Source: T1

Title: CR's to TS 34.108 v3.1.0 for approval

Agenda item: 6.1

Document for: Approval

This document contains 11 CRs to TS 34.108 v3.1.0. These CRs have been agreed by T1 and are put forward to TSG T for approval.

## CRs requiring special attention:

Spec	CR	Rev	Phase	Subject	Cat	Version-	Version	Doc-2nd-
						Current	-New	Level
34.108	021		R99	Common generic procedure for AS testing	В	3.1.0	3.2.0	T1-000294
34.108	022		R99	Requirements for the system simulator for support of Tcell parameter	F	3.1.0	3.2.0	T1-000303
34.108	023		R99	Minimum Performance Levels	F	3.1.0	3.2.0	T1-000306
34.108	024		R99	Downlink signal conditions and propagation conditions	D	3.1.0	3.2.0	T1-000307
34.108	025		R99	Updating 34.108 v3.1.0 to TDD single mode	F	3.1.0	3.2.0	T1-000281
34.108	026		R99	Application of integrity mode protection to signalling message by default	F	3.1.0	3.2.0	T1-000296

## CRs with routine updates:

Spec	CR	Rev	Phase	Subject	Cat	Version- Current	Version -New	Doc-2nd- Level
34.108	027		R99	Updates to the default message contents in clause 9	С	3.1.0	3.2.0	T1-000282
34.108	028		R99	Updates to System Information Block (SIB) and Master Information Block (MIB) messages	С	3.1.0	3.2.0	T1-000283
34.108	029		R99	Application of ciphering during conformance testing	С	3.1.0	3.2.0	T1-000285
34.108	030		R99	Addition for System Information parameters (34.108 clause 6.1)	F	3.1.0	3.2.0	T1-000304
34.108	031		R99	Correction for Generic Setup Procedures (34.108 clause 7.2)	F	3.1.0	3.2.0	T1-000305

## 3GPP TSG T1 Meeting #9 Redondo Beach, Ca, USA, 16-17 November 2000

Document T1-000281

e.g. for 3GPP use the format TP-99xxx or for SMG, use the format P-99-xxx

3GPP TSG T1 SWG SIG Meeting #13 Tokyo, Japan, 17-19 October 2000

## Document T1s000219

e.g. for 3GPP use the format TP-99xxx or for SMG, use the format P-99-xxx

		CHANGE F	REQL	JEST		see embedded help t instructions on how		
		34.108	CD	025	, 3	Current Version		
GSM (AA.BB) or 3G (	(AA.BBB) specifica		CR		'R number a:	s allocated by MCC s		
				V		•		
For submission t		for infor	oproval mation	X		strate non-strate	` .	
Fori	m: CR cover sheet, ve	ersion 2 for 3GPP and SMG	The latest	version of this	form is availa	ble from: ftp://ftp.3gpp.o	org/Information/CR-Form	m-v2.doc
Proposed chang (at least one should be m		(U)SIM	ME	X	UTRAN /	/ Radio	Core Network	k
Source:	Siemens					<u>Date:</u>	17.Oct.2000	
Subject:	Updating 34	1.108 v3.1.0 to TD	D single	mode				
Work item:	Conformano	ce testing for UE (	TDD)					
Category:  A (only one category B shall be marked C with an X)  P	Addition of	modification of fea		rlier relea	ase X	Release:	Phase 2 Release 96 Release 97 Release 98 Release 99 Release 00	X
Reason for change:		al of this documer ating to the radio						
Clauses affected	<u>4.2.1, 6</u>	5.2.2, 6.7.2, 6.8						
affected:	Other 3G cor Other GSM c specificati MS test spec BSS test spec O&M specific	ons ifications cifications	- -	<ul> <li>→ List of</li> </ul>	CRs: CRs: CRs:			
Other comments:	T1s-000219							

## 4.2.1 Supported Cell Configuration

The System Simulator shall provide the capability to simulate at least 1 UTRA cell of the appropriate UTRA Mode, and shall support at least the following channels on the simulated Cell.

Logical Channel	Transport Channel	Physical Channel	Comments	FDD 25.211	TDD 25.221
BCCH	ВСН	P-CCPCH	This is the Cell Broadcast Channel, transmitted using the Primary Scrambling Code for the Cell	X	X
-	-	CPICH	This is the Primary CPICH using the Primary Scrambling Code for the Cell	X	
-	-	P-SCH, S-SCH	Physical Synchronisation Channels	Χ	X
CCCH	FACH	S-CCPCH	Assumed separate physical channel compared to the Paging Channel	X	X
PCCH	PCH	S-CCPCH	Assumed separate physical channel compared to Forward Link Access Channel	X	X
-	-	PICH	To identify when the UE should access the PCCH for Paging Messages	X	X
DTCH	DCH	DPDCH*n (FDD) DPCH (TDD)	The number of physical channels (n) required as a common test requirement is expected to be 1, but this is <ffs> Note a) the channels are required on the UL and the DL b) there will be a single associated DPCCH (FDD) with the DPDCH(s) for Layer 1 signalling</ffs>	X	X
СССН	RACH	PRACH	The common requirement is for the UE to be able to use the RACH to set up a connection from Idle Mode	X	X
-	-	AICH	To signal to the UE that its RACH Preamble has been received and that the Message Part can be transmitted	X	

In the event that the system simulator is capable of simulating more than 1 cell, the minimum requirement is to support Dedicated Channels on only one of the cells

## 6.7.2 Diverse Operation

#### 6.7.2.1 Diverse Operation (FDD mode)

The diversity options applied to the DL channels shall be as below for all cells in the simulated network.

Channel	Open Io	Closed loop Mode	
	TSTD	STTD	Mode
P-CCPCH	_	X	_
SCH	Х	-	-
S-CCPCH	_	X	_
DPCH	_	X	-
PICH	=	X	_
AICH	_	X	_

#### 6.7.2.2 Diverse Operation (TDD mode)

The diversity options applied to the DL channels shall be as below for all cells in the simulated network

Physical channel type	Open loop	Closed loop TxDiversity	
	<u>TSTD</u>	Block STTD	
P-CCPCH	Ξ	<u>X</u>	<u>=</u>
<u>SCH</u>	<u>X</u>	П	<u>=</u>
DPCH	_	_	X

## 6.2.2 Soft Handover Network (FDD)

Number of Cells	Use of Network Configuration/Constraints
2	Can be used in place of basic network, plus offering
	operation of dedicated channels in 2 way soft handover or
	in 2 way SSDT handover for RF or signalling tests; simple
	cell reselection tests

## 6.8 Compressed Mode Parameters (FDD)

The reference configuration is that Compressed Mode is disabled, except when the Hard Handover (inter-frequency network configuration is being used). It is necessary to define a set of compressed mode parameters to be used for inter-frequency hard handover.

## 6.8.1 Normal Operation

Downlink Compressed Mode – disabled Uplink Compressed Mode – disabled

## 6.8.2 Inter-Frequency Hard Handover

```
Downlink compressed Mode – enabled
Parameters
Downlink Compression Method
SF Reduction
Left/Right Alternative DL Scrambling Codes
No
Compressed Mode Sequence and Parameters
Frame Structure Type A
SFN for first transmission gap
Fixed Gap Position
TGL = 7
Double Slot Gap
TGP
TGD
PD
Uplink Compressed Mode - disabled
```

3GPP TSG T1 Meeting #9 Redondo Beach, Ca, USA, 16-17 November 2000 Document T1-000283
e.g. for 3GPP use the format TP-99xxx
or for SMG, use the format P-99-xxx

3GPP/TSG T1/SIG Meeting #13 Tokyo, Japan, 17-19 October 2000 Document T1S000223

e.g. for 3GPP use the format TP-99xxx or for SMG, use the format P-99-xxx

			CHANGE	REQ	JEST		ee embedded help fi instructions on how		
			34.108	CR	028		Current Version	on: 3.1.0	
GSM (AA.BB) or 3G (AA.BBB) specifi			ation number↑		↑ CR	number as	s allocated by MCC s	support team	
For submission to: T#10  list expected approval meeting # here  ↑			for approval X strategic non-strategic		gic use a	only)			
Form: CR cover sheet, version 2 for 3GPP and SMG  The latest version of this form is available from: ftp://ftp.3gpp.org/Information/CR-Form-v2.doc  Proposed change affects: (at least one should be marked with an X)  The latest version of this form is available from: ftp://ftp.3gpp.org/Information/CR-Form-v2.doc  WE X UTRAN / Radio Core Network									
Source:		Matsushita	Communication	Industry	Co.,Ltd		<u>Date:</u>	17/10/2000	
Subject:	bject: Updates to System Information Block (SIB) and Master Information Block (MIB) messages								
Work item:									
Category:  (only one category shall be marked with an X)	F A B C D	Addition of	modification of fe		rlier releas	se X	Release:	Phase 2 Release 96 Release 97 Release 98 Release 99 Release 00	X

# Reason for change:

This CR provides an update to the system information block (SIB) and master information block (MIB) messages found in clause 6.1 of TS 34.108 V3.1.0. These updates are due to modifications in RRC core specification (TS 25.331 V3.3.0) approved by RAN2 in during RAN2 #14 (Held on July '00 in Paris) and #15 (Held on August '00 in Sophia Antipolis. The following paragraphs list the modifications made with the corresponding RAN2 CR:

- 1. SIB TYPE 5 & 6 (CR-356r3): "Selection Indicator" IE in "Secondary CCPCH info" IE is deleted.
- 2. SIB TYPE 1 & 2 (CR-424): Values and ranges of some timers and constants in "UE Timers and constant in idle mode" IE, "UE Timers and constant in connected mode" IE and "UE Timers and constant in CELL\_DCH state" IE were changed. Also, include the units for timer values.
- 3. SIB TYPE 5 & 6 (CR-427): "Scrambling code number" IE in "PRACH info (for RACH)" IE is renamed to "Preamble scrambling code number". Also, "Power offset P0" IE in "PRACH power offset" IE is renamed to "Power Ramp Step".
- 4. SIB TYPE 3 & 4 (CR-454): Orxlevmin, Qqualmin in "Cell Selection and Reselection Info for SIB3/4" was changed to MP, since these values are provided in serving cells.
- 5. MIB: Missing scheduling information for SIB TYPE 1 is added.
- 6. SIB TYPE 5 & 6 (CR-509r1): The start and end indexes for available signatures and sub-channels in "PRACH Partitioning" IE are grouped under an IE called "ASC Setting".
- 7. SIB TYPE 3 & 4 (CR-515r1): "S<sub>limit,ShearchRAT</sub>" IE and "Qhyst2<sub>s</sub>" IE are added into "Cell selection and re-selection info" IE in SIB TYPE 3 and 4. Both of these IEs are set to "Not Present" at the moment.
- 8. SIB TYPE 11 & 12 (CR-516): "Qoffset2<sub>s,n</sub>" and "Temporary\_offset2" IE are added. Consequently, existing "Qoffset<sub>s,n</sub>" IE is renamed to "Qoffset1<sub>s,n</sub>". Also, "Temporary\_offset1" IE has to be added. "Qrxlevmin" and "Qqualmin" IEs should

- be in these messages instead of only "Qmin" IE.
- 9. SIB TYPE 5 & 6 (CR-517): Some size optimisations have been introduced for "PRACH info" IE. As such, this IE in SIB TYPE 5 & 6 is updated.
- 10. SIB TYPE 11 & 12 (CR-512r1): Clarifications have been made for the usage of "Reporting cell status" IE. It is desired to make UE send MEASUREMENT REPORT for monitored cells (both on used frequency and on non-used frequency) whenever needed. Therefore, the value of ""Reporting cell status" IE is changed to achieve the above effect.

#### Clauses affected: 6.1 Other 3G core specifications Other specs → List of CRs: affected: Other GSM core → List of CRs: specifications MS test specifications → List of CRs: BSS test specifications → List of CRs: **O&M** specifications → List of CRs: **Other** comments:



<----- double-click here for help and instructions on how to create a CR.

## 6 Reference System Configurations

This clause defines a number of Reference System Configurations which can be used for different tests.

## 6.1 Simulated network environments

The UE will eventually have to operate in either single mode networks (FDD or TDD) and dual mode networks (FDD+TDD).

This version of the specification covers the simulation of the Single Mode FDD Network only to align with the Release 99 requirements. It will need to be extended in a later version to cover the Single Mode TDD network case. It is <ffs> whether a reference environment needs to be defined for multi-mode networks (eg: the environment could be created by combining two appropriate reference environments from the single mode cases).

The following tables list the default parameters for 1 to 8 cell environments for testing.

## Contents of Master Information Block PLMN type is the case of GSM-MAP

Contents of Master Information block Fliving	type is the case of asivi-ivial
- MIB value tag	1 (1 to 8)
- Supported PLMN types - PLMN type	GSM-MAP
- PLMN identity(GSM-MAP)	
- MCC digit	Mobile Country Code(3 digit)
- MNC digit	According to the contents of USIM.  Mobile Network Code(2-3 digit)  According to the contents of USIM.
- ANSI-41 Core Network information	Not Present
- P_REV(Protocol revision level)	THOU THOUGHT
- MIN_P_REV(Minimum protocol revision level)	
- SID(System identification)	
- NID(Network identification)	
- References to other system information blocks	
- Scheduling information - SIB type	Typo1
- PLMN Value tag	Type1 1(1 to 256)
- Cell Value tag	Not Present
- SEG_COUNT	
- SIB_REP	
- SIB_POS	
- SIB_OFF	T
- SIB type - PLMN Value tag	Type2 1(1 to 256)
- Cell Value tag	Not Present
- SEG_COUNT	Tion in todain.
- SIB_REP	
- SIB_POS	
- SIB_OFF	Type?
- SIB type - PLMN Value tag	Type3 Not Present
- Cell Value tag	1 (1 to 4)
- SEG_COUNT	
- SIB_REP	
- SIB_POS	
- SIB_OFF - SIB type	Type4
- PLMN Value tag	Not Present
- Cell Value tag	1 (1 to 4)
- SEG_COUNT	
- SIB_REP	
- SIB_POS - SIB_OFF	
- SIB_OTT	Type5
- PLMN Value tag	Not Present
- Cell Value tag	1 (1 to 4)
- SEG_COUNT	
- SIB_REP - SIB_POS	
- SIB_OFF - SIB type	Type6
- PLMN Value tag	Not Present
- Cell Value tag	1 (1 to 4)
- SEG_COUNŤ	
- SIB_REP	
- SIB_POS - SIB_OFF	
- SIB_OFF - SIB type	Type7
- PLMN Value tag	Not Present
- Cell Value tag	1 (1 to 4)

- SEG_COUNT	
- SIB_REP	
- SIB_POS	
- SIB_OFF	
- SIB type	Type8
- PLMN Value tag	Not Present
- Cell Value tag	1 (1 to 4)
- SEG_COUNT	
- SIB_REP	
- SIB_POS	
- SIB_OFF	
- SIB type	Type9
- PLMN Value tag	Not Present
- Cell Value tag	1 (1 to 4)
- SEG_COUNT	
- SIB_REP	
- SIB_POS	
- SIB_OFF	T. m = 10
- SIB type	Type10
- PLMN Value tag	Not Present
- Cell Value tag	1 ( 1 to 4 )
- SEG_COUNT	
- SIB_REP	
- SIB_POS	
- SIB_OFF	
- SIB type	Type11
	Not Present
- PLMN Value tag	
- Cell Value tag	1 (1 to 4)
- SEG_COUNT	
- SIB_REP	
- SIB_POS	
- SIB_OFF	
- SIB type	Type12
- PLMN Value tag	Not Present
- Cell Value tag	1 (1 to 4)
- SEG_COUNT	1 (1101)
- SIB_REP	
- SIB_POS	
- SIB_OFF	
- SIB type	Type13
- PLMN Value tag	Not Present
- Cell Value tag	1 (1 to 4)
- SEG_COUNT	
- SIB_REP	
- SIB_POS	
- SIB_OFF	
- SIB type	Type13.1
- PLMN Value tag	Not Present
- Cell Value tag	1 (1 to 4)
- SEG_COUNT	
- SIB_REP	
- SIB_POS	
- SIB_OFF	
- SIB type	Type13.2
- PLMN Value tag	Not Present
- Cell Value tag	1 (1 to 4)
- SEG_COUNT	
- SIB_REP	
- SIB_POS	
- SIB_OFF	T 12.2
- SIB type	Type13.3
- PLMN Value tag	Not Present

- Cell Value tag - SEG_COUNT - SIB_REP - SIB_POS - SIB_OFF	1 (1 to 4)
- SIB type - PLMN Value tag - Cell Value tag - SEG_COUNT - SIB_REP - SIB_POS - SIB_OFF	Type13.4 Not Present 1 (1 to 4)
- SIB_OFF - SIB type - PLMN Value tag - Cell Value tag - SEG_COUNT - SIB_REP - SIB_POS - SIB_OFF	Type14 Not Present 1 (1 to 4)
- SIB type - PLMN Value tag - Cell Value tag - SEG_COUNT - SIB_REP - SIB_POS - SIB_OFF	Type15 Not Present 1 (1 to 4)
- SIB type - PLMN Value tag - Cell Value tag - SEG_COUNT - SIB_REP - SIB_POS - SIB_OFF	Type16 Not Present 1 (1 to 4)

## Contents of System Information Block type1 PLMN type is the case of GSM-MAP

- CN common GSM-MAP NAS system	
information	
- GSM-MAP NAS system information Contains the PLMN Identity and L	ocation Area Code
- MCC digit Mobile Country Code(3 digit)	
According to the contents of USIM	1.
- MNC digit Mobile Network Code(2-3 digit)	
According to the contents of USIM	1.
- Location area code 0001H	
- CN domain system information	
- CN domain identity PS	
- CHOICE CN Type GSM-MAP	
- CN domain specific NAS system information	
- GSM-MAP NAS system information T.B.D	
Tible	
- CN domain specific DRX cycle length 7	
coefficient	
- CN domain identity CS	
- CHOICE CN Type GSM-MAP	
- CN domain specific NAS system information	
- GSM-MAP NAS system information T.B.D	
- CN domain specific DRX cycle length 7	
coefficient	
- UE Timers and constants in CELL_DCH	
-T304 Not Present – Use Default	
-N304 87	
-T308 Not Present – Use Default	
-T309 Not Present – Use Default	
-T310 Not Present	
-N310 Not Present	
-T311 Not Present	
-T313 15 seconds	
-N313 1000200	
-T314 20 seconds	
-T315 1800 seconds	
-N315 1000	
- UE Timers and constants in idle mode	
-T300 5400 milliseconds	
-N300 37	
-T312 10_seconds	
- N312 200	

## Contents of System Information Block type2

- URA identity	0000 0000 0000 0001B
- UE Timers and constants in connected mode	
- T301	2000 milliseconds (1 to 8 seconds: waiting for RRC
	CONNECTION RE ESTABLISHMENT message )
N301	2
- T302	4000 milliseconds (1 to 8 seconds: waiting for CELL
	UPDATE CONFIRM message )
- N302	3-( 1 to 8: the re-transmission number of CELL UPDATE
T000	message)
- T303	2000 milliseconds5 ( 1 to 8 seconds: waiting for URA UPDATE CONFIRM message )
- N303	3-(1 to 8: the re transmission number of URA UPDATE
	message)
- T304	1000 milliseconds ( 100, 200, 400, 1000, 2000
	millisecond: waiting for UE CAPABILITY INFORMATION
	CONFIRM message )
- N304	3 (1 to 8: the re-transmission number of UE CAPABILITY
	INFORMATION message )
- T305	60 minutes - (infinity, 5, 10, 30, 60, 120, 360, 720 minutes:
	waiting for cell update in CELL_PCH or CELL_FACH)
- T306	120 minutes (infinity, 5, 10, 30, 60, 120, 360, 720 minutes)
   - T307	waiting for cell update in URA_PCH ) 50 seconds (5, 10, 15, 20, 30, 40, 50 seconds: waiting for
- 1307	entering to idle state if the UE is out of service area.)
- T308	320 milliseconds (40, 80, 160, 320 milliseconds: waiting
- 1300	for re-transmission of RRC CONNECTION RELEASE
	COMPLETE message )
- T309	8 seconds (1 to 8 seconds: waiting for inter system cell
1307	re selection )
- T310	320 milliseconds (40 to 320 milliseconds by step of 40)
- N310	5 (1 to 8)
- T311	320-500 milliseconds (250 to 2000 milliseconds by step
	<del>250)</del>
- T312	5 seconds (0 to 15 seconds: waiting for the detection of
	physical channel failure )
- N312	200 (1, 50, 100, 200, 400, 600, 800, 1000)
- T313	10 seconds (0 to 15 seconds: waiting for the detection of
	radio link failure )
- N313	<u>200</u> 400 ( 1, 50, 100, 200, 400, 600, 800, 1000 )
- T314	20 seconds (0, 2,4,6,8,12,16,20 seconds)
- T315	30 seconds (0, 10, 30, 60, 180, 600, 1200, 1800 seconds
N215	† 200 (1 FO 100 200 400 (00 000 1000)
- N315	200 ( 1, 50, 100, 200, 400, 600, 800, 1000 )

## Contents of System Information Block type3

Contents of System information block types	
- References to other system information blocks	Not Present
- Cell identity	0000 0000 0000 0000 0000 0001B
- Cell selection and re-selection info	
- Mapping info	
	LITDA EDD
- RAT	UTRA FDD
- Mapping Function Parameter List	Not Present
- Function type	
- Map_parameter_1	
- Map_parameter_2	
- Upper_limit	
- Cell selection_and_reselection_quality	CPICH Ec/N0
measure	01101120110
- CHOICE mode	FDD
- Sintrasearch	16[dB] ( 32 to 20 by step of 2 TS25.304)
- Sintersearch	16[dB] (-32 to 20 by step of 2 TS25.304)
- SsearchHCS	10[_dB] <del>(-32 to 20 by step of 2 TS25.304)</del>
- RAT List	Not Present
- RAT identifier	
- Ssearch,RAT	
- SHCS,RAT	
Slimit,ShearchRAT	Not Present
- Qhyst1s	0f dB] (0 to 40 by step of 2)
- Qhyst2s	0 dB
- Treselections	T.B.D ([s] 0 seconds to 31)
- HCS Serving cell information	(left decorate to any
- HCS_PRIO	0 <del>(0 to 7)</del>
- QHCS	0 (0 to 99)
- TCRMAX	Not used (not used, 30, 60, 120, 180, 240)
- NCR	Not Present
	Not Present
- TCMAXHyst	
- Maximum allowed UL TX power	33dBm
- CHOICE mode	FDD
- Qqualmin	<u>-20dB</u>
Q <u>rxlev</u> min	<del>T.B.D_115dBm</del>
- Cell Access Restriction	
- Cell barred	Not barred
- Cell Reserved for operator use	Not reserved
- Cell Reserved for SoLSA exclusive use	Not reserved
- Access Class Barred0	Not barred
- Access Class Barred1	Not barred
- Access Class Barred2	Not barred
- Access Class Barred3	Not barred
- Access Class Barred4	Not barred
- Access Class Barred5	Not barred
- Access Class Barred6	Not barred
- Access Class Barred7	Not barred
- Access Class Barred8	Not barred
- Access Class Barred9	Not barred
- Access Class Barred10	Not barred
- Access Class Barred10 - Access Class Barred11	Not barred
- Access Class Barred12	Not barred
- Access Class Barred12 - Access Class Barred13	
	Not barred
- Access Class Barred14	Not barred
- Access Class Barred15	Not barred

## Contents of System Information Block type4 In connected mode ( similar to SIB type3)

Defended to all an evolution before all as blocks	Not Decorat
- References to other system information blocks	Not Present
- Cell identity	0000 0000 0000 0000 0000 0001B
- Cell selection and re-selection info	
- RAT	UTRA FDD
- Mapping Function Parameter List	Not Present
- Function type	
- Map_parameter_1	
- Map_parameter_2	
- Upper_limit	
- Cell_selection_and_reselection_quality	CPICH Ec/N0
measure	
- CHOICE mode	FDD
- Sintrasearch	16f dB <del>  (-32 to 20 by step of 2 TS25.304)</del>
- Sintersearch	16f dB <del>} ( 32 to 20 by step of 2 TS25.304)</del>
- SsearchHCS	10[dB] (-32 to 20 by step of 2 TS25.304)
- RAT List	10[ub] ( 02 to 20 b) stop of 2 1020.001)
- RAT identifier	Not Present
- Ssearch,RAT	
- SHCS,RAT	
- Slimit, ShearchRAT	Not Present
- Qhyst1s	T.B.D ( [0 dB] 0 to 40 by step of 2)
- Qhyst2s	0 dB
- Treselections	T.B.D ( [s] 0 seconds to 31 )
- HCS Serving cell information	1.5.5 ([5] 6 <u>5666143</u> (5 61)
- HCS_PRIO	0 <del>(0 to 7)</del>
- QHCS	0 (0 to 7)
- TCRMAX	Not used (not used, 30, 60, 120, 180, 240)
- NCR	Not Present
- TCMAXHyst	Not Present
- Maximum allowed UL TX power	33dBm
- CHOICE mode	FDD
- Qqualmin	-20dB
Qraleymin	<del>1.B.D.</del> 115dBm
- Cell Access Restriction	1.5.5 <u>-113dbill</u>
- Cell barred	Not harrod(not harrod harrod)
- Access Class Barred	Not barred(not barred, barred)  Not barred(not barred, barred)
- Cell Reserved for operator use	Not reserved(reserved, not reserved)
- Cell Reserved for SoLSA exclusive use	Not reserved (reserved, not reserved)
- Cell Reserved for Sols A exclusive use - Access Class Barred0	Not barred
- Access Class Barred1	Not barred
- Access Class Barred2	Not barred
- Access Class Barred3	Not barred
- Access Class Barred4	Not barred
- Access Class Barred5	Not barred
- Access Class Barred6	Not barred
- Access Class Barred7	Not barred
- Access Class Barred8	Not barred
- Access Class Barred9	Not barred
- Access Class Barred10	Not barred
- Access Class Barred10	Not barred
- Access Class Barred12	Not barred
- Access Class Barred12	Not barred
- Access Class Barred14	Not barred
- Access Class Barred15	Not barred
- Vocess Class Dalled IS	INOL DAITEU

## Contents of System Information Block type5

Contents of System miorination block types	
- References to other system information blocks	Not Present
- PICH Power offset	OdB
- AICH Power offset	0dB
	OUB
- Primary CCPCH info	544.05
- TX Diversity indicator	FALSE
- PRACH system information	
- PRACH info	
CHOICE mode	FDD
Available Signature	<u>'0000 0000 1111 1111'B</u>
— Signature	0
Signature	4
Signature	<del>2</del> <del>3</del>
Signature	3
- Signature	4
Signature	5
Signature	6
3	7
— Signature	· ·
Available SF	Reference to clause 6.10 Parameter Set
<ul> <li><u>Preamble</u> Sscrambling code number</li> </ul>	0
Puncturing Limit	Reference to clause 6.10 Parameter Set
- Available Sub Channel number	<u>'1111 1111 1111'B</u>
— Sub channel number	0
- Sub channel number	1
— Sub channel number	2
— Sub channel number	3
— Sub channel number	4
— Sub channel number	5
— Sub channel number	6
— Sub channel number	7
— Sub channel number	
	8
— Sub channel number	9
— Sub channel number	<del>10</del>
— Sub channel number	<del>11</del>
- Transport Channel Identity	1
- RACH TES	
- Dynamic Transport format information	(This IE is repeated for TFI number)
- Number of Transport blocks	Reference to clause 6.10 Parameter Set
- RLC size	Reference to clause 6.10 Parameter Set
<ul> <li>Semi-static Transport Format information</li> </ul>	
- Transmission time interval	Reference to clause 6.10 Parameter Set
- Type of channel coding	Reference to clause 6.10 Parameter Set
- Coding Rate	Reference to clause 6.10 Parameter Set
	l
- Rate matching attribute	Reference to clause 6.10 Parameter Set
- CRC size	Reference to clause 6.10 Parameter Set
- RACH TFCS	( This IE is repeated for TFC number.)
- Normal	
- TFCI Field 1 information	
- CHOICE TFCS representation	Addition
- TFCS addition information	7.00.0011
	Number of hits used must be special to sever all
- CHOICE CTFC Size	Number of bits used must be enough to cover all
	combinations of CTFC from clause 6.10.
- CTFC information	Refer to clause 6.10 Parameter Set
<ul> <li>Power offset information</li> </ul>	
- CHOICE Gain Factors	Signalled Gain Factor
- Gain factor Bc	0
- Gain factor Bd	0
- Reference TFC ID	Not Present
- Power offset Pp-m	0dB
- PRACH partitioning	

```
Access Service Class
 - ASC Settings
- Available signature Start Index
                                                0 (ASC#0)
 - Available signature End Index
                                                7 (ASC#0)
  - Available sub-channel Start Index
                                                0 (ASC#0)
 - Available sub-channel End Index
                                                11 (ASC#0)
 - Available signature Start Index
                                                0 (ASC#1)
 - Available signature End Index
                                                7 (ASC#1)
 - Available sub-channel Start Index
                                                0 (ASC#1)
  - Available sub-channel End Index
                                                10 (ASC#1)
 - Available signature Start Index
                                                0 (ASC#2)
 - Available signature End Index
                                                7 (ASC#2)
  - Available sub-channel Start Index
                                                0 (ASC#2)
 - Available sub-channel End Index
                                                9 (ASC#2)
 - Available signature Start Index
                                                0 (ASC#3)
  Available signature End Index
                                                7 (ASC#3)
  Available sub-channel Start Index
                                                0 (ASC#3)
  Available sub-channel End Index
                                                8 (ASC#3)
  Available signature Start Index
                                                0 (ASC#4)
  Available signature End Index
                                                7 (ASC#4)
 - Available sub-channel Start Index
                                                0 (ASC#4)
 - Available sub-channel End Index
                                                7 (ASC#4)
 - Available signature Start Index
                                                0 (ASC#5)
  - Available signature End Index
                                                7 (ASC#5)
 - Available sub-channel Start Index
                                                0 (ASC#5)
 - Available sub-channel End Index
                                                6 (ASC#5)
  Available signature Start Index
                                                0 (ASC#6)
  Available signature End Index
                                                7 (ASC#6)
  Available sub-channel Start Index
                                                0 (ASC#6)
  Available sub-channel End Index
                                                5 (ASC#6)
 - Available signature Start Index
                                                0 (ASC#7)
 - Available signature End Index
                                                7 (ASC#7)
 - Available sub-channel Start Index
                                                0 (ASC#7)
 - Available sub-channel End Index
                                                4 (ASC#7)
- Persistence scaling factor
                                                0.9 (for ASC#2)
- Persistence scaling factor
- Persistence scaling factor
                                                0.9 (for ASC#3)
                                                0.9 (for ASC#4)
- Persistence scaling factor
- Persistence scaling factor
                                                0.9 (for ASC#5)
                                                0.9 (for ASC#6)
- Persistence scaling factor
- Persistence scaling factor
                                                0.9 (for ASC#7)
- AC-to-ASC mapping table
- AC-to-ASC mapping
                                                6 (AC0-9)
- AC-to-ASC mapping
                                                5 (AC10)
- AC-to-ASC mapping
                                                4 (AC11)
- AC-to-ASC mapping
                                                3 (AC12)
                                                2 (AC13)
- AC-to-ASC mapping
- AC-to-ASC mapping
                                                1 (AC14)
- AC-to-ASC mapping
                                                0 (AC15)
- Primary CPICH DL TX power
                                                Reference to clause 6.10 Parameter Set
- Constant value
                                                Reference to clause 6.10 Parameter Set
- PRACH power offset
- Power offset PoRamp Step
                                                3dB
- Preamble Retrans Max
                                                2
- RACH transmission parameters
- Mmax
- NB01min
                                                3 slot
- NB01max
                                                10 slot
- AICH info
- Secondary scrambling code
                                                1 (1 to 15)
 Channelisation code
                                                SF-1(SF is reference to clause 6.10 Parameter Set)
- STTD indicator
                                                FALSE
```

- AICH transmission timing 0 - Secondary CCPCH system info - Secondary CCPCH info - Primary CPICH usage for channel estimation Primary CPICH may be used - Secondary CPICH info Not Present - Secondary scrambling code - Channelisation code - STTD indicator - Secondary scrambling code - STTD indicator **FALSE** - Spreading factor Reference to clause 6.10 Parameter Set - Code number SF-1(SF is reference to clause 6.10 Parameter Set ) - Pilot symbol existence **FALSE** - TFCI existence **TRUE** - Fixed or Flexible position Flexible - Timing offset - TFCS (This IE is repeated for TFC number for PCH and FACH.) - Normal - TFCI Field 1 information - CHOICE TFCS representation Addition - TFCS addition information - CHOICE CTFC Size Number of bits used must be enough to cover all combinations of CTFC from clause 6.10. - CTFC information Refer to clause 6.10 Parameter Set Not Present - Power offset information - FACH/PCH information 1 (for PCH) - Transport Channel Identity (PCH) - Dynamic Transport format information (This IE is repeated for TFI number.) - Number of Transport blocks Reference to clause 6.10 Parameter Set - RLC Size Reference to clause 6.10 Parameter Set - Semi-static Transport Format information - Transmission time interval Reference to clause 6.10 Parameter Set Reference to clause 6.10 Parameter Set - Type of channel coding - Coding Rate Reference to clause 6.10 Parameter Set - Rate matching attribute Reference to clause 6.10 Parameter Set - CRC size Reference to clause 6.10 Parameter Set - Transport Channel Identity 2 (for FACH) - TFS (FACH) - Dynamic Transport format information (This IE is repeated for TFI number.) - Number of Transport blocks Reference to clause 6.10 Parameter Set - RLC Size Reference to clause 6.10 Parameter Set - Semi-static Transport Format information - Transmission time interval Reference to clause 6.10 Parameter Set - Type of channel coding Reference to clause 6.10 Parameter Set Reference to clause 6.10 Parameter Set - Coding Rate - Rate matching attribute Reference to clause 6.10 Parameter Set - CRC size Reference to clause 6.10 Parameter Set

**FALSE** 

**FALSE** 

Not Present

18

SF-1(SF is reference to clause 6.10 Parameter Set)

- CTCH indicator

- STTD indicator

- Secondary scrambling code

CBS DRX Level 1 information

Channelisation codeNumber of PI per frame

- PICH info

## Contents of System Information Block type6 In connected mode (similar to SIB type5)

- References to other system information blocks	Not Present
- PICH power offset	0 dB
- AICH power offset	0 dB
- Primary CCPCH info	Oub
	FALCE
- TX Diversity indicator	FALSE
- PRACH system information	
- PRACH info	500
<u>- CHOICE mode</u>	FDD
Available Signature	<u>'0000 0000 1111 1111'B</u>
Signature	0
- Signature	4
- Signature	<del>2</del> <del>3</del>
Signature	3
- Signature	4
Signature	5
Signature	6
— Signature	7
- Available SF	Reference to clause 6.10 Parameter Set
- Preamble Sscrambling code number	0
- Puncturing Limit	Reference to clause 6.10 Parameter Set
- Available Sub Channel number	'1111 1111 1111'B
— Sub channel number	0
— Sub channel number	1
Sub channel number	2
— Sub channel number	3
— Sub channel number	4
— Sub channel number	5
— Sub channel number	6
— Sub channel number	7
— Sub channel number	8
— Sub channel number	9
— Sub channel number	<del>10</del>
— Sub channel number	<del>11</del>
- Transport Channel Identity	1
- RACH TFS	
- Dynamic Transport format information	( This IE is repeated for TFI number)
- Number of Transport blocks	Reference to clause 6.10 Parameter Set
- RLC size	Reference to clause 6.10 Parameter Set
- Semi-static Transport Format information	
- Transmission time interval	Reference to clause 6.10 Parameter Set
- Type of channel coding	Reference to clause 6.10 Parameter Set
- Coding Rate	Reference to clause 6.10 Parameter Set
- Rate matching attribute	Reference to clause 6.10 Parameter Set
- CRC size	Reference to clause 6.10 Parameter Set
- RACH TFCS	(This IE is repeated for TFC number.)
- Normal	( This is is repeated for it o flumber.)
- TFCI Field 1 information	
- CHOICE TFCS representation	Addition
- TFCS addition information	Addition
- CHOICE CTFC Size	Number of hits used must be abough to sever all
- Undide OTFO Size	Number of bits used must be enough to cover all combinations of CTFC from clause 6.10.
CTEC information	
- CTFC information	Refer to clause 6.10 Parameter Set
- Power offset information	Signallad Cain Factor
- CHOICE Gain Factors	Signalled Gain Factor
- Gain factor Bc	0
- Gain factor ßd	0
- Reference TFC ID	Not Present
- Power offset Pp-m	0dB
- PRACH partitioning	
- Access Service Class	

```
ASC Settings
 - Available signature Start Index
                                                 0 (ASC#0)
  - Available signature End Index
                                                 7 (ASC#0)
  - Available sub-channel Start Index
                                                0 (ASC#0)
  - Available sub-channel End Index
                                                 11 (ASC#0)
  - Available signature Start Index
                                                0 (ASC#1)
  - Available signature End Index
                                                 7 (ASC#1)
  - Available sub-channel Start Index
                                                0 (ASC#1)
  - Available sub-channel End Index
                                                 10 (ASC#1)
  - Available signature Start Index
                                                0 (ASC#2)
                                                 7 (ASC#2)
 - Available signature End Index
- Available sub-channel Start Index
                                                0 (ASC#2)
  - Available sub-channel End Index
                                                 9 (ASC#2)
  - Available signature Start Index
                                                0 (ASC#3)
  - Available signature End Index
                                                 7 (ASC#3)
  - Available sub-channel Start Index
                                                0 (ASC#3)
  Available sub-channel End Index
                                                 8 (ASC#3)
  Available signature Start Index
                                                0 (ASC#4)
  Available signature End Index
                                                 7 (ASC#4)
  - Available sub-channel Start Index
                                                0 (ASC#4)
  - Available sub-channel End Index
                                                7 (ASC#4)
 - Available signature Start Index
                                                0 (ASC#5)
  - Available signature End Index
                                                 7 (ASC#5)
  - Available sub-channel Start Index
                                                0 (ASC#5)
  - Available sub-channel End Index
                                                6 (ASC#5)
 - Available signature Start Index
                                                0 (ASC#6)
  - Available signature End Index
                                                 7 (ASC#6)
  Available sub-channel Start Index
                                                0 (ASC#6)
  Available sub-channel End Index
                                                5 (ASC#6)
  Available signature Start Index
                                                0 (ASC#7)
 - Available signature End Index
                                                7 (ASC#7)
  - Available sub-channel Start Index
                                                0 (ASC#7)
  Available sub-channel End Index
                                                 4 (ASC#7)
- Persistence scaling factor
- Persistence scaling factor
                                                0.9 (for ASC#2)
- Persistence scaling factor
                                                0.9 (for ASC#3)
- Persistence scaling factor
                                                0.9 (for ASC#4)
- Persistence scaling factor
                                                0.9 (for ASC#5)
- Persistence scaling factor
                                                 0.9 (for ASC#6)
                                                0.9 (for ASC#7)
- Persistence scaling factor
- AC-to-ASC mapping table
                                                 Not Present
- AC-to-ASC mapping
- Primary CPICH DL TX power
                                                 Reference to clause 6.10 Parameter Set
- Constant value
                                                 Reference to clause 6.10 Parameter Set
- PRACH power offset
- Power offset PoRamp Step
                                                 3dB
- Preamble Retrans Max
                                                 2
- RACH transmission parameters
- Mmax
- NB01min
                                                 3 slot
- NB01max
                                                 10 slot
- AICH info
- Secondary scrambling code
                                                 1 (1 to 15)
- Channelisation code
                                                 SF-1(SF is reference to clause 6.10 Parameter Set)
- STTD indicator
                                                 FALSE
- AICH transmission timing
                                                0
```

- Secondary CCPCH system info
- Secondary CCPCH info
- Selection indicator
- Primary CPICH usage for channel estimation
- Secondary CPICH info
- Secondary scrambling code
- Channelisation code
- STTD indicator
- Secondary scrambling code
- STTD indicator
- Spreading factor
- Code number
- Pilot symbol existence
- TFCI existence
- Fixed or Flexible position
- Timing offset
- TFCS
- Normal
- TFCI Field 1 information
- CHOICE TFCS representation
- TFCS addition information
- CHOICE CTFC Size
- CTFC information
- Power offset information
- FACH/PCH information
- Transport Channel Identity
- TFS
- Dynamic Transport format information
- Number of Transport blocks
- RLC Size
- Semi-static Transport Format information
- Transmission time interval
- Type of channel coding
- Coding Rate
- Rate matching attribute
- CRC size
- Transport Channel Identity
- TFS
- Dynamic Transport format information
- Number of Transport blocks
- RLC Size
- Semi-static Transport Format information
- Transmission time interval
- Type of channel coding
- Coding Rate
- Rate matching attribute
- CRC size
- CTCH indicator
- PICH info
- Secondary scrambling code
- Channelisation code
- Number of PI per frame
- STTD indicator
- CBS DRX Level 1 information

#### Дп

Primary CPICH may be used Not Present

1

**FALSE** 

Reference to clause 6.10 Parameter Set Reference to clause 6.10 Parameter Set

**FALSE** 

TRUE

Flexible

0

(This IE is repeated for TFC number for PCH and FACH.)

#### Addition

Number of bits used must be enough to cover all combinations of CTFC from clause 6.10. Refer to clause 6.10 Parameter Set Not Present

1 (for PCH) (PCH)

(This IE is repeated for TFI number.)
Reference to clause 6.10 Parameter Set
Reference to clause 6.10 Parameter Set

Reference to clause 6.10 Parameter Set Reference to clause 6.10 Parameter Set Reference to clause 6.10 Parameter Set Reference to clause 6.10 Parameter Set Reference to clause 6.10 Parameter Set 2 (for FACH)

(FACH)

(This IE is repeated for TFI number.)

Reference to clause 6.10 Parameter Set Reference to clause 6.10 Parameter Set

Reference to clause 6.10 Parameter Set Reference to clause 6.10 Parameter Set Reference to clause 6.10 Parameter Set Reference to clause 6.10 Parameter Set Reference to clause 6.10 Parameter Set FALSE

2

SF-1(SF is reference to clause 6.10 Parameter Set)

18 FALSE Not Present

## Contents of System Information Block type7

- UL interference	-100dBm(-110 to -70 dBm)
- PRACHs listed in system information block	
type5	
- Dynamic persistence level	2 ( 1 to 8)
- PRACHs listed in system information block	
type6	
- Dynamic persistence level	2 ( 1 to 8)

Contents of System Information Block type8,9

This information is used for static CPCH in the cell, so this is not present.

Contents of System Information Block type10

This information is used for DRAC, so this is not present.

#### Contents of System Information Block type11

- SFN-SFN observed time difference

- Cell identity

- CPICH Ec/N0

- References to other system information blocks Not Present - FACH measurement occasion info Not Present - k\_UTRA - Other RAT present in intersystem cell info - RAT type - k Intrer Rat - Measurement control systemen information - Use of HCS Not used CPICH Ec/N0 Cell\_selection\_and\_reselection\_quality\_-- Intra-frequency measurement system information - Intra-frequency measurement identity number - Intra-frequency cell info list - Removed intra-frequency cells Not Present - Intra-frequency cell id - New intra-frequency cells - Intra-frequency cell id - Cell info - Cell individual offset 0dB( -10,-9.5...10 by step of 0.5) - Reference time difference to cell Not Present - Primary CPICH info - Primary scrambling code The current value plus 50(When the current cell is cell No.8 then minus 50) Not Present - Primary CPICH TX power - Read SFN indicator **TRUE** - TX Diversity indicator **FALSE** - Cell Selection and Re-selection info for - Qoffset1s,n T.B.D0 dB Qoffset2<sub>s,n</sub> 0 dB 33dBm - Maximum allowed UL TX power - HCS neighbouring cell information Not Present \_- HCS\_PRIO - QHCS - HCS Cell Re-selection information - Penalty time - Temporary\_offsets Temporary\_offset1 Temporary\_offset2 CHOICE mode T.B.D - Q<mark>qual</mark>min **Orxlevmin** - Intra-frequency measurement quantity - Filter coefficient **CPICH RSCP** - Measurement quantity - Intra-frequency reporting quantity for RACH Reporting -SFN-SFN observed time difference No report - Reporting quantity No report - Maximum number of reported cells on RACH No report - Reporting information for state CELL DCH Acknowledged mode RLC - Measurement Report Transfer - Periodic Reporting / Event Trigger Reporting Event trigger Mode - Intra-frequency reporting quantity - Reporting quantities for active set cells

No report

TRUE

**FALSE** 

- CPICH RSCP
- Pathloss
- CFN-SFN observed time difference
- Reporting quantities for monitored set cells
- SFN-SFN observed time difference
- Cell identity
- CPICH Ec/N0
- CPICH RSCP
- Pathloss
- CFN-SFN observed time difference
- Reporting quantities for detected set cells
- SFN-SFN observed time difference
- Cell identity
- CPICH Ec/N0
- CPICH RSCP
- Pathloss
- CFN-SFN observed time difference
- Intra-frequency measurement reporting criteria
- parameters required for each event
- intra-frequency event identity
- Triggering condition(mandatory in case of 1a,1b,1e,1f)
- Reporting Range(optional in case of 1a,1b)
- cells forbidden to affect reporting range(optional in case of 1a,1b)
- Primary CPICH info
- Primary scrambling code
- W(optional in case of 1a,1b)
- Hysteresis (mandatory in case of 1a,1b,1c,1d,1g,1h,1l,1j)
- Threshold used frequency (in case of 1e,1f,1h,1i,1j)
- Reporting deactivation threshold(mandatory in case of 1a)
- Replacement activation threshold(mandatory in case of 1c)
- Time to trigger
- Amount of reporting
- Reporting interval
- Reporting cell status
- CHOICE reporting cell

#### - Maximum number of reporting cells type 2

- Inter-frequency measurement system information
- Inter-frequency measurement identity number
- Inter-frequency cell info list
- Removed inter-frequency cells
- Inter-frequency cell id
- New inter-frequency cells
- Inter-frequency cell id
- Frequency info
- UARFCN uplink(Nu)
- UARFCN downlink(Nd)
- Cell info
- Cell individual offset
- Reference time difference to cell
- Primary CPICH info
- Primary scrambling code
- Primary CPICH TX power

TRUE FALSE TRUE

No report TRUE

FALSE TRUE

FALSE

FALSE

Not Present

1a

monitored set cells

5dB

Not Present

1.0

T.B.D(-125..165)

1

Not Present(not applicable,1,2,3,4,5,6,7)

640(0,10,20,40,60,80,100,120,160,200,240,320,640,1280,2560,5000)

Infinity(1,2,4,816,32,64,Infinity)

0(0,250,500,1000,2000,4000,8000,16000 milliseconds)

<del>Not Present</del>

Within monitored cells on used frequency and within monitored cells on non-used frequency

<u>2</u>

Not Present

- Read SFN indicator - TX Diversity indicator - Cell Selection and Re-selection info - Qoffsets,n - Maximum allowed UL TX power - HCS neighbouring cell information - HCS PŘIO - QHCS - HCS Cell Re-selection information - Penalty time - Temporary\_offsets Temporary\_offset1 - Temporary\_offset2 - CHOICE mode - Qqualmin - Inter-frequency measurement quantity Intra-frequency reporting criteriaIntra-frequency measurement quantity - Filter coefficient - Measurement quantity - Inter-frequency reporting criteria - Inter-frequency measurement quantity - Filter coefficient - Measurement quantity for frequency quality estimate - Inter-frequency measurement reporting

Not Present

Not Present

Not Present

criteria

information

- Inter-system measurement system information

- UE internal measurement system information

- Traffic volume measurement system

#### Contents of System Information Block type12 in connected mode (similar to SIB type11)

- References to other system information blocks Not Present - FACH measurement occasion info Not Present - k\_UTRA - Other RAT present in intersystem cell info - RAT type - k Intrer Rat - Measurement control systemen information Not used - Cell\_selection\_and\_reselection\_quality\_-CPICH Ec/NO - Intra-frequency measurement system information - Intra-frequency measurement identity number Intra-frequency cell info listRemoved intra-frequency cells Not Present - Intra-frequency cell id - New intra-frequency cells - Intra-frequency cell id 0 - Cell info - Cell individual offset 0dB(-10,-9.5...10 by step of 0.5) - Reference time difference to cell Not Present - Primary CPICH info - Primary scrambling code The current value plus 50(When the current cell is cell No.8 then minus 50) - Primary CPICH TX power Not Present - Read SFN indicator **TRUE** - TX Diversity indicator **FALSE** - Cell Selection and Re-selection info for T.B.D0 dB - Qoffset1s,n 0 dB33dBm - Maximum allowed UL TX power - HCS neighbouring cell information Not Present - HCS\_PRIO - QHCS - HCS Cell Re-selection information - Penalty\_time - Temporary\_offsets Temporary\_offset1 - Temporary\_offset2 CHOICE mode \_- Q<u>qual</u>min T.B.D - Intra-frequency measurement quantity - Filter coefficient - Measurement quantity **CPICH RSCP** - Intra-frequency reporting quantity for RACH Reporting -SFN-SFN observed time difference No report - Reporting quantity No report - Maximum number of reported cells on RACH No report - Reporting information for state CELL\_DCH - Measurement Report Transfer Acknowledged mode RLC - Periodic Reporting / Event Trigger Reporting Event trigger Mode - Intra-frequency reporting quantity - Reporting quantities for active set cells - SFN-SFN observed time difference No report - Cell identity TRUE - CPICH Ec/N0 **FALSE** 

- CPICH RSCP
- Pathloss
- CFN-SFN observed time difference
- Reporting quantities for monitored set cells
- SFN-SFN observed time difference
- Cell identity
- CPICH Ec/N0
- CPICH RSCP
- Pathloss
- CFN-SFN observed time difference
- Reporting quantities for detected set cells
- SFN-SFN observed time difference
- Cell identity
- CPICH Ec/N0
- CPICH RSCP
- Pathloss
- CFN-SFN observed time difference
- Intra-frequency measurement reporting criteria
- parameters required for each event
- intra-frequency event identity
- Triggering condition(mandatory in case of 1a,1b,1e,1f)
- Reporting Range(optional in case of 1a,1b)
- cells forbidden to affect reporting range(optional in case of 1a,1b)
- Primary CPICH info
- Primary scrambling code
- W(optional in case of 1a,1b)
- Hysteresis (mandatory in case of 1a,1b,1c,1d,1g,1h,1l,1j)
- Threshold used frequency (in case of 1e,1f,1h,1i,1j)
- Reporting deactivation threshold(mandatory in case of 1a)
- Replacement activation threshold(mandatory in case of 1c)
- Time to trigger
- Amount of reporting
- Reporting interval
- Reporting cell status
- CHOICE reporting cell

#### - Maximum number of reporting cells type 2

- Inter-frequency measurement system information
- Inter-frequency measurement identity number
- Inter-frequency cell info list
- Removed inter-frequency cells
- Inter-frequency cell id
- New inter-frequency cells
- Inter-frequency cell id
- Frequency info
- UARFCN uplink(Nu)
- UARFCN downlink(Nd)
- Cell info
- Cell individual offset
- Reference time difference to cell
- Primary CPICH info
- Primary scrambling code
- Primary CPICH TX power

TRUE FALSE

**TRUE** 

No report TRUE FALSE TRUE

**FALSE** 

FALSE

Not Present

1a

monitored set cells

5dB

Not Present

1.0

T.B.D(-125..165)

1

Not Present(not applicable,1,2,3,4,5,6,7)

0(0,10,20,40,60,80,100,120,160,200,240,320,640,1280,2 560,5000)

Infinity(1,2,4,816,32,64,Infinity)

0 (0,250,500,1000,2000,4000,8000,16000 milliseconds)

Not Present

Within monitored cells on used frequency and within monitored cells on non-used frequency

<u>2</u>

Not Present

- Read SFN indicator	
- TX Diversity indicator	
<ul> <li>Cell Selection and Re-selection info</li> </ul>	
- Qoffsets,n	
<ul> <li>Maximum allowed UL TX power</li> </ul>	
<ul> <li>HCS neighbouring cell information</li> </ul>	
- HCS_PRIO	
- QHCS	
<ul> <li>HCS Cell Re-selection information</li> </ul>	
- Penaltytime	
<ul><li>Temporary_offsets</li></ul>	
<ul><li>- Temporary_offset1</li></ul>	
- Temporary_offset2	
- CHOICE mode	
Q <mark>qual</mark> min	
<u>- Orxlevmin</u>	
<ul> <li>Inter-frequency measurement quantity</li> </ul>	
<ul> <li>Intra-frequency reporting criteria</li> </ul>	
<ul> <li>Intra-frequency measurement quantity</li> </ul>	
- Filter coefficient	
<ul> <li>Measurement quantity</li> </ul>	
<ul> <li>Inter-frequency reporting criteria</li> </ul>	
<ul> <li>Inter-frequency measurement quantity</li> </ul>	
- Filter coefficient	
<ul> <li>Measurement quantity for frequency quality</li> </ul>	
estimate	
<ul> <li>Inter-frequency measurement reporting</li> </ul>	
criteria	
- Inter-system measurement system information	Not Present
- Traffic volume measurement system	Not Present
information	

#### Default settings for cell No.1:

- UE internal measurement system information

Downlink input level	Reference to clause 6.10 Parameter Set
Uplink output power	Minimum supported by the UE's power class.
PCCPCH/PCPICH carrier number	Reference to clause 6.10 Parameter Set
Cell Channel Description	
- Primary CPICH info	
<ul> <li>Primary scrambling code</li> </ul>	100

Not Present

#### Cell No.2

The contents of SYSTEM INFORMATION BLOCK TYPE 1 to 16 messages for cell No.2 are identical to those of cell No.1 with the following exceptions:

Cell identity	0000 0000 0000 0000 0000 0000 0010B
URA identity	0000 0000 0000 0001B

#### Default settings for cell No.2:

Downlink input level	Reference to clause 6.10 Parameter Set
Uplink output power	Minimum supported by the UE's power class.
PCCPCH/PCPICH carrier number	Reference to clause 6.10 Parameter Set
Cell Channel Description	
- Primary CPICH info	
- Primary scrambling code	150

#### Cell No.3

The contents of SYSTEM INFORMATION BLOCK TYPE 1 to 16 messages for cell No.3 are identical to those of cell No.1 with the following exceptions:

Cell identity	0000 0000 0000 0000 0000 0000 0011B
URA identity	0000 0000 0000 0010B

#### Default settings for cell No.3:

Downlink input level	Reference to clause 6.10 Parameter Set
Uplink output power	Minimum supported by the UE's power class.
PCCPCH/PCPICH carrier number	Reference to clause 6.10 Parameter Set
Cell Channel Description	
- Primary CPICH info	
- Primary scrambling code	200

#### Cell No.4

The contents of SYSTEM INFORMATION BLOCK TYPE 1 to 16 messages for cell No.4 are identical to those of cell No.1 with the following exceptions:

<u> </u>	
Cell identity	0000 0000 0000 0000 0000 0000 0100B
URA identity	0000 0000 0000 0010B

#### Default settings for cell No.4:

Downlink input level	Reference to clause 6.10 Parameter Set
Uplink output power	Minimum supported by the UE's power class.
PCCPCH/PCPICH carrier number	Reference to clause 6.10 Parameter Set
Cell Channel Description	
- Primary CPICH info	
- Primary scrambling code	250

#### Cell No.5

The contents of SYSTEM INFORMATION BLOCK TYPE 1 to 16 messages for cell No.5 are identical to those of cell No.1 with the following exceptions:

Cell identity	0000 0000 0000 0000 0000 0000 0101B
URA identity	0000 0000 0000 0011B

#### Default settings for cell No.5:

Downlink input level	Reference to clause 6.10 Parameter Set
Uplink output power	Minimum supported by the UE's power class.
PCCPCH/PCPICH carrier number	Reference to clause 6.10 Parameter Set
Cell Channel Description	
- Primary CPICH info	
<ul> <li>Primary scrambling code</li> </ul>	300

#### Cell No.6

The contents of SYSTEM INFORMATION BLOCK TYPE 1 to 16 messages for cell No.6 are identical to those of cell No.1 with the following exceptions:

Cell identity	0000 0000 0000 0000 0000 0000 0110B
URA identity	0000 0000 0000 0011B

## Default settings for cell No.6:

Downlink input level	Reference to clause 6.10 Parameter Set
Uplink output power	Minimum supported by the UE's power class.
PCCPCH/PCPICH carrier number	Reference to clause 6.10 Parameter Set
Cell Channel Description	
- Primary CPICH info	
- Primary scrambling code	350

#### Cell No.7

The contents of SYSTEM INFORMATION BLOCK TYPE 1 to 16 messages for cell No.7 are identical to those of cell No.1 with the following exceptions:

Cell identity	0000 0000 0000 0000 0000 0000 0111B
URA identity	0000 0000 0000 0100B

#### Default settings for cell No.7:

Downlink input level	Reference to clause 6.10 Parameter Set
Uplink output power	Minimum supported by the UE's power class.
PCCPCH/PCPICH carrier number	Reference to clause 6.10 Parameter Set
Cell Channel Description	
- Primary CPICH info	
- Primary scrambling code	400

#### Cell No.8

The contents of SYSTEM INFORMATION BLOCK TYPE 1 to 16 messages for cell No.8 are identical to those of cell No.1 with the following exceptions:

Cell identity	0000 0000 0000 0000 0000 1000B
URA identity	0000 0000 0000 0100B

#### Default settings for cell No.8:

Γ	Downlink input level	Reference to clause 6.10 Parameter Set		
Uplink output power		Minimum supported by the UE's power class.		
	PCCPCH/PCPICH carrier number	Reference to clause 6.10 Parameter Set		
	Cell Channel Description			
	- Primary CPICH info			
	- Primary scrambling code	450		

#### Default Radio Conditions for Multi-Cell Environment

In the event that a multi-cell environment is applied by the System Simulator, the following transmission parameters shall be used unless otherwise stated in the description of individual test case.

parameters sna	111 DO 0000	dinoss our	or wrise state	a iii tiio aot	on iption or	marriadar	toot oaso.		
Parameter	Unit	Cell 1	Cell 2	Cell 3	Cell 4	Cell 5	Cell 6	Cell 7	Cell 8
UTRA RF Channel Number								Switched Off	Switched Off
CPICH_Ec/No	dB	-5	-15	-20	-24	-18	-10	-	-
CPICH RSCP	dBm	-60	-70	-75	-95	-73	-65	-	-
UTRA RSSI	dBm	-55	-55	-55	-55	-55	-55	-	-
Propagation Profile					Sta	atic			
<i>Qrxlevmin Qrxqualmin</i>	dBm dB	-90dBm -20dB	-90dBm -20dB	-90dBm -20dB	-90dBm -20dB	-90dBm -20dB	-70dBm -5dB		
UE_TXPWR_MAX _RACH	DBm	Max. RF Output of UE							
MNC		001D	001D	001D	001D	001D	001D		
MCC		01D	01D	01D	01D	02D	01D		
Cell barred	·	No	No	No	No	No	No	No	No

3GPP TSG T1 Meeting #9 Redondo Beach, Ca, USA, 16-17 November 2000

3GPP/TSG T1/SIG Meeting#13 Tokyo, Japan, 17-19 October 2000 Document T1-000285

e.g. for 3GPP use the format TP-99xxx or for SMG, use the format P-99-xxx

**Document** 

T1S000183

e.g. for 3GPP use the format TP-99xxx or for SMG, use the format P-99-xxx

	CHANGE REQUEST  Please see embedded help file at the bottom of this page for instructions on how to fill in this form correctly.
	34.108 CR 029 Current Version: 3.1.0
GSM (AA.BB) or 3G	(AA.BBB) specification number↑ ↑ CR number as allocated by MCC support team
For submission that the submission of the submis	(is sime
Proposed chang (at least one should be m	
Source:	Matsushita Communication Industry Co.,Ltd <u>Date:</u> 17/10/2000
Subject:	Application of ciphering during conformance testing
Work item:	
Category: F A (only one category B Shall be marked C With an X) D	Addition of feature Release 97 Functional modification of feature X Release 98
Reason for change:	<ol> <li>Following the comments from T1SIG #11 meeting, ciphering mechanism is activated for RRC test cases. RADIO BEARER SETUP message and SECURITY MODE COMMAND message are modified to cater to this request. For RADIO BEARER RELEASE message, IE "Cipher mode info" is set to not present so that by default ciphering for the remaining RBs is not terminated.</li> <li>SECURITY MODE COMMAND message was updated to reflect approved changes in CR-311r2 ("Security Capability" IE) for TS 25.331 v3.2.0.</li> <li>IEs "START" and "CN Domain Identity" were inserted into RRC CONNECTION SETUP COMPLETE and RADIO BEARER SETUP COMPLETE messages. This modification is carried out as a result of CR-310r5 for TS 25.331 v3.2.0.</li> <li>Changes made in revision 1</li> <li>During TSG T1#8 Plenary meeting held in Naantali, Finland, the issue of applying ciphering by default was discussed. It was decided that the activation of ciphering during conformance test is optional depending on the implementation conformance statement provided by UE manufacturers. Revision 1 of this CR provides the updates in accordance to this agreement. Messages updated include: RADIO BEARER SETUP (Speech for CS), RADIO BEARER SETUP COMPLETE SECURITY MODE COMMAND and SECURITY MODE COMPLETE</li> </ol>
Clauses affected	<u>d:</u> 9
Other specs	Other 3G core specifications → List of CRs:

# Affected: Other GSM core specifications MS test specifications BSS test specifications

O&M specifications



CR-012R1 to TS 34.123-1

# Other comments:



<----- double-click here for help and instructions on how to create a CR.

# 9 Default Message Contents

This clause contains the default values of common messages, which unless indicated otherwise in specific clauses of TS34.123-1, shall be transmitted and checked by the system simulator.

#### Contents of DOWNLINK DIRECT TRANSFER message: AM

Information Element	Value/remark
Message Type	
Integrity check info	Not Present
CN domain identity	CS domain
NAS message	See Specific Message Content for each test case

## Contents of INITIAL DIRECT TRANSFER message: AM

Information Element	Value/remark
Message Type	
Integrity check info	Not checked
Service Descriptor	Not checked
Flow Identifier	Not checked
CN domain identity	Not checked
NAS message	Not checked
Megasured results on RACH	Not checked

#### Contents of PAGING TYPE1 message: TM ( Speech in CS )

Information Element	Value/remark
Message Type	
Paging record	
- Paging cause	Terminating Speech Call
- CN domain identity	CS domain
- CHOICE UE identity	
- IMSI	Set to the same octed string as in the IMSI stored in the
	USIM card
BCCH modification info	Not Present

#### Contents of PAGING TYPE1 message: TM ( The others of speech in CS )

Information Element	Value/remark
Message Type	
Paging record	
- Paging cause	Terminating CS DATA Call
- CN domain identity	CS domain
- CHOICE UE identity	
- IMSI	Set to the same octed string as in the IMSI stored in the
	USIM card
BCCH modification info	Not Present

## Contents of PAGING TYPE1 message: TM ( Packet in PS )

Information Element	Value/remark
Message Type	
Paging record	
- Paging cause	Terminating PS DATA Call
- CN domain identity	PS domain
- CHOICE UE identity	
- IMSI	Set to the same octed string as in the IMSI stored in the
	USIM card
BCCH modification info	Not Present

Information Element	Value/remark
Message Type	Net Day - and
Integrity check info	Not Present
<ul><li>message authentication code</li><li>RRC message sequence number</li></ul>	
Integrity protection mode info	Not Present
- Integrity protection mode command	THE THE SOIL
<ul> <li>Downlink integrity protection activation info</li> </ul>	
- RRC message sequence number	
- RRC message sequence number	
<ul> <li>Integrity protection algorithm</li> <li>Integrity protection initialisation number</li> </ul>	
Ciphering mode info	This presence of this IE is dependent on IXIT statements
	in TS 34.123-2. If ciphering is indicated to be active, this
	IE present with the values of the sub IEs as stated
	below. Else, this IE is omitted. Not Present( If ciphering
Ciphoring mode command	is applied, this IE is needed)
Ciphering mode command     Ciphering algorithm	st <u>artop</u> Use one of the supported ciphering algorithms. Not
Cipricing digoritim	Present(Standard UMTS Encryption Algorithm UEA1)
- Activation time for DPCH	(256+CFN-(CFN MOD 8 + 8 ))MOD 256Not
	Present(Used RLC TM)
- Radio bearer downlink ciphering activation time	Not Present <del>(Used RLC-AM or RLC-UM)</del>
info  Padio hoaror identity	
<ul><li>Radio bearer identity</li><li>RLC sequence number</li></ul>	
Activation time	(256+CFN-(CFN MOD 8 + 8 ))MOD 256
New U-RNTI	Not Present
New C-RNTI	Not Present
DRX indicator	noDRX
UTRAN DRX cycle length coefficient	Not Present
CN information info - PLMN identity	Not Present
- CN common GSM-MAP NAS system information	
- CN domain identity	
- CN domain specific GSM-MAP NAS system	
information	Net Decemb
Signalling RB information to setup - RB identity	Not Present
- CHOICE RLC info type	
- RLC info	
- Uplink RLC mode	
- Transmission RLC discard	
- SDU discard mode	
- Timer_MRW - Timer discard	
- MaxMRW	
- Transmission window size	
- Downlink RLC mode	
- In-sequence delivery	
- RB mapping info - Information for each multiplexing option	
- Number of RLC logical channels	
- Uplink transport channel type	
- Transport channel identity	
- Logical channel identity	
<ul> <li>MAC logical channel priority</li> <li>Number of RLC logical channels</li> </ul>	
- Downlink transport channel type	
- Transport channel identity	
- Logical channel identity	
RAB information for setup	
- RAB info	0000 0001B
- RAB identity - CN domain identity	0000 0001B CS domain
- CN domain identity - Re-establishment timer	OS domain
- T314	20 seconds
- RB information to setup	
- RB identity	4
- PDCP info	Not Present

- RLC info	
- Downlink RLC mode	(TM RLC)
- In-sequence delivery	TRUE
	THOE
- RB mapping info	
<ul> <li>Information for each multiplexing option</li> </ul>	
<ul> <li>Number of RLC logical channels</li> </ul>	1
- Uplink transport channel type	DCH
- Transport channel identity	2
	1
- Logical channel identity	1 -
- MAC logical channel priority	Not Present
<ul> <li>Number of RLC logical channels</li> </ul>	1
- Downlink transport channel type	DCH
- Transport channel identity	2
	1
- Logical channel identity	
- RB information to setup	
- RB identity	5
- PDCP info	Not Present
- RLC info	
- Downlink RLC mode	(TM RLC)
- In-sequence delivery	TRUE
- RB mapping info	
<ul> <li>Information for each multiplexing option</li> </ul>	
- Number of RLC logical channels	1
- Uplink transport channel type	DCH
- Transport channel identity	3
- Logical channel identity	1
- MAC logical channel priority	Not Present
<ul> <li>Number of RLC logical channels</li> </ul>	1
- Downlink transport channel type	DCH
- Transport channel identity	3
- Logical channel identity	1
- RB information to setup	(This IE is needed for 12.2 kbps and 10.2 kbps)
- RB identity	6
- PDCP info	Not Present
- RLC info	
- Downlink RLC mode	(TM RLC)
- In-sequence delivery	TRUE
- RB mapping info	
<ul> <li>Information for each multiplexing option</li> </ul>	
- Number of RLC logical channels	1
- Uplink transport channel type	DCH
- Transport channel identity	4
- Logical channel identity	1
- MAC logical channel priority	Not Present
<ul> <li>Number of RLC logical channels</li> </ul>	1
- Downlink transport channel type	DCH
- Transport channel identity	4
- Logical channel identity	1
	1 -
RB information to be affected	(UM DCCH for RRC)
- RB identity	0
- RB mapping info	
- Information for each multiplexing option	
- Number of RLC logical channels	1
- Uplink transport channel type	DCH
- Transport channel identity	1
<ul> <li>Logical channel identity</li> </ul>	1
- MAC logical channel priority	1
- Number of RLC logical channels	1
- Downlink transport channel type	DCH
- Transport channel identity	1
- Logical channel identity	1
RB information to be affected	(AM DCCH for RRC)
- RB identity	1
- RB mapping info	
- Information for each multiplexing option	
	1
- Number of RLC logical channels	1
- Uplink transport channel type	DCH
- Transport channel identity	1
- Logical channel identity	2
- MAC logical channel priority	2
Number of RLC logical channels	1
<ul> <li>Downlink transport channel type</li> </ul>	DCH

```
- Transport channel identity
       - Logical channel identity
RB information to be affected
                                                           (AM DCCH for NAS_DT High priority)
    - RB identity
    - RB mapping info
     - Information for each multiplexing option
      - Number of RLC logical channels
      - Uplink transport channel type
                                                           DCH
      - Transport channel identity
      - Logical channel identity
                                                          3
      - MAC logical channel priority
                                                          3
      - Number of RLC logical channels
       - Downlink transport channel type
                                                          DCH
       - Transport channel identity
       - Logical channel identity
                                                          3
RB information to be affected
                                                          (AM DCCH for NAS_DT Low priority)
     - RB identity
    - RB mapping info
     - Information for each multiplexing option
      - Number of RLC logical channels
      - Uplink transport channel type
                                                          DCH
      - Transport channel identity
      - Logical channel identity
                                                          4
      - MAC logical channel priority
                                                           4
      - Number of RLC logical channels
      - Downlink transport channel type
                                                          DCH
       - Transport channel identity
       - Logical channel identity
                                                           4
UL Transport channel information for all transport
channels
     - TFC subset
                                                           (This IE is repeated for TFC number.)
                                                          0 to MaxTFCValue-1 (MaxTFCValue is refer to clause
     - Allowed Transport Format combination
                                                           6.10 Parameter Set.)
    - UL DCH TFCS
                                                           (This IE is repeated for TFC number.)
     - Normal
      - TFCI Field 1 information(Explicit TFCS
Configuration)
      - Addition
       - TFCS addition
information(Reconfiguration/Addtion information)
       - CTFC information
        - CTFC
                                                          0 to MaxTFCValue-1 (MaxTFCValue is refer to clause
                                                          6.10 Parameter Set.)
        - Gain factor information
                                                           Λ
         - Gain factor \beta c
         - Gain factor β d
        - Power offset Pp-m
                                                          0dB
Added or Reconfigured UL TrCH information
    - Transport channel identity
    - TFS
     - Dynamic Transport format information
                                                           (This IE is repeated for TFI number)
      - Number of Transport blocks
                                                           Reference to clause 6.10 Parameter Set
      - Bit mode RLC size info
      - Transport block size
                                                           Reference to clause 6.10 Parameter Set
     - Semi-static Transport Format information
      - Transmission time interval
                                                           Reference to clause 6.10 Parameter Set
      - Type of channel coding
                                                           Reference to clause 6.10 Parameter Set
                                                           Reference to clause 6.10 Parameter Set
      - Coding Rate
                                                           Reference to clause 6.10 Parameter Set
      - Rate matching attribute
      - CRC size
                                                           Reference to clause 6.10 Parameter Set
Added or Reconfigured UL TrCH information
    - Transport channel identity
     - Dynamic Transport format information
                                                           (This IE is repeated for TFI number)
      - Number of Transport blocks
                                                           Reference to clause 6.10 Parameter Set
      - Bit mode RLC size info
      - Transport block size
                                                           Reference to clause 6.10 Parameter Set
     - Semi-static Transport Format information
      - Transmission time interval
                                                           Reference to clause 6.10 Parameter Set
                                                           Reference to clause 6.10 Parameter Set
      - Type of channel coding
      - Coding Rate
                                                           Reference to clause 6.10 Parameter Set
```

- Rate matching attribute
- CRC size

Added or Reconfigured UL TrCH information

- Transport channel identity
- Dynamic Transport format information
- Number of Transport blocks
- Bit mode RLC size info
- Transport block size
- Semi-static Transport Format information
- Transmission time interval
- Type of channel coding
- Coding Rate
- Rate matching attribute
- CRC size

Added or Reconfigured UL TrCH information

- Transport channel identity
- Dynamic Transport format information
- Number of Transport blocks
- Bit mode RLC size info
- Transport block size
- Semi-static Transport Format information
- Transmission time interval
- Type of channel coding
- Coding Rate
- Rate matching attribute
- CRC size

DRAC static information

- Transmission Time Validity
- Time duration before retry
- DRAC Class identity

DL Transport channel information common for all transport channel

- SCCPCH TFCS
- Normal
- TFCI Field 1 information(Explicit TFCS

#### Configuration)

- Addition
- TFCS addition

information(Reconfiguration/Addtion information)

- CTFC information
- CTFC
- Gain factor information
- Gain factor B c
- Gain factor β d
- DL DCH TFCS
- Normal
- TFCI Field 1 information(Explicit TFCS

# Configuration)

- Addition
- TFCS addition

information(Reconfiguration/Addtion information)

- CTFC information
- CTFC
- Gain factor information
- Gain factor B c
- Gain factor β d
- Power offset Pp-m

Added or Reconfigured DL TrCH information

- Transport channel identity
- TFS
- Dynamic Transport format information
- Number of Transport blocks
- Bit mode RLC size info
- Transport block size
- Semi-static Transport Format information

Reference to clause 6.10 Parameter Set Reference to clause 6.10 Parameter Set

(This IE is needed for 12.2 kbps and 10.2 kbps)

(This IE is repeated for TFI number)

Reference to clause 6.10 Parameter Set

If TrCH reconfiguration is executed then this is

needed(e.g The rate of SRB for DCCH is changed.).

(This IE is repeated for TFI number) Reference to clause 6.10 Parameter Set

Reference to clause 6.10 Parameter Set

Reference to clause 6.10 Parameter Set Reference to clause 6.10 Parameter Set Reference to clause 6.10 Parameter Set Reference to clause 6.10 Parameter Set

Reference to clause 6.10 Parameter Set Not Present

Not Present

(This IE is repeated for TFC number.)

0 to MaxTFCValue-1 (MaxTFCValue is refer to clause 6.10 Parameter Set.)

0

0

0dB

(This IE is repeated for TFI number) Reference to clause 6.10 Parameter Set

Reference to clause 6.10 Parameter Set

- Transmission time interval Reference to clause 6.10 Parameter Set - Type of channel coding Reference to clause 6.10 Parameter Set - Coding Rate Reference to clause 6.10 Parameter Set - Rate matching attribute Reference to clause 6.10 Parameter Set - CRC size Reference to clause 6.10 Parameter Set - DCH quality target - BLER Quality value 0.00- Transparent mode signalling info Not Present Added or Reconfigured DL TrCH information - Transport channel identity - Dynamic Transport format information (This IE is repeated for TFI number) - Number of Transport blocks Reference to clause 6.10 Parameter Set - Bit mode RLC size info - Transport block size Reference to clause 6.10 Parameter Set - Semi-static Transport Format information - Transmission time interval Reference to clause 6.10 Parameter Set - Type of channel coding Reference to clause 6.10 Parameter Set - Coding Rate Reference to clause 6.10 Parameter Set - Rate matching attribute Reference to clause 6.10 Parameter Set - CRC size Reference to clause 6.10 Parameter Set - DCH quality target - BLER Quality value 0.00- Transparent mode signalling info Not Present Added or Reconfigured DL TrCH information (This IE is needed for 12.2 kbps and 10.2 kbps) - Transport channel identity - Dynamic Transport format information (This IE is repeated for TFI number) - Number of Transport blocks Reference to clause 6.10 Parameter Set - Bit mode RLC size info - Transport block size Reference to clause 6.10 Parameter Set - Semi-static Transport Format information - Transmission time interval Reference to clause 6.10 Parameter Set - Type of channel coding Reference to clause 6.10 Parameter Set - Coding Rate Reference to clause 6.10 Parameter Set - Rate matching attribute Reference to clause 6.10 Parameter Set Reference to clause 6.10 Parameter Set - CRC size - DCH quality target - BLER Quality value 0.00- Transparent mode signalling info Not Present If TrCH reconfiguration is executed then this is Added or Reconfigured DL TrCH information needed(e.g The rate of SRB for DCCH is changed.). - Transport channel identity - Dynamic Transport format information (This IE is repeated for TFI number) - Number of Transport blocks Reference to clause 6.10 Parameter Set - Bit mode RLC size info - Transport block size Reference to clause 6.10 Parameter Set - Semi-static Transport Format information - Transmission time interval Reference to clause 6.10 Parameter Set - Type of channel coding Reference to clause 6.10 Parameter Set - Coding Rate Reference to clause 6.10 Parameter Set Reference to clause 6.10 Parameter Set - Rate matching attribute - CRC size Reference to clause 6.10 Parameter Set - DCH quality target 0.00 - BLER Quality value - Transparent mode signalling info Not Present Frequency info Reference to clause 6.10 Parameter Set - UARFCN uplink(Nu) - UARFCN downlink(Nd) Reference to clause 6.10 Parameter Set Maximum allowed UL TX power 33dBm Uplink DPCH info - Uplink DPCH power control info - DPCCH power offset -6dB - PC Preamble 8slot - Power Control Algorithm Algorithm1

1dB

Long

0 (0 to 16777215)

SF is reference to clause 6.10 Parameter Set

Not Present(1)

- TPC step size

- Scrambling code type

- Number of DPDCH

- spreading factor

- TFCI existence

- Scrambling code number

- Number of FBI bit Not Present(0) - Puncturing Limit Reference to clause 6.10 Parameter Set Downlink information common for all radio links - Downlink DPCH info common for all RL - Downlink DPCH power control information 0 (single) - DPC mode - Spreading factor Reference to clause 6.10 Parameter Set - Fixed or Flexible Position Fixed - TFCI existence **FALSE** - Number of bits for Pilot bits(SF=128,256) 4 bits - Downlink DPCH Offset Value Λ - DPCH compressed mode info -TGPSI -TGPS Status Flg inactive - TGMP **FDD** Measurement - TGPRC - TGCFN (Current CFN + (256 - TTI/10msec)) mod 256 - TGSN - TGL1 10 - TGL2 5 - TGD 15 - TGPL1 35 - TGPL2 35 - RPP Mode 1 - ITPRM Mode 1 - UL/DL Mode DΙ - Downlink compressed mode method F/2 - Uplink compressed mode method F/2 - Scrambling code change No code change - Downlink frame type - DeltaSIR1 2.0 - DeltaSIRafter1 1.0 - TX Diversity mode None - SSDT information Not Present - S field - Code Word Set Downlink PDSCH information Not Present **CPCH SET info** Not Present Downlink information for each radio links - Primary CPICH info - Primary scrambling code 100 Not Present - PDSCH with SHO DCH info - DSCH radio link identifier - TFCI Combining set - Radio link identifier - Primary CPICH info - Primary scrambling code - PDSCH code mapping Not Present - Downlink DPCH info for each RL - Primary CPICH usage for channel estimation Primary CPICH may be used Secondary CPICH info
 Secondary scrambling code Not Présent - channelisation code - DL channelisation code - Secondary scrambling code - Code number SF-1(SF is reference to clause 6.10 Parameter Set ) - TPC combination index 0 - SSDT Cell Identity -a - Closed loop timing adjustment mode Not Present - Secondary CCPCH info Not Present - Primary CPICH usage for channel estimation

- Secondary CPICH info	
<ul> <li>Secondary scrambling code</li> </ul>	
- channelisation code	
- Secondary scrambling code	
- SSDT Indicator	
- Spreading factor	
- Code number	
- Pilot symbol existence	
- TFCI existence	
- Fixed or Flexible Position	
- Timing offset	
- TFCS	Not Present
- Normal	
- TFCI Field 1 information(Explicit TFCS	
Configuration)	
- Addition	
- TFCS addition	
information(Reconfiguration/Addtion information)	
- CTFC information	
- CTFC	
- Gain factor information	
- Gain factor β c	
- Gain factor β d	
- Power offset Pp-m	
- FACH/PCH information	Not Present
- TFS	Not i resent
- Dynamic Transport format information	
- Number of Transport blocks	
- Octet mode RLC size info	
- Transport block size	
- Semi-static Transport Format information	
- Transmission time interval	
- Type of channel coding	
- Coding Rate	
- Rate matching attribute	
- CRC size	
- TFS	
- Dynamic Transport format information	
- Number of Transport blocks	
- Octet mode RLC size info	
- Transport block size	
- Semi-static Transport Format information	
- Transmission time interval	
- Type of channel coding	
- Coding Rate	
- Rate matching attribute	
- CRC size	
- References to system information blocks	Not Present
- Scheduling information	
Solicutaining information	

# Contents of RADIO BEARER SETUP COMPLETE message: AM

Message Type	
Hyper frame number	Not checked
Radio bearer uplink ciphering activation time info	If ciphering is not activated in RADIO BEARER SETUP
	message, this IE must be absent. Else, SS checks this
	IE for the presence of activation times of all ciphered
	uplink RLC-UM and RLC-AM RBs. <del>SS must follow this IE</del>
	to cipher on the each RB.
Other information element	Not checked

Information Element	Value/remark
Message Type	
Integrity check info	Not Present
- message authentication code	
- RRC message sequence number	
Integrity protection mode info	Not Present
- Integrity protection mode command	
- Downlink integrity protection activation info	
- RRC message sequence number	
- RRC message sequence number	
- Integrity protection algorithm	
- Integrity protection initialisation number	Not Present (If sinhering is applied this IE is peeded)
Ciphering mode info - Ciphering mode command	Not Present( If ciphering is applied, this IE is needed)
- Ciphering mode command - Ciphering algorithm	stop   Not Present(Standard UMTS Encryption Algorithm
	UEA1)
- Activation time for DPCH	Not Present(Used RLC TM)
- Radio bearer downlink ciphering activation time	Not Present(Used RLC-AM or RLC-UM)
info	1.5t. 165611(0.564 1t <del>20 7tm of 1t20 0tm)</del>
- Radio bearer identity	
- RLC sequence number	
Activation time	(256+CFN-(CFN MOD 8 + 8 ))MOD 256
New U-RNTI	Not Present
New C-RNTI	Not Present
DRX indicator	noDRX
UTRAN DRX cycle length coefficient	Not Present
CN information info	Not Present
- PLMN identity	
- CN common GSM-MAP NAS system information	
- CN domain identity	
- CN domain specific GSM-MAP NAS system	
information	
RB information to release	
- RB identity RB information to release	4
- RB identity	5
RB information to release	
- RB identity	6
RB information to be affected	(UM DCCH for RRC)
- RB identity	Ö
- RB mapping info	
<ul> <li>Information for each multiplexing option</li> </ul>	
- Number of RLC logical channels	1
- Uplink transport channel type	DCH
- Transport channel identity	1
<ul> <li>Logical channel identity</li> <li>MAC logical channel priority</li> </ul>	1
- Number of RLC logical channels	1
- Downlink transport channel type	DCH
- Transport channel identity	1
- Logical channel identity	1
RB information to be affected	(AM DCCH for RRC)
- RB identity	1
- RB mapping info	
<ul> <li>Information for each multiplexing option</li> </ul>	
- Number of RLC logical channels	1
- Uplink transport channel type	DCH
- Transport channel identity	1
- Logical channel identity	2
<ul> <li>MAC logical channel priority</li> <li>Number of RLC logical channels</li> </ul>	2 1
- Number of REC logical challies - Downlink transport channel type	DCH
- Transport channel identity	1
- Logical channel identity	2
RB information to be affected	(AM DCCH for NAS_DT High priority)
- RB identity	2
- RB mapping info	
- Information for each multiplexing option	
- Number of RLC logical channels	1
- Uplink transport channel type	DCH

```
- Transport channel identity
       - Logical channel identity
                                                           3
                                                           3
       - MAC logical channel priority
      - Number of RLC logical channels
      - Downlink transport channel type
                                                           DCH
       - Transport channel identity
       - Logical channel identity
RB information to be affected
                                                           (AM DCCH for NAS_DT Low priority)
     - RB identity
     - RB mapping info
     - Information for each multiplexing option
      - Number of RLC logical channels
       - Uplink transport channel type
                                                           DCH
       - Transport channel identity
      - Logical channel identity
                                                           4
      - MAC logical channel priority
                                                           4
      - Number of RLC logical channels
                                                           1
       - Downlink transport channel type
                                                           DCH
       - Transport channel identity
       - Logical channel identity
                                                           4
UL Transport channel information for all transport
channels

    TFC subset

                                                           (This IE is repeated for TFC number.)
                                                           Ò to MaxTFCValue-1 (MaxTFCValue is refer to clause
     - Allowed Transport Format combination
                                                           6.10 Parameter Set.)
                                                           (This IE is repeated for TFC number.)
     - UL DCH TFCS
     - Normal
      - TFCI Field 1 information(Explicit TFCS
Configuration)
       - Addition
       - TFCS addition
information(Reconfiguration/Addtion information)
        - CTFC information
        - CTFC
                                                           0 to MaxTFCValue-1 ( MaxTFCValue is refer to clause
                                                           6.10 Parameter Set.)
         - Gain factor information
         - Gain factor B c
                                                           0
         - Gain factor B d
         - Power offset Pp-m
                                                           0dB
Deleted UL TrCH Information
                                                           2
     - Transport channel identity
Deleted UL TrCH Information
     - Transport channel identity
                                                           3
Deleted UL TrCH Information
     - Transport channel identity
Added or Reconfigured UL TrCH information
                                                           If TrCH reconfiguration is executed then this is
                                                           needed(e.g The rate of SRB for DCCH is changed.).
     - Transport channel identity
     - TFS
     - Dynamic Transport format information
                                                           (This IE is repeated for TFI number)
      - Number of Transport blocks
                                                           Reference to clause 6.10 Parameter Set
      - Bit mode RLC size info
      - Transport block size
                                                           Reference to clause 6.10 Parameter Set
     - Semi-static Transport Format information
      - Transmission time interval
                                                           Reference to clause 6.10 Parameter Set
      - Type of channel coding
                                                           Reference to clause 6.10 Parameter Set
      - Coding Rate
                                                           Reference to clause 6.10 Parameter Set
                                                           Reference to clause 6.10 Parameter Set
      - Rate matching attribute
      - CRC size
                                                           Reference to clause 6.10 Parameter Set
CPCH set ID
                                                           Not Present
DRAC static information
                                                           Not Preaent
     - Transmission Time Validity
     - Time duration before retry
     - DRAC Class Identity
DL Transport channel information common for all
transport channel
     - SCCPCH TFCS
                                                           Not Present

    Normal

      - TFCI Field 1 information(Explicit TFCS
Configuration)
       - Addition
```

- TFCS addition information(Reconfiguration/Addtion information) - CTFC information - CTFC - Gain factor information - Gain factor B c - Gain factor β d - DL DCH TFCS (This IE is repeated for TFC number.) - Normal - TFCI Field 1 information(Explicit TFCS Configuration) - Addition - TFCS addition information(Reconfiguration/Addtion information) - CTFC information - CTFC 0 to MaxTFCValue-1 (MaxTFCValue is refer to clause 6.10 Parameter Set.) - Gain factor information - Gain factor B c 0 - Gain factor β d - Power offset Pp-m 0dB Deleted DL TrCH Information - Transport channel identity Deleted DL TrCH Information - Transport channel identity 3 Deleted DL TrCH Information - Transport channel identity Added or Reconfigured DL TrCH information If TrCH reconfiguration is executed then this is needed(e.g The rate of SRB for DCCH is changed.). - Transport channel identity - TFS - Dynamic Transport format information (This IE is repeated for TFI number) - Number of Transport blocks Reference to clause 6.10 Parameter Set - Bit mode RLC size info - Transport block size Reference to clause 6.10 Parameter Set - Semi-static Transport Format information - Transmission time interval Reference to clause 6.10 Parameter Set Reference to clause 6.10 Parameter Set - Type of channel coding - Coding Rate Reference to clause 6.10 Parameter Set - Rate matching attribute Reference to clause 6.10 Parameter Set - CRC size Reference to clause 6.10 Parameter Set - DCH quality target 0.00 - BLER Quality value - Transparent mode signalling info Not Present Frequency info - UARFCN uplink(Nu) Reference to clause 6.10 Parameter Set - UARFCN downlink(Nd) Reference to clause 6.10 Parameter Set 33dBm Maximum allowed UL TX power Uplink DPCH info - Uplink DPCH power control info - DPCCH power offset -6dB - PC Preamble 8slot - Power Control Algorithm Algorithm1 - TPC step size 1dB - Scrambling code type Long - Scrambling code number 0 (0 to 16777215) - Number of DPDCH Not Present(1) - spreading factor SF is reference to clause 6.10 Parameter Set - TFCI existence **TRUE** Not Present(0) - Number of FBI bit - Puncturing Limit Reference to clause 6.10 Parameter Set Downlink information common for all radio links - Downlink DPCH info common for all RL - Downlink DPCH power control information - DPC mode 0 (single) - Spreading factor Reference to clause 6.10 Parameter Set - Fixed or Flexible Position N/A - TFCI existence **FALSE** - Number of bits for Pilot bits(SF=128,256) Reference to clause 6.10 Parameter Set

- Downlink DPCH Offset Value	0
- DPCH compressed mode info	
-TGPSI	1
-TGPS Status Flg	inactive
- TGMP	FDD Measurement
- TGPRC	62
- TGCFN	(Current CFN + (256 - TTI/10msec)) mod 256
- TGSN	8
- TGL1	10
- TGL2	5
- TGD	15
- TGPL1	35
- TGPL2	35
- RPP	Mode 1
- ITPRM	Mode 1
- UL/DL Mode	DL
- Downlink compressed mode method	F/2
	F/2
- Uplink compressed mode method	F/2
- Scrambling code change	No code change
- Downlink frame type	A
- DeltaSIR1	2.0
- DeltaSIRafter1	1.0
- TX Diversity mode	None
- SSDT information	Not Present
- S field	INOU FIESEIII
- Code Word Set	Not Droport
Downlink PDSCH information	Not Present
CPCH SET info	Not Present
Downlink information for each radio links	
- Primary CPICH info	
- Primary scrambling code	100
- PDSCH with SHO DCH info	Not Present
- DSCH radio link identifier	
- TFCI Combining set	
- Radio link identifier	
- Primary CPICH info	
- Primary scrambling code	
- PDSCH code mapping	Not Present
- Downlink DPCH info for each RL	
- Primary CPICH usage for channel estimation	Primary CPICH may be used
- Secondary CPICH info	Not Present
- Secondary scrambling code	
- channelisation code	
- DL channelisation code	
- Secondary scrambling code	1
- Secondary Scrambling code - Code number	SF-1(SF is reference to clause 6.10 Parameter Set )
- Code number - TPC combination index	0
- SSDT Cell Identity  Classed lean timing adjustment made	-a Not Procent
- Closed loop timing adjustment mode	Not Present
- Secondary CCPCH info	Not Present
- Primary CPICH usage for channel estimation	
- Secondary CPICH info	
- Secondary scrambling code	
- channelisation code	
- Secondary scrambling code	
- SSDT Indicator	
- Spreading factor	
- Code number	
- Pilot symbol existence	
- TFCI existence	
- Fixed or Flexible Position	

<ul><li>- Timing offset</li><li>- TFCS</li><li>- Normal</li></ul>	Not Present
- TFCI Field 1 information(Explicit TFCS	
Configuration)	
- Addition	
- TFCS addition	
information(Reconfiguration/Addtion information)	
<ul><li>CTFC information</li><li>CTFC</li></ul>	
- Grec - Gain factor information	
- Gain factor β c	
- Gain factor β d	
- FACH/PCH information	Not Present
- TFS	
<ul> <li>Dynamic Transport format information</li> </ul>	
- Number of Transport blocks	
- Octet mode RLC size info	
- Transport block size	
<ul> <li>Semi-static Transport Format information</li> <li>Transmission time interval</li> </ul>	
- Transmission time interval - Type of channel coding	
- Coding Rate	
- Rate matching attribute	
- CRC size	
- TFS	
- Dynamic Transport format information	
<ul> <li>Number of Transport blocks</li> </ul>	
<ul> <li>Octet mode RLC size info</li> </ul>	
- Transport block size	
- Semi-static Transport Format information	
- Transmission time interval	
- Type of channel coding	
<ul><li>Coding Rate</li><li>Rate matching attribute</li></ul>	
- CRC size	
- References to system information blocks	Not Present
- Scheduling information	

# Contents of RADIO BEARER RELEASE COMPLETE message: AM

Message Type	
Other information element	Not checked

# Contents of RRC CONNECTION REQUEST message: $\ensuremath{\mathsf{TM}}$

Information Element	Value/remark
Message Type	
Initial UE identity	To be checked against requirement if specified
Initial UE capability	Reference to clause 6.10 Parameter Set
Establishment cause	To be checked against requirement if specified
Protocol error indicator	FALSE
Measured results on RACH	Not checked

# Contents of RRC CONNECTION RELEASE message: UM

Value/remark
Not Present
2 (for CELL_DCH state). Not Present for UE in other connected mode states.
Normal
(

# Contents of RRC CONNECTION RELEASE COMPLETE message: AM or UM

Information Element	Semantics description
Message Type	
Integrity check info	Not checked.

Information Element	Value/remark
Message Type	
Initial UE identity	Reference to clause 6.10 Parameter Set
Activation time	(256+CFN-(CFN MOD 8 + 8 ))MOD 256
New U-RNTI	0000 0000 0004 B
- SRNC identity	0000 0000 0001B
- S-RNTI New C-RNTI	0000 0000 0000 0000 0001B
UTRAN DRX cycle length coefficient	0000 0000 0000 0001B 5 ( 2 to 12 )
Capability update requirement	5 (21012)
- UE radio access capability update requirement	FALSE
- System specific capability update requirement	Not Present
Signalling RB information to setup	(UM DCCH for RRC)
- RB identity	0
- CHOICE ŘLC info type	
- RLC info	
- Uplink RLC mode	(UM RLC)
- Transmission RLC discard	
- SDU discard mode	Max DAT retransmissions
- MAX_DAT	4
- Downlink RLC mode	(UM RLC) TRUE
<ul><li>In-sequence delivery</li><li>RB mapping info</li></ul>	IRUE
- Information for each multiplexing option	
- Number of RLC logical channels	1
- Uplink transport channel type	DCH
- Transport channel identity	1
- Logical channel identity	1
- MAC logical channel priority	1
- Number of RLC logical channels	1
- Downlink transport channel type	DCH
- Transport channel identity	
- Logical channel identity	1 (144 000 115 000)
Signalling RB information to setup	(AM DCCH for RRC)
- RB identity - CHOICE RLC info type	1
- RLC info	
- Uplink RLC mode	(AM RLC)
- Transmission RLC discard	( will reco)
- SDU discard mode	Max DAT retransmissions
- MAX_DAT	4
- Transmission window size	8
- Timer_RST	500
- Max_RST	4
- Polling info	200
- Timer_poll_prohibit	200 200
- Timer_poll - Poll_SDU	1
- Last transmission PU poll	TRUE
- Last retransmission PU poll	TRUE
- Poll_Windows	100
- Downlink RLC mode	(AM RLC)
- In-sequence delivery	TRUE
- Receiving window size	8
- Downlink RLC status info	
- Timer_status_prohibit	200
- Timer_EPC	200
- Missing PU indicator	TRUE
- RB mapping info - Information for each multiplexing option	
- Number of RLC logical channels	1
- Uplink transport channel type	DCH
- Transport channel identity	1
- Logical channel identity	2
- MAC logical channel priority	2
- Number of RLC logical channels	1
<ul> <li>Downlink transport channel type</li> </ul>	DCH
- Transport channel identity	1
- Logical channel identity	2
Signalling RB information to setup	(AM DCCH for NAS_DT High priority)

- RB identity	2
- CHOICE RLC info type	
- RLC info	
- Uplink RLC mode	(AM RLC)
- Transmission RLC discard	
- SDU discard mode	Max DAT retransmissions
- MAX_DAT	4
- Transmission window size	8
- Timer_RST	500
- Max_RST	4
- Polling info	
- Timer_poll_prohibit	200
- Timer_poll	200
- Poll_SDU	1
- Last transmission PU poll	TRUE
- Last retransmission PU poll	TRUE
- Poll_Windows	100
- Downlink RLC mode	(AM RLC)
- In-sequence delivery	TRUE
- Receiving window size	8
- Downlink RLC status info	0
	200
- Timer_status_prohibit - Timer_EPC	200
- Missing PU indicator	TRUE
- RB mapping info	INOL
- Information for each multiplexing option	
Number of RLC logical channels	1
- Uplink transport channel type	DCH
- Transport channel identity	1
- Logical channel identity	3
- MAC logical channel priority	3
- Number of RLC logical channels	1
- Downlink transport channel type	DCH
- Transport channel identity	1
- Logical channel identity	(AM DOCUL for NAC DT Love or forth)
Signalling RB information to setup	(AM DCCH for NAS_DT Low priority)
- RB identity	3
- CHOICE RLC info type	
- RLC info	(444 5) (2)
- Uplink RLC mode	(AM RLC)
- Transmission RLC discard	NA DAT 1
- SDU discard mode	Max DAT retransmissions
- MAX_DAT	4
- Transmission window size	8
- Timer_RST	500
- Max_RST	4
- Polling info	
- Timer_poll_prohibit	200
- Timer_poll	200
- Poll_SDU	1
- Last transmission PU poll	TRUE
- Last retransmission PU poll	TRUE
- Poll_Windows	100
- Downlink RLC mode	(AM RLC)
- In-sequence delivery	TRUE
- Receiving window size	8
- Downlink RLC status info	
- Timer_status_prohibit	200
- Timer_EPC	200
- Missing PU indicator	TRUE
- RB mapping info	
- Information for each multiplexing option	
- Number of RLC logical channels	1
- Uplink transport channel type	DCH
- Transport channel identity	1
- Logical channel identity	4
- MAC logical channel priority	4
- Number of RLC logical channels	1
<ul> <li>Number of RLC logical channels</li> <li>Downlink transport channel type</li> </ul>	1 DCH
<ul> <li>Number of RLC logical channels</li> <li>Downlink transport channel type</li> <li>Transport channel identity</li> </ul>	
<ul> <li>Number of RLC logical channels</li> <li>Downlink transport channel type</li> <li>Transport channel identity</li> <li>Logical channel identity</li> </ul>	DCH
<ul> <li>Number of RLC logical channels</li> <li>Downlink transport channel type</li> <li>Transport channel identity</li> </ul>	DCH 1

#### channels - TFC subset (This IE is repeated for TFC number.) - Allowed Transport Format combination 0 to MaxTFCValue-1 (MaxTFCValue is refer to clause 6.10 Parameter Set.) - UL DCH TFCS (This IE is repeated for TFC number.) - Normal - TFCI Field 1 information(Explicit TFCS Configuration) - Addition - TFCS addition information(Reconfiguration/Addtion information) - CTFC information - CTFC 0 to MaxTFCValue-1 (MaxTFCValue is refer to clause 6.10 Parameter Set.) - Gain factor information 0 - Gain factor B c 0 - Gain factor β d - Power offset Pp-m 0dB Added or Reconfigured UL TrCH information - Transport channel identity - TFS - Dynamic Transport format information (This IE is repeated for TFI number) - Number of Transport blocks Reference to clause 6.10 Parameter Set - Bit mode RLC size info - Transport block size Reference to clause 6.10 Parameter Set - Semi-static Transport Format information - Transmission time interval Reference to clause 6.10 Parameter Set - Type of channel coding Reference to clause 6.10 Parameter Set - Coding Rate Reference to clause 6.10 Parameter Set - Rate matching attribute Reference to clause 6.10 Parameter Set - CRC size Reference to clause 6.10 Parameter Set DL Transport channel information common for all transport channel - SCCPCH TFCS Not Present - Normal - TFCI Field 1 information(Explicit TFCS Configuration) - Addition - TFCS addition information(Reconfiguration/Addtion information) - CTFC information - CTFC - Gain factor information - Gain factor β c - Gain factor B d - DL DCH TFCS (This IE is repeated for TFC number.) Normal - TFCI Field 1 information(Explicit TFCS Configuration) - Addition - TFCS addition information(Reconfiguration/Addtion information) - CTFC information - CTFC 0 to MaxTFCValue-1 (MaxTFCValue is refer to clause 6.10 Parameter Set.) - Gain factor information n - Gain factor B c 0 - Gain factor β d - Power offset Pp-m 0dB Added or Reconfigured DL TrCH information - Transport channel identity - TFS - Dynamic Transport format information (This IE is repeated for TFI number) - Number of Transport blocks Reference to clause 6.10 Parameter Set - Bit mode RLC size info - Transport block size Reference to clause 6.10 Parameter Set - Semi-static Transport Format information

- Transmission time interval Reference to clause 6.10 Parameter Set Reference to clause 6.10 Parameter Set - Type of channel coding - Coding Rate Reference to clause 6.10 Parameter Set - Rate matching attribute Reference to clause 6.10 Parameter Set - CRC size Reference to clause 6.10 Parameter Set - DCH quality target - BLER Quality value 0.00- Transparent mode signalling info Not Present Frequency info - UARFCN uplink(Nu) Reference to clause 6.10 Parameter Set - UARFCN downlink(Nd) Reference to clause 6.10 Parameter Set Maximum allowed UL TX power 33dBm Uplink DPCH info - Uplink DPCH power control info - DPCCH power offset -6dB - PC Preamble 8slot - Power Control Algorithm Algorithm1 - TPC step size 1ďB - Scrambling code type Long - Scrambling code number 0 (0 to 16777215) - Number of DPDCH Not Present(1) spreading factor SF is reference to clause 6.10 Parameter Set - TFCI existence **TRUE** - Number of FBI bit Not Present(0) - Puncturing Limit Reference to clause 6.10 Parameter Set Downlink information common for all radio links - Downlink DPCH info common for all RL - Downlink DPCH power control information - DPC mode 0 (single) - Spreading factor Reference to clause 6.10 Parameter Set - Fixed or Flexible Position Flexible - TFCI existence **TRUE** - Number of bits for Pilot bits(SF=128,256) Not Present - Downlink DPCH Offset Value 0 - DPCH compressed mode info -TGPSI -TGPS Status Flg inactive - TGMP **FDD Measurement** - TGPRC - TGCFN (Current CFN + (256 - TTI/10msec)) mod 256 - TGSN - TGL1 10 - TGL2 5 - TGD 15 - TGPL1 35 - TGPL2 35 - RPP Mode 1 - ITPRM Mode 1 - UL/DL Mode DL - Downlink compressed mode method F/2 F/2 - Uplink compressed mode method

- Scrambling code change

- Downlink frame type

- DeltaSIR1

- DeltaSIRafter1

- TX Diversity mode

- SSDT information

- S field

- Code Word Set

No code change

A 2.0 1.0 None

Not Present

Downlink information for each radio links - Primary CPICH info - Primary scrambling code 100 - PDSCH with SHO DCH info Not Present - DSCH radio link identifier - TFCI Combining set - Radio link identifier - Primary CPICH info - Primary scrambling code - PDSCH code mapping Not Present - Downlink DPCH info for each RL - Primary CPICH usage for channel estimation Primary CPICH may be used - Secondary CPICH info Not Present - Secondary scrambling code - channelisation code - DL channelisation code - Secondary scrambling code - Code number SF-1(SF is reference to clause 6.10 Parameter Set ) - TPC combination index - SSDT Cell Identity - Closed loop timing adjustment mode Not Present - Secondary CCPCH info Not Present - Primary CPICH usage for channel estimation - Secondary CPICH info - Secondary scrambling code - channelisation code - Secondary scrambling code - SSDT Indicator - Spreading factor - Code number - Pilot symbol existence - TFCI existence - Fixed or Flexible Position - Timing offset - TFCS Not Present - Normal - TFCI Field 1 information(Explicit TFCS Configuration) - Addition - TFCS addition information(Reconfiguration/Addtion information) - CTFC information - CTFC - Gain factor information - Gain factor β c - Gain factor B d - FACH/PCH information Not Present - Dynamic Transport format information - Number of Transport blocks - Octet mode RLC size info - Transport block size - Semi-static Transport Format information - Transmission time interval - Type of channel coding - Coding Rate - Rate matching attribute - CRC size - Dynamic Transport format information - Number of Transport blocks - Octet mode RLC size info - Transport block size - Semi-static Transport Format information - Transmission time interval - Type of channel coding - Coding Rate - Rate matching attribute - CRC size - References to system information blocks Not Present

Scheduling information

# Contents of RRC CONNECTION SETUP COMPLETE message: AM

Information Element	Value/remark
Message Type	
CN domain identity	Not checked
Start(Hyper frame number)	Not checked
Hyper Frame Number	Not checked
UE radio access capability	Reference to clause 6.10 Parameter Set
UE system specific capability	Not checked

# Contents of SECURITY MODE COMMAND message : AM

Information Element	Value/remark
Message Type Integrity check info Security capability	Not Present.
- Ciphering algorithm capability	00000000000001B(UEA1)If ciphering is indicated to be active on IXIT statements in TS 34.123-2, use one of the supported ciphering algorithms. Else, set this IE to 000000000000000000 (UEA0)
<ul> <li>Integrity protection algorithm capability</li> </ul>	<u>000000000000001B(UEA1)</u>
Ciphering algorithm	Standard UMTS Encryption Algorithm UEA1.
Ciphering mode info	This presence of this IE is dependent on IXIT statements in TS 34.123-2. If ciphering is indicated to be active, this IE present with the values of the sub IEs as stated below. Else, this IE is omitted.
- Ciphering mode command	Start
- Ciphering algorithm	Standard UMTS Encryption Algorithm UEA1Use the same ciphering algorithm specified in "ciphering algorithm capability" IE in this message.
<ul> <li>Activation time for DPCH</li> <li>Radio bearer downlink ciphering activation time info</li> <li>Radio bearer activation time</li> <li>RB identity</li> <li>RLC sequence number</li> </ul>	(256+CFN-(CFN MOD 8 + 8 ))MOD 256  12 Current RLC SN+2Set to the SN of the last frame sent by RB2
- RB identity - RLC sequence number - RB identity - RLC sequence number - RB identity - RLC sequence number	2 Current RLC SN+2 3 Current RLC SN+2 4 Current RLC SN+2
Integrity protection mode info CN domain identity	Not Present  CS domain  CS domain

# Contents of SECURITY MODE COMPLETE message : $\ensuremath{\mathsf{AM}}$

	Information Element	Value/remark
ı	Message Type Integrity check info	Not checked
l	Hyper frame number Uplink integrity protection activation info	Should be not present. Not checked.
	Radio bearer uplink ciphering activation time info	SS must follow this IE to sipher on the each RB: If ciphering is not activated in SECURITY MODE COMMAND message, this IE must be absent. Else, SS checks this IE for the presence of activation times for all ciphered uplink RLC-UM and RLC-AM RBs.
	Radio bearer activation time RB identity RLC sequence number	2 Checked to see if it's a valid SD from RLC entity associated with RB2
	Radio bearer activation time RB identity RLC sequence number	3 Checked to see if it's a valid SD from RLC entity associated with RB3

# Contents of SIGNALLING CONNECTION RELEASE message : $\ensuremath{\mathsf{AM}}$

Information Element	Value/remark
Message Type	
Integrity check info	Not checked
Signalling Flow related information list	
<ul> <li>Flow Identifier requirement</li> </ul>	Set to "Flow Identifier" field in the INITIAL DIRECT
· ·	TRANSFER message

# Contents of UPLINK DIRECT TRANSFER message : $\ensuremath{\mathsf{AM}}$

Information Element	Value/remark
Message Type	
Integrity check info	Not checked
Flow Identifier	To be checked against requirement if specified
NAS message	Set according to that indicated in specific message
	content clause
Measured results on RACH	Not checked

# 3GPP TSG T1 Meeting #9 Redondo Beach, Ca, USA, 16-17 November 2000

Document T1-000294

e.g. for 3GPP use the format TP-99xxx or for SMG, use the format P-99-xxx

3GPP TSG-T1 Meeting #14 Redondo Beach, USA, 13-15 November 2000 T1S-000245

CHANGE REQUEST						
# TS	4.108 CR <mark>021 **</mark>	rev # Current ver	sion: 3.1.0 **			
For <u>HELP</u> on usi	g this form, see bottom of this pag	e or look at the pop-up tex	t over the ₩ symbols.			
Proposed change at	octs: # (U)SIM ME/UE	X Radio Access Netwo	ck Core Network			
Title: 第	ommon generic procedure for AS	testing				
Source: #	latsushita Communication Industr	y Co.,Ltd				
Work item code: 器		Date: ¥	14/11/2000			
Category: #		Release: #	R99			
[	Use one of the following categories:  F (essential correction)  A (corresponds to a correction in an earlier release)  B (Addition of feature),  C (Functional modification of feature)  D (Editorial modification)  Detailed explanations of the above categories can be found in 3GPP TR 21.900.  Use one of the following releases:  2 (GSM Phase 2)  R96 (Release 1996)  R97 (Release 1997)  R98 (Release 1999)  R99 (Release 1999)  REL-4 (Release 4)  REL-5 (Release 5)					
Reason for change:	Proper Definition of UE initial of	conditions for Access Strat	um protocol testing.			
Summary of change:   A new clause 7.4 is proposed. This clause describes the possible UE initial states necessary during AS testing, as well as the procedures used to transit between these states.						
Consequences if not approved:	€					
Clauses affected:	₹ 7.4 (new)					
Other specs affected:	Other core specifications Test specifications O&M Specifications	<b></b>				
Other comments:	£					

# How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at: <a href="http://www.3gpp.org/3G\_Specs/CRs.htm">http://www.3gpp.org/3G\_Specs/CRs.htm</a>. Below is a brief summary:

- 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 <a href="ftp://www.3gpp.org/specs/">ftp://www.3gpp.org/specs/</a> For the latest version, look for the directory name with the latest date e.g. 2000-09 contains the specifications resulting from the September 2000 TSG meetings.

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

# 7.4 Common generic procedures for AS testing

# 7.4.1 UE RRC Test States for common procedures

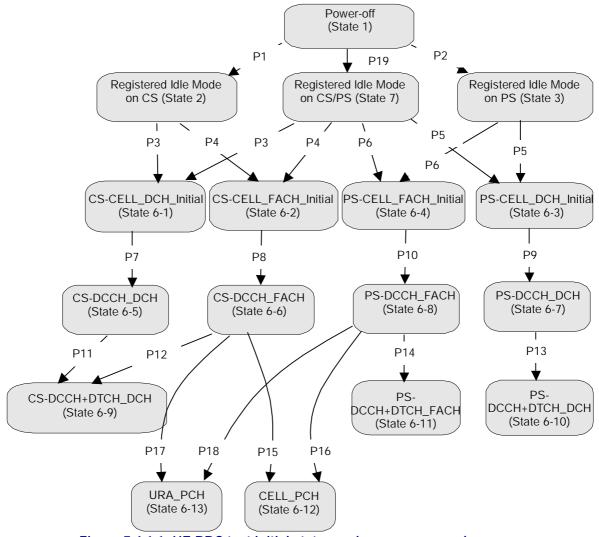


Figure 7.4.1.1: UE RRC test initial states and common procedures

For UE to set up a call in UTRAN, there are a number of procedures to be undertaken in a hierarchical sequence to move between known states. The sequences are shown in Figure 7.4.1.1 above, the operating states for various protocols in the UE are given in Table 7.4.1.1 below.

It is noted that figure 7.4.1.1 should not be construed as a formal state transition diagram, in any manner. The intention here is to define the starting state of UE following the execution of the procedures indicated above.

Table 7.4.1.1: The UE states

		RRC	CC	MM	<u>SM</u>	<u>GMM</u>
State 1	Power OFF		<u>Null</u>	Detached	<u>Inactive</u>	<u>Detached</u>
State 2	Registered Idle Mode on CS	<u>Idle</u>	<u>Null</u>	<u>Idle</u>	<u>Inactive</u>	<u>Detached</u>
State 3	Registered Idle Mode on PS	<u>Idle</u>	<u>Null</u>	<u>Detached</u>	<u>Inactive</u>	<u>ldle</u>
State 7	Registered Idle Mode on CS/PS	<u>Idle</u>	<u>Null</u>	<u>Idle</u>	<u>Inactive</u>	<u>ldle</u>
State BGP6-1	CS-CELL_DCH_Initial	<u>Connected</u>	<u>Null</u>	As previous	<u>Inactive</u>	As previous
State BGP6-2	CS-CELL_FACH_Initial	Connected	<u>Null</u>	As previous	<u>Inactive</u>	As previous
State BGP6-3	PS-CELL_DCH_Initial	Connected	<u>Null</u>	As previous	<u>Inactive</u>	As previous
State BGP6-4	PS-CELL_FACH_Initial	Connected	Null	As previous	<u>Inactive</u>	As previous
State BGP6-5	CS-DCCH_DCH	Connected (CELL_DCH)	Null	As previous	<u>Inactive</u>	As previous
State BGP6-6	CS-DCCH_FACH	Connected (CELL_FACH)	Null	As previous	<u>Inactive</u>	As previous
State BGP6-7	PS-DCCH_DCH	Connected (CELL_DCH)	Null	As previous	Active pending	As previous
State BGP6-8	PS-DCCH_FACH	Connected (CELL_FACH)	Null	As previous	Active pending	As previous
State BGP6-9	CS-DCCH+DTCH_DCH	Connected (CELL_DCH)	Connected	As previous	<u>Inactive</u>	As previous
State BGP6-10	PS-DCCH+DTCH_DCH	Connected (CELL_DCH)	Null	As previous	<u>Active</u>	As previous
State BGP6-11	PS-DCCH+DTCH_FACH	Connected (CELL_FACH)	Null	As previous	<u>Active</u>	As previous
State BGP6-12	CS-DCCH_DCH	Connected (CELL_DCH)	<u>Null</u>	As previous	<u>Inactive</u>	As previous
State BGP6-13	PS-DCCH_DCH	Connected (CELL_DCH)	<u>Null</u>	As previous	<u>Inactive</u>	As previous
State BGP6-14	PS-DCCH_FACH	Connected (CELL_FACH)	<u>Null</u>	As previous	<u>Inactive</u>	As previous
State BGP6-152	CELL_PCH	Connected (CELL_PCH)	<u>Null</u>	As previous	<u>Inactive</u>	As previous
State BGP6-163	<u>URA_PCH</u>	Connected (URA_PCH)	<u>Null</u>	As previous	<u>Inactive</u>	As previous

Table 7.4.1.1: The UE states

State 1, state 2, state 3, P1,P2 and P219 are described in TS34.108 clause 7.2. States 6-X (for X=1 to 16) are described below.

# 7.4.2 Generic Setup Procedure for RRC test cases

# 7.4.2.1 RRC connection establishment procedure for circuit-switched calls (procedure P3 and P4)

# 7.4.2.1.1 Mobile terminating call

# 7.4.2.1.1.1 Initial conditions

**System Simulator:** 

1 cell, default parameters

**User Equipment:** 

- The UE shall be operated under normal test conditions as specified in TS 34.108.

- The Test USIM shall be inserted.

#### 7.4.2.1.1.2 Definition of system information messages

The default system information messages are used as specified in clause 6.1 of TS 34.108.

#### 7.4.2.1.1.3 Procedure

The Call Set-up procedure shall be performed under ideal radio conditions as defined in clause 5 of TS 34.108. Reference Test Conditions:

Step	Direction		<u>Message</u>	<u>Comments</u>
	<u>UE</u>	<u>SS</u>		
<u>1</u>	<		PAGING TYPE 1 (PCCH)	RRC
<u>2</u>			RRC CONNECTION REQUEST (CCCH)	RRC
<u>3</u>	<		RRC CONNECTION SETUP (CCCH)	RRC
4	>		RRC CONNECTION SETUP COMPLETE (DCCH)	RRC

# 7.4.2.1.1.4 Specific message contents

To execute procedure P3, all specific message contents shall be referred to clause 9 of TS 34.108.

<u>To execute procedure P4, all specific message contents with the exception of step 3 shall be referred to clause 9 of TS 34.108. For step 3, the message of the same type titled "Transition to CELL\_FACH" in TS 34.123-1 Annex. A is used.</u>

#### 7.4.2.1.2 Mobile originating calls

#### 7.4.2.1.2.1 Initial conditions

**System Simulator:** 

1 cell, default parameters

**User Equipment:** 

- The UE shall be operated under normal test conditions as specified in TS 34.108.
- The Test USIM shall be inserted.

#### 7.4.2.1.2.2 Definition of system information messages

The default system information messages specified in clause 6.1 of TS 34.108 are used.

#### 7.4.2.1.2.3 Procedure

The Call Set-up procedure shall be performed under ideal radio conditions as defined in clause 5 of TS 34.108. Reference Test Conditions:

Ī	<u>Step</u>	Direction		<u>Message</u>	<u>Comments</u>
		<u>UE</u>	<u>SS</u>		
Ī	<u>1</u>	>		RRC CONNECTION REQUEST (CCCH)	RRC
	<u>2</u>	<		RRC CONNECTION SETUP (CCCH)	RRC
	3	>		RRC CONNECTION SETUP COMPLETE (DCCH)	RRC

## 7.4.2.1.2.4 Specific message contents

To execute procedure P3, all specific message contents shall be referred to clause 9 of TS 34.108.

To execute procedure P4, all specific message contents with the exception of step 2 shall be referred to clause 9 of TS 34.108. For step 2, the message of the same type titled "Transition to CELL\_FACH" in TS 34.123-1 Annex. A is used.

# 7.4.2.2 RRC connection establishment procedure for packet switched sessions (procedure P5 and P6)

#### 7.4.2.2.1 Mobile terminating session

#### 7.4.2.2.1.1 Initial conditions

**System Simulator:** 

1 cell, default parameters.

**User Equipment:** 

- The UE shall be operated under normal test conditions as specified in TS 34.108.
- The Test <u>USIM shall be inserted.</u>

#### 7.4.2.2.1.2 Definition of system information messages

The default system information messages are used as specified in clause 6.1 of TS 34.108.

#### 7.4.2.2.1.3 Procedure

<u>The Session Set-up procedure shall be performed under Ideal radio conditions as defined in clause 5 of TS</u> 34.108. Reference Test Conditions:

3	<u>Step</u>	Direction		<u>Message</u>	<u>Comments</u>
		<u>UE</u>	<u>SS</u>		
	1	<		PAGING TYPE1 (PCCH)	Paging
	2	>		RRC CONNECTION REQUEST (CCCH)	RRC
	3	<		RRC CONNECTION SETUP (CCCH)	RRC
	4	>		RRC CONNECTION SETUP COMPLETE (DCCH)	RRC

#### 7.4.2.2.1.4 Specific message contents

To execute procedure P5, all specific message contents shall be referred to clause 9 of TS 34.108.

To execute procedure P6, all specific message contents with the exception of step 3 shall be referred to clause 9 of TS 34.108. For step 3, the message of the same type titled "Transition to CELL\_FACH" in TS 34.123-1 Annex. A is used.

# 7.4.2.2.2 Mobile originating sessions

#### 7.4.2.2.2.1 Initial conditions

**System Simulator:** 

1 cell, default parameters.

**User Equipment:** 

- The UE shall be operated under normal test conditions as specified in TS 34.108.
- The Test USIM shall be inserted.

## 7.4.2.2.2.2 Definition of system information messages

The default system information messages are used as specified in clause 6.1 of TS 34.108.

#### 7.4.2.2.3 Procedure

<u>The Session Set-up procedure shall be performed under Ideal radio conditions as defined in clause 5 of TS</u> 34.108. Reference Test Conditions:

Step	Direction		<u>Message</u>	<u>Comments</u>
	<u>UE</u>	<u>SS</u>		
<u>1</u>	-	->	RRC CONNECTION REQUEST (CCCH)	RRC
<u>2</u>			RRC CONNECTION SETUP (CCCH)	RRC
3			RRC CONNECTION SETUP COMPLETE (DCCH)	RRC

## 7.4.2.2.4 Specific message contents

To execute procedure P5, all specific message contents shall be referred to clause 9 of TS 34.108.

To execute procedure P6, all specific message contents with the exception of step 2 shall be referred to clause 9 of TS 34.108. For step 2, the message of the same type titled "Transition to CELL\_FACH" in TS 34.123-1 Annex. A is used.

# 7.4.2.3 NAS call set up procedure for circuit switched calls (procedure P7 and P8)

# 7.4.2.3.1 Mobile terminating call

#### 7.4.2.3.1.1 Initial conditions

**System Simulator:** 

1 cell, default parameters.

**User Equipment:** 

- The UE shall be in state 6-1 or state 6-2.
- The Test USIM shall be inserted.

#### 7.4.2.3.1.2 Definition of system information messages

The default system information messages are used as specified in clause 6.1 of TS 34.108.

# 7.4.2.3.1.3 Procedure

The Call Set-up procedure shall be performed under Ideal radio conditions as defined in clause 5 of TS 34.108. Reference Test Conditions:

Step	Direction	<u>Message</u>	<u>Comments</u>
	UE SS		
<u>1</u>	<u>&gt;</u>	PAGING RESPONSE	RR
<u>2</u>	<u>&lt;</u>	<u>AUTHENTICATION REQUEST</u>	MM
<u>3</u>	<u>&gt;</u>	<u>AUTHENTICATION RESPONSE</u>	MM
<u>4</u>	<	SECURITY MODE COMMAND	RRC
<u>5</u>	<u>&gt;</u>	SECURITY MODE COMPLETE	RRC
<u>6</u>	<u>&lt;</u>	<u>SET UP</u>	CC
<u>7</u>	<u>&gt;</u>	CALL CONFIRMED	CC

## 7.4.2.3.1.4 Specific message contents

All RRC specific message contents shall be referred to clause 9 of TS 34.108.

## 7.4.2.3.2 Mobile originating calls

#### 7.4.2.3.2.1 Initial conditions

**System Simulator:** 

1 cell, default parameters.

**User Equipment:** 

- The UE shall be in state 6-1or state 6-2.
- The Test USIM shall be inserted.

# 7.4.2.3.2.2 Definition of system information messages

The default system information messages are used as specified in clause 6.1 of TS 34.108.

## 7.4.2.3.2.3 Procedure

<u>The Call Set-up procedure shall be performed under Ideal radio conditions as defined in clause 5 of TS 34.108. Reference Test Conditions:</u>

Step	<b>Direction</b>	<u>Message</u>	<u>Comments</u>
	UE SS		
1	<u>&gt;</u>	CM SERVICE REQUEST	MM
2	<	AUTHENTICATION REQUEST	MM
<u>3</u>	<u>&gt;</u>	<u>AUTHENTICATION RESPONSE</u>	MM
<u>4</u>	<u>&lt;</u>	SECURITY MODE COMMAND	RRC
<u>5</u>	<u>&gt;</u>	SECURITY MODE COMPLETE	RRC
<u>6</u>	<u>&gt;</u>	<u>SET UP</u>	<u>CC</u> CC
7	<	CALL PROCEEDING	CC

#### 7.4.2.3.2.4 Specific message contents

All RRC specific message contents shall be referred to clause 9 of TS 34.108.

# 7.4.2.4 NAS session activation procedure for packet switched sessions (procedure P9 and P10)

## 7.4.2.4.1 Mobile terminating session

# 7.4.2.4.1.1 Initial conditions

**System Simulator:** 

1 cell, default parameters.

**User Equipment:** 

- The UE shall be in state 6-3 or state 6-4.
- The Test USIM shall be inserted.

# 7.4.2.4.1.2 Definition of system information messages

The default system information messages are used as specified in clause 6.1 of TS 34.108.

# 7.4.2.4.1.3 <u>Proce</u>dure

<u>The Session Set-up procedure shall be performed under Ideal radio conditions as defined in clause 5 of TS 34.108. Reference Test Conditions:</u>

Step	<u>Direction</u>		<u>Message</u>	<u>Comments</u>
	<u>UE</u>	<u>SS</u>		
<u>1</u>	-	->	SERVICE REQUEST	<u>GMM</u>
2		< <u></u>	AUTHENTICATION AND CIPHERING REQUEST	GMM
<u>3</u>		->	<u>AUTHENTICATION AND CIPHERING RESPONSE</u>	<u>GMM</u>
<u>4</u>		< <u></u>	SECURITY MODE COMMAND	RRC RRC
<u>5</u>		->	SECURITY MODE COMPLETE	RRC
<u>6</u>		<u> </u>	REQUEST PDP CONTEXT ACTIVATION	<u>SM</u>
<u>7</u>	>		ACTIVATE PDP CONTEXT REQUEST	SM

#### 7.4.2.4.1.4 Specific message contents

All RRC specific message contents shall be referred to clause 9 of TS 34.108.

#### 7.4.2.4.2 Mobile originating sessions

#### 7.4.2.4.2.1 Initial conditions

**System Simulator:** 

1 cell, default parameters.

User Equipment:

- The UE shall be in state 6-3 or state 6-4.
- The Test USIM shall be inserted.

# 7.4.2.4.2.2 Definition of system information messages

The default system information messages are used as specified in clause 6.1 of TS 34.108.

## 7.4.2.4.2.3 Procedure

The Session Set-up procedure shall be performed under Ideal radio conditions as defined in clause 5 of TS 34.108. Reference Test Conditions:

Step	<u>Direction</u>		<u>Message</u>	<u>Comments</u>
	<u>UE</u>	<u>SS</u>		
1	_	->	SERVICE REQUEST	<u>GMM</u>
<u>2</u>		<u> </u>	AUTHENTICATION AND CIPHERING REQUEST	<u>GMM</u>
<u>3</u>		->	<u>AUTHENTICATION AND CIPHERING RESPONSE</u>	<u>GMM</u>
<u>4</u>	<	<u> </u>	SECURITY MODE COMMAND	RRC
<u>5</u>	_	->	SECURITY MODE COMPLETE	RRC
<u>6</u>		->	ACTIVATE PDP CONTEXT REQUEST	<u>SM</u>

# 7.4.2.4.2.4 Specific message contents

All RRC specific message contents shall be referred to clause 9 of TS34.108.

# 7.4.2.5 Radio access bearer establishment procedure for circuit switched calls (procedure P11 and P12)

# 7.4.2.5.1 Mobile terminating call

#### 7.4.2.5.1.1 Initial conditions

System Simulator:

1 cell, default parameters.

**User Equipment:** 

- The UE shall be in state 6-5 or state 6-6.
- The Test USIM shall be inserted.

#### 7.4.2.5.1.2 Definition of system information messages

The default system information messages are used as specified in clause 6.1 of TS 34.108.

# 7.4.2.5.1.3 Procedure

The Call Set-up procedure shall be performed under Ideal radio conditions as defined in clause 5 of TS 34.108. Reference Test Conditions:

Step	Direction		<u>Message</u>	<u>Comments</u>
	<u>UE</u>	<u>SS</u>		
1	<	< <u></u>	RADIO BEARER SETUP	RRC RAB SETUP
2	>		RADIO BEARER SETUP COMPLETE	RRC
3		->	ALERTING	CC (This message is optional)
4		->	CONNECT	CC
5		<	CONNECT ACKNOWLEDGE	CC

#### 7.4.2.5.1.4 Specific message contents

To execute procedure P11, use the message titled "CS speech" (defined in clause 9 of TS 34.108) for the message in step 1. To execute procedure 12, use the message "The others of speech in CS" (defined in Annex A of TS 34.123-1) for the message in step 1.

#### 7.4.2.5.2 Mobile originating calls

#### 7.4.2.5.2.1 Initial conditions

**System Simulator:** 

1 cell, default parameters.

**User Equipment:** 

- The UE shall be in state 6-5 or state 6-6.
- The Test USIM shall be inserted.

## 7.4.2.5.2.2 Definition of system information messages

The default system information messages are used as specified in clause 6.1 of TS 34.108.

#### 7.4.2.5.2.3 Procedure

The Call Set-up procedure shall be performed under Ideal radio conditions as defined in clause 5 of TS 34.108. Reference Test Conditions:

Step	<u>Direction</u>		<u>Message</u>	<u>Comments</u>
	<u>UE</u>	<u>SS</u>		
1	<		RADIO BEARER SETUP	RRC RAB SETUP
2	>		RADIO BEARER SETUP COMPLETE	RRC
<u>3</u>	<u>&lt;</u>		<u>ALERTING</u>	CC
<u>4</u>	<	<u>(</u>	<u>CONNECT</u>	CC
<u>5</u>	>		<u>CONNECT ACKOWLEDGE</u>	CC

#### 7.4.2.5.2.4 Specific message contents

To execute procedure P11, use the message titled "CS speech" (defined in clause 9 of TS 34.108) for the message in step 1. To execute procedure 12, use the message "The others of speech in CS" (defined in Annex A of TS 34.123-1) for the message in step 1.

# 7.4.2.6 Radio access bearer establishment procedure for packet switched sessions (procedure P13 and P14)

# 7.4.2.6.1 Mobile terminating session

#### 7.4.2.6.1.1 Initial conditions

**System Simulator:** 

1 cell, default parameters.

**User Equipment:** 

- The UE shall be in state 6-7 or state 6-8.
- The Test USIM shall be inserted.

# 7.4.2.6.1.2 Definition of system information messages

The default system information messages are used as specified in clause 6.1 of TS 34.108.

## 7.4.2.6.1.3 Procedure

The Session Set-up procedure shall be performed under Ideal radio conditions as defined in clause 5 of TS 34.108. Reference Test Conditions:

	<u>Step</u>	Direction		<u>Message</u>	<u>Comments</u>
		<u>UE</u>	<u>SS</u>		
	<u>1</u>	<	<u> </u>	RADIO BEARER SETUP	RRC RAB SETUP
	<u>2</u>			RADIO BEARER SETUP COMPLETE	RRC
Н	3	<		ACTIVATE PDP CONTEXT ACCEPT	SM

## 7.4.2.6.1.4 Specific message contents

For step 1, the messages in Annex A of TS 34.123-1 are used. To execute procedure P13, use the message titled "Packet to CELL\_DCH from CELL\_DCH in PS". To execute procedure 14, use the message titled "Packet to CELL\_FACH from CELL\_FACH in PS".

# 7.4.2.6.2 Mobile originating sessions

## 7.4.2.6.2.1 Initial conditions

**System Simulator:** 

1 cell, default parameters.

**User Equipment:** 

- The UE shall be in state 6-7 or state 6-8.
- The Test USIM shall be inserted.

# 7.4.2.6.2.2 Definition of system information messages

The default system information messages are used as specified in clause 6.1 of TS 34.108.

#### 7.4.2.6.2.3 Procedure

<u>The Session Set-up procedure shall be performed under Ideal radio conditions as defined in clause 5 of TS 34.108. Reference Test Conditions:</u>

Step	<u>Direction</u>	<u>Message</u>	<u>Comments</u>
	UE SS		
<u>1</u>	<u>&lt;</u>	RADIO BEARER SETUP	RRC RAB SETUP
<u>2</u>		RADIO BEARER SETUP COMPLETE	RRC
<u>3</u>		ACTIVATE PDP CONTEXT ACCEPT	<u>SM</u>

# 7.4.2.6.2.4 Specific message contents

For step 1, the messages in Annex A of TS 34.123-1 are used. To execute procedure P13, use the message titled "Packet to CELL\_DCH from CELL\_DCH in PS". To execute procedure 14, use the message titled "Packet to CELL\_FACH from CELL\_FACH in PS".

# 7.4.2.7 Procedure for transitions to CELL\_PCH or URA\_PCH state (procedure P15, P16, P17 and P18)

# 7.4.2.7.1 Transition from CELL\_FACH to CELL\_PCH (procedure P15 and P16)

# 7.4.2.7.1.1 Initial conditions

**System Simulator:** 

1 cell, default parameters.

**User Equipment:** 

- The UE shall be in state 6-6 or state 6-8.
- The Test USIM shall be inserted.

### 7.4.2.7.1.2 Definition of system information messages

The default system information messages are used as specified in clause 6.1 of TS 34.108.

# 7.4.2.7.1.3 <u>Proce</u>dure

The Call Set-up procedure shall be performed under ideal radio conditions as defined in clause 5 of TS 34.108. Reference Test Conditions:

<u>Step</u>	<u>Direction</u>		<u>Message</u>	<u>Comments</u>
	<u>UE</u>	<u>SS</u>		
<u>1</u>			SS waits for at least T305, to allow the UE to execute periodic cell update procedure	
<u>2</u> <u>3</u>		<u>-&gt;</u> (	CELL UPDATE CELL UPDATE CONFIRM	RRC RRC

# 7.4.2.7.1.4 Specific message contents

Contents of CELL UPDATE message: CCCH-TM (Step 2)

Information Element	<u>Value/remark</u>
Message Type	
<u>U-RNTI</u>	
- SRNC identity	Checked if it is assigned value
<u>- S-RNTI</u>	Checked if it is assigned value

Contents of CELL UPDATE CONFIRM message: CCCH-UM (STEP 3)

Information Element	<u>Value/remark</u>
Message Type	
<u>U-RNTI</u>	
- SRNC identity	Assigned value
- S-RNTI	Assigned value
Integrity check info	Not Present
<ul> <li>Message authentication code</li> </ul>	
<ul> <li>- RRC message sequence number</li> </ul>	
Integrity protection mode info	Not Present
<u>Ciphering mode info</u>	Not Present (If ciphering is applied, this IE is needed)
New U-RNTI	Not Present
New C-RNTI	Not Present
DRX indicator	DRX with cell updating
UTRAN DRX cycle length coefficient	Not Present
RLC reset indicator (for C-plane)	<u>FALSE</u>
RLC reset indicator (for U-plane)	<u>FALSE</u>
CN information info	Not Present
<u>URA identity</u>	<u>0000 0000 0000 0001B</u>
RB with PDCP information	Not Present
Frequency info	Not Present
Maximum allowed UL TX power	33dBm
CHOICE channel requirement	Not Present
<u>Downlink information common for one radio link</u>	Not Present

## 7.4.2.7.2 Transition from CELL\_FACH to URA\_PCH (procedure P17 and P18)

## 7.4.2.7.2.1 Initial conditions

**System Simulator:** 

1 cell, default parameters.

**User Equipment:** 

- The UE shall be in state 6-6 or state 6-8.
- The Test USIM shall be inserted.

## 7.4.2.7.2.2 Definition of system information messages

The default system information messages are used as specified in clause 6.1 of TS 34.108.

# 7.4.2.7.2.3 Procedure

The Call Set-up procedure shall be performed under ideal radio conditions as defined in clause 5 of TS 34.108. Reference Test Conditions:

Ī	Step	Direction		<u>Message</u>	<u>Comments</u>
		<u>UE</u>	<u>SS</u>		
	<u>1</u>			SS waits for at least T305, to allow the UE to execute periodic cell update procedure	
	<u>2</u> <u>3</u>		<u>-&gt;</u> <	CELL UPDATE CELL UPDATE CONFIRM	RRC RRC

#### 7.4.2.7.2.4 Specific message contents

Contents of CELL UPDATE message: CCCH-TM (Step 2)

Information Element	<u>Value/remark</u>
<u>U-RNTI</u>	
- SRNC identity	Checked if it is assigned value
S-RNTI	Checked if it is assigned value

Contents of CELL UPDATE CONFIRM message: CCCH-UM (Step 3)

Information Element	<u>Value/remark</u>		
Message Type			
<u>U-RNTI</u>			
- SRNC identity	Assigned value		
- S-RNTI	Assigned value		
Integrity check info	Not Present		
<ul> <li>message authentication code</li> </ul>			
<ul> <li>- RRC message sequence number</li> </ul>			
Integrity protection mode info	Not Present		
<u>Ciphering mode info</u>	Not Present (if ciphering is applied, this IE is needed)		
New U-RNTI	Not Present		
New C-RNTI	Not Present		
DRX indicator	DRX with URA updating		
UTRAN DRX cycle length coefficient	Not Present		
RLC reset indicator(for C-plane)	<u>FALSE</u>		
RLC reset indicator(for U-plane)	<u>FALSE</u>		
CN information info	Not Present		
<u>URA identity</u>	<u>0000 0000 0000 0001B</u>		
RB with PDCP information	Not Present		
Frequency info	Not Present		
Maximum allowed UL TX power	<u>33dBm</u>		
CHOICE channel requirement	Not Present		
Downlink information common for one radio link	Not Present		

# 7.4.2.8 NAS call release and radio bearer release procedure for circuit switched calls (procedure P19)

#### 7.4.2.8.1 Disconnect from network side

## 7.4.2.8.1.1 Initial conditions

**System Simulator:** 

\_\_\_\_1 cell, default parameters.

**User Equipment:** 

- The UE shall be in state 6-9.

- The Test USIM shall be inserted.

# 7.4.2.8.1.2 Definition of system information messages

The default system information messages are used as specified in clause 6.1 of TS 34.108.

# 7.4.2.8.1.3 Procedure

<u>The Call release procedure shall be performed under Ideal radio conditions as defined in clause 5 of TS 34.108. Reference Test Conditions:</u>

<u>Step</u>	<u>Direction</u>	<u>Message</u>	<u>Comments</u>
	UE SS		
<u>1</u>	←	DISCONNECT	<u>CC</u>
2	$\rightarrow$	RELEASE	<u>CC</u>
3	<del>&lt;</del>	RELEASE COMPLETE	<del>CC</del>
4	←	RADIO BEARER RELEASE	RRC
<del>5</del>	$\rightarrow$	RADIO BEARER RELEASE COMPLETE	RRC

## 7.4.2.8.1.4 Specific message contents

For step 4, use the message type titled "CS speech" in clause 9 of TS 34.108

# 7.4.2.9 NAS session deactivation and radio bearer release procedure for packet switched sessions (procedure P20 and P21)

## 7.4.2.9.1 Disconnect from network side

#### 7.4.2.9.1.1 Initial conditions

**System Simulator:** 

1 cell, default parameters.

**User Equipment:** 

- The UE shall be in state 6-10 or state 6-11.
- The Test USIM shall be inserted.

# 7.4.2.9.1.2 Definition of system information messages

The default system information messages are used as specified in clause 6.1 of TS 34.108.

## 7.4.2.9.1.3 Procedure

The Session Release procedure shall be performed under Ideal radio conditions as defined in clause 5 of TS 34.108. Reference Test Conditions:

	<u>Step</u>	<u>Direction</u>		<u>Message</u>	<u>Comments</u>
		<del>UE</del>	<u>SS</u>		
Ī	<u>1</u>	1 ←		DEACTIVATE PDP CONTEXT	<del>SM</del>
	<del>2</del>	<u>2</u> ⇒		DEACTIVATE PDP CONTEXT ACCEPT	<del>SM</del>
	<u>3</u> ←			RADIO BEARER RELEASE	RRC
	<u>4</u>	$\Rightarrow$		RADIO BEARER RELEASE COMPLETE	RRC

## 7.4.2.9.1.4 Specific message contents

For step 3, the messages in Annex A of TS 34.123-1 are used. To execute procedure P20, use the message titled "Packet to CELL\_DCH from CELL\_DCH in PS". To execute procedure 21, use the message titled "Packet to CELL\_FACH from CELL\_FACH in PS".

### 3GPP TSG T1 Meeting #9 Redondo Beach, Ca, USA, 16-17 November 2000

\_

3GPP/TSG T1/SIG Meeting #14 Redondo Beach, USA, 13-15 November 2000

O&M specifications

# Document T1S00247

Document T1-000296

e.g. for 3GPP use the format TP-99xxx or for SMG, use the format P-99-xxx

e.g. for 3GPP use the format TP-99xxx or for SMG, use the format P-99-xxx

Redondo Bea	ich, USA, 13-15 November 200	or for S	SMG, use the format P-99-xxx
	CHANGE REQU	JEST Please see embedded help fill page for instructions on how to	
	34.108 CR	026 Current Versio	on: 3.1.0
GSM (AA.BB) or 3G	(AA.BBB) specification number↑	↑ CR number as allocated by MCC se	upport team
For submission list expected approval	meeting # here for information ↑	X strateg non-strateg	gic use only)
Fo	orm: CR cover sheet, version 2 for 3GPP and SMG The lates.	t version of this form is available from: ftp://ftp.3gpp.org	g/Information/CR-Form-v2.doc
Proposed change (at least one should be n		X UTRAN / Radio	Core Network
Source:	Matsushita Communication Industry	Co., Ltd <u>Date:</u>	13/11/2000
Subject:	Application of integrity mode protection	on to signalling message by defa	nult
Work item:			
Category: F A (only one category shall be marked with an X)  C	Corresponds to a correction in an ea Addition of feature Functional modification of feature	rlier release	Phase 2 Release 96 Release 97 Release 98 Release 99 Release 00
During T1-SIG #12 and T1 Plenary #8 meetings, the topic of applying ciphering by default during UE conformance testing was discussed. The agreement reached was to eave the activation of ciphering mechanism on a voluntary basis for UE manufacturers. As integrity protection is also a part of 3G security strategies, this CR recommends that t be treated in a similar manner as in the approach taken for ciphering. The default contents of affected the messages in clause 9 are proposed to be modified, in order to allow voluntary activation of integrity protection algorithm. The following IEs in the affected messages are revised in this CR:  • "Integrity check info": If integrity protection is to be applied, this IE and the sub-IEs are present. On the downlink, MAC-I and RRC SN are calculated by SS and specified in the downlink messages. On the uplink, MAC-I and RRC SN shall be present in the uplink messages. SS compares the MAC-I value against the computed X-MAC value.  • "Integrity protection mode info": If integrity protection is to be applied, this IE is present in SECURITY MODE COMMAND message. Integrity protection is started using UIA1 algorithm with an arbitrarily assigned FRESH value. This IE remains not present in other messages. This is because integrity protection is always triggered using SECURITY MODE COMMAND message, and that it's not desired to change the integrity protection configuration.			
Clauses affected	d: Clause 9		
affected:	Other GSM core specifications  MS test specifications  X	→ List of CRs:  → List of CRs:  → List of CRs:  → List of CRs:	

 $\rightarrow$  List of CRs:

# Other comments:



<----- double-click here for help and instructions on how to create a CR.

# 9 Default Message Contents

This clause contains the default values of common messages, which unless indicated otherwise in specific clauses of TS34.123-1, shall be transmitted and checked by the system simulator.

Contents of DOWNLINK DIRECT TRANSFER message: AM

Information Element	Value/remark
Message Type	
Integrity check info	Not Present The presence of this IE is dependent on IXIT
	statements in TS 34.123-32. If integrity protection is
	indicated to be active, this IE is present with the values of
	the sub IEs as stated below. Else, this IE and the sub-IEs
	are omitted.
<ul> <li>Message authentication code</li> </ul>	SS calculates the value of MAC-I for this message and
	writes to this IE.
<ul> <li>- RRC Message sequence number</li> </ul>	SS provides the value of this IE, from its internal counter.
CN domain identity	CS domain
NAS message	See Specific Message Content for each test case

#### Contents of INITIAL DIRECT TRANSFER message: AM

Information Element	Value/remark
Message Type	
Integrity check info	Not PresentThe presence of this IE is dependent on IXIT
	statements in TS 34.123-32. If integrity protection is
	indicated to be active, this IE shall be present with the
	values of the sub IEs as stated below. Else, this IE and
	the sub-IEs shall be absent.
<ul> <li>Message authentication code</li> </ul>	This IE is checked to see if it is present. The value is
	compared against the XMAC-I value computed by SS.
- RRC Message sequence number	This IE is checked to see if it is present. The value is
	used by SS to compute the XMAC-I value.
Service Descriptor	Not checked
Flow Identifier	Not checked
CN domain identity	Not checked
NAS message	Not checked
Megasured results on RACH	Not checked

### Contents of PAGING TYPE1 message: TM (Speech in CS)

Information Element	Value/remark
Message Type	
Paging record	
- Paging cause	Terminating Conversational Call
- CN domain identity	CS domain
- CHOICE UE identity	
- IMSI	Set to the same octet string as in the IMSI stored in the
	USIM card
BCCH modification info	Not Present

### Contents of PAGING TYPE1 message: TM (The others of speech in CS )

Information Element	Value/remark
Message Type	
Paging record	
- Paging cause	Terminating Streaming Call
- CN domain identity	CS domain
- CHOICE UE identity	
- IMSI	Set to the same octet string as in the IMSI stored in the
	USIM card
BCCH modification info	Not Present

# Contents of PAGING TYPE1 message: TM (Packet in PS )

Information Element	Value/remark
Message Type	
Paging record	
- Paging cause	Terminating Interactive Call
- CN domain identity	PS domain
- CHOICE UE identity	
- IMSI	Set to the same octet string as in the IMSI stored in the
	USIM card
BCCH modification info	Not Present

Information Element	Value/remark
Message Type	
Integrity check info	Not Present The presence of this IE is dependent on IXIT statements in TS 34.123-32. If integrity protection is indicated to be active, this IE is present with the values of the sub IEs as stated below. Else, this IE and the sub-IEs are omitted.
- message authentication code	SS calculates the value of MAC-I for this message and writes to this IE.
- RRC message sequence number	SS provides the value of this IE, from its internal counter.
Integrity protection mode info	Not Present
<ul> <li>Integrity protection mode command</li> <li>Downlink integrity protection activation info</li> </ul>	
- RRC message sequence number	
- RRC message sequence number	
- Integrity protection algorithm	
- Integrity protection initialisation number	
Ciphering mode info - Ciphering mode command	start
- Ciphering mode command - Ciphering algorithm	Standard UMTS Encryption Algorithm UEA1
- Activation time for DPCH	(256+CFN-(CFN MOD 8 + 8 ))MOD 256
- Radio bearer downlink ciphering activation time	Not Present
info	
<ul><li>Radio bearer identity</li><li>RLC sequence number</li></ul>	
Activation time	(256+CFN-(CFN MOD 8 + 8 ))MOD 256
New U-RNTI	Not Present
New C-RNTI	Not Present
DRX indicator UTRAN DRX cycle length coefficient	noDRX Not Present
CN information info	Not Present
- PLMN identity	
<ul> <li>CN common GSM-MAP NAS system information</li> <li>CN domain identity</li> </ul>	
- CN domain identity - CN domain specific GSM-MAP NAS system	
information	
Signalling RB information to setup	Not Present
- RB identity - CHOICE RLC info type	
- RLC info	
- CHOICE Uplink RLC mode	
- Transmission RLC discard - SDU discard mode	
- Timer MRW	
- Timer discard	
- MaxMRW	
- Transmission window size - Receiving window size	
- CHOICE Downlink RLC mode	
- In-sequence delivery	
- RB mapping info	
<ul> <li>Information for each multiplexing option</li> <li>Number of RLC logical channels</li> </ul>	
- Uplink transport channel type	
- Transport channel identity	
- Logical channel identity	
- MAC logical channel priority - Logical channel max loss	
- Number of RLC logical channels	
- Downlink transport channel type	

- Transport channel identity	
- Logical channel identity	
RAB information for setup	
- RAB info	
- RAB identity	0000 0001B
- CN domain identity	CS domain
- Re-establishment timer	
- T314	20 seconds
- RB information to setup	
- RB identity	5
- PDCP info	Not Present
- RLC info	THE
- CHOICE Uplink RLC mode	TM RLC
- Transmission RLC discard	Not Present
- CHOICE Downlink RLC mode	TM RLC
- Segmentation indication	TRUE
- RB mapping info	
<ul> <li>Information for each multiplexing option</li> <li>Number of RLC logical channels</li> </ul>	1
- Uplink transport channel type	DCH
- Transport channel identity	2
- Logical channel identity	1
- MAC logical channel priority	1
- Logical channel max loss	0
- Number of RLC logical channels	1
- Downlink transport channel type	DCH
- Transport channel identity	2
- Logical channel identity	1
- RB information to setup	
- RB identity	6
- PDCP info	Not Present
- RLC info	
- CHOICE Uplink RLC mode	TM RLC
- Transmission RLC discard	Not Present
- CHOICE Downlink RLC mode	TM RLC
- Segmentation indication	TRUE
- RB mapping info - Information for each multiplexing option	
- Number of RLC logical channels	1
- Uplink transport channel type	DCH
- Transport channel identity	3
- Logical channel identity	1
- MAC logical channel priority	1
- Logical channel max loss	0
- Number of RLC logical channels	1
- Downlink transport channel type	DCH
- Transport channel identity	3
- Logical channel identity	1
- RB information to setup	(This IE is needed for 12.2 kbps and 10.2 kbps)
- RB identity	7
- PDCP info	Not Present
- RLC info	TM DLC
- CHOICE Uplink RLC mode	TM RLC
- Transmission RLC discard	Not Present
- CHOICE Downlink RLC mode	TM RLC TRUE
<ul><li>Segmentation indication</li><li>RB mapping info</li></ul>	TRUE
- RB mapping into - Information for each multiplexing option	
- Number of RLC logical channels	1
- Uplink transport channel type	DCH
- Transport channel identity	4
- Logical channel identity	1
,	•

- MAC logical channel priority	1
- Logical channel max loss	0
Number of RLC logical channels	1
- Downlink transport channel type	DCH
- Transport channel identity	4
- Logical channel identity	1
RB information to be affected	(UM DCCH for RRC)
- RB identity	1 (OW DECH TO RRE)
- RB mapping info	
- Information for each multiplexing option	1
<ul> <li>Number of RLC logical channels</li> <li>Uplink transport channel type</li> </ul>	1   DCH
- Opinik transport channel type - Transport channel identity	1 DCH
- Transport channel identity - Logical channel identity	1
- MAC logical channel priority	1
- Logical channel max loss	0
- Number of RLC logical channels	1
Downlink transport channel type	DCH
- Transport channel identity	1
- Transport channel identity - Logical channel identity	1
RB information to be affected	(AM DCCH for RRC)
- RB identity	2
- RB mapping info	2
- Information for each multiplexing option	
Number of RLC logical channels	1
- Uplink transport channel type	DCH
- Transport channel identity	1
- Logical channel identity	2
- MAC logical channel priority	2
- Logical channel max loss	0
- Number of RLC logical channels	1
- Downlink transport channel type	DCH
- Transport channel identity	1
- Logical channel identity	
RB information to be affected	(AM DCCH for NAS_DT High priority)
- RB identity	3
- RB mapping info	
- Information for each multiplexing option	
- Number of RLC logical channels	1
- Uplink transport channel type	DCH
- Transport channel identity	1
- Logical channel identity	3
- MAC logical channel priority	3
- Logical channel max loss	0
- Number of RLC logical channels	1
<ul> <li>Downlink transport channel type</li> </ul>	DCH
- Transport channel identity	1
- Logical channel identity	3
RB information to be affected	(AM DCCH for NAS_DT Low priority)
- RB identity	4
- RB mapping info	
<ul> <li>Information for each multiplexing option</li> </ul>	
<ul> <li>Number of RLC logical channels</li> </ul>	1
<ul> <li>Uplink transport channel type</li> </ul>	DCH
<ul> <li>Transport channel identity</li> </ul>	1
<ul> <li>Logical channel identity</li> </ul>	4
<ul> <li>MAC logical channel priority</li> </ul>	4
<ul> <li>Logical channel max loss</li> </ul>	0
<ul> <li>Number of RLC logical channels</li> </ul>	1
<ul> <li>Downlink transport channel type</li> </ul>	DCH
- Transport channel identity	1
<ul> <li>Logical channel identity</li> </ul>	4

UL Transport channel information for all transport channels

- TFC subset
- Allowed Transport Format combination
- UL DCH TFCS
- Normal
- TFCI Field 1 information
- CHOICE TFCS representation
- TFCS addition information
- CHOICE CTFC Size
- CTFC information
- Power offset information
- CHOICE Gain Factors
- Gain factor Bc
- Gain factor ßd
- Reference TFC ID
- Power offset Pp-m

### Added or Reconfigured UL TrCH information

- Transport channel identity
- TFS
- Dynamic Transport format information
- Number of Transport blocks
- RLC size
- Semi-static Transport Format information
- Transmission time interval
- Type of channel coding
- Coding Rate
- Rate matching attribute
- CRC size

#### Added or Reconfigured UL TrCH information

- Transport channel identity
- TFS
- Dynamic Transport format information
- Number of Transport blocks
- RLC size
- Semi-static Transport Format information
- Transmission time interval
- Type of channel coding
- Coding Rate
- Rate matching attribute
- CRC size

#### Added or Reconfigured UL TrCH information

- Transport channel identity
- TFS
- Dynamic Transport format information
- Number of Transport blocks
- RLC size
- Semi-static Transport Format information
- Transmission time interval
- Type of channel coding
- Coding Rate
- Rate matching attribute
- CRC size

### Added or Reconfigured UL TrCH information

- Transport channel identity
- TFS
- Dynamic Transport format information
- Number of Transport blocks
- RLC size

(This IE is repeated for TFC number.)

0 to MaxTFCValue-1 (MaxTFCValue is refer to clause 6.10 Parameter Set.)

(This IE is repeated for TFC number.)

#### Addition

Number of bits used must be enough to cover all combinations of CTFC from clause 6.10. Refer to clause 6.10 Parameter Set

Signalled Gain Factor

0

Not Present

0dB

2

(This IE is repeated for TFI number)
Reference to clause 6.10 Parameter Set

3

(This IE is repeated for TFI number)

Reference to clause 6.10 Parameter Set

(This IE is needed for 12.2 kbps and 10.2 kbps)

4

(This IE is repeated for TFI number)

Reference to clause 6.10 Parameter Set

Reference to clause 6.10 Parameter Set Reference to clause 6.10 Parameter Set

Reference to clause 6.10 Parameter Set

If TrCH reconfiguration is executed then this is needed( e.g The rate of SRB for DCCH is changed.).

1

(This IE is repeated for TFI number)

Reference to clause 6.10 Parameter Set

Reference to clause 6.10 Parameter Set

- Semi-static Transport Format information
- Transmission time interval
- Type of channel coding
- Coding Rate
- Rate matching attribute
- CRC size

#### DRAC static information

- Transmission Time Validity
- Time duration before retry
- DRAC Class identity

DL Transport channel information common for all transport channel

- SCCPCH TFCS
- CHOICE DL parameters
- DL DCH TFCS
- Normal
- TFCI Field 1 information
- CHOICE TFCS representation
- TFCS addition information
- CHOICE CTFC Size
- CTFC information
- Power offset information
- CHOICE Gain Factors
- Gain factor Bc
- Gain factor ßd
- Reference TFC ID
- Power offset Pp-m

Added or Reconfigured DL TrCH information

- Transport channel identity
- CHOICE DL parameters
- UL TrCH Identity
- DCH quality target
- BLER Quality value
- Transparent mode signalling info

Added or Reconfigured DL TrCH information

- Transport channel identity
- CHOICE DL parameters
- UL TrCH information

Added or Reconfigured DL TrCH information

- Transport channel identity
- CHOICE DL parameters
- UL TrCH information
- DCH quality target
- BLER Quality value
- Transparent mode signalling info

Added or Reconfigured DL TrCH information

- Transport channel identity
- CHOICE DL parameters
- UL TrCH Identity
- TFS
- Dynamic Transport format information
- Number of Transport blocks
- RLC size
- Semi-static Transport Format information
- Transmission time interval
- Type of channel coding
- Coding Rate
- Rate matching attribute
- CRC size
- DCH quality target

Reference to clause 6.10 Parameter Set Not Present

Not Present Independent

(This IE is repeated for TFC number.)

#### Addition

Number of bits used must be enough to cover all combinations of CTFC from clause 6.10. Refer to clause 6.10 Parameter Set

Signalled Gain Factor

0

0

Not Present

0dB

2

SameAsUL

2

0.00

Not Present

3

SameAsUL

3

(This IE is needed for 12.2 kbps and 10.2 kbps)

4

SameAsUL

4

0.00

Not Present

If TrCH reconfiguration is executed then this is needed( e.g The rate of SRB for DCCH is changed.).

1

Independent

1

(This IE is repeated for TFI number) Reference to clause 6.10 Parameter Set Reference to clause 6.10 Parameter Set

Reference to clause 6.10 Parameter Set Reference to clause 6.10 Parameter Set Reference to clause 6.10 Parameter Set Reference to clause 6.10 Parameter Set

Reference to clause 6.10 Parameter Set

DIED OF THE	1 0 00
- BLER Quality value	0.00
- Transparent mode signalling info	Not Present
Frequency info	
- UARFCN uplink(Nu)	Reference to clause 6.10 Parameter Set
- UARFCN downlink(Nd)	Reference to clause 6.10 Parameter Set
Maximum allowed UL TX power	33dBm
Uplink DPCH info	
- Uplink DPCH power control info	
- DPCCH power offset	-6dB
- PC Preamble	15 slots
- Power Control Algorithm	Algorithm1
- TPC step size	1dB
- Scrambling code type	Long
- Scrambling code number	0 ( 0 to 16777215)
- Number of DPDCH	Not Present(1)
- spreading factor	SF is reference to clause 6.10 Parameter Set
- TFCI existence	TRUE
- Number of FBI bit	Not Present(0)
	Reference to clause 6.10 Parameter Set
- Puncturing Limit  Downlink information common for all radio links	Neighblice to clause 0. To Parameter Set
- Downlink DPCH info common for all RL	
- Downlink DPCH power control information	O (circula)
- DPC mode	0 (single)
- Spreading factor	Reference to clause 6.10 Parameter Set
- Fixed or Flexible Position	Fixed
- TFCI existence	FALSE
- Number of bits for Pilot bits(SF=128,256)	4 bits
- Downlink DPCH Offset Value	0
- DPCH compressed mode info	
-TGPSI	1
-TGPS Status Flag	Inactive
- Transmission gap pattern sequence	
configuration parameters	
- TGMP	FDD Measurement
- TGPRC	62
- TGCFN	(Current CFN + (256 – TTI/10msec)) mod 256
- TGSN	8
- TGL1	10
- TGL2	5
- TGD	15
- TGPL1	35
- TGPL2	35
- RPP	Mode 1
- ITP	Mode 1
- UL/DL Mode	DL
- Downlink compressed mode method	SF/2
- Uplink compressed mode method	Not Present
- Downlink frame type	A
- DeltaSIR1	2.0
- DeltaSIRafter1	
	1 1 ()
	1.0 Not Present
- DeltaSIR2	Not Present
- DeltaSIR2 - DeltaSIRafter2	Not Present Not Present
<ul><li>DeltaSIR2</li><li>DeltaSIRafter2</li><li>TX Diversity mode</li></ul>	Not Present Not Present None
<ul><li>DeltaSIR2</li><li>DeltaSIRafter2</li><li>TX Diversity mode</li><li>SSDT information</li></ul>	Not Present Not Present
<ul><li>DeltaSIR2</li><li>DeltaSIRafter2</li><li>TX Diversity mode</li><li>SSDT information</li><li>S field</li></ul>	Not Present Not Present None
<ul> <li>DeltaSIR2</li> <li>DeltaSIRafter2</li> <li>TX Diversity mode</li> <li>SSDT information</li> <li>S field</li> <li>Code Word Set</li> </ul>	Not Present Not Present None Not Present
<ul> <li>DeltaSIR2</li> <li>DeltaSIRafter2</li> <li>TX Diversity mode</li> <li>SSDT information</li> <li>S field</li> <li>Code Word Set</li> <li>Downlink PDSCH information</li> </ul>	Not Present None Not Present None Not Present
<ul> <li>DeltaSIR2</li> <li>DeltaSIRafter2</li> <li>TX Diversity mode</li> <li>SSDT information</li> <li>S field</li> <li>Code Word Set</li> <li>Downlink PDSCH information</li> <li>CPCH SET info</li> </ul>	Not Present Not Present None Not Present
<ul> <li>DeltaSIR2</li> <li>DeltaSIRafter2</li> <li>TX Diversity mode</li> <li>SSDT information</li> <li>S field</li> <li>Code Word Set</li> <li>Downlink PDSCH information</li> <li>CPCH SET info</li> <li>Downlink information for each radio links</li> </ul>	Not Present None Not Present None Not Present
- DeltaSIR2 - DeltaSIRafter2 - TX Diversity mode - SSDT information - S field - Code Word Set Downlink PDSCH information CPCH SET info Downlink information for each radio links - Primary CPICH info	Not Present None Not Present  Not Present  Not Present  Not Present  Not Present
<ul> <li>DeltaSIR2</li> <li>DeltaSIRafter2</li> <li>TX Diversity mode</li> <li>SSDT information</li> <li>S field</li> <li>Code Word Set</li> <li>Downlink PDSCH information</li> <li>CPCH SET info</li> <li>Downlink information for each radio links</li> </ul>	Not Present None Not Present None Not Present

- DSCH radio link identifier
- TFCI Combining set
- Radio link identifier
- Primary CPICH info
- Primary scrambling code
- PDSCH code mapping
- Downlink DPCH info for each RL
- Primary CPICH usage for channel estimation
- DPCH frame offset
- Secondary CPICH info
- Secondary scrambling code
- channelisation code
- DL channelisation code
- Secondary scrambling code
- Spreading factor
- Code number
- Scrambling code change
- TPC combination index
- SSDT Cell Identity
- Closed loop timing adjustment mode
- Secondary CCPCH info
- Selection Indicator
- Primary CPICH usage for channel estimation
- Secondary CPICH info
- Secondary scrambling code
- channelisation code
- Secondary scrambling code
- SSDT Indicator
- Spreading factor
- Code number
- Pilot symbol existence
- TFCI existence
- Fixed or Flexible Position
- Timing offset
- TFCS
- FACH/PCH information
- TFS
- Dynamic Transport format information
- Number of Transport blocks
- RLC Size
- Semi-static Transport Format information
- Transmission time interval
- Type of channel coding
- Coding Rate
- Rate matching attribute
- CRC size
- TFS
- Dynamic Transport format information
- Number of Transport blocks
- RLC Size
- Semi-static Transport Format information
- Transmission time interval
- Type of channel coding
- Coding Rate
- Rate matching attribute
- CRC size
- References to system information blocks
- Scheduling information

Not Present

Primary CPICH may be used

0 chips

Not Present

1

Reference to clause 6.10 Parameter Set

SF-1(SF is reference to clause 6.10 Parameter Set )

No change

0

-a

Not Present Not Present

Not Present Not Present

Not Present

### Contents of RADIO BEARER SETUP COMPLETE message: AM

Message Type	
Hyper frame number	Not checked
Radio bearer uplink ciphering activation time info	SS must follow this IE to cipher on the each RB.
Other information element	Not checked

### Contents of RADIO BEARER RELEASE message: AM or UM (Speech in CS )

Information Element	Value/remark
Message Type	
Integrity check info	Not Present The presence of this IE is dependent on IXIT
	statements in TS 34.123-32. If integrity protection is
	indicated to be active, this IE is present with the values of
	the sub IEs as stated below. Else, this IE and the sub-IEs
	are omitted.
- message authentication code	SS calculates the value of MAC-I for this message and
mossage authornioalien couc	writes to this IE.
- RRC message sequence number	SS provides the value of this IE, from its internal counter.
Integrity protection mode info	Not Present
- Integrity protection mode command	1101111000111
Downlink integrity protection activation info	
- RRC message sequence number	
- RRC message sequence number	
- Integrity protection algorithm	
- Integrity protection initialisation number	
Ciphering mode info	Not Present
- Ciphering mode command	
- Ciphering algorithm	
- Activation time for DPCH	
- Radio bearer downlink ciphering activation time	
info	
- Radio bearer identity	
- RLC sequence number	
Activation time	(256+CFN-(CFN MOD 8 + 8 ))MOD 256
New U-RNTI	Not Present
New C-RNTI	Not Present
DRX indicator	NoDRX
UTRAN DRX cycle length coefficient	Not Present
CN information info	Not Present
- PLMN identity	
- CN common GSM-MAP NAS system information	
- CN domain identity	
- CN domain specific GSM-MAP NAS system	
information	
RB information to release	
- RB identity	5
RB information to release	,
- RB identity	6
RB information to release	7
- RB identity  RB information to be affected	7 (UM DCCH for RRC)
RB information to be affected - RB identity	(UNIDECHIOI RRC)
- RB identity - RB mapping info	
- Information for each multiplexing option	
Number of RLC logical channels	1
- Uplink transport channel type	DCH
- Transport channel identity	1
- Logical channel identity	1
- MAC logical channel priority	1
- Logical channel max loss	0
- Number of RLC logical channels	1
- Downlink transport channel type	DCH
- Transport channel identity	1
- Logical channel identity	1
RB information to be affected	(AM DCCH for RRC)
- RB identity	2
- RB mapping info	
<ul> <li>Information for each multiplexing option</li> </ul>	

1	I .
<ul> <li>Number of RLC logical channels</li> </ul>	1
<ul> <li>Uplink transport channel type</li> </ul>	DCH
- Transport channel identity	1
- Logical channel identity	2
- MAC logical channel priority	2
- Logical channel max loss	0
- Number of RLC logical channels	1
<ul> <li>Downlink transport channel type</li> </ul>	DCH
- Transport channel identity	1
- Logical channel identity	2
RB information to be affected	(AM DCCH for NAS_DT High priority)
- RB identity	3
	3
- RB mapping info	
- Information for each multiplexing option	
<ul> <li>Number of RLC logical channels</li> </ul>	1
<ul> <li>Uplink transport channel type</li> </ul>	DCH
- Transport channel identity	1
- Logical channel identity	3
- MAC logical channel priority	3
- Logical channel max loss	
- Number of RLC logical channels	1
- Downlink transport channel type	DCH
- Transport channel identity	1
<ul> <li>Logical channel identity</li> </ul>	3
RB information to be affected	(AM DCCH for NAS_DT Low priority)
- RB identity	4
- RB mapping info	
- Information for each multiplexing option	
	1
- Number of RLC logical channels	
- Uplink transport channel type	DCH
- Transport channel identity	1
<ul> <li>Logical channel identity</li> </ul>	4
- MAC logical channel priority	4
- Logical channel max loss	0
- Number of RLC logical channels	1
- Downlink transport channel type	DCH
- Transport channel identity	1
- Logical channel identity	4
UL Transport channel information for all transport	
channels	
- TFC subset	(This IE is repeated for TFC number.)
<ul> <li>Allowed Transport Format combination</li> </ul>	0 to MaxTFCValue-1 (MaxTFCValue is refer to clause
· ·	6.10 Parameter Set.)
- UL DCH TFCS	( This IE is repeated for TFC number.)
- Normal	
- TFCI Field 1 information	
- CHOICE TFCS representation	Addition
	Addition
- TFCS addition information	No to China to the control of
- CHOICE CTFC Size	Number of bits used must be enough to cover all
	combinations of CTFC from clause 6.10.
- CTFC information	Refer to clause 6.10 Parameter Set
- Power offset information	
- CHOICE Gain Factors	Signalled Gain Factors
- Gain factor Bc	0
- Gain factor Bd	0
	1 -
- Reference TFC ID	Not Present
- Power offset Pp-m	OdB
Deleted UL TrCH Information	
- Transport channel identity	2
Deleted UL TrCH Information	
- Transport channel identity	3
Deleted UL TrCH Information	
,	1

- Transport channel identity
Added or Reconfigured UL TrCH information

- Transport channel identity
- TFS
- Dynamic Transport format information
- Number of Transport blocks
- RLC size
- Semi-static Transport Format information
- Transmission time interval
- Type of channel coding
- Coding Rate
- Rate matching attribute
- CRC size

**CPCH** set ID

DRAC static information

- Transmission Time Validity
- Time duration before retry
- DRAC Class Identity

DL Transport channel information common for all transport channel

- SCCPCH TFCS
- CHOICE DL parameters
- DL DCH TFCS
- Normal
- TFCI Field 1 information
- CHOICE TFCS representation
- TFCS addition information
- CHOICE CTFC Size
- CTFC information
- Power offset information
- CHOICE Gain Factors
- Gain factor ßc
- Gain factor ßd
- Reference TFC ID
- Power offset Pp-m

Deleted DL TrCH Information

- Transport channel identity

Deleted DL TrCH Information

- Transport channel identity

Deleted DL TrCH Information

- Transport channel identity

Added or Reconfigured DL TrCH information

- Transport channel identity
- CHOICE DL parameters
- UL TrCH Identity
- DCH quality target
- BLER Quality value
- Transparent mode signalling info

Frequency info

- UARFCN uplink(Nu)
- UARFCN downlink(Nd)

Maximum allowed UL TX power Uplink DPCH info

- Uplink DPCH power control info
- DPCCH power offset
- PC Preamble
- Power Control Algorithm
- TPC step size
- Scrambling code type

If TrCH reconfiguration is executed then this is needed( e.g The rate of SRB for DCCH is changed.).

1

( This IE is repeated for TFI number) Reference to clause 6.10 Parameter Set Reference to clause 6.10 Parameter Set

Reference to clause 6.10 Parameter Set Reference to clause 6.10 Parameter Set Reference to clause 6.10 Parameter Set Reference to clause 6.10 Parameter Set Reference to clause 6.10 Parameter Set Not Present

Not Present Independent (This IE is repeated for TFC number.)

#### Addition

Not Preaent

Number of bits used must be enough to cover all combinations of CTFC from clause 6.10. Refer to clause 6.10 Parameter Set

Signalled Gain Factor

0

0

Not Present

0dB

\_

3

4

If TrCH reconfiguration is executed then this is needed( e.g The rate of SRB for DCCH is changed.).

1

SameAsUL

1

0.00

Not Present

Reference to clause 6.10 Parameter Set Reference to clause 6.10 Parameter Set 33dBm

-6dB 15 slots Algorithm1 1dB Long

- Scrambling code number	0 ( 0 to 16777215)
- Number of DPDCH	Not Present(1)
- spreading factor	SF is reference to clause 6.10 Parameter Set
- TFCI existence	TRUE
- Number of FBI bit	Not Present(0)
	Reference to clause 6.10 Parameter Set
- Puncturing Limit	Reference to clause 6. To Parameter Set
Downlink information common for all radio links	
- Downlink DPCH info common for all RL	
<ul> <li>Downlink DPCH power control information</li> </ul>	
- DPC mode	0 (single)
- Spreading factor	Reference to clause 6.10 Parameter Set
- Fixed or Flexible Position	N/A
- TFCI existence	FALSE
<ul> <li>Number of bits for Pilot bits(SF=128,256)</li> </ul>	Reference to clause 6.10 Parameter Set
- Downlink DPCH Offset Value	0
- DPCH compressed mode info	Ŭ
-TGPSI	1
	1 · ·
-TGPS Status Flag	Inactive
- Transmission gap pattern sequence	
configuration parameters	
- TGMP	FDD Measurement
- TGPRC	62
- TGCFN	(Current CFN + (256 – TTI/10msec)) mod 256
- TGSN	8
- TGL1	10
- TGL2	5
- TGD	15
- TGPL1	35
- TGPL2	35
- RPP	Mode 1
- ITP	Mode 1
- UL/DL Mode	DL
- Downlink compressed mode method	SF/2
- Uplink compressed mode method	Not Present
- Downlink frame type	A
- DeltaSIR1	2.0
- DeltaSIRafter1	1.0
- DeltaSIR2	Not Present
- DeltaSIRafter2	Not Present
- TX Diversity mode	None
- SSDT information	Not Present
- S field	
- Code Word Set	
Downlink PDSCH information	Not Present
CPCH SET info	Not Present
Downlink information for each radio links	
- Primary CPICH info	
- Primary scrambling code	100
- PDSCH with SHO DCH info	Not Present
- DSCH radio link identifier	
- TFCI Combining set	
- Radio link identifier	
- Primary CPICH info	
- Primary scrambling code	
- PDSCH code mapping	Not Present
- Downlink DPCH info for each RL	
- Primary CPICH usage for channel estimation	Primary CPICH may be used
- DPCH frame offset	O chips
- Secondary CPICH info	Not Present
- Secondary scrambling code	I WOUT TO SOME
- channelisation code	
- Channelisation code - DL channelisation code	
- DE CHAHHCHSAUOH COUC	I

- Secondary scrambling code - Spreading factor Reference to clause 6.10 Parameter Set - Code number SF-1(SF is reference to clause 6.10 Parameter Set ) - Scrambling code change No change - TPC combination index - SSDT Cell Identity -a - Closed loop timing adjustment mode Not Present - Secondary CCPCH info Not Present - Selection Indicator - Primary CPICH usage for channel estimation - Secondary CPICH info - Secondary scrambling code - channelisation code - Secondary scrambling code - SSDT Indicator - Spreading factor - Code number - Pilot symbol existence - TFCI existence - Fixed or Flexible Position - Timing offset - TFCS Not Present - FACH/PCH information Not Present - Dynamic Transport format information - Number of Transport blocks - RLC Size - Semi-static Transport Format information - Transmission time interval - Type of channel coding - Coding Rate - Rate matching attribute - CRC size - Dynamic Transport format information - Number of Transport blocks - RLC Size - Semi-static Transport Format information - Transmission time interval - Type of channel coding - Coding Rate - Rate matching attribute - CRC size - References to system information blocks Not Present - Scheduling information

#### Contents of RADIO BEARER RELEASE COMPLETE message: AM

Message Type	
Other information element	Not checked

#### Contents of RRC CONNECTION REQUEST message: TM

Information Element	Value/remark
Message Type	
Initial UE identity	To be checked against requirement if specified
Establishment cause	To be checked against requirement if specified
Protocol error indicator	FALSE
Measured results on RACH	Not checked

### Contents of RRC CONNECTION RELEASE message: UM

Information Element	Value/remark
Message Type	
Initial UE identity	To be checked against requirement if specified
Number of RRC Message Transmissions	2 (for CELL_DCH state). Not Present for UE in other
	connected mode states.
Release cause	Normal

### Contents of RRC CONNECTION RELEASE COMPLETE message: AM or UM

Information Element	Semantics description
Message Type	
Integrity check info	Not checked. The presence of this IE is dependent on IXIT
	statements in TS 34.123-32. If integrity protection is
	indicated to be active, this IE shall be present with the
	values of the sub IEs as stated below. Else, this IE and
	the sub-IEs shall be absent.
<ul> <li>Message authentication code</li> </ul>	Checked to see if it's identical to the value of XMAC-I
	calculated by the SS
<ul> <li>- RRC Message sequence number</li> </ul>	Checked to see if it is present. This number is used by
	the SS to compute the XMAC-I

Information Floresus	Volume to a sele
Information Element	Value/remark
Message Type	Deference to clause 4.10 December Set
Initial UE identity Activation time	Reference to clause 6.10 Parameter Set
New U-RNTI	(256+CFN-(CFN MOD 8 + 8 ))MOD 256
- SRNC identity	0000 0000 0001B
- School definity	0000 0000 0001B
New C-RNTI	0000 0000 0000 0001B
UTRAN DRX cycle length coefficient	5 ( 2 to 12 )
Capability update requirement	
- UE radio access capability update requirement	FALSE
- System specific capability update requirement	Not Present
Signalling RB information to setup	(UM DCCH for RRC)
- RB identity	1
- CHOICE RLC info type	
- RLC info	LIMBLO
- CHOICE Uplink RLC mode	UM RLC
- Transmission RLC discard	May DAT retransmissions
- SDU discard mode	Max DAT retransmissions
- MAX_DAT - Timer_MRW	4   100
- MaxMRW	4
- CHOICE Downlink RLC mode	UM RLC
- RB mapping info	-···
- Information for each multiplexing option	
- Number of RLC logical channels	1
- Uplink transport channel type	DCH
- Transport channel identity	1
- Logical channel identity	1
- MAC logical channel priority	1
- Logical channel max loss	0
- Number of RLC logical channels	
<ul> <li>Downlink transport channel type</li> <li>Transport channel identity</li> </ul>	DCH 1
- Transport channel identity - Logical channel identity	1
Signalling RB information to setup	(AM DCCH for RRC)
- RB identity	2
- CHOICE RLC info type	
- RLC info	
- CHOICE Uplink RLC mode	AM RLC
- Transmission RLC discard	
- SDU discard mode	Max DAT retransmissions
- MAX_DAT	4
- Timer_MRW - MaxMRW	100
- Transmission window size	4   8
- Receiving window size	8
- Timer_RST	500
- Max_RST	4
- Polling info	
- Timer_poll_prohibit	200
- Timer_poll	200
- Poll_SDU	1
- Last transmission PU poll	TRUE
- Last retransmission PU poll	TRUE
- Poll_Windows	99
- CHOICE Downlink RLC mode	AM RLC
- In-sequence delivery - Receiving window size	TRUE 8
- Receiving window size - Downlink RLC status info	U
DOWNIII NEC Status IIIO	I

- Timer_status_prohibit	200
- Timer_EPC	200
- Missing PU indicator	TRUE
	INOL
- RB mapping info	
- Information for each multiplexing option	
- Number of RLC logical channels	1
- Uplink transport channel type	DCH
- Transport channel identity	1
<ul> <li>Logical channel identity</li> </ul>	2
<ul> <li>MAC logical channel priority</li> </ul>	2
- Logical channel max loss	0
- Number of RLC logical channels	1
- Downlink transport channel type	DCH
- Transport channel identity	1
- Logical channel identity	2
Signalling RB information to setup	(AM DCCH for NAS_DT High priority)
- RB identity	3
- CHOICE RLC info type	
- RLC info	
	AMA DLC
- CHOICE Uplink RLC mode	AM RLC
- Transmission RLC discard	May DAT retransmissions
- SDU discard mode	Max DAT retransmissions
- MAX_DAT	4
- Timer_MRW	100
- MaxMRW	4
- Transmission window size	8
- Receiving window size	8
- Timer_RST	500
- Max_RST	4
- Polling info	
- Timer_poll_prohibit	200
- Timer_poll	200
- Poll_SDU	1
- Last transmission PU poll	TRUE
- Last retransmission PU poll	TRUE
- Poll_Windows	99
- CHOICE Downlink RLC mode	AM RLC
- In-sequence delivery	TRUE
- Receiving window size	8
- Downlink RLC status info	
- Timer_status_prohibit	200
- Timer_EPC	200
<u> </u>	TRUE
- Missing PU indicator	INOL
- RB mapping info	
<ul> <li>Information for each multiplexing option</li> <li>Number of RLC logical channels</li> </ul>	1
g and a second s	DCH
- Uplink transport channel type	
- Transport channel identity	1
- Logical channel identity	3
- MAC logical channel priority	3
- Logical channel max loss	0
- Number of RLC logical channels	1
- Downlink transport channel type	DCH
- Transport channel identity	1
- Logical channel identity	3
Signalling RB information to setup	(AM DCCH for NAS_DT Low priority)
- RB identity	4
- CHOICE RLC info type	
- RLC info	
- CHOICE Uplink RLC mode	AM RLC
- Transmission RLC discard	
- SDU discard mode	Max DAT retransmissions

- MAX_DAT - Timer_MRW - MaxMRW - Transmission window size - Receiving window size - Max_RST - Polling info - Timer_poll_prohibit - Timer_poll_prohibit - Timer_poll - Poll_SDU - Last transmission PU poll - Last retransmission PU poll - Poll_Windows - CHOICE Downlink RLC mode - In-sequence delivery - Receiving window size - Downlink RLC status info - Timer_status_prohibit - Timer_EPC - Missing PU indicator - RB mapping info - Information for each multiplexing option - Number of RLC logical channels  1
- Timer_MRW - MaxMRW - Transmission window size - Receiving window size - Receiving window size - Timer_RST - Max_RST - Polling info - Timer_poll_prohibit - Timer_poll - Poll_SDU - Last transmission PU poll - Last retransmission PU poll - Last retransmission PU poll - Poll_Windows - CHOICE Downlink RLC mode - In-sequence delivery - Receiving window size - Downlink RLC status info - Timer_EPC - Missing PU indicator - RB mapping info - Information for each multiplexing option
- MaxMRW - Transmission window size - Receiving window size - Timer_RST - Max_RST - Polling info - Timer_poll_prohibit - Timer_poll - Poll_SDU - Last transmission PU poll - Last retransmission PU poll - Poll_Windows - CHOICE Downlink RLC mode - In-sequence delivery - Receiving window size - Downlink RLC status info - Timer_status_prohibit - Timer_EPC - Missing PU indicator - RB mapping info - Information for each multiplexing option
- Transmission window size - Receiving window size - Timer_RST - Max_RST - Polling info - Timer_poll_prohibit - Timer_poll - Poll_SDU - Poll_SDU - Last transmission PU poll - Last retransmission PU poll - Poll_Windows - CHOICE Downlink RLC mode - In-sequence delivery - Receiving window size - Downlink RLC status info - Timer_EPC - Missing PU indicator - RB mapping info - Information for each multiplexing option
- Receiving window size - Timer_RST - Max_RST - Polling info - Timer_poll_prohibit - Timer_poll - Poll_SDU - Last transmission PU poll - Last retransmission PU poll - Poll_Windows - CHOICE Downlink RLC mode - In-sequence delivery - Receiving window size - Downlink RLC status info - Timer_status_prohibit - Timer_EPC - Missing PU indicator - RB mapping info - Information for each multiplexing option
- Timer_RŠT - Max_RST - Polling info - Timer_poll_prohibit - Timer_poll - Poll_SDU - Last transmission PU poll - Last retransmission PU poll - Poll_Windows - CHOICE Downlink RLC mode - In-sequence delivery - Receiving window size - Downlink RLC status info - Timer_status_prohibit - Timer_EPC - Missing PU indicator - RB mapping info - Information for each multiplexing option
- Max_RST - Polling info - Timer_poll_prohibit - Timer_poll - Poll_SDU - Poll_SDU - Last transmission PU poll - Last retransmission PU poll - Poll_Windows - Poll_Windows - CHOICE Downlink RLC mode - In-sequence delivery - Receiving window size - Downlink RLC status info - Timer_status_prohibit - Timer_EPC - Missing PU indicator - RB mapping info - Information for each multiplexing option
- Polling info - Timer_poll_prohibit - Timer_poll - Poll_SDU - Poll_SDU - Last transmission PU poll - Last retransmission PU poll - Poll_Windows - Poll_Windows - CHOICE Downlink RLC mode - In-sequence delivery - Receiving window size - Downlink RLC status info - Timer_status_prohibit - Timer_EPC - Missing PU indicator - RB mapping info - Information for each multiplexing option
- Timer_poll_prohibit - Timer_poll - Poll_SDU - Poll_SDU - Last transmission PU poll - Last retransmission PU poll - Poll_Windows - Poll_Windows - CHOICE Downlink RLC mode - In-sequence delivery - Receiving window size - Downlink RLC status info - Timer_status_prohibit - Timer_EPC - Missing PU indicator - RB mapping info - Information for each multiplexing option
- Timer_poll - Poll_SDU - Last transmission PU poll - Last retransmission PU poll - Last retransmission PU poll - Poll_Windows - Poll_Windows - CHOICE Downlink RLC mode - In-sequence delivery - Receiving window size - Downlink RLC status info - Timer_status_prohibit - Timer_EPC - Missing PU indicator - RB mapping info - Information for each multiplexing option
- Poll_SDU - Last transmission PU poll - Last retransmission PU poll - Poll_Windows - Poll_Windows - CHOICE Downlink RLC mode - In-sequence delivery - Receiving window size - Downlink RLC status info - Timer_status_prohibit - Timer_EPC - Missing PU indicator - RB mapping info - Information for each multiplexing option
- Last transmission PU poll - Last retransmission PU poll - Poll_Windows - CHOICE Downlink RLC mode - In-sequence delivery - Receiving window size - Downlink RLC status info - Timer_status_prohibit - Timer_EPC - Missing PU indicator - RB mapping info - Information for each multiplexing option  TRUE  TRUE  TRUE  TRUE  7 RUE  200  200  TRUE
- Last retransmission PÜ poll - Poll_Windows - CHOICE Downlink RLC mode - In-sequence delivery - Receiving window size - Downlink RLC status info - Timer_status_prohibit - Timer_EPC - Missing PU indicator - RB mapping info - Information for each multiplexing option  TRUE  99  AM RLC  TRUE  8  200  200  TRUE
- Poll_Windows - CHOICE Downlink RLC mode - In-sequence delivery - Receiving window size - Downlink RLC status info - Timer_status_prohibit - Timer_EPC - Missing PU indicator - RB mapping info - Information for each multiplexing option
- CHOICE Downlink RLC mode - In-sequence delivery - Receiving window size - Downlink RLC status info - Timer_status_prohibit - Timer_EPC - Missing PU indicator - RB mapping info - Information for each multiplexing option  AM RLC TRUE  8  200  200  TRUE
- In-sequence delivery - Receiving window size - Downlink RLC status info - Timer_status_prohibit - Timer_EPC - Missing PU indicator - RB mapping info - Information for each multiplexing option
- Receiving window size - Downlink RLC status info - Timer_status_prohibit - Timer_EPC - Missing PU indicator - RB mapping info - Information for each multiplexing option
- Downlink RLC status info - Timer_status_prohibit 200 - Timer_EPC 200 - Missing PU indicator TRUE - RB mapping info - Information for each multiplexing option
- Timer_status_prohibit 200 - Timer_EPC 200 - Missing PU indicator TRUE - RB mapping info - Information for each multiplexing option
- Timer_EPC 200 - Missing PU indicator TRUE - RB mapping info - Information for each multiplexing option
- Missing PU indicator - RB mapping info - Information for each multiplexing option
- Missing PU indicator - RB mapping info - Information for each multiplexing option
- RB mapping info - Information for each multiplexing option
- Information for each multiplexing option
- Uplink transport channel type DCH
- Transport channel identity 1
- Logical channel identity 4
- MAC logical channel priority 4
- Logical channel max loss 0
- Number of RLC logical channels 1
- Downlink transport channel type DCH
- Transport channel identity 1
- Logical channel identity 4
UL Transport channel information for all transport
channels
- TFC subset (This IE is repeated for TFC number.)
- Allowed Transport Format combination 0 to MaxTFCValue-1 (MaxTFCValue is refer to clause
6.10 Parameter Set.)
- UL DCH TFCS (This IE is repeated for TFC number.)
- Normal
- TFCI Field 1 information
- CHOICE TFCS representation Addition
- TFCS addition information
- CHOICE CTFC Size Number of bits used must be enough to cover all
combinations of CTFC from clause 6.10.
- CTFC information Refer to clause 6.10 Parameter Set
- Power offset information
3
- Gain factor Bc 0
- Gain factor Bd 0
- Reference TFC ID Not Present
- Power offset Pp-m OdB
Added or Reconfigured UL TrCH information
- Transport channel identity 1
- TFS
- Dynamic Transport format information (This IE is repeated for TFI number)
- Number of Transport blocks Reference to clause 6.10 Parameter Set
- RLC size Reference to clause 6.10 Parameter Set
- Semi-static Transport Format information
- Transmission time interval Reference to clause 6.10 Parameter Set
- Type of channel coding Reference to clause 6.10 Parameter Set

- Coding Rate
- Rate matching attribute
- CRC size

DL Transport channel information common for all transport channel

- SCCPCH TFCS
- CHOICE DL parameters
- DL DCH TFCS
- Normal
- TFCI Field 1 information
- CHOICE TFCS representation
- TFCS addition information
- CHOICE CTFC Size
- CTFC
- Power offset information
- CHOICE Gain Factor
- Gain factor Bc
- Gain factor ßd
- Reference TFC ID
- Power offset Pp-m

Added or Reconfigured DL TrCH information

- Transport channel identity
- CHOICE DL parameters
- UL TrCH Identity
- DCH quality target
- BLER Quality value
- Transparent mode signalling info

#### Frequency info

- UARFCN uplink(Nu)
- UARFCN downlink(Nd)

Maximum allowed UL TX power Uplink DPCH info

- Uplink DPCH power control info
- DPCCH power offset
- PC Preamble
- Power Control Algorithm
- TPC step size
- Scrambling code type
- Scrambling code number
- Number of DPDCH spreading factor
- TFCI existence
- Number of FBI bit
- Puncturing Limit

Downlink information common for all radio links

- Downlink DPCH info common for all RL
- Downlink DPCH power control information
- DPC mode
- Spreading factor
- Fixed or Flexible Position
- TFCI existence
- Number of bits for Pilot bits(SF=128,256)
- Downlink DPCH Offset Value
- DPCH compressed mode info
- -TGPSI
- -TGPS Status Flag
- Transmission gap pattern sequence

Reference to clause 6.10 Parameter Set Reference to clause 6.10 Parameter Set Reference to clause 6.10 Parameter Set

Not Present Independent

(This IE is repeated for TFC number.)

Addition

Number of bits used must be enough to cover all combinations of CTFC from clause 6.10. Refer to clause 6.10 Parameter Set

Signalled Gain Factor

0

Not Present

0dB

1 SameAsDL

0.00

Not Present

Reference to clause 6.10 Parameter Set Reference to clause 6.10 Parameter Set 33dBm

-6dB

15 slots

Algorithm1

1dB

Long

0 ( 0 to 16777215)

Not Present(1)

SF is reference to clause 6.10 Parameter Set

**TRUE** 

Not Present(0)

Reference to clause 6.10 Parameter Set

0 (single)

Reference to clause 6.10 Parameter Set

Flexible TRUE

Not Present

0

1

Inactive

configuration parameters	
- TGMP	FDD Measurement
- TGPRC	62
- TGCFN	(Current CFN + (256 – TTI/10msec)) mod 256
- TGSN	8
- TGL1	10
- TGL2	5
- TGD	15
- TGPL1	35
- TGPL2	35
- RPP	Mode 1
- ITP	Mode 1
- UL/DL Mode	DL SE/2
- Downlink compressed mode method	SF/2
- Uplink compressed mode method	Not Present
- Downlink frame type	A
- DeltaSIR1	2.0
- DeltaSIRafter1	1.0 Not Present
- DeltaSIR2	
- DeltaSIRafter2	Not Present
<ul> <li>TX Diversity mode</li> <li>SSDT information</li> </ul>	None Not Present
- S field	Not Fresent
- Code Word Set	
Downlink information for each radio links	
- Primary CPICH info	
- Primary scrambling code	100
- PDSCH with SHO DCH info	Not Present
- DSCH radio link identifier	Not i resent
- TFCI Combining set	
- Radio link identifier	
- Primary CPICH info	
- Primary scrambling code	
- PDSCH code mapping	Not Present
- Downlink DPCH info for each RL	
- Primary CPICH usage for channel estimation	Primary CPICH may be used
- DPCH frame offset	0 chips
- Secondary CPICH info	Not Present
- Secondary scrambling code	
- channelisation code	
<ul> <li>DL channelisation code</li> </ul>	
<ul> <li>Secondary scrambling code</li> </ul>	1
<ul> <li>Spreading factor</li> </ul>	Reference to clause 6.10 Parameter Set
- Code number	SF-1(SF is reference to clause 6.10 Parameter Set )
<ul> <li>Scrambling code change</li> </ul>	No change
- TPC combination index	0
- SSDT Cell Identity	-a
- Closed loop timing adjustment mode	Not Present
- Secondary CCPCH info	Not Present
- Selection Indicator	
- Primary CPICH usage for channel estimation	
- Secondary CPICH info	
- Secondary scrambling code	
- channelisation code	
<ul><li>Secondary scrambling code</li><li>SSDT Indicator</li></ul>	
- Spreading factor	
- Code number	
- Pilot symbol existence	
- TFCI existence	
- Fixed or Flexible Position	
- Timing offset	
9	1

- TFCS	Not Present
- FACH/PCH information	Not Present
- TFS	
<ul> <li>Dynamic Transport format information</li> </ul>	
<ul> <li>Number of Transport blocks</li> </ul>	
- RLC Size	
<ul> <li>Semi-static Transport Format information</li> </ul>	
<ul> <li>Transmission time interval</li> </ul>	
<ul> <li>Type of channel coding</li> </ul>	
- Coding Rate	
<ul> <li>Rate matching attribute</li> </ul>	
- CRC size	
- TFS	
- Dynamic Transport format information	
- Number of Transport blocks	
- RLC Size	
- Semi-static Transport Format information	
- Transmission time interval	
- Type of channel coding	
- Coding Rate	
- Rate matching attribute	
- CRC size	
- References to system information blocks	Not Present
<ul> <li>Scheduling information</li> </ul>	

# Contents of RRC CONNECTION SETUP COMPLETE message: AM

Information Element	Value/remark
Message Type	
CN domain identity	Not checked
Start(Hyper frame number)	Not checked
UE radio access capability	Reference to clause 6.10 Parameter Set
UE system specific capability	Not checked

### Contents of SECURITY MODE COMMAND message: AM

Information Element	Value/remark
Message Type	
Integrity check info	Not Present
- Message authentication code	Set to an arbitrarily selected 32-bits integer
- RRC Message Sequence Number	Set to an arbitrarily selected integer between 0 and 15
Security capability	
- Ciphering algorithm capability	00000000000001B(UEA1)
<ul> <li>Integrity protection algorithm capability</li> </ul>	<del>0</del> 00000000000001 <u>0</u> B( <del>UEA1</del> <u>UIA1</u> )
Ciphering mode info	
- Ciphering mode command	Start
- Ciphering algorithm	Standard UMTS Encryption Algorithm UEA1
- Activation time for DPCH	(256+CFN-(CFN MOD 8 + 8 ))MOD 256
- Radio bearer downlink ciphering activation time	
info	
- Radio bearer activation time	
- RB identity	1
- RLC sequence number	Current RLC SN+2
- RB identity	2
- RLC sequence number	Current RLC SN+2
- RB identity	3
- RLC sequence number	Current RLC SN + 2
- RB identity	4
- RLC sequence number	Current RLC SN + 2
Integrity protection mode info	Not Present The presence of this IE is dependent on IXIT
	statements in TS 34.123-32. If integrity protection is indicated to be active, this IE is present with the values of
	the sub IEs as stated below. Else, this IE and the sub-IEs
	are omitted.
- Integrity protection mode command	Start
- Downlink integrity protection activation info	Not Present
- Integrity protection algorithm	UIA1
- Integrity protection initialisation number	SS selects an arbitrary 32 bits number for FRESH
CN domain identity	Supported domain

### Contents of SECURITY MODE COMPLETE message: AM

Information Element	Value/remark
Message Type	
Integrity check info	Not checked The presence of this IE is dependent on IXIT
	statements in TS 34.123-32. If integrity protection is
	indicated to be active, this IE shall be present with the
	values of the sub IEs as stated below. Else, this IE and
	the sub-IEs shall be absent.
<ul> <li>Message authentication code</li> </ul>	This IE is checked to see if it is present. The value is
	compared against the XMAC-I value computed by SS.
<ul> <li>- RRC Message sequence number</li> </ul>	This IE is checked to see if it is present. The value is
	used by SS to compute the XMAC-I value.
Uplink integrity protection activation info	Not checked.
Radio bearer uplink ciphering activation time info	SS must follow this IE to cipher on the each RB.

### Contents of SIGNALLING CONNECTION RELEASE message: $\ensuremath{\mathsf{AM}}$

Information Element	Value/remark
Message Type	
Integrity check info	Not checked The presence of this IE is dependent on IXIT
	statements in TS 34.123-23. If integrity protection is
	indicated to be active, this IE is present with the values of
	the sub IEs as stated below. Else, this IE and the sub-IEs
	are omitted.
<ul> <li>Message authentication code</li> </ul>	SS calculates the value of MAC-I for this message and
	writes to this IE.
<ul> <li>- RRC Message sequence number</li> </ul>	SS provides the value of this IE, from its internal counter.
Signalling Flow related information list	
<ul> <li>Flow Identifier requirement</li> </ul>	Set to "Flow Identifier" field in the INITIAL DIRECT
	TRANSFER message

### Contents of UPLINK DIRECT TRANSFER message: AM

Information Element	Value/remark
Message Type	
Integrity check info	Not checked The presence of this IE is dependent on IXIT
	statements in TS 34.123-32. If integrity protection is
	indicated to be active, this IE shall be present with the
	values of the sub IEs as stated below. Else, this IE and
	the sub-IEs shall be absent.
<ul> <li>Message authentication code</li> </ul>	This IE is checked to see if it is present. The value is
	compared against the XMAC-I value computed by SS.
<ul> <li>- RRC Message sequence number</li> </ul>	This IE is checked to see if it is present. The value is
	used by SS to compute the XMAC-I value.
Flow Identifier	To be checked against requirement if specified
NAS message	Set according to that indicated in specific message
	content clause
Measured results on RACH	Not checked

### 3GPP TSG T1 Meeting #9

### Document T1-000303

Redondo Beach, Ca, USA, 16-17 November 2000

e.g. for 3GPP use the format TP-99xxx

or for SMG, use the format P-99-xxx

### 3GPP TSG-T1 SIG Meeting #14 Redondo Beach, CA, USA 13-15 November 2000

T1S-000261

CHANGE REQUEST				
ж 3	34.108 CR 022			
For <u>HELP</u> on usin	ng this form, see bottom of this page or look at the pop-up text over the <b>%</b> symbols.			
Proposed change aff	Fects: # (U)SIM ME/UE X Radio Access Network Core Network			
Title: # F	Requirements for the system simulator for support of Tcell parameter			
Source: # (	Chairman, T1/SIG			
Work item code: ₩	Date: ₩ 11-11-00			
Category: #	Release:   Release:   Release:   Release:   Release:  R			
De	Ise one of the following categories:  F (essential correction)  A (corresponds to a correction in an earlier release)  B (Addition of feature),  C (Functional modification of feature)  D (Editorial modification)  et ailed explanations of the above categories can  et found in 3GPP TR 21.900.  Use one of the following releases:  2 (GSM Phase 2)  R96 (Release 1996)  R97 (Release 1997)  R98 (Release 1998)  R99 (Release 1999)  REL-4 (Release 4)  REL-5 (Release 5)			
Reason for change:	# 1. To simplify the design of system simulators by place realistic constraints on the requirements for the system simulator to support Tcell timing, in line with			
	expected test case requirements.			
	2. The specification of timer tolerances does not take into account short duration timers, where variation due to the effect of TTI is very significant.			
Summary of change:	** Added targets for support of Tcell parameter			
	Added equation for determination of timer tolerance for short duration timers, and moved timer accuracy specification to section 4.			
Consequences if not approved:	<b>W</b> ill add complexity to system simulator implementations that is not currently warranted by existing test cases.			
Clauses affected:	<b>€</b> 4.1			
Other specs affected:	* Other core specifications			
Other comments:	<b>x</b>			

#### How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at: <a href="http://www.3gpp.org/3G\_Specs/CRs.htm">http://www.3gpp.org/3G\_Specs/CRs.htm</a>. Below is a brief summary:

- 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 <a href="ftp://www.3gpp.org/specs/">ftp://www.3gpp.org/specs/</a> For the latest version, look for the directory name with the latest date e.g. 2000-09 contains the specifications resulting from the September 2000 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.

# 4 Common requirements of test equipment

Mobile conformance testing can be categorised into 3 distinct areas:

RF Conformance Testing.

EMC Conformance Testing.

Signalling Conformance Testing.

The test equipment required for each category of testing may or not be different, depending on the supplier of the test equipment. However, there will be some generic requirements of the test equipment that are essential for all three categories of test, and these are specified in this sub-clause.

In addition, there will be requirements to test operation in multi-system configurations (eg UTRA plus GSM/DCS1800). However, these would not form a common test equipment requirement for the three test areas and are not considered in this specification.

## 4.1 General Functional Requirements

Note: This clause has been written such that it does not constrain the implementation of different architectures and designs of test equipment.

All test equipment used to perform conformance testing on a UE shall provide a platform suitable for testing UE's that are either:

- a) FDD Mode, or
- b) TDD Mode, or
- c) both FDD/TDD Modes.

All test equipment shall provide (for the mode(s) supported) the following minimum functionality.

- The capability of emulating a single UTRA cell with the appropriate channels to allow the UE to register on the cell.
- The capability to allow the UE to set up an RRC connection with the System Simulator, and to maintain the connection for the duration of the test.
- The capability (for the specific test):
  - to select and support an appropriate Radio Bearer for the downlink;
  - to set the appropriate downlink power levels;
  - to set up and support the appropriate Radio Bearer for the uplink;
  - to set and control the uplink power levels.

## 4.2 Minimum performance levels

### 4.2.1 Supported Cell Configuration

#### 4.2.1.1 Support of channels within a cell

The System Simulator shall provide the capability to simulate at least 1 UTRA cell of the appropriate UTRA Mode, and shall support at least the following channels on the simulated Cell.

Logical Channel	Transport Channel	Physical Channel	Comments
ВССН	ВСН	P-CCPCH	This is the Cell Broadcast Channel, transmitted using the Primary Scrambling Code for the Cell
-	-	CPICH	This is the Primary CPICH using the Primary Scrambling Code for the Cell
-	-	P-SCH, S-SCH	Physical Synchronisation Channels
CCCH	FACH	S-CCPCH	Assumed separate physical channel compared to the Paging Channel
PCCH	PCH	S-CCPCH	Assumed separate physical channel compared to Forward Link Access Channel
-	-	PICH	To identify when the UE should access the PCCH for Paging Messages
DTCH	DCH	DPDCH*n	The number of physical channels (n) required as a common test requirement is expected to be 1, but this is <ffs> Note a) the channels are required on the UL and the DL b) there will be a single associated DPCCH with the DPDCH(s) for Layer 1 signalling</ffs>
СССН	RACH	PRACH	The common requirement is for the UE to be able to use the RACH to set up a connection from Idle Mode
-	-	AICH	To signal to the UE that its RACH Preamble has been received and that the Message Part can be transmitted

In the event that the system simulator is capable of simulating more than 1 cell, the minimum requirement is to support Dedicated Channels on only one of the cells.

### 4.2.1.2 Support of T<sub>cell</sub> timing offset

In test case parameter declarations, the parameter  $T_{cell}$  may be specified between 0 to 38399, to allow for extensibility. However, the system simulator is required only to support a maximum  $T_{cell}$  value of 2304, with a step resolution of 256. The SS may limit a  $T_{cell}$  value of greater than 2304, and may round  $T_{cell}$  to the nearest multiple of 256.

#### 4.2.2 RF Performance

#### 4.2.2.1 Frequency of Operation

The System Simulator shall be capable of adjusting the Carrier Frequency of the DL channels to any frequency allowed in the DL frequency band. The DL frequency shall be accurate to the level of accuracy set by the core specications [20] for FDD and [21] for TDD.

### 4.2.2.2 Power Level Setting Accuracy

The system simulator shall be able to adjust the average power output of the DL Channels to meet the absolute accuracy of the system simulator DL power levels covered in 5.4.1 Downlink Signal Levels.

The system simulator shall be capable of altering the power of the DL Dedicated channels under control of the UE Layer 1 Signalling information.

#### 4.2.2.3 Uplink Power Control

The system simulator shall be able to command the UE to transmit at the maximum level for its power class or a lower level required for specific tests. The system simulator shall also provide the capability of generating the Layer 1 Signalling information to set the power levels of the Uplink Dedicated Channels from the UE to lower levels if required.

### 4.2.2.4 Uplink Signal Handling

For FDD mode, the System Simulator shall not be damaged by a Power Class 1 UE transmitting at the maximum power level permitted in [11] and for TDD mode by a Power Class 2 UE transmitting at the maximum power level permitted in [12].

#### 4.2.2.5 Uplink Sensitivity

The simulator shall be able to receive uplink transmissions from the UE when it is transmitting at the minimum power level defined in [11] for FDD mode, and [12] for TDD mode.

Editor's note: this is obviously a useful feature for the system simulator; however it is <ffs> if it should be an essential common requirement for a protocol test system

### 4.2.3 Timers Tolerances

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

<u>Timer tolerance = 10%, or 2 \* TTI + t<sub>delta</sub>, whichever value is the greater.</u>

where t<sub>delta</sub> is 55 ms.

### 5 Reference Test Conditions

### 5.1 Test frequencies

The test frequencies are based the UMTS frequency bands defined in the core specifications.

To avoid interference with adjacent frequency bands the lowest test frequency (downlink and uplink) needs to be offset upwardly by at least 2.6 MHz since the channel's width is 5 MHz and the raster spacing is 200KHz. Similarly the highest test frequency (downlink and uplink) needs to be offset downwardly by at least 2.6 MHz.

NB: Additional regulations concerning interferences to frequency bands used by different systems may also exist. Those regulations are specific to the country where the test equipment is used and need to be taken into account if they require a higher offset than 2.6 MHz from the edge frequencies.

### 5.1.1 FDD Mode Test frequencies

UTRA/FDD is designed to operate in either of two paired bands [11]. The second band is used in ITU Region 2. The reference test frequencies for the common test environment for each of the 2 regions are defined in the following tables:

#### 5.1.1.1 Standard FDD reference test frequencies

Test Frequency ID	UARFCN	Frequency of Uplink	Frequency of Downlink	
Low Range	9613	1922.6 MHz	2112.6 MHz	
Mid Range	9750	1950.0 MHz	2140.0 MHz	
High Range	9887	1977.4 MHz	2167.4 MHz	

### 5.1.1.2 FDD reference test frequencies for ITU region 2

Test Frequency ID UARFCN		Frequency of Uplink	Frequency of Downlink	
Low Range	9263	1852.6 MHz	1932.6 MHz	
Mid Range	9400	1880 MHz	1960 MHz	
High Range	9537	1907.4 MHz	1987.4 MHz	

### 5.1.2 TDD Mode Test frequencies

The reference test frequencies for the common test environment in the TDD [12] Bands are defined in the following tables:

Editor's note: the offset from the edge frequencies have not been defined yet. So the values given are the frequencies at the ends of the spectrum bands.

#### 5.1.2.1 Standard TDD reference test frequencies

	Band 1		Band 1 Band 2		Band 2
Test Frequency ID	UARFCN Frequency (UL and DL)		UARFCN	Frequency (UL and DL)	
Low Range 9513 1902.6 MHz 10063		9513 1902.6 MHz		2012.6 MHz	
Mid Range	9550	9550 1910 MHz		2017.4 MHz	
High Range	9587	1917.4 MHz	10117	2023.4 MHz	

#### 5.1.2.2 TDD reference test frequencies for ITU Region 2

a)

	Band 1		Band 1 Band 2			Band 2
Test Frequency ID	UARFCN Frequency (UL and DL)		UARFCN	Frequency (UL and DL)		
Low Range	9263	1852.6 MHz	9663	1932.6 MHz		
Mid Range	9400 1880 MHz		9800	1960 MHz		
High Range	9537	1907.4 MHz	9937	1987.4 MHz		

b)

Test Frequency ID	UARFCN	Frequency (UL and DL)
Low Range	9563	1912.6 MHz
Mid Range	9600	1920 MHz
High Range	9637	1927.4 MHz

### 5.2 Radio conditions

There are a number of radio propagation conditions defined in [11] for FDD mode and [12] for TDD mode, which may be required for a number of tests and hence can be considered as Common Conditions for FDD mode and TDD mode respectively.

NB: The System Simulator is required to support at least the normal Propagation Condition; support of the other propagation conditions is optional, depending on the specific test supported by the simulator

# 5.2.1 Normal Propagation Condition

This condition provides a connection between the System Simulator that is effectively free from Additive White Gaussian Noise, and where there are no fading or multipath effects. This condition will be used for Signalling tests.

### 5.2.2 Static Propagation Condition

The propagation for the static performance measurement is an Additive White Gaussian Noise (AWGN) environment. No fading and multi-paths exist for this propagation model.

Note: It is assumed that the AWGN condition will be simulated by  $I_{ac}$ .

### 5.2.3 Multi-Path Fading Propagation Conditions

Table 5.2.3.1 shows propagation conditions for FDD mode that are used for simulating operation in multi-path fading environments. All taps have classical Doppler spectrum.

Table 5.2.3.1: Propagation Conditions for Multi path Fading Environments in FDD mode

Case 1, s	Case 1, speed 3km/h		Case 2, speed 3 km/h		120 km/h
Relative Delay [ns]	Average Power [dB]	Relative Delay		Relative Delay [ns]	Average Power [dB]
0	0	0	0	0	0
976	-10	976	0	260	-3
		20000	0	521	-6
				781	-9

Table 5.2.3.2 shows propagation conditions for TDD mode that are used for simulating operation in multi-path fading environments. All taps have classical Doppler spectrum.

Table 5.2.3.2: Propagation Conditions for Multi path Fading Environments in TDD mode

Case 1, speed 3km/h		Case 2, speed 3 km/h		Case 3, 120 km/h	
Relative Delay [ns]	Average Power [dB]	Relative Delay [ns]	Average Power [dB]	Relative Delay [ns]	Average Power [dB]
0	0	0	0	0	0
976	-10	976	0	260	-3
		12000	0	521	-6
		_		781	-9

# 5.2.4 Moving Propagation Conditions

The conditions that are used for simulating operation in a moving propagation environment consist of a fading channel model. The moving propagation environment has two taps, one static, Path0, and one moving, Path1. The time difference between the two paths is according Equation (1).

Note: Moving propagation conditions are tested for FDD mode only.

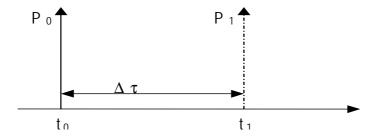


Figure 1: The moving propagation conditions

$$\Delta \tau = \left(1 + \frac{A}{2} \left(1 + \sin(\Delta \omega \cdot t)\right)\right) \mu s \tag{1}$$

The parameters in the equation are shown in.

Α	5 μs
Δω	40*10 <sup>-3</sup> s <sup>-1</sup>

### 5.2.5 Birth-Death propagation conditions

The conditions that are used for simulating operation in a birth-death environment consist of a fading channel with two taps. The simulated environment has two taps, Path1 and Path2 which alternate between 'birth' and 'death'. The positions the paths appear are randomly selected with an equal probability rate and is shown in Figure 1.

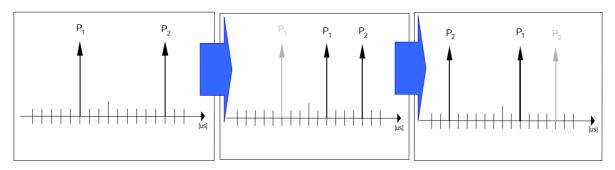


Figure 2: Birth death propagation sequence

#### Note:

- 1. Two paths, Path1 and Path2 are randomly selected between -5µs and + 5µs.
- 2. After 191 ms, Path1 vanishes and reappears immediately at a new location randomly selected between -5μs and + 5μs but excludes the point Path2.
- 3. After an additional 191 ms, Path2 vanishes and reappears immediately at a new location randomly selected between -5µs and + 5µs but excludes the point Path1.

The sequence in 2) and 3) is repeated.

# 5.3 Standard test signals

Reference [11] and [12] for definitions of standard test signals.

# 5.4 Signal levels

### 5.4.1 Downlink Signal Levels

The System Simulator shall be capable of controlling the absolute power level of the DL channels so that the UE is presented with the agreed Ideal Radio conditions unless the specific test requires different conditions.

For FDD mode: Maximum Input Level: DPCH\_ $E_c/I_{or} = -19 \text{ dB}$ 

 $I_{or} = -25 \text{ dBm}/3.84 \text{ MHz}$ 

Table 5.4.1.1: Power Level at UE Antenna Connector for FDD mode

	Power Level at UE Antenna Connector		nector
Physical Channel	Normal Radio Conditions	Sensitivity Conditions	Maximum Signal Conditions
P-CCPCH	FFS	-112 dBm ± 1dB	-37 dBm ± 1dB
S-CCPCH (FACH)	FFS	FFS	FFS
S-CCPCH (PCH)	FFS	FFS	FFS
Primary CPICH	FFS	-110 dBm ± 1dB	-35 dBm ± 1dB
Secondary CPICH	N/A	N/A	N/A
SCH	FFS	-112 dBm ± 1 dB	-37 dBm ± 1dB
PICH	FFS	-115 dBm ± 1dB	-40 dBm ± 1dB
DPCH	FFS	-117 dBm ± 1dB	-44 dBm ± 1dB
n*DPCH	FFS	FFS	FFS
OCNS	N/A	Necessary power so that total transmit power (lor) adds to one, assuming that P-CCPCH_Ec/lor = -12(TBC) dB	

Remark: The Secondary CPICH and AICH channels are not needed for RF testing hence power values are not needed.

For TDD mode: Maximum Input Level:  $\Sigma DPCH_E_c/I_{or} = -7 \text{ dB}$ 

 $I_{or} = -25 \text{ dBm}/3.84 \text{ MHz}$ 

Table 5.4.1.2 Power Level at UE Antenna Connector for TDD mode

	Power Level at UE Antenna Connector			
Physical Channel	Normal Radio Conditions	Sensitivity Conditions	Maximum Signal Conditions	
P-CCPCH	FFS	FFS	FFS	
S-CCPCH (FACH)	FFS	FFS	FFS	
S-CCPCH (PCH)	FFS	FFS	FFS	
PSCH	FFS	FFS	FFS	
PICH	FFS	FFS	FFS	
PDSCH	FFS	FFS	FFS	
DPCH	FFS	FFS	FFS	
n*DPCH	FFS	FFS	FFS	
OCNS	FFS	FFS		

# 5.4.2 Uplink Signal Levels

Table 5.4.2.1 Power Level at UE Tx Antenna Connector for FDD mode

	Power Leve at UE Tx Antenna Connector		
Physical Channel	Ideal Radio Conditions	Maximum Signal Conditions	
PCPCH	FFS	FFS	
PRACH	FFS	FFS	
DPCCH + n DPDCH	FFS	FFS	

Table 5.4.2.2 Power Level at UE Tx Antenna Connector for TDD mode

	Power Leve at UE Tx Antenna Connector			
Physical Channel	Ideal Radio Conditions	Maximum Signal Conditions		
PUSCH	FFS	FFS		
PRACH	FFS	FFS		
DPCH	FFS	FFS		

### 5.5 Timers Tolerances

All the timers used during testing are within a tolerance margin of ±10%. If for a specific test a different tolerance value is required then this should be specified in the relevant test document (document where test is described).

### 3GPP TSG T1 Meeting #9

### **Document T1-000304**

Redondo Beach, Ca, USA, 16-17 November 2000

e.g. for 3GPP use the format TP-99xxx or for SMG, use the format P-99-xxx

3GPP TSG T1/SIG Meeting #14 Redondo Beach, USA, 13<sup>rd</sup> – 15<sup>th</sup> November 2000

Tdoc T1S000263

CHANGE REQUEST							
*	34.108 C	CR <mark>030</mark>	<b>ℋ</b> r	ev _	₩ Current v	version: 3.	1.0 <sup>ж</sup>
For <u>HELP</u> on u.	sing this form,	see bottom o	f this page	e or look a	at the pop-up t	ext over the	₩ symbols.
Proposed change a	affects: 光	(U)SIM	ME/UE	Radi	o Access Netv	vork C	ore Network
Title:	Addition for	System Inform	nation para	ameters (	34.108 clause	6.1)	
Source: #	NTT DoCoM	10					
Work item code: 第					Date	<i>:</i> ж	
Category: 第	F				Release	: Ж R99	
	F (essent A (corres B (Addition C (Functi D (Editor	following categital correction) ponds to a correction of feature), conal modification attions of the al PP TR 21.900.	rection in ar	e)	2	(Release (Release -4 (Release	ase 2) 1996) 1997) 1998) 1999) 4)
Reason for change:  ** Parameters for System Information are not enough.							
Summary of change:  New parameters have been added for  1) Master Information Block 2) System Information Block type3							
Consequences if not approved:	₩ <mark>Test env</mark>	rironment will h	have differ	rences wi	th real enviror	iment.	
Clauses affected:	<b> 3.2 3</b>						
Other specs affected:	Test	er core specific specifications 1 Specification	;	*			
Other comments:	<b></b>						

How to create CRs using this form:
Comprehensive information and tips about how to create CRs can be found at: <a href="http://www.3gpp.org/3G\_Specs/CRs.htm">http://www.3gpp.org/3G\_Specs/CRs.htm</a>. Below is a brief summary:

- 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 <a href="ftp://www.3gpp.org/specs/">ftp://www.3gpp.org/specs/</a> For the latest version, look for the directory name with the latest date e.g. 2000-09 contains the specifications resulting from the September 2000 TSG meetings.
- 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.

## 6 Reference System Configurations

This clause defines a number of Reference System Configurations which can be used for different tests.

### 6.1 Simulated network environments

The UE will eventually have to operate in either single mode networks (FDD or TDD) and dual mode networks (FDD+TDD).

This version of the specification covers the simulation of the Single Mode FDD Network only to align with the Release 99 requirements. It will need to be extended in a later version to cover the Single Mode TDD network case. It is <ffs> whether a reference environment needs to be defined for multi-mode networks (eg: the environment could be created by combining two appropriate reference environments from the single mode cases).

The following tables list the default parameters for 1 to 8 cell environments for testing.

### Contents of Master Information Block PLMN type is the case of GSM-MAP

- MIB value tag - Supported PLMN types - PLMN type - PLMN identity(GSM-MAP) - MCC digit - MNC digit - ANSI-41 Core Network information - P\_REV(Protocol revision level) - MIN\_P\_REV(Minimum protocol revision level) - SID(System identification) - NID(Network identification) - References to other system information blocks - Scheduling information SIB type - PLMN Value tag - Cell Value tag - SEG\_COUNT - SIB\_REP - SIB\_POS SIB\_OFF - SIB type - PLMN Value tag - Cell Value tag - SEG\_COUNT - SIB\_REP - SIB\_POS - SIB\_OFF - SIB type - PLMN Value tag - Cell Value tag - SEG\_COUNT - SIB\_REP - SIB POS - SIB\_OFF - SIB type - PLMN Value tag - Cell Value tag - SEG\_COUNT - SIB\_REP - SIB\_POS - SIB\_OFF - SIB type - PLMN Value tag - Cell Value tag - SEG\_COUNT - SIB\_REP - SIB\_POS - SIB\_OFF - SIB type - PLMN Value tag - Cell Value tag - SEG\_COUNT - SIB\_REP - SIB POS - SIB\_OFF - SIB type - PLMN Value tag

- Cell Value tag

1 (1 to 8) GSM-MAP Mobile Country Code(3 digit) According to the contents of USIM. Mobile Network Code(2-3 digit) According to the contents of USIM. Not Present Type1 <u>1(1 to 25</u>6) Type2 1(1 to 256) Not Present 1(1 to 16) Type3 Not Present 1 (1 to 4) 1(1 to 16) Type4 Not Present 1 (1 to 4) 1(1 to 16) Type5 Not Present 1 (1 to 4) 1(1 to 16) Type6 Not Present 1 (1 to 4)

1(1 to 16)

Type7 Not Present

1 (1 to 4)

	- SEG_COUNT - SIB_REP - SIB_POS	1(1 to 16)
	- SIB_OFF - SIB type - PLMN Value tag	Type8 Not Present
I	- Cell Value tag - SEG_COUNT - SIB_REP	1 (1 to 4) 1(1 to 16)
	- SIB_POS - SIB_OFF - SIB type	Type9
I	- PLMN Value tag - Cell Value tag - SEG_COUNT - SIB_REP	Not Present 1 (1 to 4) 1(1 to 16)
	- SIB_POS - SIB_OFF - SIB type	Type10
1	- PLMN Value tag - Cell Value tag - SEG_COUNT	Not Present 1 (1 to 4) 1(1 to 16)
	- SIB_REP - SIB_POS - SIB_OFF	
	- SIB type - PLMN Value tag - Cell Value tag	Type11 Not Present 1 (1 to 4)
I 	- SEG_COUNT - SIB_REP - SIB_POS - SIB_OFF	1(1 to 16)
	- SIB_OTT - SIB type - PLMN Value tag - Cell Value tag	Type12 Not Present 1 ( 1 to 4 )
I	- SEG_COUNT - SIB_REP - SIB_POS	1(1 to 16)
	- SIB_OFF - SIB type - PLMN Value tag	Type13 Not Present
I	- Cell Value tag - SEG_COUNT - SIB_REP	1 (1 to 4) 1(1 to 16)
	- SIB_POS - SIB_OFF - SIB type - PLMN Value tag	Type13.1 Not Present
I	- Cell Value tag - SEG_COUNT - SIB_REP	1 (1 to 16)
	- SIB_POS - SIB_OFF - SIB type	Type13.2
	- PLMN Value tag - Cell Value tag - SEG_COUNT	Not Present 1 (1 to 4) 1 (1 to 16)
	- SIB_REP - SIB_POS - SIB_OFF	T 40.0
	- SIB type - PLMN Value tag	Type13.3 Not Present

- Cell Value tag 1 (1 to 4) - SEG\_COUNŤ 1(1 to 16) - SIB\_REP - SIB\_POS - SIB\_OFF - SIB type - PLMN Value tag Type13.4 Not Present - Cell Value tag 1 (1 to 4) - SEG\_COUNT - SIB\_REP 1(1 to 16) - SIB\_POS - SIB\_OFF Type14 Not Present - SIB type - PLMN Value tag - Cell Value tag 1 (1 to 4) 1(1 to 16) - SEG\_COUNŤ - SIB\_REP - SIB\_POS - SIB\_OFF - SIB type Type15 - PLMN Value tag Not Present - Cell Value tag 1 (1 to 4) - SEG\_COUNT 1(1 to 16) - SIB\_REP - SIB\_POS - SIB\_OFF - SIB type Type16 - PLMN Value tag Not Present - Cell Value tag - SEG\_COUNT 1 (1 to 4) 1(1 to 16) - SIB\_REP - SIB\_POS - SIB\_OFF

### Contents of System Information Block type1 PLMN type is the case of GSM-MAP

- CN common GSM-MAP NAS system	
information	
- GSM-MAP NAS system information	Contains the PLMN Identity and Location Area Code
- MCC digit	Mobile Country Code(3 digit)
	According to the contents of USIM.
- MNC digit	Mobile Network Code(2-3 digit)
	According to the contents of USIM.
<ul> <li>Location area code</li> </ul>	0001H
- CN domain system information	
- CN domain identity	PS
- CHOICE CN Type	GSM-MAP
- CN domain specific NAS system information	
- GSM-MAP NAS system information	T.B.D
- CN domain specific DRX cycle length	7
coefficient	
- CN domain identity	CS
- CHOICE CN Type	GSM-MAP
- CN domain specific NAS system information	
- GSM-MAP NAS system information	T.B.D
- CN domain specific DRX cycle length	7
coefficient	
- UE Timers and constants in CELL_DCH	
-T304	Not Present – Use Default
-N304	87
-T308	Not Present – Use Default
-T309	Not Present – Use Default
-T310	Not Present
-N310	Not Present
-T311	Not Present
-T313	15 seconds
-N313	<del>1000</del> 200
-T314	20 seconds
-T315	1800 seconds
-N315	1000
- UE Timers and constants in idle mode	
-T300	<del>5400 milliseconds</del>
-N300	37
-T312	10 seconds
- N312	200

### Contents of System Information Block type2

- URA identity	0000 0000 0000 0001B
- UE Timers and constants in connected mode	
- T301	2000 milliseconds 5 ( 1 to 8 seconds: waiting for RRC
	CONNECTION RE-ESTABLISHMENT message)
<u>- N301</u>	2
- T302	4000 milliseconds5 (1 to 8 seconds: waiting for CELL
- N302	UPDATE CONFIRM message ) 3-(1-to-8; the re-transmission number of CELL UPDATE
- N302	message)
- T303	2000 milliseconds 5 (1 to 8 seconds: waiting for URA
1300	UPDATE CONFIRM message)
- N303	3 (1 to 8: the re-transmission number of URA UPDATE
	message)
- T304	1000 milliseconds ( 100, 200, 400, 1000, 2000
	millisecond: waiting for UE CAPABILITY INFORMATION
	CONFIRM message )
- N304	3 (1 to 8: the re transmission number of UE CAPABILITY
T205	INFORMATION message ) 60 minutes (infinity,5,10,30,60,120,360,720minutes:
- T305	waiting for cell update in CELL_PCH or CELL_FACH.)
- T306	120 minutes (infinity, 5, 10, 30, 60, 120, 360, 720 minutes
1300	waiting for cell update in URA_PCH_)
- T307	50 seconds (5, 10, 15, 20, 30, 40, 50 seconds: waiting for
	entering to idle state if the UE is out of service area )
- T308	320 milliseconds (40, 80, 160, 320 milliseconds: waiting
	for re-transmission of RRC CONNECTION RELEASE
	COMPLETE message )
- T309	8 seconds (1 to 8 seconds: waiting for inter-system cell
T040	re-selection)
- T310	320 milliseconds ( 40 to 320 milliseconds by step of 40 ) 5 ( 1 to 8 )
- N310   - T311	320-500 milliseconds (250 to 2000 milliseconds by step
- 1311	250 )
- T312	5 seconds (0 to 15 seconds: waiting for the detection of
	physical channel failure)
- N312	200 (1, 50, 100, 200, 400, 600, 800, 1000)
- T313	10 seconds (0 to 15 seconds: waiting for the detection of
	radio link failure )
- N313	<u>200</u> 400 (1, 50, 100, 200, 400, 600, 800, 1000)
- T314	20 seconds (0, 2,4,6,8,12,16,20 seconds)
- T315	30 seconds (0, 10, 30, 60, 180, 600, 1200, 1800 seconds
- N315	200-(1,50,100,200,400,600,800,1000)

### Contents of System Information Block type3

```
- References to other system information blocks
                                                 Not Present
- Cell identity
                                                 0000 0000 0000 0000 0000 0000 0001B
- Cell selection and re-selection info
- Mapping info
                                                 UTRA FDD
- RAT
- Mapping Function Parameter List
                                                 Not Present1
- Function type
                                                  linear (0)
 - Map_parameter_1
 - Map_parameter_2
- Upper_limit
- Cell selection_and_reselection_quality_-
                                                 CPICH Ec/N0
  measure
 CHOICE mode
                                                 FDD
                                                 16[ dB] (-32 to 20 by step of 2 TS25.304)
 - Sintrasearch
- Sintersearch
                                                 16[dB] (-32 to 20 by step of 2 TS25.304)
 - SsearchHCS
                                                 10[dB] (-32 to 20 by step of 2 TS25.304)
 - RAT List
                                                 Not Present
 - RAT identifier
 - Ssearch, RAT
 - SHCS,RAT
                                                 Not Present
     mit.ShearchRAT
                                                 0[ dB] ( 0 to 40 by step of 2)
- Qhyst1s
 - Ohvst2
                                                 T.B.D ([s] 0 seconds to 31)
 - Treselections
 - HCS Serving cell information
 - HCS_PRIO
                                                 0 + (0 + (0 + 7))
                                                 0 (0 to 99)
 - QHCS
 - TCRMAX
                                                 Not used (not used, 30, 60, 120, 180, 240)
 - NCR
                                                 Not Present
 - TCMAXHyst
                                                 Not Present
 - Maximum allowed UL TX power
                                                 33dBm
 - CHOICE mode
                                                 FDD
   Qqualmin
 - Q<u>rxlev</u>min
                                                 T.B.D-115dBm
- Cell Access Restriction
 - Cell barred
                                                 Not barred
 - Cell Reserved for operator use
                                                 Not reserved
 - Cell Reserved for SoLSA exclusive use
                                                 Not reserved
 - Access Class Barred0
                                                 Not barred
 - Access Class Barred1
                                                 Not barred
 - Access Class Barred2
                                                 Not barred
 - Access Class Barred3
                                                 Not barred
 - Access Class Barred4
                                                 Not barred
 - Access Class Barred5
                                                 Not barred
 - Access Class Barred6
                                                 Not barred
 - Access Class Barred7
                                                 Not barred
 - Access Class Barred8
                                                 Not barred
 - Access Class Barred9
                                                 Not barred
 - Access Class Barred10
                                                 Not barred
 - Access Class Barred11
                                                 Not barred
 - Access Class Barred12
                                                 Not barred
 - Access Class Barred13
                                                 Not barred
 - Access Class Barred14
                                                 Not barred
 - Access Class Barred15
                                                 Not barred
```

### 3GPP TSG T1 Meeting #9

## Document **T1-000305**

Redondo Beach, Ca, USA, 16-17 November 2000

e.g. for 3GPP use the format TP-99xxx

or for SMG, use the format P-99-xxx

## 3GPP TSG T1/SIG Meeting #14 Redondo Beach, USA, 13<sup>rd</sup> – 15<sup>th</sup> November 2000

Tdoc T1S000264

CHANGE REQUEST						
<b>*</b> 34	108 CR <mark>031                                   </mark>	rev _ # Current version: 3.1.0 #				
For <u>HELP</u> on using this form, see bottom of this page or look at the pop-up text over the <b>%</b> symbols.						
Proposed change affects:   ■ (U)SIM    ■ Radio Access Network    ■ Core Network						
Title:	rrection for Generic Setup Proce	edures (34.108 clause 7.2)				
Source: # NT	T DoCoMo					
Work item code: 器		Date: ₩				
Category: 第 F		Release: ₩ R99				
Use one of the following categories:  F (essential correction)  A (corresponds to a correction in an earlier release)  B (Addition of feature),  C (Functional modification of feature)  D (Editorial modification)  Detailed explanations of the above categories can be found in 3GPP TR 21.900.  Use one of the following release.  R96 (Release 1996)  R97 (Release 1997)  R98 (Release 1998)  R99 (Release 1999)  REL-4 (Release 4)  REL-5 (Release 5)						
Reason for change:						
Reason for 3) In the generic set-up procedure for mobile termina should be indicated that ALERTING message could be omitted because does not send the ALERTING message in case of immediate connections.  Reason for 4)The procedure for CS/PS combined was not include current version.						
Summary of change: #	1) Correction of wording (e.g. special test USIM → test USIM)					
	2) Correction of procedure on 7.2.3.2.3 "Generic call set-up procedure for mobile originating circuit switched calls".					
	"Paging response" has been rei	emoved.				
3) Changing of procedure on 7.2.3.1.3 "Generic call set-up procedure for mobility terminating circuit switched calls"			е			
	In the "ALERTING" line, the cor	omment has been added as below.				
	"This message is optional"	n				
	4) Addition of new registration p 7.2.2.2)	procedure on CS / PS combined mode.(7.2.1 and	d			

Consequences if not approved:	** Test environment will have differences with real environment.		
Clauses affected:	<b>38</b> 7.2		
Other specs affected:	# 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: <a href="http://www.3gpp.org/3G\_Specs/CRs.htm">http://www.3gpp.org/3G\_Specs/CRs.htm</a>. Below is a brief summary:

- 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 <a href="ftp://www.3qpp.org/specs/">ftp://www.3qpp.org/specs/</a> For the latest version, look for the directory name with the latest date e.g. 2000-09 contains the specifications resulting from the September 2000 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.

## 7.2 Generic setup procedures

### 7.2.1 UE Test States for Generic setup procedures

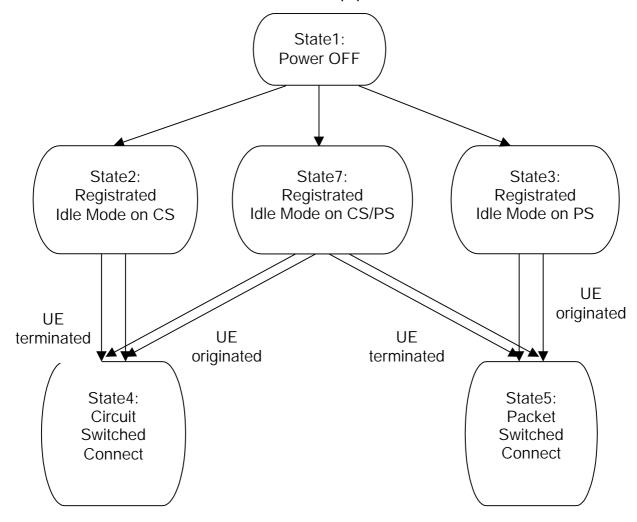


Figure 7.2.1.1: UE Test States for Generic setup procedures

In order that the UE can set up a call in UTRAN, there are a number of procedures to be undertaken in a hierarchical sequence to move between known states. The sequences are shown in Figure 7.2.1.1 above and the status of the relevant protocols in the UE in the different states are given in Table 7.2.1.1 below.

Table 7.2.1.1: The UE states

		RRC	CC	MM	SM	GMM
State1	Power OFF		null	detached	inactive	detached
State2	State2		null	idle	inactive	detached
State3	State3 PS Registered Idle Mode on idle null PS		null	detached	inactive	idle
State3 State4	Circuit Switched Connect	connected	active	connected	inactive	detachedsam e as previous state
State4 State5	Packet Switched Connect	connected	null	same as previous statedetache	active	connected
State7	Registered Idle Mode on CS/PS	<u>idle</u>	<u>null</u>	<u>idle</u>	<u>inactive</u>	<u>idle</u>

### 7.2.2 Registration of UE

### 7.2.2.1 Registration on CS

### 7.2.2.1.1 Initial condition

System Simulator:

1 cell, default parameters.

User Equipment:

- The UE shall be operated under normal test conditions.
- The special Test-USIMTest-USIM shall be inserted.

### 7.2.2.1.2 Definition of system information messages

The default system information messages are used.

### 7.2.2.1.3 Procedure

Registration of UE for SS shall be established under ideal radio conditions as defined in 5. Reference Test Conditions:

Step	Direction	Message	Comments
	UE SS		
1	<	SYSTEM INFORMATION (BCCH)	NW Broadcast
2	>	RRC CONNECTION REQUEST (CCCH)	RRC
3	<	RRC CONNECTION SETUP (CCCH)	RRC
4	>	RRC CONNECTION SETUP COMPLETE (DCCH)	RRC
5	>	LOCATION UPDATING REQUEST	MM
6	<	AUTHENTICATION REQUEST	MM
7	>	AUTHENTICATION RESPONSE	MM
8	<	SECULITYSECURITY MODE COMMAND	RRC
9	>	SECULITY SECURITY MODE COMPLETE	RRC
10	<	LOCATION UPDATING ACCEPT	MM
11	>	TMSI RELOCATION COMPLETE	MM
12	<	RRC CONNECTION RELEASE	RRC
13	>	RRC CONNECTION RELEASE COMPLETE	RRC

### 7.2.2.1.4 Specific message contents

All Specific message contents shall be referred to clause 9 "Default Message Contents of Layer3 Messages for Layer3 Testing".

### 7.2.2.2 Registration on PS

### 7.2.2.2.1 Initial condition

System Simulator:

1 cell, default parameters.

User Equipment:

- The UE shall be operated under normal test conditions.
- The special Test-USIM Test-USIM shall be inserted.

### 7.2.2.2.2 Definition of system information messages

The default system information messages are used.

### 7.2.2.2.3 Procedure

Registration of UE for SS shall be established under ideal radio conditions as defined in 5. Reference Test Conditions:

Step	Direction	Message	Comments
	UE SS		
1	<	SYSTEM INFORMATION (BCCH)	NW Broadcast
2	>	RRC CONNECTION REQUEST (CCCH)	RRC
3	<	RRC CONNECTION SETUP (CCCH)	RRC
4	>	RRC CONNECTION SETUP COMPLETE (DCCH)	RRC
5	>	ATTACH REQUEST	GMM
6	<	AUTHENTICATION AND CIPHERING REQUEST	GMM
7	>	AUTHENTICATION AND CIPHERING RESPONSE	GMM
8	<	SECULITYSECURITY MODE COMMAND	RRC
9	>	SECULITY SECURITY MODE COMPLETE	RRC
10	<	ATTACH ACCEPT	GMM
11	>	ATTACH COMPLETE	GMM
12	<	RRC CONNECTION RELEASE	RRC
13	>	RRC CONNECTION RELEASE COMPLETE	RRC

### 7.2.2.2.4 Specific message contents

All Specific message contents shall be referred to clause 9 "Default Message Contents of Layer3 Messages for Layer 3 Testing".

### 7.2.2.3 Registration on CS / PS combined environment

### 7.2.2.3.1 Initial condition

**System Simulator:** 

1 cell, default parameters.

User Equipment:

- The UE shall be operated under normal test conditions.
- The Test-USIM shall be inserted.

### 7.2.2.3.2 Definition of system information messages

The default system information messages are used.

### 7.2.2.3.3 Procedure

Registration of UE for SS shall be established under ideal radio conditions as defined in 5. Reference Test Conditions:

Step	Direction	<u>Message</u>	<u>Comments</u>
	UE SS		
<u>1</u>	<	SYSTEM INFORMATION (BCCH)	NW Broadcast
2		RRC CONNECTION REQUEST (CCCH)	RRC
3	> <	RRC CONNECTION SETUP (CCCH)	RRC
4	>	RRC CONNECTION SETUP COMPLETE (DCCH)	RRC
<u>5</u>	>	ATTACH REQUEST	<u>GMM</u>
<u>6</u>	<u>&gt;</u> <	AUTHENTICATION AND CIPHERING REQUEST	<u>GMM</u>
<u>7</u>	<u>&gt;</u>	<u>AUTHENTICATION AND CIPHERING RESPONSE</u>	<u>GMM</u>
<u>8</u>	<	SECURITY MODE COMMAND	RRC
<u>9</u>	<u>&gt;</u> <	SECURITY MODE COMPLETE	RRC
<u>10</u>	<	ATTACH ACCEPT	<u>GMM</u>
<u>11</u>	<u>&gt;</u>	ATTACH COMPLETE	<u>GMM</u>
<u>12</u>	<u>&lt;</u>	RRC CONNECTION RELEASE	RRC
<u>13</u>	<u>&gt;</u>	RRC CONNECTION RELEASE COMPLETE	RRC

### 7.2.2.3.4 Specific message contents

All Specific message contents shall be referred to clause 9 "Default Message Contents of Layer3 Messages for Layer 3 Testing".

### 7.2.3 Call setup

### 7.2.3.1 Generic call set up procedure for mobile terminating circuit switched calls

### 7.2.3.1.1 Initial conditions

System Simulator:

1 cell, default parameters.

User Equipment:

- The UE shall be operated under normal test conditions.
- The special Test-USIMTest-USIM shall be inserted.

### 7.2.3.1.2 Definition of system information messages

The default system information messages are used.

### 7.2.3.1.3 Procedure

The Call Set-up procedure shall be performed under Ideal radio conditions as defined in 5. Reference Test Conditions:

Step	Direction	Message	Comments
	UE SS		
1	<	SYSTEM INFORMATION (BCCH)	Broadcast
2	<	PAGING (PCCH)	Paging
3	>	RRC CONNECTION REQUEST (CCCH)	RRC
4	<	RRC CONNECTION SETUP (CCCH)	RRC
5	>	RRC CONNECTION SETUP COMPLETE (DCCH)	RRC
6	>	PAGING RESPONSE	RR
7	<	AUTHENTICATION REQUEST	MM
8	>	AUTHENTICATION RESPONSE	MM
9	<	SECURITY MODE COMMAND	RRC
10	>	SECURITY MODE COMPLETE	RRC
11	<	SET UP	CC
12	>	CALL CONFIRMED	CC
13	<	RADIO BEARER SETUP	RRC RAB SETUP
14	>	RADIO BEARER SETUP COMPLETE	RRC
15	>	<u>ALEARTING</u> <u>ALERTING</u>	CC (this message is optional)
16	>	CONNECT	CC
17	<	CONNECT ACKNOWLEDGE	CC

### 7.2.3.1.4 Specific message contents

All Specific message contents shall be referred to clause 9 "Default Message Contents of Layer3 Messages for Layer 3 Testing".

### 7.2.3.2 Generic call set-up procedure for mobile originating circuit switched calls

### 7.2.3.2.1 Initial conditions

System Simulator:

1 cell, default parameters.

User Equipment:

- The UE shall be operated under normal test conditions.
- The special Test-USIM Test-USIM shall be inserted.

### 7.2.3.2.2 Definition of system information messages

The default system information messages are used.

### 7.2.3.2.3 Procedure

The Call Set-up procedure shall be performed under Ideal radio conditions as defined in 5. Reference Test Conditions:

Step	Direction	Message	Comments
	UE SS		
1	<	SYSTEM INFORMATION (BCCH)	Broadcast
2	>	RRC CONNECTION REQUEST (CCCH)	RRC
3	<	RRC CONNECTION SETUP (CCCH)	RRC
4	>	RRC CONNECTION SETUP COMPLETE (DCCH)	RRC
5	<del>&gt;</del>	PAGING RESPONSE	RR
<del>6</del> <u>5</u>	>	CM SERVICE REQUEST	MM
56 67 78 89 910	<	AUTHENTICATION REQUEST	MM
<del>6</del> 7	>	AUTHENTICATION RESPONSE	MM
<del>7</del> 8	<	SECURITY MODE COMMAND	RRC
<u>89</u>	>	SECURITY MODE COMPLETE	RRC
<del>9</del> 10	>	SET UP	CC
<del>10</del> 11	<	CALL PROCEEDING	CC
<del>11</del> 12	<	RADIO BEARER SETUP	RRC RAB SETUP
<del>12</del> 13	>	RADIO BEARER SETUP COMPLETE	RRC
<del>13</del> 14	<	<u>ALEARTING</u> ALERTING	CC
<del>14</del> 15	<	CONNECT	CC
<del>15</del> 16	>	CONNECT ACKOWLEDGE	CC

### 7.2.3.2.4 Specific message contents

All Specific message contents shall be referred to clause 9 "Default Message Contents of Layer 3 Messages for Layer 3 Testing".

### 7.2.4 Session setup

## 7.2.4.1 Generic session set up procedure for mobile terminating packet switched sessions

### 7.2.4.1.1 Initial conditions

System Simulator:

1 cell, default parameters.

User Equipment:

- The UE shall be operated under normal test conditions.
- The special Test-USIM Test-USIM shall be inserted.

### 7.2.4.1.2 Definition of system information messages

The default system information messages are used.

### 7.2.4.1.3 Procedure

The Session Set-up procedure shall be performed under Ideal radio conditions as defined in 5. Reference Test Conditions:

Step	Direction		Message	Comments
	UE SS			
1	<	<	SYSTEM INFORMATION (BCCH)	Broadcast
2	<	<	PAGING TYPE1 (PCCH)	Paging
3	-	->	RRC CONNECTION REQUEST (CCCH)	RRC
4	<	<	RRC CONNECTION SETUP (CCCH)	RRC
5	-	->	RRC CONNECTION SETUP COMPLETE (DCCH)	RRC
6	-	->	SERVICE REQUEST	GMM
7	< AUTHENTICATION AND CIPHERING REQUEST		AUTHENTICATION AND CIPHERING REQUEST	GMM
8	> AUTHENTICATION AND CIPHERING RES		AUTHENTICATION AND CIPHERING RESPONSE	GMM
9	< SECURITY MODE COMMAND		SECURITY MODE COMMAND	RRC
10	> SECURITY MODE COMPLETE		SECURITY MODE COMPLETE	RRC
11	< REQUEST PDP CONTEXT A		REQUEST PDP CONTEXT ACTIVATION	SM
12	> ACTIVATE PDP CONTEXT REQUEST		ACTIVATE PDP CONTEXT REQUEST	SM
13	< RADIO BEARER SETUP		RADIO BEARER SETUP	RRC RAB SETUP
14	> RAD		RADIO BEARER SETUP COMPLETE	RRC
15	< ACTIVATE PDP CONTEXT		ACTIVATE PDP CONTEXT ACCEPT	SM

### 7.2.4.1.4 Specific message contents

All Specific message contents shall be referred to clause 9 "Default Message Contents of Layer 3 Messages for Layer 3 Testing".

## 7.2.4.2 Generic session set up procedure for mobile originating packet switched sessions

### 7.2.4.2.1 Initial conditions

System Simulator:

1 cell, default parameters.

User Equipment:

- The UE shall be operated under normal test conditions.
- The special Test-USIM Test-USIM shall be inserted.

### 7.2.4.2.2 Definition of system information messages

The default system information messages are used.

### 7.2.4.2.3 Procedure

The Session Set-up procedure shall be performed under Ideal radio conditions as defined in 5. Reference Test Conditions:

Step	Direction	Message	Comments
	UE SS		
1	<	SYSTEM INFORMATION (BCCH)	Broadcast
2	>	RRC CONNECTION REQUEST (CCCH)	RRC
3	<	RRC CONNECTION SETUP (CCCH)	RRC
4	>	RRC CONNECTION SETUP COMPLETE (DCCH)	RRC
5	>	SERVICE REQUEST	GMM
6	<	AUTHENTICATION AND CIPHERING REQUEST	GMM
7	>	AUTHENTICATION AND CIPHERING RESPONSE	GMM
8	<	SECURITY MODE COMMAND	RRC
9	>	SECURITY MODE COMPLETE	RRC
10	>	ACTIVATE PDP CONTEXT REQUEST	SM
11	<	RADIO BEARER SETUP	RRC RAB SETUP
12	>	RADIO BEARER SETUP COMPLETE	RRC
13	<	ACTIVATE PDP CONTEXT ACCEPT	SM

### 7.2.4.2.4 Specific message contents

All Specific message contents shall be referred to clause 9 "Default Message Contents of Layer3 Messages for Layer 3 Testing".

### 3GPP TSG T1 Meeting #9

### Document T1-000306

Redondo Beach, Ca, USA, 16-17 November 2000

e.g. for 3GPP use the format TP-99xxx or for SMG, use the format P-99-xxx

# 3GPP TSG-SIG Meeting #14 Redondo Beach, California, USA, 13-16/11/00

T1S-000266

CR-Form-v3

CHANGE REQUEST				
*	34.108 CR 023			
For <u><b>HELP</b></u> on us	sing this form, see bottom of this page or look at the pop-up text over the <b>%</b> symbols.			
Proposed change a	### ### Andio Access Network Core Network Co			
Title: 第	Minimum Performance Levels			
Source: #	Anite Telecoms Ltd			
Work item code: 第	Date: ₩ 14/11/00			
Category: 第	F Release:   Release:   R99			
	Use <u>one</u> of the following categories:  F (essential correction)  A (corresponds to a correction in an earlier release)  B (Addition of feature),  C (Functional modification of feature)  D (Editorial modification)  Detailed explanations of the above categories can be found in 3GPP TR 21.900.  Use <u>one</u> of the following releases:  2 (GSM Phase 2)  R96 (Release 1996)  R97 (Release 1997)  R98 (Release 1999)  REL-4 (Release 4)  REL-5 (Release 5)			
Reason for change.	Clause 4.2.1 of 3GPP TS 34.108 which attempts to describe the various channels that need to be supported by the System Simulator is ambiguous as it also attempts to simultaneously describe the mappings that exist between Logical Channels and Transport Channels on one hand and the mappings between Transport Channels and Physical Channels on the other hand. The mappings between the various channels in the hierarchy is, however, more elaborate and is adequately described in the core specifications (TS 25.301, TS 25.211 and TS 25.221). Furthermore the clause in question is out of date as there has been newer versions of the core specification defining new channels and refining attribute and roles of previous channels. Finally there is a statement at the end of Clause 4.2.1 suggesting that when several cells are implemented the System Simulator may support Dedicated Channels on only one of the cells. This statement seems to contradicts requirement for handover tests. This Change Request aims therefore to align clause 4.2.1 with the latest version of the relevant core specifications and present the information in a more meaningful manner. A distinction between the FDD and TDD modes is also introduced. The requirement of SS (Test Equipment) for RF tests are different from Signaling tests. They should be clearly defined.			
Summary of change	e:# - Update list of Channels - Remove Information on mapping of channels (refer to core specifications			

	instead), hence list Logical channels, Transport channels and Physical Channels separately.			
	- Split into FDD and TDD mode			
	- Rephrase statement concerning additional cells capabilities			
	- The requirements of SS (Test Equipment) [Frequency and power level] are added for RF test.			
Consequences if # not approved:	# - Information out of date and misleading			
Clauses affected: #	8 4.2.1, 4.2.2			
Other specs # affected:	Other core specifications Test specifications O&M Specifications			
Other comments: #				

### 4.2.1 Supported Cell Configuration

1	1	

The System Simulator shall provide the capability to simulate a minimum number of cells (of the appropriate UTRA Mode) whose number and capabilities are governed by the test cases that need to be performed (test cases are defined in [1](Signalling), [2] (RF-FDD) and [5] (RF-TDD)). For this purpose test cases can be split into two different categories: Tests that require only one cell and Tests that require several cells.

To perform test cases requiring one cell, the system simulator must provide a Cell offering the capabilities to perform all the test cases in this category.

To perform test cases requiring several cells, additional cells must be provided by the system simulator. The additional cells, however, need only provide a minimum set of capabilities so as to support the first cell in carrying out the multicell test cases.

The type and number of channels (especially physical channels) constitute an important set of capabilities for a cell. The following sub-clauses list possible channels that may be supported by the SS. Each channel type, however, and the minimum number of channels needed are only mandatory if specific test cases require them.

The mapping between Logical and Transport channels is as described in [7]. Similarly the mapping between Transport channels and Physical channels is as described in 3GPP TS 25.211 for the FDD mode, and 3GPP TS 25.221 for the TDD mode. The reference measurement channels (mapping between Transport channels and Physical channels for DTCH/DCCH to be tested) are defined in [2] Annex-C for FDD and [5] Annex-C for TDD.

### 4.2.1.1 Supported Channels for FDD Mode

### 4.2.1.1.1 Logical Channels

Logical Channel	Minimum Number	Comments
BCCH	1	
CCCH	1	
DCCH	4	2 for RRC testing, 2 for NAS testing
PCCH	1	
DTCH	n <ffs></ffs>	Depending on SS's support for RB service testing (See Clause 14 of TS 34.123-1)

### 4.2.1.1.2 Transport Channels

Transport Channel	Minimum Number	Comments
BCH	1	
FACH	1	
PCH	1	
DCH	n <ffs></ffs>	
DSCH	1	
RACH	2	
CPCH	1	
FAUSCH	N/A	Not in Release 99

### 4.2.1.1.3 Physical Channels

Physical Channel	Minimum Number	Comments
P-CCPCH	1	Primary Common Control Physical Channel. This is used by the Cell to Broadcast System Information messages, it is transmitted using the Primary Scrambling Code for the Cell.
P-CPICH	1	Primary Common Pilot Channel using the Primary Scrambling Code for the Cell.
S-CPICH	1 (For RF Tests)	Secondary Common Pilot Channel. This signal is used as the phase reference for some RF tests.
SCH	1	Synchronisation Channel (includes P-SCH and S-SCH)
S-CCPCH	2	Secondary Common Control Physical Channel.
PICH	1	To identify when the UE should access the PCCH for Paging Messages.
AICH	1	General Acquisition Indicator Channel that can be used for: - Aquisition Indicator Channel, for PRACH - Access Preamble Acquisition Indicator Channel (AP-ICH), for PCPCH - Collision-Detection/Channel-Assignment Indicator Channel (CD/CA-ICH), for PCPCH
DPDCH	3	Downlink Physical Data Channel. There will be a single DPCCH associated with all the DPDCHs used for Layer 1 signalling. This number is for the First Cell. Additional Cells may define a lower number which should be at least 1.
PDSCH	1	Physical Downlink Shared Channel.
DPCH	1	Uplink Dedicated Physical Channel
PRACH	2	Physical Random Access Channel.
PCPCH	1	Physical Common Packet Channel.
CSICH	1	CPCH Status Indicator Channel

## 4.2.1.1 Supported Channels for TDD Mode

### 4.2.1.1.1 Logical Channels

Logical Channel	Minimum Number	Comments
ВССН	1	
CCCH	1	
DCCH	1	
PCCH	1	
DTCH	1	
SHCH	1	

### 4.2.1.1.2 Transport Channels

Transport Channel	Minimum Number	Comments
ВСН	1	
FACH	1	
PCH	1	
DCH	n <ffs></ffs>	
DSCH	1	
USCH	1	
RACH	1	

### 4.2.1.1.3 Physical Channels

Physical Channel	Minimum Number	Comments
P-CCPCH	1	Primary Common Control Physical Channel. This is the Cell
		Broadcast Channel, transmitted using the Primary Scrambling
		Code for the Cell.
SCH	1	Synchronisation Channel
S-CCPCH	2	Secondary Common Control Physical Channel.
PICH		To identify when the UE should access the PCCH for Paging
		Messages.
DPCH (DL)	3	Downlink Dedicated Physical Channel
PDSCH	1	Physical Downlink Shared Channel.
DPCH (UL)	1	Uplink Dedicated Physical Channel
PUSCH	1	Physical Uplink Shared Channel.
PRACH	2	Physical Random Access Channel.

### 4.2.2 RF Performance

### 4.2.2.1 Frequency of Operation

The System Simulator shall be capable of adjusting the Carrier Frequency of the DL channels to any frequency allowed in the DL frequency band. The DL frequency shall be accurate to the level of accuracy set by the core specications [20] for FDD and [21] for TDD.

For RF tests, the requirement of Test Equipment is described in [2] Annex-F for FDD and [5] Annex-F for TDD respectively.

### 4.2.2.2 Power Level Setting Accuracy

The system simulator shall be able to adjust the average power output of the DL Channels to meet the absolute accuracy of the system simulator DL power levels covered in 5.4.1 Downlink Signal Levels.

For RF tests, the requirement of Test Equipment is described in [2] Annex-F for FDD and [5] Annex-F for TDD respectively.

The system simulator shall be capable of altering the power of the DL Dedicated channels under control of the UE Layer 1 Signalling information.

### 4.2.2.3 Uplink Power Control

The system simulator shall be able to command the UE to transmit at the maximum level for its power class or a lower level required for specific tests. The system simulator shall also provide the capability of generating the Layer 1 Signalling information to set the power levels of the Uplink Dedicated Channels from the UE to lower levels if required.

### 4.2.2.4 Uplink Signal Handling

For FDD mode, the System Simulator shall not be damaged by a Power Class 1 UE transmitting at the maximum power level permitted in [11] and for TDD mode by a Power Class 2 UE transmitting at the maximum power level permitted in [12].

### 4.2.2.5 Uplink Sensitivity

The simulator shall be able to receive uplink transmissions from the UE when it is transmitting at the minimum power level defined in [11] for FDD mode, and [12] for TDD mode.

Editor's note: this is obviously a useful feature for the system simulator; however it is <ffs> if it should be an essential common requirement for a protocol test system

Clauses affected:

**3.2**, 5.3, 5.4

1

### 3GPP TSG T1 Meeting #9 Redondo Beach, Ca, USA, 16-17 November 2000

**Document T1-000307** 

e.g. for 3GPP use the format TP-99xxx or for SMG, use the format P-99-xxx

3GPP TSG-T1/SIG Meeting #14 Redondo Beach, California, USA, 13-16/11/00 T1S-000267

	СН	ANGE RE	QUES1	Γ	CR-Foi	orm-v3
ж <mark>3</mark>	4.108 CR	<mark>024</mark> ೫ re	æv <b>x</b>	Current version	on: 3.1.0 **	
For <u>HELP</u> on using	g this form, see bot	tom of this page	or look at th	he pop-up text o	over the <b>%</b> symbols	S.
Proposed change affe	ects: 光 (U)SIM[	ME/UE	Radio A	ccess Network	Core Network	k
Title:	ownlink signal cond	ditions and prop	agation cond	ditions		
Source: # A	nite Telecoms Ltd					
Work item code: 器				Date: ₩	9/11/00	
Category: 第 D				<i>Release:</i> ሄ	R99	
De be	power levels for	ation) a correction in an aure), lification of feature cation) the above categories 1.900. ditions are alrea -D for TDD. To a reference pointed Table 5.4.1.2 individual Downley. Similarly Ta	dy defined in avoid duplicaters are added in Clause 5.4.2.1 about 15.4.2.1 about	2 (se) R96 (R97 (R98 (R99 (REL-4 (REL-5 (REL-5 (REL-5 (REL-5))))))))	they should be  73.1.0) define the oth FDD and TDD  2 define the power	
	respectively.	relevant to UE h sented. So they	nence they r are being d	not needed in S	S Specifications in	the
Summary of change: 8	€ 1) Delete table 5	.4.1.1				
	2) Delete table 5					
	3) Delete table 5					
	4) Delete table 5	.4.2.1				
	5) Remove propo information in cla		ons definition	ns, and add refe	erence pointer	
Consequences if 8 not approved:	Situation remain	ns ambiguous				

|--|

2

Error! No text of specified style in document.

Error! No text of specified style in document.

### 5.2 Radio conditions

There are a number of radio propagation conditions defined in [2] for FDD mode and [5] for TDD mode, which may be required for a number of tests and hence can be considered as Common Conditions for FDD mode and TDD mode respectively.

NB:

The System Simulator is required to support at least the normal Propagation Condition; support of the other propagation conditions is optional, depending on the specific test supported by the simulator

### 5.2.1 Normal Propagation Condition

This condition provides a connection between the System Simulator that is effectively free from Additive White Gaussian Noise, and where there are no fading or multipath effects. This condition will be used for Signalling tests.

### 5.2.2 Static Propagation Condition

See [2] Annex-D for FDD and [5] Annex-D for TDD.

### 5.2.3 Multi-Path Fading Propagation Conditions

See [2] Annex-D for FDD and [5] Annex-D for TDD.

## 5.2.4 Moving Propagation Conditions

See [2] Annex-D for FDD. There are no currently defined Moving propagation conditions for TDD.

### 5.2.5 Birth-Death propagation conditions

See [2] Annex-D for FDD. There are no currently defined Birth-Death propagation conditions for TDD.

## 5.3 Standard test signals

Reference [11] and [12] for definitions of standard test signals.

## 5.4 Signal levels

The power levels given in the following sub-clauses (5.4.1 and 5.4.2) apply for Signalling tests only. For RF tests power leveles are given in [2] Annex-E for FDD and [5] Annex-E for TDD.

## 5.4.1 Downlink Signal Levels

<FFS>

i		

## 5.4.2 Uplink Signal Levels

<FFS>

3GPP TSG T1 Meeting #9 Redondo Beach, Ca, USA, 16-17 November 2000

3GPP/TSG T1/SIG Meeting #13 Tokyo, Japan, 17-19 October 2000 **Document T1-000282** 

e.g. for 3GPP use the format TP-99xxx or for SMG, use the format P-99-xxx

### Document I

T1S000222

e.g. for 3GPP use the format TP-99xxx or for SMG, use the format P-99-xxx

			CHANGE I	REQU	JEST		see embedded help fi r instructions on how		
			34.108	CR	027		Current Version	on: 3.1.0	
GSM (AA.BB) or	3G (/	AA.BBB) specific	ation number↑		↑ CR	number a	s allocated by MCC s	support team	
For submission list expected appro			for ay for infor	oproval mation	X		strateç non-strateç		
Form: CR cover si	heet, ı	version 2 for 3GPP a	and SMG The latest version	on of this form	n is available from	n: <u>ftp://ft</u>	p.3gpp.org/Info		Form- 2.doc
Proposed cha			(U)SIM	ME	X U	TRAN	/ Radio	Core Networ	k
Source:		Matsushita	Communication Ir	ndustry (	Co.,Ltd		<u>Date:</u>	17/10/2000	
Subject:		Updates to	the default messa	ige conte	ents in clau	use 9			
Work item:									
Category:  (only one category shall be marked with an X)	F A B C D	Addition of	modification of fea		rlier releas	se x	Release:	Phase 2 Release 96 Release 97 Release 98 Release 99 Release 00	X

### Reason for change:

Clause 9 was updated according to the following approved CRs by RAN2 for TS 25.331 V3.3.0:

- 1. CR-425r1: "Integrity check info" IE is always required in SECURITY MODE COMMAND and SECURITY MODE COMPLETE messages. Default values for this IE are specified.
- 2. CR-474: "Receiving window size" IE is removed for the case of UL RLC-AM.
- 3. CR-435r3: "Segmentation indication" IE is added for the case of UL RLC-TM.
- 4. CR-438r1: "Hyper-frame number" IE in RRC CONNECTION SETUP COMPLETE and RADIO BEARER SETUP COMPLET messages is renamed to "START".
- 5. CR-427: For RRC CONNECTION SETUP COMPLETE message, the requirement for "UE radio access capability" IE is changed to "Not checked" since the need has been modified to 'OP' from 'MP'.
- 6. CR-442: The locations of "Downlink information common for all radio links" IEs in 3 messages RADIO BEARER RELEASE, RADIO BEARER SETUP and RRC CONNECTION SETUP are altered. Also, "Default DPCH offset value" IE is repositioned within "Downlink information common for all radio links" IE (since it is applicable for both FDD and TDD modes).
- 7. CR-444r1: A "CHOICE mode" IE is added to "Downlink DPCH info common for all RL" IE. Affected messages are updated.
- 8. CR-449r2: "DL rate matching restriction information" IE is introduced in "Downlink DPCH info common for all RL" IE. All affected messages are updated, and this IE is set to "Not Present" in these messages (no restrictions on TFI for all transport channels).
- CR-452: "PRACH TFCS" is added into "UL Transport channel information common for all transport channel" IE. This IE has a need of 'OP'. All affected messages are updated, with this IE set to "Not Present".
- 10. CR-478r1: "Error indication" IE is added into RRC CONNECTION RELEASE

- COMPLETE message. This IE is not checked by default, unless specified in the specific message content sub-clause of the test cases. IE "U-RNTI" was left out in previous revision.
- 11. CR-490r1: "CPCH SET Info" IE was repositioned as a choice of "CHOICE channel requirement" IE in the "Uplink radio resources" area. All messages containing this IE are updated to reflect this modification.
- 12. CR-492r3: The values of "Ciphering Algorithm" IE and "Integrity protection algorithm" IE are revised. The corresponding IEs in SECURITY MODE COMMAND message are updated accordingly.
- 13. CR-535r1: For RADIO BEARER RELEASE message, a new IE "RAB information to reconfigure list" is added to prepare for the negotiation of more than one codec types in R'00. This IE is set to "Not Present" since testing of different codec types is not of interest at the present moment.
- 14. CR-428: "URA identity" (optional) is now added into RADIO BEARER SETUP and RADIO BEARER RELEASE messages. These 2 messages are revised with this IE set to "Not Present", since a change of URA identity is not desired by default.

Clauses affect	<u>ed:</u> 9			
Other specs affected:	Other 3G core specifications Other GSM core specifications MS test specifications BSS test specifications O&M specifications	<ul> <li>→ List of CRs:</li> </ul>		
Other comments:				



<----- double-click here for help and instructions on how to create a CR.

## 9 Default Message Contents

This clause contains the default values of common messages, which unless indicated otherwise in specific clauses of TS34.123-1, shall be transmitted and checked by the system simulator.

Contents of DOWNLINK DIRECT TRANSFER message: AM

Information Element	Value/remark
Message Type	
Integrity check info	Not Present
CN domain identity	CS domain
NAS message	See Specific Message Content for each test case

### Contents of INITIAL DIRECT TRANSFER message: AM

Information Element	Value/remark
Message Type	
Integrity check info	Not checked
Service Descriptor	Not checked
Flow Identifier	Not checked
CN domain identity	Not checked
NAS message	Not checked
Megasured results on RACH	Not checked

### Contents of PAGING TYPE1 message: TM (Speech in CS)

Information Element	Value/remark
Message Type	
Paging record	
- Paging cause	Terminating Conversational Call
- CN domain identity	CS domain
- CHOICE UE identity	
- IMSI	Set to the same octet string as in the IMSI stored in the
	USIM card
BCCH modification info	Not Present

### Contents of PAGING TYPE1 message: TM (The others of speech in CS)

Information Element	Value/remark
Message Type	
Paging record	
- Paging cause	Terminating Streaming Call
- CN domain identity	CS domain
- CHOICE UE identity	
- IMSI	Set to the same octet string as in the IMSI stored in the
	USIM card
BCCH modification info	Not Present

## Contents of PAGING TYPE1 message: TM (Packet in PS )

Information Element	Value/remark
Message Type	
Paging record	
- Paging cause	Terminating Interactive Call
- CN domain identity	PS domain
- CHOICE UE identity	
- IMSI	Set to the same octet string as in the IMSI stored in the
	USIM card
BCCH modification info	Not Present

Information Element	Value/remark
Message Type	
Integrity check info	Not Present
- message authentication code	l
- RRC message sequence number	
Integrity protection mode info	Not Present
- Integrity protection mode command	l
- Downlink integrity protection activation info	l
- RRC message sequence number	l
- RRC message sequence number	l
- Integrity protection algorithm	l
- Integrity protection initialisation number Ciphering mode info	Not Present( If ciphering is applied, this IE is needed)
- Ciphering mode into	stop
- Ciphering mode command - Ciphering algorithm	Stop   Not Present(Standard UMTS Encryption Algorithm UEA1)
- Activation time for DPCH	Not Present(Used RLC-TM)
- Radio bearer downlink ciphering activation time	Not Present(Used RLC-1M)
info	1
- Radio bearer identity	l
- RLC sequence number	l
Activation time	(256+CFN-(CFN MOD 8 + 8 ))MOD 256
New U-RNTI	Not Present
New C-RNTI	Not Present
DRX indicator	noDRX
UTRAN DRX cycle length coefficient	Not Present
CN information info	Not Present
- PLMN identity	
- CN common GSM-MAP NAS system information	l e e e e e e e e e e e e e e e e e e e
- CN domain identity - CN domain specific GSM-MAP NAS system	
information	
URA identity	Not Present
Signalling RB information to setup	Not Present
- RB identity	
- CHOICE RLC info type	
- RLC info	l
- CHOICE Uplink RLC mode	l
- Transmission RLC discard	l
- SDU discard mode	l e e e e e e e e e e e e e e e e e e e
- Timer_MRW	
- Timer discard	
- MaxMRW	
- Transmission window size	
Receiving window size - CHOICE Downlink RLC mode	
- CHOICE DOWNINK REC Mode - In-sequence delivery	l
- RB mapping info	l
- Information for each multiplexing option	l
- Number of RLC logical channels	l
- Uplink transport channel type	l
- Transport channel identity	l
- Logical channel identity	
- MAC logical channel priority	
- Logical channel max loss	l
- Number of RLC logical channels	l
Downlink transport channel type     Transport channel identity	l
- Transport channel identity - Logical channel identity - Logical channel identity	
- Logical channel identity RAB information for setup	
- RAB info	l
10.0.000	ı

```
0000 0001B
- RAB identity
- CN domain identity
                                                   CS domain
- Re-establishment timer
- T314
                                                   20 seconds
- RB information to setup
- RB identity
- PDCP info
                                                   Not Present
- RLC info
- CHOICE Uplink RLC mode
                                                   TM RLC
 - Transmission RLC discard
                                                   Not Present
                                                   TRUE
 - Segmentation indication
 - CHOICE Downlink RLC mode
                                                   TM RLC
 - Segmentation indication
                                                   TRUE
- RB mapping info
- Information for each multiplexing option
- Number of RLC logical channels
                                                   DCH
 - Uplink transport channel type
 - Transport channel identity
                                                   2
 - Logical channel identity
                                                   1
 - MAC logical channel priority
                                                   1
 - Logical channel max loss
                                                   0
 - Number of RLC logical channels
 - Downlink transport channel type
                                                   DCH
 - Transport channel identity
                                                   2
 - Logical channel identity
                                                   1
- RB information to setup
- RB identity
- PDCP info
                                                   Not Present
- RLC info
- CHOICE Uplink RLC mode
                                                   TM RLC
 - Transmission RLC discard
                                                   Not Present
 - Segmentation indication
                                                   TRUE
 - CHOICE Downlink RLC mode
                                                   TM RLC
 - Segmentation indication
                                                   TRUE
- RB mapping info
- Information for each multiplexing option
- Number of RLC logical channels
 - Uplink transport channel type
                                                   DCH
 - Transport channel identity
                                                   3
 - Logical channel identity
                                                   1
 - MAC logical channel priority
                                                   1
 - Logical channel max loss
                                                   0
 - Number of RLC logical channels
                                                   1
 - Downlink transport channel type
                                                   DCH
 - Transport channel identity
 - Logical channel identity
- RB information to setup
                                                   (This IE is needed for 12.2 kbps and 10.2 kbps)
- RB identity
- PDCP info
                                                   Not Present
- RLC info
- CHOICE Uplink RLC mode
                                                   TM RLC
 - Transmission RLC discard
                                                   Not Present
  Segmentation indication
                                                   TRUE
                                                   TM RLC
 - CHOICE Downlink RLC mode
 - Segmentation indication
                                                   TRUE
- RB mapping info
- Information for each multiplexing option
- Number of RLC logical channels
                                                   DCH
 - Uplink transport channel type
 - Transport channel identity
                                                   4
 - Logical channel identity
                                                   1
 - MAC logical channel priority
                                                   1
```

- Logical channel max loss	0
- Number of RLC logical channels	1
- Downlink transport channel type	DCH
- Transport channel identity	4
- Logical channel identity	1
RB information to be affected	(UM DCCH for RRC)
- RB identity	1
- RB mapping info	
- Information for each multiplexing option	
- Number of RLC logical channels	1
- Uplink transport channel type	DCH
- Transport channel identity	1
- Logical channel identity	1
- MAC logical channel priority	1
- Logical channel max loss	0
- Number of RLC logical channels	1
- Downlink transport channel type	DCH
- Transport channel identity	1
- Logical channel identity	1
RB information to be affected	(AM DCCH for RRC)
- RB identity	2
- RB mapping info	2
- Information for each multiplexing option	
- Number of RLC logical channels	1
- Uplink transport channel type	DCH
- Transport channel identity	1
- Logical channel identity	2
- MAC logical channel priority	2
- Logical channel max loss	0
- Number of RLC logical channels	1
- Downlink transport channel type	DCH
- Transport channel identity	1
- Logical channel identity	2
RB information to be affected	(AM DCCH for NAS_DT High priority)
- RB identity	3
- RB mapping info	
- Information for each multiplexing option	
- Number of RLC logical channels	1
- Uplink transport channel type	DCH
- Transport channel identity	1
<ul> <li>Logical channel identity</li> </ul>	3
<ul> <li>MAC logical channel priority</li> </ul>	3
<ul> <li>Logical channel max loss</li> </ul>	0
<ul> <li>Number of RLC logical channels</li> </ul>	1
<ul> <li>Downlink transport channel type</li> </ul>	DCH
- Transport channel identity	1
- Logical channel identity	3
RB information to be affected	(AM DCCH for NAS_DT Low priority)
- RB identity	4
- RB mapping info	
- Information for each multiplexing option	
- Number of RLC logical channels	1
- Uplink transport channel type	DCH
- Transport channel identity	1
- Logical channel identity	4
- MAC logical channel priority	4
- Logical channel max loss	0
- Number of RLC logical channels	1
- Downlink transport channel type	DCH
- Transport channel identity	1
- Logical channel identity UL Transport channel information for all transport	<del>'</del>
or transport channel information for all transport	ı

#### channels

- TFC subset
- Allowed Transport Format combination

- UL DCH TFCS
- Normal
- TFCI Field 1 information
- CHOICE TFCS representation
- TFCS addition information
- CHOICE CTFC Size
- CTFC information
- Power offset information
- CHOICE Gain Factors
- Gain factor Bc
- Gain factor ßd
- Reference TFC ID
- Power offset Pp-m

### Added or Reconfigured UL TrCH information

- Transport channel identity
- Dynamic Transport format information
- Number of Transport blocks
- RLC size
- Semi-static Transport Format information
- Transmission time interval
- Type of channel coding
- Coding Rate
- Rate matching attribute
- CRC size

### Added or Reconfigured UL TrCH information

- Transport channel identity
- Dynamic Transport format information
- Number of Transport blocks
- RLC size
- Semi-static Transport Format information
- Transmission time interval
- Type of channel coding
- Coding Rate
- Rate matching attribute
- CRC size

### Added or Reconfigured UL TrCH information

- Transport channel identity
- Dynamic Transport format information
- Number of Transport blocks
- RLC size
- Semi-static Transport Format information
- Transmission time interval
- Type of channel coding
- Coding Rate
- Rate matching attribute
- CRC size

### Added or Reconfigured UL TrCH information

- Transport channel identity
- Dynamic Transport format information
- Number of Transport blocks

(This IE is repeated for TFC number.)

0 to MaxTFCValue-1 (MaxTFCValue is refer to clause 6.10 Parameter Set.)

(This IE is repeated for TFC number.)

#### Addition

Number of bits used must be enough to cover all combinations of CTFC from clause 6.10. Refer to clause 6.10 Parameter Set

Signalled Gain Factor

0

Not Present

0dB

2

(This IE is repeated for TFI number) Reference to clause 6.10 Parameter Set

(This IE is repeated for TFI number)

Reference to clause 6.10 Parameter Set

(This IE is needed for 12.2 kbps and 10.2 kbps)

(This IE is repeated for TFI number)

Reference to clause 6.10 Parameter Set Reference to clause 6.10 Parameter Set

Reference to clause 6.10 Parameter Set

Reference to clause 6.10 Parameter Set

Reference to clause 6.10 Parameter Set

Reference to clause 6.10 Parameter Set

Reference to clause 6.10 Parameter Set

If TrCH reconfiguration is executed then this is needed( e.g The rate of SRB for DCCH is changed.).

(This IE is repeated for TFI number) Reference to clause 6.10 Parameter Set

- RLC size
- Semi-static Transport Format information
- Transmission time interval
- Type of channel coding
- Coding Rate
- Rate matching attribute
- CRC size

### DRAC static information

- Transmission Time Validity
- Time duration before retry
- DRAC Class identity

DL Transport channel information common for all transport channel

- SCCPCH TFCS
- CHOICE DL parameters
- DL DCH TFCS
- Normal
- TFCI Field 1 information
- CHOICE TFCS representation
- TFCS addition information
- CHOICE CTFC Size
- CTFC information
- Power offset information
- CHOICE Gain Factors
- Gain factor Bc
- Gain factor ßd
- Reference TFC ID
- Power offset Pp-m

### Added or Reconfigured DL TrCH information

- Transport channel identity
- CHOICE DL parameters
- UL TrCH Identity
- DCH quality target
- BLER Quality value
- Transparent mode signalling info

Added or Reconfigured DL TrCH information

- Transport channel identity
- CHOICE DL parameters
- UL TrCH information

#### Added or Reconfigured DL TrCH information

- Transport channel identity
- CHOICE DL parameters
- UL TrCH information
- DCH quality target
- BLER Quality value
- Transparent mode signalling info

Added or Reconfigured DL TrCH information

- Transport channel identity
- CHOICE DL parameters
- UL TrCH Identity
- TFS
- Dynamic Transport format information
- Number of Transport blocks
- RLC size
- Semi-static Transport Format information
- Transmission time interval
- Type of channel coding
- Coding Rate
- Rate matching attribute
- CRC size

Reference to clause 6.10 Parameter Set

Reference to clause 6.10 Parameter Set Reference to clause 6.10 Parameter Set Reference to clause 6.10 Parameter Set Reference to clause 6.10 Parameter Set Reference to clause 6.10 Parameter Set

Not Present Independent

Not Present

(This IE is repeated for TFC number.)

### Addition

Number of bits used must be enough to cover all combinations of CTFC from clause 6.10. Refer to clause 6.10 Parameter Set

Signalled Gain Factor

0

Not Present

0dB

SameAsUL

0.00

Not Present

SameAsUL

(This IE is needed for 12.2 kbps and 10.2 kbps)

SameAsUL

4

0.00

Not Present

If TrCH reconfiguration is executed then this is needed( e.g The rate of SRB for DCCH is changed.).

Independent

(This IE is repeated for TFI number)

Reference to clause 6.10 Parameter Set

```
- DCH quality target
     - BLER Quality value
                                                        0.00
                                                        Not Present
    - Transparent mode signalling info
Frequency info
    - UARFCN uplink(Nu)
                                                        Reference to clause 6.10 Parameter Set
    - UARFCN downlink(Nd)
                                                        Reference to clause 6.10 Parameter Set
Maximum allowed UL TX power
                                                        33dBm
Uplink DPCH info
    - Uplink DPCH power control info- DPCCH power offset
                                                        -6dB
     - PC Preamble
                                                        15 slots
     - Power Control Algorithm
                                                        Algorithm1
     - TPC step size
                                                        1dB
    - Scrambling code type
                                                        Long
    - Scrambling code number
                                                        0 (0 to 16777215)
    - Number of DPDCH
                                                        Not Present(1)
     - spreading factor
                                                        SF is reference to clause 6.10 Parameter Set
    - TFCI existence
                                                        TRUE
    - Number of FBI bit
                                                        Not Present(0)
    - Puncturing Limit
                                                        Reference to clause 6.10 Parameter Set
     - Downlink PDSCH information
                                                        Not Present
Downlink information common for all radio links
    - Downlink DPCH info common for all RL
                                                        FDD
     - Downlink DPCH power control information
     - DPC mode
                                                        0 (single)
      DL rate matching restriction information
     - Spreading factor
                                                        Reference to clause 6.10 Parameter Set
     - Fixed or Flexible Position
                                                        Fixed
     - TFCI existence
                                                        FALSE
     - Number of bits for Pilot bits(SF=128,256)
                                                        4 bits
    - DPCH compressed mode info
     -TGPSI
      -TGPS Status Flag
                                                        Inactive
      - Transmission gap pattern sequence
       configuration parameters
      - TGMP
                                                        FDD Measurement
     - TGPRC
     - TGCFN
                                                        (Current CFN + (256 - TTI/10msec)) mod 256
     - TGSN
                                                        10
      - TGL1
      - TGL2
                                                        5
     - TGD
                                                        15
      - TGPL1
                                                        35
     - TGPL2
                                                        35
     - RPP
                                                        Mode 1
     - ITP
                                                        Mode 1
     - UL/DL Mode
                                                        DΙ
     - Downlink compressed mode method
                                                        SF/2
                                                        Not Present
     - Uplink compressed mode method
     - Downlink frame type
     - DeltaSIR1
                                                        2.0
     - DeltaSIRafter1
                                                        1.0
     - DeltaSIR2
                                                        Not Present
     - DeltaSIRafter2
                                                        Not Present
    - TX Diversity mode
                                                        None
```

Not Present

- SSDT information

- Code Word Set

Default DPCH Offset Value

- S field

# Downlink PDSCH information CPCH SET info

Downlink information for each radio links

- Primary CPICH info
- Primary scrambling code
- PDSCH with SHO DCH info
- DSCH radio link identifier
- TFCI Combining set
- Radio link identifier
- Primary CPICH info
- Primary scrambling code
- PDSCH code mapping
- Downlink DPCH info for each RL
- Primary CPICH usage for channel estimation
- DPCH frame offset
- Secondary CPICH info
- Secondary scrambling code
- channelisation code
- DL channelisation code
- Secondary scrambling code
- Spreading factor
- Code number
- Scrambling code change
- TPC combination index
- SSDT Cell Identity
- Closed loop timing adjustment mode
- Secondary CCPCH info
- Selection Indicator
- Primary CPICH usage for channel estimation
- Secondary CPICH info
- Secondary scrambling code
- channelisation code
- Secondary scrambling code
- SSDT Indicator
- Spreading factor
- Code number
- Pilot symbol existence
- TFCI existence
- Fixed or Flexible Position
- Timing offset
- TFCS
- FACH/PCH information
- TFS
- Dynamic Transport format information
- Number of Transport blocks
- RLC Size
- Semi-static Transport Format information
- Transmission time interval
- Type of channel coding
- Coding Rate
- Rate matching attribute
- CRC size
- TFS
- Dynamic Transport format information
- Number of Transport blocks
- RLC Size
- Semi-static Transport Format information
- Transmission time interval
- Type of channel coding
- Coding Rate
- Rate matching attribute
- CRC size

Not Present Not Present

100

Not Present

Not Present

Primary CPICH may be used

0 chips

Not Present

1

Reference to clause 6.10 Parameter Set

SF-1(SF is reference to clause 6.10 Parameter Set )

No change

0

-a

Not Present

Not Present

Not Present Not Present

- References to system information blocks	Not Present
Cabadulia a infama atian	

# Contents of RADIO BEARER SETUP COMPLETE message: AM

Message Type	
Hyper frame numberSTART	Not checked
Radio bearer uplink ciphering activation time info	SS must follow this IE to cipher on the each RB
Other information element	Not checked

Information Element	Value/remark
Message Type	raido, i orium
Integrity check info	Not Present
- message authentication code	
- RRC message sequence number	
Integrity protection mode info	Not Present
- Integrity protection mode command	
<ul> <li>Downlink integrity protection activation info</li> </ul>	
- RRC message sequence number	
- RRC message sequence number	
- Integrity protection algorithm	
- Integrity protection initialisation number	
Ciphering mode info	Not Present( If ciphering is applied, this IE is needed)
- Ciphering mode command	Stop
- Ciphering algorithm	Not Present(Standard UMTS Encryption Algorithm UEA1)
<ul> <li>Activation time for DPCH</li> <li>Radio bearer downlink ciphering activation time</li> </ul>	Not Present(Used RLC-TM)  Not Present(Used RLC-AM or RLC-UM)
info	INOUT LESCHILLOSED INTO-AIN OF KEC-OIN)
- Radio bearer identity	
- RLC sequence number	
Activation time	(256+CFN-(CFN MOD 8 + 8 ))MOD 256
New U-RNTI	Not Present
New C-RNTI	Not Present
DRX indicator	noDRX
UTRAN DRX cycle length coefficient	Not Present
CN information info	Not Present
- PLMN identity	
- CN common GSM-MAP NAS system information	
- CN domain identity	
- CN domain specific GSM-MAP NAS system	
information	Not Present
URA identity RAB information to reconfigure list	Not Present Not Present
RB information to release	INOUT LESCHE
- RB identity	5
RB information to release	
- RB identity	6
RB information to release	
- RB identity	7
RB information to be affected	(UM DCCH for RRC)
- RB identity	1
- RB mapping info	
- Information for each multiplexing option	
- Number of RLC logical channels	1
- Uplink transport channel type	DCH
Transport channel identity     Logical channel identity	1
- MAC logical channel priority	1
- Logical channel max loss	
- Number of RLC logical channels	1
- Downlink transport channel type	DCH
- Transport channel identity	1
- Logical channel identity	1
RB information to be affected	(AM DCCH for RRC)
- RB identity	2
- RB mapping info	
<ul> <li>Information for each multiplexing option</li> </ul>	
- Number of RLC logical channels	1
- Uplink transport channel type	DCH
- Transport channel identity	1

```
- Logical channel identity
                                                         2
      - MAC logical channel priority
                                                         0
      - Logical channel max loss
      - Number of RLC logical channels
                                                         1
                                                         DCH
      - Downlink transport channel type
      - Transport channel identity
                                                         1
       - Logical channel identity
RB information to be affected
                                                         (AM DCCH for NAS_DT High priority)
     - RB identity
     - RB mapping info
     - Information for each multiplexing option
      - Number of RLC logical channels
      - Uplink transport channel type
                                                         DCH
      - Transport channel identity
                                                         1
      - Logical channel identity
                                                         3
      - MAC logical channel priority
                                                         3
                                                         0
      - Logical channel max loss
      - Number of RLC logical channels
                                                          1
      - Downlink transport channel type
                                                         DCH
      - Transport channel identity
      - Logical channel identity
RB information to be affected
                                                         (AM DCCH for NAS_DT Low priority)
     - RB identity
     - RB mapping info
     - Information for each multiplexing option
      - Number of RLC logical channels
      - Uplink transport channel type
                                                         DCH
      - Transport channel identity
                                                         1
       - Logical channel identity
                                                         4
      - MAC logical channel priority
                                                         4
      - Logical channel max loss
                                                         0
      - Number of RLC logical channels
                                                         1
      - Downlink transport channel type
                                                         DCH
      - Transport channel identity
                                                         1
       - Logical channel identity
                                                         4
UL Transport channel information for all transport
channels
     - TFC subset
                                                          (This IE is repeated for TFC number.)
                                                         0 to MaxTFCValue-1 (MaxTFCValue is refer to clause
     - Allowed Transport Format combination
                                                         6.10 Parameter Set.)
     PRACH TFCS
                                                         Not Present
      CHOICE Mo
                                                         (This IE is repeated for TFC number.)
     - UL DCH TFCS
     - Normal
      - TFCI Field 1 information
      - CHOICE TFCS representation
                                                         Addition
       - TFCS addition information
        - CHOICE CTFC Size
                                                         Number of bits used must be enough to cover all
                                                         combinations of CTFC from clause 6.10.
        - CTFC information
                                                         Refer to clause 6.10 Parameter Set
        - Power offset information
         - CHOICE Gain Factors
                                                         Signalled Gain Factors
         - Gain factor Bc
         - Gain factor ßd
                                                         Not Present
         - Reference TFC ID
         - Power offset Pp-m
                                                         0dB
Deleted UL TrCH Information
    - Transport channel identity
                                                         2
Deleted UL TrCH Information
     - Transport channel identity
                                                         3
Deleted UL TrCH Information
     - Transport channel identity
                                                         4
```

Added or Reconfigured UL TrCH information

- Transport channel identity
- TFS
- Dynamic Transport format information
- Number of Transport blocks
- RLC size
- Semi-static Transport Format information
- Transmission time interval
- Type of channel coding
- Coding Rate
- Rate matching attribute
- CRC size

**CPCH** set ID

DRAC static information

- Transmission Time Validity
- Time duration before retry
- DRAC Class Identity

DL Transport channel information common for all transport channel

- SCCPCH TFCS
- CHOICE DL parameters
- DL DCH TFCS
- Normal
- TFCI Field 1 information
- CHOICE TFCS representation
- TFCS addition information
- CHOICE CTFC Size
- CTFC information
- Power offset information
- CHOICE Gain Factors
- Gain factor ßc
- Gain factor ßd
- Reference TFC ID
- Power offset Pp-m

Deleted DL TrCH Information

- Transport channel identity
- Deleted DL TrCH Information
  - Transport channel identity

Deleted DL TrCH Information

- Transport channel identity

Added or Reconfigured DL TrCH information

- Transport channel identity
- CHOICE DL parameters
- UL TrCH Identity
- DCH quality target
- BLER Quality value
- Transparent mode signalling info

Frequency info

- UARFCN uplink(Nu)
- UARFCN downlink(Nd)

Maximum allowed UL TX power

Uplink DPCH info

- Uplink DPCH power control info
- DPCCH power offset
- PC Preamble
- Power Control Algorithm
- TPC step size
- Scrambling code type
- Scrambling code number

If TrCH reconfiguration is executed then this is needed( e.g The rate of SRB for DCCH is changed.).

1

(This IE is repeated for TFI number)
Reference to clause 6.10 Parameter Set
Reference to clause 6.10 Parameter Set

Reference to clause 6.10 Parameter Set Reference to clause 6.10 Parameter Set Reference to clause 6.10 Parameter Set Reference to clause 6.10 Parameter Set Reference to clause 6.10 Parameter Set Not Present Not Preaent

Not Present Independent

(This IE is repeated for TFC number.)

#### Addition

Number of bits used must be enough to cover all combinations of CTFC from clause 6.10. Refer to clause 6.10 Parameter Set

Signalled Gain Factor

0

Not Present

0dB

2

3

4

If TrCH reconfiguration is executed then this is needed( e.g The rate of SRB for DCCH is changed.).

1 SameAsUL

1

0.00

Not Present

Reference to clause 6.10 Parameter Set Reference to clause 6.10 Parameter Set 33dBm

-6dB 15 slots Algorithm1 1dB

0 ( 0 to 16777215)

I	- Number of DPDCH	Not Present(1)
	- spreading factor	SF is reference to clause 6.10 Parameter Set
	- TFCI existence	TRUE
	- Number of FBI bit	Not Present(0)
		Reference to clause 6.10 Parameter Set
ıl	- Puncturing Limit	FDD
Ш	CHOICE Mode - Downlink PDSCH information	Not Present
١١	Downlink information common for all radio links	Not Fresent
ı١	- Downlink DPCH info common for all RL	EDD
Ц	- CHOICE mode	FDD
	- Downlink DPCH power control information	0 (- 1
	- DPC mode	0 (single)
Ц	- DL rate matching restriction information	Not Present
	- Spreading factor	Reference to clause 6.10 Parameter Set
	- Fixed or Flexible Position	N/A
	- TFCI existence	FALSE
.	- Number of bits for Pilot bits(SF=128,256)	Reference to clause 6.10 Parameter Set
Ц	Downlink DPCH Offset Value	0
	- DPCH compressed mode info	
	-TGPSI	1
	-TGPS Status Flag	Inactive
	<ul> <li>Transmission gap pattern sequence</li> </ul>	
	configuration parameters	
	- TGMP	FDD Measurement
	- TGPRC	62
	- TGCFN	(Current CFN + (256 – TTI/10msec)) mod 256
	- TGSN	8
	- TGL1	10
	- TGL2	5
	- TGD	15
	- TGPL1	35
	- TGPL2	35
	- RPP	Mode 1
	- ITP	Mode 1
	- UL/DL Mode	DL
	<ul> <li>Downlink compressed mode method</li> </ul>	SF/2
	- Uplink compressed mode method	Not Present
	- Downlink frame type	A
	- DeltaSIR1	2.0
	- DeltaSIRafter1	1.0
	- DeltaSIR2	Not Present
	- DeltaSIRafter2	Not Present
	- TX Diversity mode	None
	- SSDT information	Not Present
	- S field	
١	- Code Word Set	
Ш	- Default DPCH Offset Value	$\frac{0}{N}$
	Downlink PDSCH information	Not Present
	CPCH SET info	Not Present
	Downlink information for each radio links	
	- Primary CPICH info	100
	- Primary scrambling code	100
	- PDSCH with SHO DCH info	Not Present
	- DSCH radio link identifier	
	- TFCI Combining set	
	- Radio link identifier	
	- Primary CPICH info	
	- Primary scrambling code	
	- PDSCH code mapping	Not Present
	- Downlink DPCH info for each RL	D: ODIOU
	- Primary CPICH usage for channel estimation	Primary CPICH may be used
	- DPCH frame offset	0 chips

- Secondary CPICH info Not Present - Secondary scrambling code - channelisation code - DL channelisation code - Secondary scrambling code - Spreading factor Reference to clause 6.10 Parameter Set - Code number SF-1(SF is reference to clause 6.10 Parameter Set ) - Scrambling code change No change - TPC combination index - SSDT Cell Identity -a - Closed loop timing adjustment mode Not Present - Secondary CCPCH info Not Present - Selection Indicator - Primary CPICH usage for channel estimation - Secondary CPICH info - Secondary scrambling code - channelisation code - Secondary scrambling code - SSDT Indicator - Spreading factor - Code number - Pilot symbol existence - TFCI existence - Fixed or Flexible Position - Timing offset - TFCS Not Present - FACH/PCH information Not Present - Dynamic Transport format information - Number of Transport blocks - RLC Size - Semi-static Transport Format information - Transmission time interval - Type of channel coding - Coding Rate - Rate matching attribute - CRC size - TFS - Dynamic Transport format information - Number of Transport blocks - RLC Size - Semi-static Transport Format information - Transmission time interval - Type of channel coding - Coding Rate - Rate matching attribute - CRC size - References to system information blocks Not Present - Scheduling information

#### Contents of RADIO BEARER RELEASE COMPLETE message: AM

Message Type	
Other information element	Not checked

# Contents of RRC CONNECTION REQUEST message: TM

Information Element	Value/remark
Message Type	
Initial UE identity	To be checked against requirement if specified
Establishment cause	To be checked against requirement if specified
Protocol error indicator	FALSE
Measured results on RACH	Not checked

# Contents of RRC CONNECTION RELEASE message: UM

Information Element	Value/remark
Message Type	T
Initial UE identity Number of RRC Message Transmissions	To be checked against requirement if specified 2 (for CELL_DCH state). Not Present for UE in other
Trumber of fixe wessage transmissions	connected mode states.
Release cause	Normal

# Contents of RRC CONNECTION RELEASE COMPLETE message: AM or UM

Information Element	Semantics description
Message Type	
<u>U-RNTI</u>	If this message is sent on DCCH, this IE should be
	absent. If this message is sent on DCCH, this IE shall
	contain the U-RNTI value assigned.
Integrity check info	Not checked.
Error indication	Not checked

Information Element     Value/remark       Message Type     Initial UE identity       Activation time     (256+CFN-(CFN MOD 8 + 8))MOD 256       New U-RNTI     0000 0000 0000 0000 0000 0000 0000 00
Initial UE identity Activation time New U-RNTI - SRNC identity - S-RNTI New C-RNTI UTRAN DRX cycle length coefficient Capability update requirement - UE radio access capability update requirement - System specific capability update requirement Signalling RB information to setup - RB identity - CHOICE RLC info type - RLC info - CHOICE Uplink RLC mode - Transmission RLC discard - SDU discard mode - MAX_DAT - Timer_MRW - MaxMRW - CHOICE Downlink RLC mode - RB mapping info  Reference to clause 6.10 Parameter Set (256+CFN-(CFN MOD 8 + 8 ))MOD 256  0000 0000 0000 0000 0001B 0000 0000 00
Activation time New U-RNTI - SRNC identity - S-RNTI New C-RNTI UTRAN DRX cycle length coefficient Capability update requirement - UE radio access capability update requirement - System specific capability update requirement Signalling RB information to setup - RB identity - CHOICE RLC info type - RLC info - CHOICE Uplink RLC mode - Transmission RLC discard - SDU discard mode - MAX_DAT - Timer_MRW - MaxMRW - CHOICE Downlink RLC mode - RB mapping info  (256+CFN-(CFN MOD 8 + 8 ))MOD 256  0000 0000 0000 0000 0001B 0000 0000 00
New U-RNTI - SRNC identity - S-RNTI New C-RNTI UTRAN DRX cycle length coefficient Capability update requirement - UE radio access capability update requirement - System specific capability update requirement Signalling RB information to setup - RB identity - CHOICE RLC info type - RLC info - CHOICE Uplink RLC mode - Transmission RLC discard - SDU discard mode - MAX_DAT - Timer_MRW - MaxMRW - CHOICE Downlink RLC mode - RB mapping info
- SRNC identity - S-RNTI New C-RNTI UTRAN DRX cycle length coefficient Capability update requirement - UE radio access capability update requirement - System specific capability update requirement Signalling RB information to setup - RB identity - CHOICE RLC info - CHOICE Uplink RLC mode - Transmission RLC discard - SDU discard mode - MAX_DAT - Timer_MRW - MaxMRW - CHOICE Downlink RLC mode - RB mapping info  - SRNC identity - 0000 0000 0000 0000 0001B - 0000 0000 0000 0000 0001B - 0000 0000 0000 0000 0001B - 0000 0000 0000 0000 0000 0001B - 0000 0000 0000 0000 0000 0000 0001B - 0000 0000 0000 0000 0000 0000 0001B - 0000 0000 0000 0000 0000 0000 0000 0
- S-RNTI New C-RNTI UTRAN DRX cycle length coefficient Capability update requirement - UE radio access capability update requirement - System specific capability update requirement Signalling RB information to setup - RB identity - CHOICE RLC info type - RLC info - CHOICE Uplink RLC mode - Transmission RLC discard - SDU discard mode - MAX_DAT - Timer_MRW - MaxMRW - CHOICE Downlink RLC mode - RB mapping info  O000 0000 0000 0000 0000 0001B  5 ( 2 to 12 )  FALSE Not Present (UM DCCH for RRC)  1  WM RLC  FALSE Not Present (UM DCCH for RRC)  1  WM RLC  FALSE Not Present (UM DCCH for RRC)  1  UM RLC
New C-RNTI UTRAN DRX cycle length coefficient Capability update requirement - UE radio access capability update requirement - System specific capability update requirement Signalling RB information to setup - RB identity - CHOICE RLC info type - RLC info - CHOICE Uplink RLC mode - Transmission RLC discard - SDU discard mode - MAX_DAT - Timer_MRW - MaxMRW - CHOICE Downlink RLC mode - RB mapping info  0000 0000 0000 0000 0001B  5 ( 2 to 12 )  FALSE Not Present (UM DCCH for RRC)  1  WARLC   HALS  Not Present (UM DCCH for RRC)  1  WARLC   FALSE Not Present (UM DCCH for RRC)  1  UM RLC
UTRAN DRX cycle length coefficient Capability update requirement - UE radio access capability update requirement - System specific capability update requirement Signalling RB information to setup - RB identity - CHOICE RLC info type - RLC info - CHOICE Uplink RLC mode - Transmission RLC discard - SDU discard mode - MAX_DAT - Timer_MRW - CHOICE Downlink RLC mode - RB mapping info  5 ( 2 to 12 )  FALSE Not Present (UM DCCH for RRC)  1  WM RLC  HAX_D T  1  1  1  1  1  1  1  1  1  1  1  1  1
Capability update requirement  - UE radio access capability update requirement  - System specific capability update requirement  Signalling RB information to setup  - RB identity  - CHOICE RLC info type  - RLC info  - CHOICE Uplink RLC mode  - Transmission RLC discard  - SDU discard mode  - MAX_DAT  - Timer_MRW  - MaxMRW  - CHOICE Downlink RLC mode  - RB mapping info  - UM RLC  - WA DAT retransmissions  4  100  4  UM RLC
- UĒ radio access capability update requirement - System specific capability update requirement Signalling RB information to setup - RB identity - CHOICE RLC info type - RLC info - CHOICE Uplink RLC mode - Transmission RLC discard - SDU discard mode - MAX_DAT - Timer_MRW - CHOICE Downlink RLC mode - RB mapping info
- System specific capability update requirement Signalling RB information to setup  - RB identity - CHOICE RLC info type - RLC info - CHOICE Uplink RLC mode - Transmission RLC discard - SDU discard mode - MAX_DAT - Timer_MRW - MaxMRW - CHOICE Downlink RLC mode - RB mapping info
Signalling RB information to setup  - RB identity - CHOICE RLC info type - RLC info - CHOICE Uplink RLC mode - Transmission RLC discard - SDU discard mode - MAX_DAT - Timer_MRW - MaxMRW - CHOICE Downlink RLC mode - RB mapping info  (UM DCCH for RRC)  1  MAX_DAT  WM RLC   UM RLC   UM RLC   Max DAT retransmissions  4  100  4  UM RLC
- RB identity - CHOICE RLC info type - RLC info - CHOICE Uplink RLC mode - Transmission RLC discard - SDU discard mode - MAX_DAT - Timer_MRW - MaxMRW - CHOICE Downlink RLC mode - RB mapping info
- CHOICE ŘLC info type - RLC info - CHOICE Uplink RLC mode - Transmission RLC discard - SDU discard mode - MAX_DAT - Timer_MRW - MaxMRW - CHOICE Downlink RLC mode - RB mapping info  - UM RLC  - WAX DAT retransmissions 4 100 4 UM RLC
- RLC info - CHOICE Uplink RLC mode - Transmission RLC discard - SDU discard mode - MAX_DAT - Timer_MRW - MaxMRW - CHOICE Downlink RLC mode - RB mapping info - UM RLC
- CHOICE Uplink RLC mode - Transmission RLC discard - SDU discard mode - MAX_DAT - Timer_MRW - MaxMRW - CHOICE Downlink RLC mode - RB mapping info  UM RLC  Max DAT retransmissions 4 100 4 UM RLC
- Transmission RLC discard - SDU discard mode - MAX_DAT - Timer_MRW - CHOICE Downlink RLC mode - RB mapping info  Max DAT retransmissions 4 100 4 UM RLC
- SDU discard mode - MAX_DAT - Timer_MRW - MaxMRW - CHOICE Downlink RLC mode - RB mapping info  Max DAT retransmissions 4 100 4 UM RLC
- MAX_DAT - Timer_MRW - MaxMRW - CHOICE Downlink RLC mode - RB mapping info
- Timer_MRW - MaxMRW - CHOICE Downlink RLC mode - RB mapping info
- MaxMRW - CHOICE Downlink RLC mode - RB mapping info
- CHOICE Downlink RLC mode - RB mapping info
- RB mapping info
- Number of RLC logical channels 1
- Uplink transport channel type DCH
- Transport channel identity 1
- Logical channel identity 1
- MAC logical channel priority 1 - Logical channel max loss 0
- Logical channel max loss 0 - Number of RLC logical channels 1
- Number of REC logical charmers  - Downlink transport channel type  DCH
- Downlink transport channel type
- Transport Channel Identity - Logical channel identity  1
Signalling RB information to setup (AM DCCH for RRC)
- RB identity 2
- CHOICE RLC info type
- RLC info
- CHOICE Uplink RLC mode AM RLC
- Transmission RLC discard
- SDU discard mode Max DAT retransmissions
- MAX_DAT 4
- Timer_MRW 100
- MaxMRW 4
- Transmission window size 8
- Receiving window size 8
- Timer_RST 500
- Max_RST 4
- Polling info
- Timer_poll_prohibit 200
- Timer_poll 200
- Poll_SDU 1
- Last transmission PU poll TRUE
- Last retransmission PU poll TRUE
- Poll_Windows 99
- CHOICE Downlink RLC mode AM RLC
- In-sequence delivery TRUE
- Receiving window size 8
- Downlink RLC status info

- Timer_Status_prohibit - Timer_EPC - Missing PU indicator - RB mapping info - Information for each multiplexing option - Number of RLC logical channels - Uplink transport channel type - Transport channel identity - Logical channel max loss - Number of RLC logical channels - Downlink transport channel type - Transport channel dentity - Logical channel max loss - Number of RLC logical channels - Downlink transport channel type - Transport channel dentity - Logical channel dentity - Logical channel dentity - RB identity - CHOICE Uplink RLC mode - MAX_DAT - Timer_MRW - MaxMRW - MaxMRW - MaxMRW - MaxMRW - Transmission window size - Receiving window size - Receiving window size - Poling info - Timer_poll - Poll_SDU - Last retransmission PU poll - Poll_Windows - CHOICE Downlink RLC mode - In-sequence delivery - Receiving window size - Downlink RLC status info - Timer_per of RLC logical channels - Uplink transport channel type - Transport channel dentity - Logical channel dentity - Receiving window size - Downlink transport channel bype - Transport channel dentity - Logical channel dentity - Logical channel dentity - Receiving window size - Downlink transport channel bype - Transport channel dentity - Logical channel dentity - Logica			
- Timer_EPC - Missing PU Indicator - RB mapping info - Information for each multiplexing option - Number of RLC logical channels - Uplink transport channel type - Transport channel identity - Logical channel entity - Logical channel multiplexing - Logical channel priority - Logical channel multiplexing - Number of RLC logical channels - Downlink transport channels - Downlink transport channels - Downlink transport channel type - Transport channel identity - Logical channel identity - Logical channel identity - RB identity - Timer_MRW - MaxMRW - Transmission window size - Receiving window size - Receiving window size - Receiving window size - Receiving windows - HMAX_STS - Polling info - Timer_poll prohibit - Timer_poll prohibit - Timer_poll poll - Last transmission PU poll - Filmer_poll - Poll_Windows - CHOICE Downlink RLC mode - Information for each multiplexing option - Number of RLC logical channels - Uplink transport channel byce - Transport channel identity - Logical channel identity - RB identity - CHOICE RLC info type - RLC info - CHOICE Uplink RLC mode - Transposion RLC discard	I	- Timer_status_prohibit	200
- Missing PU Indicator - RB mapping info - Information for each multiplexing option - Number of RLC logical channels - Uplink transport channel type - Transport channel identity - Logical channel max loss - Number of RLC logical channels - Downlink transport channel type - Transport channel dentity - Logical channel max loss - Number of RLC logical channels - Downlink transport channel type - Transport channel dentity - Logical channel dentity - Logical channel dentity - Logical channel dentity - Logical channel sosup - RLC info - CHOICE Uplink RLC mode - Transmission RLC discard - SDU discard mode - MAX_DAT - Time_ MRW - MaxMRW - Transmission RLC discard - SDU discard mode - MAX_DAT - Time_ MRW - Transmission mytion size - Receiving window size - Receiving window size - Receiving window size - Receiving window size - Polling info - CHOICE Downlink RLC mode - Information for each multiplexing option - Number of RLC logical channel spop - Logical channel dentity - Receiving window size - Downlink RLC status info - Uplink transport channel type - Transport channel dentity - Logical channel dentity - Logical channel dentity - Logical channel dentity - Logical channel dentity - RB dentity - CHOICE RLC linfo type - RLC info - CHOICE RLC linfo type - RLC info - CHOICE Uplink RLC mode - Transmission RLC discard - Tanspost channel dentity - RB dentity - CHOICE RLC linfo type - RLC info - CHOICE Uplink RLC mode - Transpost channel dentity - CHOICE RLC linfo type - Transpost channel dentity - CHOICE RLC linfo type - Transpost channel dentity - CHOICE RLC linfo type - Transpost channel dentity - CHOICE Uplink RLC mode - Transmission RLC discard			
RB mapping info Information for each multiplexing option Number of RLC logical channels Uplink transport channel type Transport channel type Logical channel dentity Logical channel max loss Number of RLC logical channels Downlink transport channel type Transport channel priority Logical channel max loss Number of RLC logical channels Downlink transport channel type Transport channel type Transport channel type Transport channel type RB identity CHOICE Icl info type RB identity CHOICE FLC info type RLC info CHOICE Uplink RLC mode Transmission RLC discard SDU discard mode MAX_DAT Timer_MRW Transmission window size Receiving window s			
Information for each multiplexing option Number of RLC logical channels - Uplink transport channel type - Transport channel identity - Logical channel identity - Logical channel identity - Logical channel max loss - Number of RLC logical channels - Downlink transport channel lype - Transport channel identity - Logical channel identity - Logical channel identity - Logical channel identity - Logical channel identity - Residentity - CHOICE RUC info type - RLC Info - CHOICE Uplink RLC mode - Transmission RLC discard - SDU discard mode - NMX_DAT - Timer_MRW - MaxMRW - Transmission RLC discard - SDU discard mode - Timer_Poll_prohibit - Timer_poll_prohibit - Timer_poll_prohibit - Timer_poll_prohibit - Timer_poll_prohibit - Last transmission PU poll - Informant RLC mode - In-sequence delivery - Receiving window size - Downlink RLC status Info - Timer_poll_prohibit - Timer_poll_prohibit - Timer_poll call channel identity - Logical channel identity - Rediction to setup - Residual profice identity - Logical channel identity - Logical channel identity - Rediction to setup - Rediction to s			
- Number of RLC logical channels — Uplink transport channel lyce — Transport channel identity — Logical channel identity — Logical channel identity — Logical channel priority — Logical channel priority — Logical channel priority — Logical channel priority — Logical channel identity — Logical channel identity — Logical channel identity — RB identity —		<ul> <li>Information for each multiplexing option</li> </ul>	
- Transport channel identity - Logical channel lednity - Logical channel priority - Logical channel priority - Logical channel priority - Logical channel priority - Downlink transport channel type - Transport channel lednity - Logical channel identity - Logical channel identity - RB identity - RB identity - CHOICE RLC info type - RLC info - CHOICE Uplink RLC mode - Transmission RLC discard - SDU discard mode - MAX_DAT - Timer_MRW - MaxMRW - Transmission window size - Receiving window size - Timer_RST - Politing info - Timer_poll - Poll_SDU - Last transmission PU poll - Poll_SDU - Last transmission PU poll - Poll_Windows - CHOICE Downlink RLC mode - In-sequence delivery - Receiving window size - Downlink RLC status info - Imer_status_prohibit - Timer_status_prohibit - Timer_status_prohibi		- Number of RLC logical channels	
- Logical channel priority - MAC logical channel max loss - Number of RLC logical channels - Downlink transport channel type - Transport channel identity - Logical channel identity - Logical channel identity - RB identity - RB identity - RB identity - RC loft of the status info - Imer_status_prohibit - Timer_status_prohibit - Reserved identity - Pollic Euplinic RLC mode - MAX_DAT - Timer_mRRW - MaxMrRW - MaxMrBW - Transmission window size - Receiving window size - Polling info - Timer_poll_prohibit - Last retransmission PU poll - Last retransmission PU poll - Poll_SDU - Receiving window size - Downlink RLC status info - Timer_status_prohibit - Ti			DCH
- MĀC logical channel priority - Logical channel max loss - Number of RLC logical channels - Downlink transport channel type - Transport channel identity - Logical channel identity - Logical channel identity - RB identity - RB identity - RB identity - CHOICE RLC info type - RLC info - CHOICE Uplink RLC mode - Transmission RLC discard - SDU discard mode - MAX_DAT - Timer_MRW - MaxMRW - Transmission window size - Reselving-window-size - Timer_RST - Max_RST - Poiling info - Timer_poil_ prohibit - Timer_poil_ prohibit - Last transmission PU poil - Poil_SDU - Last transmission PU poil - Poil_Windows - CHOICE Downlink RLC mode - Insequence delivery - Receiving window size - Downlink RLC status info - Timer_status_prohibit - Timer_EPC - Missing PU indicator - RB mapping info - Information for each multiplexing option - Number of RLC logical channels - Uplink transport channel type - Transmission RLC discard			1
- Logical channel max loss - Number of RLC logical channels - Downlink transport channel type - Transport channel dentity - Logical channel identity - RB identity - Transmission RL discard - SDU discard mode - MAX_DAT - Timer_MRW - MaxMRW - Transmission window size - Timer_RST - Polling info - Timer_poll - Poll_SDU - Last transmission PU poll - Last retransmission PU poll - Poll_SDU - Last transmission PU poll - Poll_SDU - Last transmission PU poll - Poll_Windows - Receiving window size - Downlink RLC mode - In-sequence delivery - Receiving window size - Downlink RLC status info - Timer_status_prohibit - Timer_status_prohi			
- Number of RLC logical channels - Downlink transport channel type - Transport channel identity - Logical channel identity - Logical channel identity - RB identity - Logical channel identity - RB identity - Logical channel identity - RB identity - RB identity - RB identity - RB identity - Logical Channel - Transmission RL discard - AM RLC			
- Downlink transport channel type - Transport channel identity - Logical channel identity - RB identity - RB identity - RB identity - RC Icl for type - RLC Info - RC ICL Info - CHOICE Uplink RLC mode - Transmission RLC discard - SDU discard mode - MAX_DAT - Timer_MRW - MaxMRW - Transmission window size - Receiving window size - Receiving window size - Receiving window size - Polling info - Timer_poll - Poll_SDU - Last retransmission PU poll - Poll_Windows - CHOICE Downlink RLC mode - In-sequence delivery - Receiving window size - Downlink RLC status info - Timer_status_prohibit - Timer_status_prohib			
Transport channel identity Logical channel identity Signalling RB information to setup RB identity RB identity RB identity RB identity RB identity RB identity AM DCCH for NAS_DT High priority) RB identity RB identity AM DCCH for NAS_DT High priority)  AM RLC  Transmission RLC discard  SDU discard mode AM RLC  Timer_MRW AMAMRW AMARW Transmission window size Receiving window size Receiving window size Receiving window size RD Imer_RST AMA_RST A			
- Logical channel identity - RB identity - RB identity - CHOICE RLC info type - RLC info - CHOICE Uplink RLC mode - Transmission RLC discard - SDU discard mode - MAX_DAT - Timer_MRW - MaxMRW - MaxMRW - Transmission window size - Receiving window size - Timer_RST - Polling info - Timer_poll_prohibit - Iner_poll_prohibit - Last transmission PU poll - In-sequence delivery - Receiving window size - Poll_Windows - CHOICE Downlink RLC mode - In-sequence delivery - Receiving window size - Downlink RLC status info - Timer_spoll prohibit - Timer_spoll prohibit - Timer_spoll prohibit - Poll_Windows - CHOICE Downlink RLC mode - In-sequence delivery - Receiving window size - Downlink RLC status info - Timer_spoll channels - Uplink transport channel lype - Transport channel lype - Transport channel identity - Logical channel identity - RB identity - CHOICE RLC info type - RLC info - RB information to setup - RB identity - CHOICE RLC info type - RLC info - RB identity - CHOICE RLC info type - RLC info - RB identity - CHOICE RLC info type - RLC info - CHOICE RLC info type - RLC info - Transmission RLC discard			
Signalling RB information to setup   RB identity			
RB identity - C-HOICE RLC info type - RLC info - CHOICE Uplink RLC mode - Transmission RLC discard - SDU discard mode - MAX_DAT - Timer_MRW - MaxMRW - Transmission window size - Receiving window size - Polling info - Timer_poll_ prohibit - Timer_poll - Poll_ SDU - Last transmission PU poll - Last transmission PU poll - Last transmission PU poll - Poll_ Windows - CHOICE Downlink RLC mode - In-sequence delivery - Receiving window size - Downlink RLC status info - Timer_pel - Downlink RLC status info - Timer_status_prohibit - Timer_EPC - Missing PU indicator - RB mapping info - Information for each multiplexing option - Number of RLC logical channels - Uplink transport channel type - Transport channel identity - Logical channel identity - RB information to setup - RB information to setup - RB identity - CHOICE Uplink RLC mode - Transmission RLC discard  AM RLC - AM RLC - AM RLC - TRUE - BB RD			
- CHOICE RLC info type - RLC info - CHOICE Uplink RLC mode - Transmission RLC discard - SDU discard mode - MAX_DAT - Timer_MRW - MaxMRW - MaxMRW - MaxMRW - MaxMRST - Polling info - Timer_poll_prohibit - Timer_poll_prohibit - Last rearransmission PU poll - Last transmission PU poll - Poll_SDU - Last transmission PU poll - Last rearransmission PU poll - Poll_Windows - CHOICE Downlink RLC mode - In-sequence delivery - Receiving window size - Repeace window size - Repoll window size - Poll_windows - CHOICE Downlink RLC mode - In-sequence delivery - Receiving window size - Downlink RLC status info - Timer_status_prohibit - Timer_status_prohibit - Timer_status_prohibit - Logical channel dentity - Logical channel identity - Logical channel identity - Logical channel identity - Logical channel max loss - Number of RLC logical channels - Downlink transport channel type - Transport channel identity - Logical channel identity - RB information to setup - RB information to setup - RB identity - CHOICE RLC info type - RLC info - CHOICE Uplink RLC mode - Transmission RLC discard - MR RLC - AM RLC -			
- RLC info - C-HOICE Uplink RLC mode - Transmission RLC discard - SDU discard mode - MAX_DAT - Timer_MRW - MaxMRW - Transmission window size - Receiving window size - Timer_RST - Max_RST - Polling info - Timer_poll_prohibit - Timer_poll_prohibit - Timer_poll continue transmission PU poll - Poll_SDU - Last transmission PU poll - Last retransmission PU poll - Last retransmission PU poll - Poll_Windows - CHOICE Downlink RLC mode - In-sequence delivery - Receiving window size - Downlink RLC status info - Timer_spell - RB mapping info - Information for each multiplexing option - Number of RLC logical channels - Uplink transport channel identity - Logical channel identity - RB information to setup - RB information to setup - RB identity - CHOICE Uplink RLC mode - Transmission RLC discard - MR LC - AM RLC - AM RLC - MAR C - Max DAT retransmissions - Max DAT retransmissions - Max DAT retransmissions - Max DAT - AM RLC - Transmission value - 8 - 8 - 8 - 8 - 8 - 8 - 8 - 8 - 8 - 8			3
- CHOICE Uplink RLC mode - Transmission RLC discard - SDU discard mode - MAX_DAT - Timer_MRW - MaxMRW - MaxMRW - MaxMRW - Transmission window size - Receiving window size - Timer_RST - Polling info - Timer_poll_prohibit - Timer_poll_prohibit - Timer_poll_prohibit - Last transmission PU poll - Poll_SDU - Last transmission PU poll - Poll_Windows - CHOICE Downlink RLC mode - In-sequence delivery - Receiving window size - Downlink RLC status info - Timer_status_prohibit - Timer_status_			
- Transmission RLC discard - SDU discard mode - MAX_DAT - Timer_MRW - MaxMRW - Transmission window size - Receiving window size - Receiving window size - Timer_RST - Polling info - Timer_poll prohibit - Last transmission PU poll - Last tretransmission PU poll - Last tretransmission PU poll - Last tretransmission PU poll - Poll_Windows - CHOICE Downlink RLC mode - In-sequence delivery - Receiving window size - Downlink RLC status info - Timer_status_prohibit - Timer_status_prohibit - Timer_status_prohibit - Uplink transport channel synce - Transport channel identity - Logical channel identity - Transport channel of type - Transport channel of type - Transport channel identity - Logical channel identity - Logical channel identity - Logical channel identity - RB identity - RB identity - CHOICE RLC info type - RLC info - CHOICE Uplink RLC mode - Transmissions RLC discard  Max DAT retransmissions  4  Max DAT retransmissions  4  - Max DAT - Max PAS - A  4  - Tanspmstsion window size - 8  - Commission - Author Status info - TRUE - Transport channel identity - Logical channel identity - Logical channel identity - RB identity - CHOICE RLC info type - RLC info - CHOICE Uplink RLC mode - Transmissions on RLC discard  Max DAT retransmissions on - Max DAT - Author - A  4  - CHOICE Valians Author - A  A BLC - Transmission PLC discard  Max DAT - A  4  - 4  - Tanspmstsion of Author - A  - Tanspmstsion of Author - A  - Tanspmstsion of Author - A  - A  - A  - A  - A  - A  - A  - A			AM PLC
- SDU discard mode - MAX_DAT - Timer_MRW - MaxMRW - Transmission window size Receiving window size - Timer_RST - Polling info - Timer_poll prohibit - Timer_poll 200 - Poll_SDU 1 - Last transmission PU poll TRUE - Last transmission PU poll TRUE - Poll_Windows 99 - CHOICE Downlink RLC mode - In-sequence delivery TRUE - Receiving window size - Downlink RLC status info - Timer_stlus_prohibit 200 - Timer_stlus_prohibit 30 - Number of RLC logical channels - Uplink transport channel type - Transport channel identity 1 - Logical channel and identity 3 - Logical channel max loss 0 - Number of RLC logical channels 1 - Downlink transport channel type - Transport channel identity 1 - Logical channel identity 1 - RB identity 2 - CHOICE RLC info type - RLC info type - RLC info CHOICE Uplink RLC mode - Transmission RLC discard			AIVI ILLO
- MAX_DAT - Timer_MRW - MaxMRW - Transmission window size Receiving window size - Timer_RST - Polling info - Timer_poll_prohibit - Timer_poll_prohibit - Timer_poll			Max DAT retransmissions
- Timer_MRW - MaxMRW - Transmission window size - Receiving window size - Timer_RST - Polling info - Timer_poll_prohibit - Timer_poll - Poll_SDU - Last transmission PU poll - Last transmission PU poll - Last transmission PU poll - Poll_Windows - CHOICE Downlink RLC mode - In-sequence delivery - Receiving window size - Downlink RLC status info - Timer_status_prohibit - Timer_EPC - Missing PU indicator - RB mapping info - Information for each multiplexing option - Number of RLC logical channels - Uplink transport channel type - Transport channel identity - Logical channel max loss - Number of RLC logical channels - Downlink transport channel lype - Transport channel identity - Logical channel max loss - Number of RLC logical channels - Downlink transport channel lype - Transport channel identity - Logical channel max loss - Number of RLC logical channels - Downlink transport channel lype - Transport channel identity - Logical channel max loss - Number of RLC logical channels - Downlink transport channel lype - Transport channel identity - Logical channel identity - Logical channel max loss - Number of RLC logical channel type - Transport channel identity - Logical channel identity - Logical channel identity - Logical channel identity - RB identity - CHOICE RLC info type - RLC info - CHOICE Uplink RLC mode - Transmission RLC discard			
- MaxMRW - Transmission window size Receiving window size Receiving window size - Timer_RST - Polling info - Timer_poll_prohibit - Timer_poll			
- Transmission window size Receiving window size - Receiving window size - Timer_RST - Max_RST - Polling info - Timer_poll_prohibit - Timer_poll - Poll_SDU - Last transmission PU poll - Poll_Windows - Poll_Windows - CHOICE Downlink RLC mode - In-sequence delivery - Receiving window size - Downlink RLC status info - Timer_EPC - Missing PU indicator - RB mapping info - Information for each multiplexing option - Number of RLC logical channels - Uplink transport channel identity - Logical channel max loss - Number of RLC logical channels - Downlink transport channel type - Transport channel identity - Logical channel max loss - Number of RLC logical channels - Downlink transport channel type - Transport channel identity - Logical channel max loss - Number of RLC logical channels - Downlink transport channel type - Transport channel identity - Logical channel max loss - Number of RLC logical channels - Downlink transport channel type - Transport channel identity - Logical channel ide			
Receiving window size - Timer_RST - Max_RST - Polling info - Timer_poll_prohibit - Timer_poll - Poll_SDU - Last transmission PU poll - Last retransmission PU poll - Poll_Windows - CHOICE Downlink RLC mode - In-sequence delivery - Receiving window size - Downlink RLC status info - Timer_status_prohibit - Timer_status_prohibit - Timer_status_prohibit - Timer_EPC - Missing PU indicator - RB mapping info - Information for each multiplexing option - Number of RLC logical channels - Uplink transport channel type - Transport channel identity - Logical channel max loss - Number of RLC logical channels - Downlink RLC mode - Transport channel identity - Logical channel identity - Logical channel identity - Logical channel identity - Logical channel identity - CHOICE RLC info type - RLC info - CHOICE RLC info type - RLC info - CHOICE Uplink RLC mode - Transmission RLC discard  8 - 200 - TRUE - TRUE - AMR LC - TRUE - AMR LC - TRUE - DOWNINK RLC mode - Transpmission RLC discard - AMR RLC - AMR			
- Timer_RŠT - Max_RST - Polling info - Timer_poll_prohibit - Timer_poll - Poll_SDU - Last transmission PU poll - Last transmission PU poll - Poll_Windows - CHOICE Downlink RLC mode - In-sequence delivery - Receiving window size - Downlink RLC status info - Timer_status_prohibit - Timer_EPC - Missing PU indicator - RB mapping info - Information for each multiplexing option - Number of RLC logical channels - Uplink transport channel type - Transport channel max loss - Number of RLC logical channels - Logical channel max loss - Number of RLC logical channels - Downlink transport channel type - Transport channel max loss - Number of RLC logical channels - Downlink transport channel type - Transport channel identity - Logical channel max loss - Number of RLC logical channels - Downlink transport channel type - Transport channel identity - Logical channel identity - Logical channel identity - CHOICE RLC info type - RLC info - CHOICE Uplink RLC mode - Transmission RLC discard	Ц		
- Polling info - Timer_poll_prohibit - Timer_poll - Poll_SDU - Last transmission PU poll - Last transmission PU poll - Poll_Windows - CHOICE Downlink RLC mode - In-sequence delivery - Receiving window size - Downlink RLC status info - Timer_status_prohibit - Timer_status_prohibit - Information for each multiplexing option - Number of RLC logical channels - Uplink transport channel type - Transport channel identity - Logical channel max loss - Number of RLC logical channels - Downlink transport channel type - Transport channel identity - Logical channel max loss - Number of RLC logical channels - Downlink transport channel type - Transport channel identity - Logical channel max loss - Number of RLC logical channels - Downlink transport channel type - Transport channel identity - Transport channel identity - RB identity - RB identity - RB identity - CHOICE RLC info type - RLC info - CHOICE Uplink RLC mode - Transmission RLC discard			
- Timer_poll_prohibit - Timer_poll - Poll_SDU - Last transmission PU poll - Last retransmission PU poll - Last retransmission PU poll - CHOICE Downlink RLC mode - In-sequence delivery - Receiving window size - Downlink RLC status info - Timer_status_prohibit - Timer_EPC - Missing PU indicator - RB mapping info - Information for each multiplexing option - Number of RLC logical channels - Uplink transport channel type - Transport channel identity - Logical channel identity - Logical channel max loss - Number of RLC logical channels - Downlink transport channel type - Transport channel identity - Logical channel max loss - Number of RLC logical channels - Downlink transport channel type - Transport channel identity - Logical channel max loss - Number of RLC logical channels - Downlink transport channel type - Transport channel identity - Logical cha		- Max_RST	4
- Timer_poll - Poll_SDU - Last transmission PU poll - Last retransmission PU poll - Poll_Windows - CHOICE Downlink RLC mode - In-sequence delivery - Receiving window size - Downlink RLC status info - Timer_status_prohibit - Timer_EPC - Missing PU indicator - RB mapping info - Information for each multiplexing option - Number of RLC logical channels - Uplink transport channel type - Transport channel identity - Logical channel max loss - Number of RLC logical channels - Downlink transport channel type - Transport channel max loss - Number of RLC logical channels - Downlink transport channel type - Transport channel identity - Logical channel max loss - Number of RLC logical channels - Downlink transport channel type - Transport channel identity - Logical channel max loss - Number of RLC logical channels - Downlink transport channel type - Transport channel identity - Logical channel identity - Logical channel identity - Logical channel identity - Logical channel identity - CHOICE RLC info type - RLC info - CHOICE Uplink RLC mode - Transmission RLC discard			
- Poll_SDU - Last transmission PU poll - Last transmission PU poll - Poll_Windows - CHOICE Downlink RLC mode - In-sequence delivery - Receiving window size - Downlink RLC status info - Timer_status_prohibit - Timer_EPC - Missing PU indicator - RB mapping info - Information for each multiplexing option - Number of RLC logical channels - Uplink transport channel type - Transport channel identity - Logical channel max loss - Number of RLC logical channels - Downlink transport channel type - Transport channel max loss - Number of RLC logical channels - Downlink transport channel type - Transport channel identity - Logical channel max loss - Number of RLC logical channels - Downlink transport channel type - Transport channel identity - Logical channel identity - Logical channel identity - RB identity - RB identity - CHOICE RLC info type - RLC info - CHOICE Uplink RLC mode - Transmission RLC discard			
- Last transmission PU poll - Last retransmission PU poll - Poll_Windows - CHOICE Downlink RLC mode - In-sequence delivery - Receiving window size - Downlink RLC status info - Timer_status_prohibit - Timer_EPC - Missing PU indicator - RB mapping info - Information for each multiplexing option - Number of RLC logical channels - Uplink transport channel type - Transport channel identity - Logical channel max loss - Number of RLC logical channels - Downlink transport channel type - Transport channel identity - Logical channel max loss - Number of RLC logical channels - Downlink transport channel type - Transport channel identity - Logical channel max loss - Number of RLC logical channels - Downlink transport channel type - Transport channel identity - Logical channel identity - RB identity - RB identity - CHOICE RLC info type - RLC info - CHOICE Uplink RLC mode - Transmission RLC discard			
- Last retransmission PU poll - Poll_Windows - CHOICE Downlink RLC mode - In-sequence delivery - Receiving window size - Downlink RLC status info - Timer_status_prohibit - Timer_status_prohibit - Timer_status_prohibit - RB mapping info - Information for each multiplexing option - Number of RLC logical channels - Uplink transport channel type - Transport channel identity - Logical channel riority - Logical channel max loss - Number of RLC logical channels - Downlink transport channel type - Transport channel identity - Logical channel max loss - Number of RLC logical channels - Downlink transport channel type - Transport channel identity - Logical channel identity - CHOICE RLC info type - RLC info - CHOICE Uplink RLC mode - Transmission RLC discard			
- Poll_Windows - CHOICE Downlink RLC mode - In-sequence delivery - Receiving window size - Downlink RLC status info - Timer_status_prohibit - Timer_EPC - Missing PU indicator - RB mapping info - Information for each multiplexing option - Number of RLC logical channels - Uplink transport channel type - Transport channel identity - Logical channel identity - Logical channel max loss - Number of RLC logical channels - Downlink transport channel type - Transport channel identity - Logical channel max loss - Number of RLC logical channels - Downlink transport channel type - Transport channel identity - Logical channel identity - CHOICE RLC info type - RLC info - CHOICE Uplink RLC mode - Transmission RLC discard			
- CHOICE Downlink RLC mode - In-sequence delivery - Receiving window size - Downlink RLC status info - Timer_status_prohibit - Timer_EPC - Missing PU indicator - RB mapping info - Information for each multiplexing option - Number of RLC logical channels - Uplink transport channel type - Transport channel identity - Logical channel max loss - Number of RLC logical channels - Downlink transport channel type - Transport channel identity - Logical channel max loss - Number of RLC logical channels - Downlink transport channel type - Transport channel identity - Logical channel identity - Logical channel identity - CHOICE RLC info type - RLC info - CHOICE Uplink RLC mode - Transmission RLC discard  AM RLC  TRUE  200  TRUE   200  TRUE   200  TRUE   200  TRUE   200  TRUE   200  TRUE   200  TRUE   200  TRUE  200  TRUE  200  TRUE  200  TRUE  200  TRUE  200  TRUE  200  TRUE  200  TRUE  200  TRUE  200  TRUE  200  TRUE  200  TRUE  200  TRUE  200  TRUE  200  TRUE  3  3  CHOICE (All Channel)  3  CHOICE (All Channel)  4  AM RLC  AM RLC			
- In-sequence delivery - Receiving window size - Downlink RLC status info - Timer_status_prohibit - Timer_EPC - Missing PU indicator - RB mapping info - Information for each multiplexing option - Number of RLC logical channels - Uplink transport channel type - Transport channel identity - Logical channel identity - Logical channel max loss - Number of RLC logical channels - Downlink transport channel type - Transport channel type - Transport channel identity - Logical channel max loss - Number of RLC logical channels - Downlink transport channel type - Transport channel identity - Logical channel identity - Logical channel identity - CHOICE RLC info type - RLC info - CHOICE Uplink RLC mode - Transmission RLC discard			
- Receiving window size - Downlink RLC status info - Timer_status_prohibit - Timer_EPC - Missing PU indicator - RB mapping info - Information for each multiplexing option - Number of RLC logical channels - Uplink transport channel type - Transport channel identity - Logical channel identity - Logical channel max loss - Number of RLC logical channels - Downlink transport channel type - Transport channel identity - Logical channel max loss - Number of RLC logical channels - Downlink transport channel type - Transport channel identity - Logical channel identity - RB identity - RB identity - RB identity - CHOICE RLC info type - RLC info - CHOICE Uplink RLC mode - Transmission RLC discard			
- Downlink RLC status info - Timer_status_prohibit - Timer_EPC - Missing PU indicator - RB mapping info - Information for each multiplexing option - Number of RLC logical channels - Uplink transport channel type - Transport channel identity - Logical channel max loss - Number of RLC logical channels - Downlink transport channel type - Transport channel max loss - Number of RLC logical channels - Downlink transport channel type - Transport channel identity - Logical channel max loss - Number of RLC logical channels - Downlink transport channel type - Transport channel identity - Logical channel identity - Logical channel identity - RB identity - RB identity - CHOICE RLC info type - RLC info - CHOICE Uplink RLC mode - Transmission RLC discard			
- Timer_status_prohibit - Timer_EPC - Missing PU indicator - RB mapping info - Information for each multiplexing option - Number of RLC logical channels - Uplink transport channel type - Transport channel identity - Logical channel max loss - Number of RLC logical channels - Downlink transport channel type - Transport channel type - Transport channel identity - Logical channel max loss - Number of RLC logical channels - Downlink transport channel type - Transport channel identity - Logical channel identity - Logical channel identity - CHOICE RLC info type - RLC info - CHOICE Uplink RLC mode - Transmission RLC discard			
- Timer_EPC - Missing PU indicator - RB mapping info - Information for each multiplexing option - Number of RLC logical channels - Uplink transport channel type - Transport channel identity - Logical channel max loss - Number of RLC logical channels - Downlink transport channel type - Transport channel mix loss - Number of RLC logical channels - Downlink transport channel type - Transport channel identity - Logical channel identity - Logical channel identity - Choice RLC info type - RLC info - CHOICE Uplink RLC mode - Transmission RLC discard			200
- Missing PU indicator - RB mapping info - Information for each multiplexing option - Number of RLC logical channels - Uplink transport channel type - Transport channel identity - Logical channel identity - Logical channel max loss - Number of RLC logical channels - Downlink transport channel type - Transport channel type - Transport channel identity - Logical channel identity - Logical channel identity - Choice RLC info type - RLC info - CHOICE Uplink RLC mode - Transmission RLC discard  TRUE  TRUE  TRUE  TRUE  TRUE  TRUE  TRUE  TRUE  AMELE  AMELE  AMELE			
- RB mapping info - Information for each multiplexing option - Number of RLC logical channels - Uplink transport channel type - Transport channel identity - Logical channel identity - Logical channel priority - Logical channel max loss - Number of RLC logical channels - Downlink transport channel type - Transport channel identity - Logical channel identity - Signalling RB information to setup - RB identity - CHOICE RLC info type - RLC info - CHOICE Uplink RLC mode - Transmission RLC discard			
- Information for each multiplexing option - Number of RLC logical channels - Uplink transport channel type - Transport channel identity - Logical channel identity - Logical channel priority - Logical channel max loss - Number of RLC logical channels - Downlink transport channel type - Transport channel identity - Logical channel identity - Logical channel identity - Signalling RB information to setup - RB identity - CHOICE RLC info type - RLC info - CHOICE Uplink RLC mode - Transmission RLC discard		•	
- Number of RLC logical channels - Uplink transport channel type - Transport channel identity - Logical channel identity - MAC logical channel priority - Logical channel max loss - Number of RLC logical channels - Downlink transport channel type - Transport channel identity - Logical channel identity - Logical channel identity - Logical channel identity - RB identity - RB identity - CHOICE RLC info type - RLC info - CHOICE Uplink RLC mode - Transmission RLC discard			
- Transport channel identity - Logical channel identity - MAC logical channel priority - Logical channel max loss - Number of RLC logical channels - Downlink transport channel type - Transport channel identity - Logical channel identity - Logical channel identity - RB identity - RB identity - RLC info - CHOICE Uplink RLC mode - Transmission RLC discard			1
- Logical channel identity - MAC logical channel priority - Logical channel max loss - Number of RLC logical channels - Downlink transport channel type - Transport channel identity - Logical channel identity - Logical channel identity - RB identity - RB identity - CHOICE RLC info - CHOICE Uplink RLC mode - Transmission RLC discard  3 3 4 5 9 0 1 1 DCH 1 1 3 (AM DCCH for NAS_DT Low priority) 4 4 AM RLC		<ul> <li>Uplink transport channel type</li> </ul>	DCH
- MAC logical channel priority - Logical channel max loss - Number of RLC logical channels - Downlink transport channel type - Transport channel identity - Logical channel identity - Logical channel identity - RB identity - RB identity - CHOICE RLC info type - RLC info - CHOICE Uplink RLC mode - Transmission RLC discard		- Transport channel identity	
- Logical channel max loss - Number of RLC logical channels - Downlink transport channel type - Transport channel identity - Logical channel identity - Logical channel identity 3 Signalling RB information to setup - RB identity - CHOICE RLC info type - RLC info - CHOICE Uplink RLC mode - Transmission RLC discard			
- Number of RLC logical channels - Downlink transport channel type - Transport channel identity - Logical channel identity 3 Signalling RB information to setup - RB identity - CHOICE RLC info type - RLC info - CHOICE Uplink RLC mode - Transmission RLC discard			
- Downlink transport channel type - Transport channel identity - Logical channel identity 3 Signalling RB information to setup - RB identity - CHOICE RLC info type - RLC info - CHOICE Uplink RLC mode - Transmission RLC discard			
- Transport channel identity - Logical channel identity  Signalling RB information to setup - RB identity - CHOICE RLC info type - RLC info - CHOICE Uplink RLC mode - Transmission RLC discard			
- Logical channel identity  Signalling RB information to setup - RB identity - CHOICE RLC info type - RLC info - CHOICE Uplink RLC mode - Transmission RLC discard  3 (AM DCCH for NAS_DT Low priority) 4  4  AM RLC			
Signalling RB information to setup  - RB identity  - CHOICE RLC info type  - RLC info  - CHOICE Uplink RLC mode  - Transmission RLC discard  (AM DCCH for NAS_DT Low priority)  4  AM RLC			
- RB identity - CHOICE RLC info type - RLC info - CHOICE Uplink RLC mode - Transmission RLC discard			
- CHOICE RLC info type - RLC info - CHOICE Uplink RLC mode - Transmission RLC discard  AM RLC			
- RLC info - CHOICE Uplink RLC mode - Transmission RLC discard			<del>'</del>
- CHOICE Uplink RLC mode - Transmission RLC discard  AM RLC			
- Transmission RLC discard			AM RLC
		- Transmission RLC discard	AWINE
1 max 2 m management			Max DAT retransmissions

	- MAX_DAT	4
	- Timer_MRW	100
	- MaxMRW	4
	- Transmission window size	8
1	Receiving window size	8
I	8	500
	- Timer_RST	
	- Max_RST	4
	- Polling info	
	<ul><li>Timer_poll_prohibit</li></ul>	200
	- Timer_poll	200
	- Poll_SDU	1
	<ul> <li>Last transmission PU poll</li> </ul>	TRUE
	<ul> <li>Last retransmission PU poll</li> </ul>	TRUE
	- Poll_Windows	99
	- CHOICE Downlink RLC mode	AM RLC
	- In-sequence delivery	TRUE
	- Receiving window size	8
	- Downlink RLC status info	
		200
	- Timer_status_prohibit	200
	- Timer_EPC	200
	- Missing PU indicator	TRUE
	- RB mapping info	
	<ul> <li>Information for each multiplexing option</li> </ul>	
	<ul> <li>Number of RLC logical channels</li> </ul>	1
	<ul> <li>Uplink transport channel type</li> </ul>	DCH
	- Transport channel identity	1
	- Logical channel identity	4
	- MĂC logical channel priority	4
	- Logical channel max loss	0
	- Number of RLC logical channels	1
	- Downlink transport channel type	DCH
	- Transport channel identity	1
	- Logical channel identity	4
		4
	UL Transport channel information for all transport	
	channels	(This IF is no nearly of fam TEO mounts on )
	- TFC subset	(This IE is repeated for TFC number.)
	<ul> <li>Allowed Transport Format combination</li> </ul>	0 to MaxTFCValue-1 (MaxTFCValue is refer to clause
		6.10 Parameter Set.)
	- PRACH TFCS	Not Present
	- CHOICE Mode	<u>FDD</u>
	- UL DCH TFCS	(This IE is repeated for TFC number.)
	- Normal	
	- TFCI Field 1 information	
	<ul> <li>CHOICE TFCS representation</li> </ul>	Addition
	- TFCS addition information	
	- CHOICE CTFC Size	Number of bits used must be enough to cover all
	•	combinations of CTFC from clause 6.10.
	- CTFC information	Refer to clause 6.10 Parameter Set
	- Power offset information	Troid to diagge 0.101 arameter cot
	- CHOICE Gain Factors	Signalled Gain Factor
	- Gain factor Bc	O
		0
	- Gain factor ßd	
	- Reference TFC ID	Not Present
	- Power offset Pp-m	0dB
	Added or Reconfigured UL TrCH information	
	- Transport channel identity	1
	- TFS	
	<ul> <li>Dynamic Transport format information</li> </ul>	(This IE is repeated for TFI number)
	<ul> <li>Number of Transport blocks</li> </ul>	Reference to clause 6.10 Parameter Set
	- RLC size	Reference to clause 6.10 Parameter Set
	<ul> <li>Semi-static Transport Format information</li> </ul>	
	- Transmission time interval	Reference to clause 6.10 Parameter Set

- Type of channel coding
- Coding Rate
- Rate matching attribute
- CRC size

DL Transport channel information common for all transport channel

- SCCPCH TFCS
- CHOICE DL parameters
- DL DCH TFCS
- Normal
- TFCI Field 1 information
- CHOICE TFCS representation
- TFCS addition information
- CHOICE CTFC Size
- CTFC
- Power offset information
- CHOICE Gain Factor
- Gain factor Bc
- Gain factor ßd
- Reference TFC ID
- Power offset Pp-m

Added or Reconfigured DL TrCH information

- Transport channel identity
- CHOICE DL parameters
- UL TrCH Identity
- DCH quality target
- BLER Quality value
- Transparent mode signalling info

#### Frequency info

- UARFCN uplink(Nu)
- UARFCN downlink(Nd)

Maximum allowed UL TX power Uplink DPCH info

- Uplink DPCH power control info
- DPCCH power offset
- PC Preamble
- Power Control Algorithm
- TPC step size
- Scrambling code type
- Scrambling code number
- Number of DPDCH
- Spreading factor
- TFCI existence
- Number of FBI bit
- Puncturing Limit

Downlink information common for all radio links

- Downlink DPCH info common for all RL
- CHOICE mode
  - Downlink DPCH power control information
  - DPC mode
  - DL rate matching restriction information
  - Spreading factor
  - Fixed or Flexible Position
  - TFCI existence
  - Number of bits for Pilot bits(SF=128,256)

#### - Downlink DPCH Offset Value

- DPCH compressed mode info
- -TGPSI
- -TGPS Status Flag
- Transmission gap pattern sequence configuration parameters

Reference to clause 6.10 Parameter Set Reference to clause 6.10 Parameter Set Reference to clause 6.10 Parameter Set Reference to clause 6.10 Parameter Set

Not Present Independent

(This IE is repeated for TFC number.)

#### Addition

Number of bits used must be enough to cover all combinations of CTFC from clause 6.10. Refer to clause 6.10 Parameter Set

Signalled Gain Factor

0

0

Not Present

0dB

1

SameAsDL

1

0.00

Not Present

Reference to clause 6.10 Parameter Set Reference to clause 6.10 Parameter Set 33dBm

-6dB

15 slots

Algorithm1

1dB

Long

0 (0 to 16777215)

Not Present(1)

SF is reference to clause 6.10 Parameter Set

**TRUE** 

Not Present(0)

Reference to clause 6.10 Parameter Set

### **FDD**

0 (single)

Not Present

Reference to clause 6.10 Parameter Set

Flexible

**TRUE** 

Not Present

0

1

Inactive

1	I ===
- TGMP	FDD Measurement
- TGPRC	62
- TGCFN	(Current CFN + (256 - TTI/10msec)) mod 256
- TGSN	\ \delta \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
- TGL1	10
	5
- TGL2	
- TGD	15
- TGPL1	35
- TGPL2	35
- RPP	Mode 1
- ITP	Mode 1
- UL/DL Mode	DL
- Downlink compressed mode method	SF/2
- Uplink compressed mode method	Not Present
- Downlink frame type	A
- DeltaSIR1	2.0
- DeltaSIRafter1	1.0
- DeltaSIR2	Not Present
- DeltaSIRafter2	Not Present
- TX Diversity mode	
	None
- SSDT information	Not Present
- S field	
- Code Word Set	
- Default DPCH Offset Value	<u>0</u>
Downlink information for each radio links	_
- Primary CPICH info	
	100
- Primary scrambling code	1
- PDSCH with SHO DCH info	Not Present
- DSCH radio link identifier	
- TFCI Combining set	
- Radio link identifier	
- Primary CPICH info	
- Primary scrambling code	
	Not Present
- PDSCH code mapping	Not Present
- Downlink DPCH info for each RL	
<ul> <li>Primary CPICH usage for channel estimation</li> </ul>	Primary CPICH may be used
- DPCH frame offset	0 chips
- Secondary CPICH info	Not Present
- Secondary scrambling code	
- channelisation code	
- DL channelisation code	
	1
- Secondary scrambling code	Defends to the state of 10 Demonstrate Cert
- Spreading factor	Reference to clause 6.10 Parameter Set
- Code number	SF-1(SF is reference to clause 6.10 Parameter Set )
- Scrambling code change	No change
- TPC combination index	0
- SSDT Cell Identity	-a
- Closed loop timing adjustment mode	Not Present
	Not Present
- Secondary CCPCH info	Not Present
- Selection Indicator	
<ul> <li>Primary CPICH usage for channel estimation</li> </ul>	
- Secondary CPICH info	
<ul> <li>Secondary scrambling code</li> </ul>	
- channelisation code	
- Secondary scrambling code	
- SSDT Indicator	
- Spreading factor	
- Code number	
- Pilot symbol existence	
- TFCI existence	
- Fixed or Flexible Position	
- Timing offset	
I mining onset	I and the second

- TFCS Not Present - FACH/PCH information Not Present - TFS - Dynamic Transport format information - Number of Transport blocks - RLC Size - Semi-static Transport Format information - Transmission time interval - Type of channel coding - Coding Rate - Rate matching attribute - CRC size - TFS - Dynamic Transport format information - Number of Transport blocks - RLC Size - Semi-static Transport Format information - Transmission time interval Type of channel codingCoding Rate - Rate matching attribute - CRC size - References to system information blocks Not Present - Scheduling information

### Contents of RRC CONNECTION SETUP COMPLETE message: AM

Information Element	Value/remark
Message Type	
CN domain identity	Not checked
STARTHyper frame number	Not checked
UE radio access capability	Reference to clause 6.10 Parameter Set Not checked
UE system specific capability	Not checked

### Contents of SECURITY MODE COMMAND message: AM

Information Element	Value/remark
Message Type	
Integrity check info	Not Present.
<ul> <li>Message Authentication code</li> </ul>	Calculated result in SS
<ul> <li>RRC Message sequence number</li> </ul>	<u>0</u>
Security capability	
- Ciphering algorithm capability	00000000000000001 <u>0</u> B (UEA0)
<ul> <li>Integrity protection algorithm capability</li> </ul>	000000000000010B(UIA1)
Ciphering mode info	
- Ciphering mode command	Start
- Ciphering algorithm	Standard UMTS Encryption Algorithm UEA1
- Activation time for DPCH	Not Present(256+CFN (CFN MOD 8 + 8 ))MOD 256
<ul> <li>Radio bearer downlink ciphering activation time</li> </ul>	
info	
- Radio bearer activation time	
- RB identity	2
- RLC sequence number	Set to the SN of the last frame sent by RB2
Integrity protection mode info	Not Present
CN domain identity	CS domain

# Contents of SECURITY MODE COMPLETE message: AM

Information Element	Value/remark
Message Type	
Integrity check info	Not checked
- Message Authentication code	Set to calculated result in UE
- RRC Message sequence number	0
Uplink integrity protection activation info	Not checked.
Radio bearer uplink ciphering activation time info	SS must follow this IE to cipher on the each RB
- Radio bearer activation time	·
- RB identity	2
- RLC sequence number	Checked to see if it's a valid SD from RLC entity associated with RB2
<ul> <li>Radio bearer activation time</li> </ul>	
- RB identity	3
- RLC sequence number	Checked to see if it's a valid SD from RLC entity associated with RB3

# Contents of SIGNALLING CONNECTION RELEASE message: $\ensuremath{\mathsf{AM}}$

Information Element	Value/remark
Message Type	
Integrity check info	Not checked
Signalling Flow related information list	
- Flow Identifier requirement	Set to "Flow Identifier" field in the INITIAL DIRECT
	TRANSFER message

# Contents of UPLINK DIRECT TRANSFER message: $\ensuremath{\mathsf{AM}}$

Information Element	Value/remark
Message Type	
Integrity check info	Not checked
Flow Identifier	To be checked against requirement if specified
NAS message	Set according to that indicated in specific message
	content clause
Measured results on RACH	Not checked