
 - 2> if equations 1 and 2 below have both been fulfilled for a time period indicated by "Time to trigger" from the same instant, respectively for the used UTRAN frequency and for one or several GSM cells that match any of the BCCH ARFCN and BSIC combinations considered in that inter-RAT measurement:
 - 3> if the Inter-RAT cell id of any of those GSM cells is not stored in the variable TRIGGERED_3A_EVENT:
 - 4> store the Inter-RAT cell ids of the GSM cells that triggered the event and that were not previously stored in the variable TRIGGERED_3A_EVENT into that variable.
 - 4> send a measurement report with IEs set as below:
 - 5> in "inter-RAT measurement event result": "inter-RAT event identity" to "3a", "CHOICE BSIC" to "verified BSIC" and "Inter-RAT cell id" to the GSM cells that triggered the event (best one first), taking into account the cell individual offset of the GSM cells;
 - 5> "measured results" and possible "additional measured results" according to <u>8.6.7.5 and</u> 8.4.2 respectively, not taking into account the cell individual offset.
 - 2> if equation 4 is fulfilled for a GSM cell whose inter-RAT cell id is stored in the variable TRIGGERED_3A_EVENT:
 - 3> remove the inter-RAT cell id of that GSM cell from the variable TRIGGERED_3A_EVENT.
 - 2> if equation 3 is fulfilled for the used frequency in UTRAN:
 - 3> clear the variable TRIGGERED_3A_EVENT.
- 1> if the other RAT is GSM, and if IE "BSIC verification required" is set to "not required":
 - 2> if equations 1 and 2 below have been fulfilled for a time period indicated by "Time to trigger" from the same instant, respectively for the used UTRAN frequency and for one or several BCCH ARFCNs considered in that inter-RAT measurement:
 - 3> if any of those BCCH ARFCNs is not stored into the variable TRIGGERED_3A_EVENT:
 - 4> store the BCCH ARFCNs that triggered the event and that were not previously stored in the variable TRIGGERED_3A_EVENT into that variable;
 - 4> send a measurement report with IEs set as below:
 - 5> in "inter-RAT measurement event result": "inter-RAT event identity" to "3a", "CHOICE BSIC" to "non verified BSIC" and "BCCH ARFCN" to BCCH ARFCNs that triggered the event (best one first), taking into account the cell individual offset of the GSM cells;
 - 5> "measured results" and possible "additional measured results" according to <u>8.6.7.5 and</u> 8.4.2 <u>respectively</u>, not taking into account the cell individual offset.
 - 2> if equation 4 is fulfilled for a BCCH ARFCN that is stored in the variable TRIGGERED_3A_EVENT:
 - 3> remove that BCCH ARFCN from the variable TRIGGERED_3A_EVENT.

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2> if equation 3 is fulfilled for the used frequency in UTRAN:

3> clear the variable TRIGGERED_3A_EVENT.

Triggering conditions:

Equation 1:

$$Q_{Used} \leq T_{Used} - H_{3a}/2$$

The variables in the formula are defined as follows:

 Q_{Used} is the quality estimate of the used UTRAN frequency.

 T_{Used} is the absolute threshold that applies for the used frequency in that measurement.

 H_{3a} is the hysteresis parameter for event 3a.

Equation 2:

$$M_{OtherRAT} + CIQ_{theRAT} \ge T_{OtherRAT} + H_{3a}/2$$

The variables in the formula are defined as follows:

 $M_{Other\,RAT}$ is the measurement quantity for the cell of the other system.

 $CIO_{Other\ RAT}$ is the cell individual offset for the cell of the other system.

 $T_{Other\,RAT}$ is the absolute threshold that applies for the other system in that measurement.

 H_{3a} is the hysteresis parameter for event 3a.

Leaving triggered state conditions:

Equation 3:

$$Q_{Ised} > T_{IIsed} + H_{3d}/2$$

The variables in the formula are defined as follows:

 Q_{Used} is the quality estimate of the used UTRAN frequency.

 T_{Used} is the absolute threshold that applies for the used frequency in that measurement.

 H_{3a} is the hysteresis parameter for event 3a.

Equation 4:

$$M_{OtherRAT} + CIQ_{theRAT} < T_{OtherRAT} - H_{3a}/2$$

The variables in the formula are defined as follows:

 $M_{Other\ RAT}$ is the measurement quantity for the cell of the other system. $M_{Other\ RAT}$ is expressed in dBm.

 $CIO_{Other\,RAT}$ is the cell individual offset for the cell of the other system.

 $T_{Other\,RAT}$ is the absolute threshold that applies for the other system in that measurement.

 H_{3a} is the hysteresis parameter for event 3a.

14.3.1.2 Event 3b: The estimated quality of other system is below a certain threshold

When an inter-RAT measurement configuring event 3b is set up, the UE shall:

- 1> create a variable TRIGGERED_3B_EVENT related to that measurement, which shall initially be empty;
- 1> delete this variable when the measurement is released.

When event 3b is configured in the UE within a measurement, the UE shall:

- 1> if the other RAT is GSM, and if IE "BSIC verification required" is set to "required":
 - 2> if equation 1 below has been fulfilled for a time period indicated by "time to trigger" for one or several GSM cells that match any of the BCCH ARFCN and BSIC combinations considered in that inter-RAT measurement:
 - 3> if the inter-RAT cell id of any of those GSM cell is not stored in the variable TRIGGERED 3B EVENT:
 - 4> store the inter-RAT cell ids of the GSM cells that triggered the event and that were not previously stored in the variable TRIGGERED_3B_EVENT into that variable;
 - 4> send a measurement report with IEs set as below:
 - 5> set in "inter-RAT measurement event result": "inter-RAT event identity" to "3b", "CHOICE BSIC" to "verified BSIC" and "Inter-RAT cell id" to the GSM cells that triggered the event (worst one first), taking into account the cell individual offset of the GSM cells;
 - 5> set the IE "measured results" and the IE "additional measured results" according to <u>8.6.7.5 and</u> 8.4.2 respectively, not taking into account the cell individual offset.
 - 2> if equation 2 below is fulfilled for a GSM cell whose inter-RAT cell id is stored in the variable TRIGGERED_3B_EVENT:
 - 3> remove the inter-RAT cell id of that GSM cell from the variable TRIGGERED_3B_EVENT.
- 1> if the other RAT is GSM, and if IE "BSIC verification required" is set to "not required":
 - 2> if equation 1 below has been fulfilled for a time period indicated by "time to trigger" for one or several of the BCCH ARFCNs considered in that inter-RAT measurement:
 - 3> if any of those BCCH ARFCN is not stored into the variable TRIGGERED_3B_EVENT:
 - 4> store the BCCH ARFCNs that triggered the event and that were not previously stored in the variable TRIGGERED_3B_EVENT into that variable;
 - 4> send a measurement report with IEs set as below:
 - 5> set in "inter-RAT measurement event result": "inter-RAT event identity" to "3b", "CHOICE BSIC" to "non verified BSIC" and "BCCH ARFCN" to BCCH ARFCNs that triggered the event (worst one first), taking into account the cell individual offset of the GSM cells;
 - 5> set the IE "measured results" and the IE "additional measured results" according to <u>8.6.7.5 and</u> 8.4.2 <u>respectively</u>, not taking into account the cell individual offset.
 - 2> if equation 2 below is fulfilled for a BCCH ARFCN that is stored in the variable TRIGGERED_3B_EVENT:
 - 3> remove that BCCH ARFCN from the variable TRIGGERED_3B_EVENT.

Triggering condition:

Equation 1:

$$M_{OtherRAT} + CIQ_{therRAT} \leq T_{OtherRAT} - H_{3b}/2$$

The variables in the formula are defined as follows:

 $M_{Other\,RAT}$ is the measurement quantity for the cell of the other system.

CIO_{Other RAT} is the cell individual offset for the cell of the other system.

 $T_{Other\ RAT}$ is the absolute threshold that applies for the other system in that measurement.

 H_{3b} is the hysteresis parameter for event 3b.

Leaving triggered state condition:

Equation 2:

$$M_{OtherRAT} + CIQ_{therRAT} > T_{OtherRAT} + H_{3b}/2$$

The variables in the formula are defined as follows:

 $M_{Other\ RAT}$ is the measurement quantity for the cell of the other system. $M_{Other\ RAT}$ is expressed in dBm.

CIO_{Other RAT} is the cell individual offset for the cell of the other system.

 $T_{Other\ RAT}$ is the absolute threshold that applies for the other system in that measurement.

 H_{3b} is the hysteresis parameter for event 3b.

14.3.1.3 Event 3c: The estimated quality of other system is above a certain threshold

When an inter-RAT measurement configuring event 3c is set up, the UE shall:

- 1> create a variable TRIGGERED 3C EVENT related to that measurement, which shall initially be empty;
- 1> delete this variable when the measurement is released.

When event 3c is configured in the UE within a measurement, the UE shall:

- 1> if the other RAT is GSM, and if IE "BSIC verification required" is set to "required":
 - 2> if equation 1 below has been fulfilled for a time period indicated by "time to trigger" for one or several GSM cells that match any of the BCCH ARFCN and BSIC combinations considered in that inter-RAT measurement:
 - 3> if the inter-RAT cell id of any of those GSM cell is not stored in the variable TRIGGERED_3C_EVENT:
 - 4> store the Inter-RAT cell ids of the GSM cells that triggered the event and that were not previously stored in the variable TRIGGERED_3C_EVENT into that variable;
 - 4> send a measurement report with IEs set as below:
 - 5> set in "inter-RAT measurement event result": "inter-RAT event identity" to "3c", "CHOICE BSIC" to "verified BSIC" and "Inter-RAT cell id" to the GSM cells that triggered the event (best one first), taking into account the cell individual offset of the GSM cells;
 - 5> set the IE "measured results" and the IE "additional measured results" according to <u>8.6.7.5 and</u> 8.4.2 <u>respectively</u>, not taking into account the cell individual offset.
 - 2> if equation 2 below is fulfilled for a GSM cell whose inter-RAT cell id is stored in the variable TRIGGERED_3C_EVENT:
 - 3> remove the inter-RAT cell id of that GSM cell from the variable TRIGGERED 3C EVENT.
- 1> if the other RAT is GSM, and if IE "BSIC verification required" is set to "not required":
 - 2> if equation 1 below has been fulfilled for a time period indicated by "time to trigger" for one or several of the BCCH ARFCNs considered in that inter-RAT measurement:
 - 3> if any of those BCCH ARFCN is not stored into the variable TRIGGERED_3C_EVENT:
 - 4> store the BCCH ARFCNs that triggered the event and that were not previously stored in the variable TRIGGERED_3C_EVENT into that variable;
 - 4> send a measurement report with IEs set as below:

- 5> set in "inter-RAT measurement event result": "inter-RAT event identity" to "3c", "CHOICE BSIC" to "non verified BSIC" and "BCCH ARFCN" to BCCH ARFCNs that triggered the event (best one first), taking into account the cell individual offset of the GSM cells;
- 5> set the IE "measured results" and the IE "additional measured results" according to <u>8.6.7.5 and</u> 8.4.2 <u>respectively</u>, not taking into account the cell individual offset.
- 2> if equation 2 is fulfilled for a BCCH ARFCN that is stored in the variable TRIGGERED_3C_EVENT:
 - 3> remove that BCCH ARFCN from the variable TRIGGERED_3C_EVENT.

Triggering condition:

Equation 1:

$$M_{OtherRAT} + CIQ_{therRAT} \ge T_{OtherRAT} + H_{\chi}/2$$

The variables in the formula are defined as follows:

 $M_{Other\ RAT}$ is the measurement quantity for the cell of the other system. $M_{Other\ RAT}$ is expressed in dBm.

CIO_{Other RAT} is the cell individual offset for the cell of the other system.

 $T_{Other\,RAT}$ is the absolute threshold that applies for the other system in that measurement.

 H_{3c} is the hysteresis parameter for event 3c.

Leaving triggered state condition:

Equation 2:

$$M_{OtherRAT} + CIQ_{therRAT} < T_{OtherRAT} - H_{3c}/2$$

The variables in the formula are defined as follows:

 $M_{Other\ RAT}$ is the measurement quantity for the cell of the other system. $M_{Other\ RAT}$ is expressed in dBm.

CIO_{Other RAT} is the cell individual offset for the cell of the other system.

 $T_{Other\,RAT}$ is the absolute threshold that applies for the other system in that measurement.

 H_{3c} is the hysteresis parameter for event 3c.

14.3.1.4 Event 3d: Change of best cell in other system

When an inter-RAT measurement configuring event 3d is set up, the UE shall:

- 1> create a variable BEST_CELL_3D_EVENT related to that measurement;
- 1> delete this variable when the measurement is released.

When event 3d is configured in the UE within a measurement, the UE shall:

- 1> if the other RAT is GSM, and if IE "BSIC verification required" is set to "required":
 - 2> when the measurement is initiated or resumed:
 - 3> store in the variable BEST_CELL_3D_EVENT the Inter-RAT cell id of the GSM cell that has the best measured quantity among the GSM cells that match any of the BCCH ARFCN and BSIC combinations considered in that inter-RAT measurement, not taking into account the cell individual offset of the GSM cells;
 - 3> send a measurement report with IE set as below:

- 4> set in "inter-RAT measurement event result": "inter-RAT event identity" to "3d", "CHOICE BSIC" to "verified BSIC" and "Inter-RAT cell id" to the GSM cell that is stored in the variable BEST_CELL_3D_EVENT;
- 4> set the IE "measured results" and the IE "additional measured results" according to subclause <u>8.6.7.5</u> and <u>8.4.2 respectively</u>, not taking into account the cell individual offset.
- 2> if equation 1 has been fulfilled for a time period indicated by "time to trigger" for a GSM cell that is different from the one stored in BEST_CELL_3D_EVENT and that matches any of the BCCH ARFCN and BSIC combinations considered in that inter-RAT measurement:
 - 3> store the Inter-RAT cell id of that GSM cell in the variable BEST_CELL_3D_EVENT;
 - 3> send a measurement report with IEs set as below:
 - 4> set in "inter-RAT measurement event result": "inter-RAT event identity" to "3d", "CHOICE BSIC" to "verified BSIC" and "Inter-RAT cell id" to the GSM cell is now stored in BEST_CELL_3D_EVENT;
 - 4> set the IE "measured results" and the IE "additional measured results" according to subclause <u>8.6.7.5</u> and <u>8.4.2 respectively</u>, not taking into account the cell individual offset.
- 1> if the other RAT is GSM, and if IE "BSIC verification required" is set to "not required":
 - 2> when the measurement is initiated or resumed:
 - 3> store in the variable BEST_CELL_3D_EVENT the BCCH ARFCN of the GSM cell that has the best measured quantity among the BCCH ARFCNs considered in that inter-RAT measurement;
 - 3> send a measurement report with IE set as below:
 - 4> set in "inter-RAT measurement event result": "inter-RAT event identity" to "3d", "CHOICE BSIC" to "non verified BSIC" and "BCCH ARFCN" to the BCH ARFCN that is stored in the variable BEST_CELL_3D_EVENT;
 - 4> set the IE "measured results" and the IE "additional measured results" according to subclause <u>8.6.7.5</u> and <u>8.4.2 respectively</u>, not taking into account the cell individual offset.
 - 2> if equation 1 below has been fulfilled for a time period indicated by "time to trigger" for one of the BCCH ARFCNs considered in that inter-RAT measurement and different from the one stored in BEST_CELL_3D_EVENT:
 - 3> store the BCCH ARFCN of that GSM cell in the variable BEST_CELL_3D_EVENT;
 - 3> send a measurement report with IEs set as below:
 - 4> set in "inter-RAT measurement event result": "inter-RAT event identity" to "3d", "CHOICE BSIC" to "non verified BSIC" and "BCCH ARFCN" to the BCCH ARFCN that is now stored in the variable BEST_CELL_3D_EVENT;
 - 4> set the IE "measured results" and the IE "additional measured results" according to subclause 8.4.2, not taking into account the cell individual offset.

Equation 1:

$$M_{Nov} \ge M_{Rost} + H_{3d}/2$$

The variables in the formula are defined as follows:

 M_{New} is the measurement quantity for a GSM cell that is not stored in the variable BEST CELL 3D EVENT.

 M_{Best} is the measurement quantity for a GSM cell that is stored in the variable BEST_CELL_3D_EVENT.

 H_{3d} is the hysteresis parameter for event 3d.

CHANGE REQUEST									
*	25.331 CR 1901	жrev <mark>1</mark> ж	Current version:	4.8.0 **					
For <u>HELP</u> on usin	ng this form, see bottom of	this page or look at th	e pop-up text over	the % symbols.					
Proposed change af	fects: UICC apps器	ME <mark>X</mark> Radio A	ccess Network	Core Network					
Title: 第	NAS and Integrity procedu	re interaction							
Source: #	TSG-RAN WG2								
Work item code: ₩ 1	ГЕІ		Date: 第 <mark>4 N</mark>	March 2003					
D b	Ise one of the following categor F (correction) A (corresponds to a correction) B (addition of feature), C (functional modification) D (editorial modification) etailed explanations of the able found in 3GPP TR 21.900.	ection in an earlier release of feature) nove categories can	2 (GSM) e) R96 (Rele R97 (Rele R98 (Rele R99 (Rele Rel-4 (Rele Rel-5 (Rele Rel-6 (Rele	ollowing releases: A Phase 2) ease 1996) ease 1997) ease 1998) ease 1999) ease 4) ease 5)					
Reason for change:	before receiving the L	a DL message on SRB 2 ACK of the SECURI to ignore the DL mess	TY MODE COMPL	ETE message.					
Summary of change:		d inform NAS in the UE MODE COMPLETE m							
	This change clarifies t	the integrity protection rability impacts if the L		loes not implement					
Consequences if not approved:	₩ Some connections ma	ay be lost.							
Clauses affected:	策 8.1.12.3								
Other specs affected:	Y N 米 X Other core spec X Test specification X O&M Specification	ons							
Other comments:									

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at http://www.3gpp.org/specs/CR.htm. Below is a brief summary:

- 2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

[...]

8.1.12.3 Reception of SECURITY MODE COMMAND message by the UE

Upon reception of the SECURITY MODE COMMAND message, the UE shall:

- 1> if neither IE "Ciphering mode info" nor IE "Integrity protection mode info" is included in the SECURITY MODE COMMAND:
 - 2> set the variable INVALID_CONFIGURATION to TRUE.
- 1> if the IE "Security capability" is the same as indicated by variable UE_CAPABILITY_TRANSFERRED, and the IE "GSM security capability" (if included in the SECURITY MODE COMMAND) is the same as indicated by the variable UE_CAPABILITY_TRANSFERRED:
 - 2> set the variable LATEST_CONFIGURED_CN_DOMAIN equal to the IE "CN domain identity";
 - 2> set the IE "Status" in the variable SECURITY_MODIFICATION for the CN domain indicated in the IE "CN domain identity" in the received SECURITY MODE COMMAND to the value "Affected";
 - 2> set the IE "Status" in the variable SECURITY_MODIFICATION for all CN domains other than the CN domain indicated in the IE "CN domain identity" to "Not affected";
 - 2> set the IE "RRC transaction identifier" in the SECURITY MODE COMPLETE message to the value of "RRC transaction identifier" in the entry for the SECURITY MODE COMMAND message in the table "Accepted transactions" in the variable TRANSACTIONS; and
 - 2> clear that entry;
 - 2> if the SECURITY MODE COMMAND message contained the IE "Ciphering mode info":
 - 3> perform the actions as specified in subclause 8.6.3.4.
 - 2> if the SECURITY MODE COMMAND message contained the IE "Integrity protection mode info":
 - 3> perform the actions as specified in subclause 8.6.3.5.
- 1> prior to sending the SECURITY MODE COMPLETE message:
 - 2> use the old ciphering configuration for this message;
 - 2> if the SECURITY MODE COMMAND message contained the IE "Ciphering mode info":
 - 3> include and set the IE "Radio bearer uplink ciphering activation time info" to the value of the variable RB_UPLINK_CIPHERING_ACTIVATION_TIME_INFO;
 - 3> for each radio bearer and signalling radio bearer that belongs to the CN domain as indicated in the variable LATEST_CONFIGURED_CN_DOMAIN:
 - 4> start or continue incrementing the COUNT-C values for all RLC-AM and RLC-UM signalling radio bearers at the ciphering activation time as specified in the procedure;
 - 4> start or continue incrementing the COUNT-C values common for all transparent mode radio bearers for this CN domain at the ciphering activation time as specified in the procedure;
 - 4> continue incrementing the COUNT-C values for all RLC-AM and RLC-UM radio bearers.
 - 3> if no new security key set (new ciphering and integrity protection keys) has been received from the upper layers [40] for the CN domain as indicated in the variable LATEST_CONFIGURED_CN_DOMAIN:
 - 4> for ciphering on signalling radio bearers using RLC-AM and RLC-UM in the downlink, at the RLC sequence number indicated in IE "Radio bearer downlink ciphering activation time info" in the IE "Ciphering mode info" included in the SECURITY MODE COMMAND, for each signalling radio bearer:

- 5> set the 20 most significant bits of the HFN component of the downlink COUNT-C to the value "START" in the most recently transmitted IE "START list" or IE "START", at the reception of the SECURITY MODE COMMAND, that belongs to the CN domain as indicated in the variable LATEST_CONFIGURED_CN_DOMAIN;
- 5> set the remaining bits of the hyper frame numbers to zero.
- 3> if new keys have been received:
 - 4> perform the actions in subclause 8.1.12.3.1.
- 2> if the SECURITY MODE COMMAND message contained the IE "Integrity protection mode info":
 - 3> include and set the IE "Uplink integrity protection activation info" to the value of the variable INTEGRITY_PROTECTION_ACTIVATION_INFO for each signalling radio bearer;
 - 3> if no new security key set (new ciphering and integrity protection keys) has been received from the upper layers [40] for the CN domain as indicated in the variable LATEST_CONFIGURED_CN_DOMAIN, for RB2:
 - 4> in the downlink, for the received SECURITY MODE COMMAND message:
 - 5> set the 20 most significant bits of the IE "Downlink RRC HFN" in the variable INTEGRITY_PROTECTION_INFO of the downlink COUNT-I to the value "START" in the most recently transmitted IE "START list" or IE "START", at the reception of the SECURITY MODE COMMAND, that belongs to the CN domain as indicated in the variable LATEST_CONFIGURED_CN_DOMAIN;
 - 5> set the remaining bits of the IE "Downlink RRC HFN" to zero.
 - 4> in the uplink, for the transmitted response message, SECURITY MODE COMPLETE:
 - 5> set the 20 most significant bits of the IE "Uplink RRC HFN" in the variable INTEGRITY_PROTECTION_INFO of the uplink COUNT-I to the value "START" in the most recently transmitted IE "START list" or IE "START", at the reception of the SECURITY MODE COMMAND, that belongs to the CN domain as indicated in the variable LATEST_CONFIGURED_CN_DOMAIN;
 - 5> set the remaining bits of the IE "Uplink RRC HFN" to zero.
 - 3> if no new security key set (new ciphering and integrity protection keys) has been received from the upper layers [40] for the CN domain indicated in the variable LATEST_CONFIGURED_CN_DOMAIN, for each signalling radio bearer other than RB2:
 - 4> if the IE "Integrity protection mode command" has the value "start":
 - 5> in the downlink, for this signalling radio bearer:
 - 6> set the 20 most significant bits of IE "Downlink RRC HFN" in the variable INTEGRITY_PROTECTION_INFO of the downlink COUNT-I to the value START transmitted in the most recently transmitted IE "START list" or IE "START", at the reception of the SECURITY MODE COMMAND, that belongs to the CN domain as indicated in the variable LATEST_CONFIGURED_CN_DOMAIN;
 - 6> set the remaining bits of the IE "Downlink RRC HFN" in the variable INTEGRITY_PROTECTION_INFO of the downlink COUNT-I to zero;

4> else:

- 5> in the downlink, for the first message for which the RRC sequence number in a received RRC message for this signalling radio bearer is equal to or greater than the activation time as indicated in IE "Downlink integrity protection activation info" as included in the IE "Integrity protection mode info", for this signalling radio bearer:
 - 6> set the 20 most significant bits of the IE "Downlink RRC HFN" in the variable INTEGRITY_PROTECTION_INFO of the downlink COUNT-I to the value "START" in the

most recently transmitted IE "START list" or IE "START", at the reception of the SECURITY MODE COMMAND, that belongs to the CN domain as indicated in the variable LATEST_CONFIGURED_CN_DOMAIN;

- 6> set the remaining bits of the IE "Downlink RRC HFN" to zero.
- 3> if new keys have been received:
 - 4> perform the actions in subclause 8.1.12.3.1.
- 2> start applying the new integrity protection configuration in the uplink for signalling radio bearer RB2 from and including the transmitted SECURITY MODE COMPLETE message;
- 2> transmit the SECURITY MODE COMPLETE message on the uplink DCCH in AM RLC;
- NOTE: After submission of the SECURITY MODE COMPLETE message to the lower layers, the UE should accept messages received in the DL which require the new security configuration to be applied on them. If the received message is successfully integrity checked, the UE should not discard the message due to lack of completion of the security procedure, caused by the successful delivery of the SECURITY MODE COMPLETE not having yet been confirmed by lower layers, unless the security configuration to be applied has been aborted and the message received requires integrity protection [5].
- 1> when the successful delivery of the SECURITY MODE COMPLETE message has been confirmed by RLC:
 - 2> if the SECURITY MODE COMMAND message contained the IE "Ciphering mode info":
 - 3> if no new security key set (new ciphering and integrity protection keys) has been received from the upper layers [40] for the CN domain as indicated in the variable LATEST_CONFIGURED_CN_DOMAIN:
 - 4> for ciphering on signalling radio bearers using RLC-AM and RLC-UM in the uplink, at the RLC sequence number indicated in IE "Radio bearer uplink ciphering activation time info" included in the SECURITY MODE COMPLETE, for each signalling radio bearer:
 - 5> set the HFN component of the uplink COUNT-C to the value "START" in the most recently transmitted IE "START list" or IE "START", at the reception of the SECURITY MODE COMMAND, that belongs to the CN domain as indicated in the variable LATEST_CONFIGURED_CN_DOMAIN;
 - 5> set the remaining bits of the hyper frame numbers to zero.
 - 3> if new keys have been received:
 - 4> perform the actions in subclause 8.1.12.3.1.
 - 3> resume data transmission on any suspended radio bearer and signalling radio bearer mapped on RLC-AM or RLC-UM:
 - 3> set the IE "Reconfiguration" in the variable CIPHERING_STATUS to FALSE; and
 - 3> clear the variable RB_UPLINK_CIPHERING_ACTIVATION_TIME_INFO.
 - 2> if the SECURITY MODE COMMAND message contained the IE "Integrity protection mode info":
 - 3> if no new security key set (new ciphering and integrity protection keys) has been received from the upper layers [40] for the CN domain indicated in the variable LATEST_CONFIGURED_CN_DOMAIN, for each signalling radio bearer other than RB2:
 - 4> if the IE "Integrity protection mode command" has the value "start":
 - 5> in the uplink, for this signalling radio bearer:
 - 6> set the 20 most significant bits of IE "Uplink RRC HFN" in the variable INTEGRITY_PROTECTION_INFO of the uplink COUNT-I to the value START transmitted in the most recently transmitted IE "START list" or IE "START", at the reception of the SECURITY MODE COMMAND, that belongs to the CN domain as indicated in the variable LATEST_CONFIGURED_CN_DOMAIN;

6> set the remaining bits of the IE "Uplink RRC HFN" in the variable INTEGRITY_PROTECTION_INFO of the uplink COUNT-I to zero.

4> else:

- 5> in the uplink, for the first transmitted RRC message for this signalling radio bearer with RRC sequence number equal to the activation time as indicated in IE "Uplink integrity protection activation info" included in the transmitted SECURITY MODE COMPLETE, for this signalling radio bearer:
 - 6> set the 20 most significant bits of the IE "Uplink RRC HFN" in the variable INTEGRITY_PROTECTION_INFO of the uplink COUNT-I to the value "START" in the most recently transmitted IE "START list" or IE "START", at the reception of the SECURITY MODE COMMAND, that belongs to the CN domain as indicated in the variable LATEST_CONFIGURED_CN_DOMAIN;
 - 6> set the remaining bits of the IE "Uplink RRC HFN" to zero.
- 3> if new keys have been received:
 - 4> perform the actions in subclause 8.1.12.3.1.
- 3> allow the transmission of RRC messages on all signalling radio bearers with any RRC SN;
- 3> set "Uplink RRC Message sequence number" for signalling radio bearer RB0 in the variable INTEGRITY_PROTECTION_INFO to a value such that next RRC message to be sent on uplink RB0 will use the new integrity protection configuration;
- 3> set the IE "Reconfiguration" in the variable INTEGRITY_PROTECTION_INFO to FALSE; and
- 3> clear the variable INTEGRITY_PROTECTION_ACTIVATION_INFO.
- 2> clear the variable SECURITY_MODIFICATION;
- 2> notify upper layers upon change of the security configuration;
- 2> and the procedure ends.
- 1> if the IE "Security capability" is not the same as indicated by the variable UE_CAPABILITY_TRANSFERRED, or the IE "GSM security capability" (if included in the SECURITY MODE COMMAND) is not the same as indicated by the variable UE_CAPABILITY_TRANSFERRED, or if the IE "GSM security capability" is not included in the SECURITY MODE COMMAND and is included in the variable UE_CAPABILITY_TRANSFERRED:
 - 2> release all its radio resources;
 - 2> indicate the release of the established signalling connections (as stored in the variable ESTABLISHED_SIGNALLING_CONNECTIONS) and established radio access bearers (as stored in the variable ESTABLISHED_RABS) to upper layers;
 - 2> clear the variable ESTABLISHED SIGNALLING CONNECTIONS;
 - 2> clear the variable ESTABLISHED RABS;
 - 2> clear the variable SECURITY_MODIFICATION;
 - 2> enter idle mode;
 - 2> perform actions when entering idle mode as specified in subclause 8.5.2;
 - 2> and the procedure ends.

[...]

	CHANGE	REQUES	ST	CR-Form-v7				
ж 2	5.331 CR 1902	жrev 1	光 Current version	on: 5.3.0 #				
For <u>HELP</u> on using this form, see bottom of this page or look at the pop-up text over the % symbols.								
Proposed change affe	ects: UICC apps#	ME X Radi	io Access Network	Core Network				
Title: 第 N	IAS and Integrity procedure i	nteraction						
Source: # T	SG-RAN WG2							
Work item code:	EI		Date: ₩	4 March 2003				
De	e one of the following categorie F (correction) A (corresponds to a correction B (addition of feature), C (functional modification of D (editorial modification) tailed explanations of the above found in 3GPP TR 21.900.	on in an earlier rel feature) e categories can L message on S	2 (lease) R96 (R97 (R98 (R99 (Rel-4 (Rel-5 (Rel-6 (he following releases: 'GSM Phase 2) 'Release 1996) 'Release 1997) 'Release 1998) 'Release 1999) 'Release 4) 'Release 5) 'Release 6)				
	before receiving the L2 A This causes the NAS to i call.							
Summary of change:	when the SECURITY MC layers.	DDE COMPLET						
	This change clarifies the There are no interoperab this CR.	integrity protect		or does not implement				
Consequences if not approved:	Some connections may be	pe lost.						
Clauses affected:	8.1.12.3							
Other specs affected:	Y N X Other core specific X Test specifications O&M Specifications							
Other comments:	K							

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at http://www.3gpp.org/specs/CR.htm. Below is a brief summary:

- 2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

[...]

8.1.12.3 Reception of SECURITY MODE COMMAND message by the UE

Upon reception of the SECURITY MODE COMMAND message, the UE shall:

- 1> if neither IE "Ciphering mode info" nor IE "Integrity protection mode info" is included in the SECURITY MODE COMMAND:
 - 2> set the variable INVALID_CONFIGURATION to TRUE.
- 1> if the IE "Security capability" is the same as indicated by variable UE_CAPABILITY_TRANSFERRED, and the IE "GSM security capability" (if included in the SECURITY MODE COMMAND) is the same as indicated by the variable UE_CAPABILITY_TRANSFERRED:
 - 2> set the variable LATEST_CONFIGURED_CN_DOMAIN equal to the IE "CN domain identity";
 - 2> set the IE "Status" in the variable SECURITY_MODIFICATION for the CN domain indicated in the IE "CN domain identity" in the received SECURITY MODE COMMAND to the value "Affected";
 - 2> set the IE "Status" in the variable SECURITY_MODIFICATION for all CN domains other than the CN domain indicated in the IE "CN domain identity" to "Not affected";
 - 2> set the IE "RRC transaction identifier" in the SECURITY MODE COMPLETE message to the value of "RRC transaction identifier" in the entry for the SECURITY MODE COMMAND message in the table "Accepted transactions" in the variable TRANSACTIONS; and
 - 2> clear that entry;
 - 2> if the SECURITY MODE COMMAND message contained the IE "Ciphering mode info":
 - 3> perform the actions as specified in subclause 8.6.3.4.
 - 2> if the SECURITY MODE COMMAND message contained the IE "Integrity protection mode info":
 - 3> perform the actions as specified in subclause 8.6.3.5.
- 1> prior to sending the SECURITY MODE COMPLETE message:
 - 2> use the old ciphering configuration for this message;
 - 2> if the SECURITY MODE COMMAND message contained the IE "Ciphering mode info":
 - 3> include and set the IE "Radio bearer uplink ciphering activation time info" to the value of the variable RB_UPLINK_CIPHERING_ACTIVATION_TIME_INFO;
 - 3> for each radio bearer and signalling radio bearer that belongs to the CN domain as indicated in the variable LATEST_CONFIGURED_CN_DOMAIN:
 - 4> start or continue incrementing the COUNT-C values for all RLC-AM and RLC-UM signalling radio bearers at the ciphering activation time as specified in the procedure;
 - 4> start or continue incrementing the COUNT-C values common for all transparent mode radio bearers for this CN domain at the ciphering activation time as specified in the procedure;
 - 4> continue incrementing the COUNT-C values for all RLC-AM and RLC-UM radio bearers.
 - 3> if no new security key set (new ciphering and integrity protection keys) has been received from the upper layers [40] for the CN domain as indicated in the variable LATEST_CONFIGURED_CN_DOMAIN:
 - 4> for ciphering on signalling radio bearers using RLC-AM and RLC-UM in the downlink, at the RLC sequence number indicated in IE "Radio bearer downlink ciphering activation time info" in the IE "Ciphering mode info" included in the SECURITY MODE COMMAND, for each signalling radio bearer:

- 5> set the 20 most significant bits of the HFN component of the downlink COUNT-C to the value "START" in the most recently transmitted IE "START list" or IE "START", at the reception of the SECURITY MODE COMMAND, that belongs to the CN domain as indicated in the variable LATEST_CONFIGURED_CN_DOMAIN;
- 5> set the remaining bits of the hyper frame numbers to zero.
- 3> if new keys have been received:
 - 4> perform the actions in subclause 8.1.12.3.1.
- 2> if the SECURITY MODE COMMAND message contained the IE "Integrity protection mode info":
 - 3> include and set the IE "Uplink integrity protection activation info" to the value of the variable INTEGRITY_PROTECTION_ACTIVATION_INFO for each signalling radio bearer;
 - 3> if no new security key set (new ciphering and integrity protection keys) has been received from the upper layers [40] for the CN domain as indicated in the variable LATEST_CONFIGURED_CN_DOMAIN, for RB2:
 - 4> in the downlink, for the received SECURITY MODE COMMAND message:
 - 5> set the 20 most significant bits of the IE "Downlink RRC HFN" in the variable INTEGRITY_PROTECTION_INFO of the downlink COUNT-I to the value "START" in the most recently transmitted IE "START list" or IE "START", at the reception of the SECURITY MODE COMMAND, that belongs to the CN domain as indicated in the variable LATEST_CONFIGURED_CN_DOMAIN;
 - 5> set the remaining bits of the IE "Downlink RRC HFN" to zero.
 - 4> in the uplink, for the transmitted response message, SECURITY MODE COMPLETE:
 - 5> set the 20 most significant bits of the IE "Uplink RRC HFN" in the variable INTEGRITY_PROTECTION_INFO of the uplink COUNT-I to the value "START" in the most recently transmitted IE "START list" or IE "START", at the reception of the SECURITY MODE COMMAND, that belongs to the CN domain as indicated in the variable LATEST_CONFIGURED_CN_DOMAIN;
 - 5> set the remaining bits of the IE "Uplink RRC HFN" to zero.
 - 3> if no new security key set (new ciphering and integrity protection keys) has been received from the upper layers [40] for the CN domain indicated in the variable LATEST_CONFIGURED_CN_DOMAIN, for each signalling radio bearer other than RB2:
 - 4> if the IE "Integrity protection mode command" has the value "start":
 - 5> in the downlink, for this signalling radio bearer:
 - 6> set the 20 most significant bits of IE "Downlink RRC HFN" in the variable INTEGRITY_PROTECTION_INFO of the downlink COUNT-I to the value START transmitted in the most recently transmitted IE "START list" or IE "START", at the reception of the SECURITY MODE COMMAND, that belongs to the CN domain as indicated in the variable LATEST_CONFIGURED_CN_DOMAIN;
 - 6> set the remaining bits of the IE "Downlink RRC HFN" in the variable INTEGRITY_PROTECTION_INFO of the downlink COUNT-I to zero;

4> else:

- 5> in the downlink, for the first message for which the RRC sequence number in a received RRC message for this signalling radio bearer is equal to or greater than the activation time as indicated in IE "Downlink integrity protection activation info" as included in the IE "Integrity protection mode info", for this signalling radio bearer:
 - 6> set the 20 most significant bits of the IE "Downlink RRC HFN" in the variable INTEGRITY_PROTECTION_INFO of the downlink COUNT-I to the value "START" in the

most recently transmitted IE "START list" or IE "START", at the reception of the SECURITY MODE COMMAND, that belongs to the CN domain as indicated in the variable LATEST_CONFIGURED_CN_DOMAIN;

- 6> set the remaining bits of the IE "Downlink RRC HFN" to zero.
- 3> if new keys have been received:
 - 4> perform the actions in subclause 8.1.12.3.1.
- 2> start applying the new integrity protection configuration in the uplink for signalling radio bearer RB2 from and including the transmitted SECURITY MODE COMPLETE message;
- 2> transmit the SECURITY MODE COMPLETE message on the uplink DCCH in AM RLC;
- NOTE: After submission of the SECURITY MODE COMPLETE message to the lower layers, the UE should accept messages received in the DL which require the new security configuration to be applied on them. If the received message is successfully integrity checked, the UE should not discard the message due to lack of completion of the security procedure, caused by the successful delivery of the SECURITY MODE COMPLETE not having yet been confirmed by lower layers, unless the security configuration to be applied has been aborted and the message received requires integrity protection [5].
- 1> when the successful delivery of the SECURITY MODE COMPLETE message has been confirmed by RLC:
 - 2> if the SECURITY MODE COMMAND message contained the IE "Ciphering mode info":
 - 3> if no new security key set (new ciphering and integrity protection keys) has been received from the upper layers [40] for the CN domain as indicated in the variable LATEST_CONFIGURED_CN_DOMAIN:
 - 4> for ciphering on signalling radio bearers using RLC-AM and RLC-UM in the uplink, at the RLC sequence number indicated in IE "Radio bearer uplink ciphering activation time info" included in the SECURITY MODE COMPLETE, for each signalling radio bearer:
 - 5> set the HFN component of the uplink COUNT-C to the value "START" in the most recently transmitted IE "START list" or IE "START", at the reception of the SECURITY MODE COMMAND, that belongs to the CN domain as indicated in the variable LATEST_CONFIGURED_CN_DOMAIN;
 - 5> set the remaining bits of the hyper frame numbers to zero.
 - 3> if new keys have been received:
 - 4> perform the actions in subclause 8.1.12.3.1.
 - 3> resume data transmission on any suspended radio bearer and signalling radio bearer mapped on RLC-AM or RLC-UM:
 - 3> set the IE "Reconfiguration" in the variable CIPHERING_STATUS to FALSE; and
 - 3> clear the variable RB_UPLINK_CIPHERING_ACTIVATION_TIME_INFO.
 - 2> if the SECURITY MODE COMMAND message contained the IE "Integrity protection mode info":
 - 3> if no new security key set (new ciphering and integrity protection keys) has been received from the upper layers [40] for the CN domain indicated in the variable LATEST_CONFIGURED_CN_DOMAIN, for each signalling radio bearer other than RB2:
 - 4> if the IE "Integrity protection mode command" has the value "start":
 - 5> in the uplink, for this signalling radio bearer:
 - 6> set the 20 most significant bits of IE "Uplink RRC HFN" in the variable INTEGRITY_PROTECTION_INFO of the uplink COUNT-I to the value START transmitted in the most recently transmitted IE "START list" or IE "START", at the reception of the SECURITY MODE COMMAND, that belongs to the CN domain as indicated in the variable LATEST_CONFIGURED_CN_DOMAIN;

6> set the remaining bits of the IE "Uplink RRC HFN" in the variable INTEGRITY_PROTECTION_INFO of the uplink COUNT-I to zero.

4> else:

- 5> in the uplink, for the first transmitted RRC message for this signalling radio bearer with RRC sequence number equal to the activation time as indicated in IE "Uplink integrity protection activation info" included in the transmitted SECURITY MODE COMPLETE, for this signalling radio bearer:
 - 6> set the 20 most significant bits of the IE "Uplink RRC HFN" in the variable INTEGRITY_PROTECTION_INFO of the uplink COUNT-I to the value "START" in the most recently transmitted IE "START list" or IE "START", at the reception of the SECURITY MODE COMMAND, that belongs to the CN domain as indicated in the variable LATEST_CONFIGURED_CN_DOMAIN;
 - 6> set the remaining bits of the IE "Uplink RRC HFN" to zero.
- 3> if new keys have been received:
 - 4> perform the actions in subclause 8.1.12.3.1.
- 3> allow the transmission of RRC messages on all signalling radio bearers with any RRC SN;
- 3> set "Uplink RRC Message sequence number" for signalling radio bearer RB0 in the variable INTEGRITY_PROTECTION_INFO to a value such that next RRC message to be sent on uplink RB0 will use the new integrity protection configuration;
- 3> set the IE "Reconfiguration" in the variable INTEGRITY_PROTECTION_INFO to FALSE; and
- 3> clear the variable INTEGRITY_PROTECTION_ACTIVATION_INFO.
- 2> clear the variable SECURITY_MODIFICATION;
- 2> notify upper layers upon change of the security configuration;
- 2> and the procedure ends.
- 1> if the IE "Security capability" is not the same as indicated by the variable UE_CAPABILITY_TRANSFERRED, or the IE "GSM security capability" (if included in the SECURITY MODE COMMAND) is not the same as indicated by the variable UE_CAPABILITY_TRANSFERRED, or if the IE "GSM security capability" is not included in the SECURITY MODE COMMAND and is included in the variable UE_CAPABILITY_TRANSFERRED:
 - 2> release all its radio resources;
 - 2> indicate the release of the established signalling connections (as stored in the variable ESTABLISHED_SIGNALLING_CONNECTIONS) and established radio access bearers (as stored in the variable ESTABLISHED_RABS) to upper layers;
 - 2> clear the variable ESTABLISHED SIGNALLING CONNECTIONS;
 - 2> clear the variable ESTABLISHED RABS;
 - 2> clear the variable SECURITY_MODIFICATION;
 - 2> enter idle mode;
 - 2> perform actions when entering idle mode as specified in subclause 8.5.2;
 - 2> and the procedure ends.

[...]