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-Current	Version-New	Doc-2nd-Level
34.108	021		R99	Common generic procedure for AS testing	B	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	C	3.1.0	3.2.0	T1-000282
34.108	028		R99	Updates to System Information Block (SIB) and Master Information Block (MIB) messages	C	3.1.0	3.2.0	T1-000283
34.108	029		R99	Application of ciphering during conformance testing	C	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
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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**	**025**	Current Version:	V3.1.0

GSM (AA.BB) or 3G (AA.BBB) specification number ↑ *↑ CR number as allocated by MCC support team*

For submission to:	T#10	for approval	X	strategic		(for SMG use only)
list expected approval meeting # here ↑		for information		non-strategic		

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)* (U)SIM [ ] ME [X] UTRAN / Radio [ ] Core Network [ ]

Source: Siemens **Date:** 17.Oct.2000

Subject: Updating 34.108 v3.1.0 to TDD single mode

Work item: Conformance testing for UE (TDD)

Category: *(only one category shall be marked with an X)*

F	Correction	X	**Release:**	Phase 2	
A	Corresponds to a correction in an earlier release			Release 96	
B	Addition of feature			Release 97	
C	Functional modification of feature			Release 98	
D	Editorial modification			Release 99	X
				Release 00	

Reason for change: The proposal of this document is to update to TDD single mode, and to suggest some changes relating to the radio parameters in the same way as for FDD single mode.

Clauses affected: 4.2.1, 6.2.2, 6.7.2, 6.8

Other specs affected:

Other 3G core specifications	[ ]	→ List of CRs:
Other GSM core specifications	[ ]	→ List of CRs:
MS test specifications	[ ]	→ List of CRs:
BSS test specifications	[ ]	→ List of CRs:
O&M specifications	[ ]	→ List of 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	BCH	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 Channel~~s~~	X	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	X	X
CCCH	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 loop mode		Closed loop Mode
	TSTD	STTD	
P-CCPCH	–	X	–
SCH	X	–	–
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 TxDiversity		Closed loop TxDiversity
	TSTD	Block STTD	
P-CCPCH	–	X	–
SCH	X	–	–
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

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Document T1-000283
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3GPP/TSG T1/SIG Meeting #13
Tokyo, Japan, 17-19 October 2000

Document T1S000223
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or for SMG, use the format P-99-xxx

CHANGE REQUEST

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34.108 **CR** **028** Current Version: 3.1.0

GSM (AA.BB) or 3G (AA.BBB) specification number ↑ *↑ CR number as allocated by MCC support team*

For submission to: T#10 *list expected approval meeting # here ↑*

for approval [X]
for information [ ]

strategic [ ]
non-strategic [ ]
(for SMG use 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)* (U)SIM [ ] ME [X] UTRAN / Radio [ ] Core Network [ ]

Source: Matsushita Communication Industry Co.,Ltd **Date:** 17/10/2000

Subject: 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	Correction	[ ]
A	Corresponds to a correction in an earlier release	[ ]
B	Addition of feature	[ ]
C	Functional modification of feature	[X]
D	Editorial modification	[ ]

Release:

Phase 2	[ ]
Release 96	[ ]
Release 97	[ ]
Release 98	[ ]
Release 99	[X]
Release 00	[ ]

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): Qrxlevmin, 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): "$S_{limit,ShearchRAT}$" IE and "$Qhyst2_s$" 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): "$Qoffset2_{s,n}$" and "Temporary_offset2" IE are added. Consequently, existing "$Qoffset_{s,n}$" IE is renamed to "$Qoffset1_{s,n}$". 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 specs affected:

Other 3G core specifications		→ List of CRs:	
Other GSM core specifications		→ List of CRs:	
MS test specifications	X	→ List of CRs:	
BSS test specifications		→ List of CRs:	
O&M specifications		→ List of CRs:	

Other comments:

help.doc

<--------- 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

- 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) According to the contents of USIM.
- MNC digit	Mobile Network Code(2-3 digit) According to the contents of USIM.
- ANSI-41 Core Network information	Not Present
- 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	Type1
- PLMN Value tag	1(1 to 256)
- Cell Value tag	Not Present
- SEG_COUNT	
- SIB_REP	
- SIB_POS	
- SIB_OFF	
- SIB type	Type2
- PLMN Value tag	1(1 to 256)
- Cell Value tag	Not Present
- SEG_COUNT	
- SIB_REP	
- SIB_POS	
- SIB_OFF	
- SIB type	Type3
- PLMN Value tag	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 type	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_COUNT	
- SIB_REP	
- SIB_POS	
- 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	
- 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
- PLMN Value tag	Not Present
- 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	
- 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	
- SIB type	Type13.3
- PLMN Value tag	Not Present

- Cell Value tag	1 (1 to 4)
- SEG_COUNT	
- SIB_REP	
- SIB_POS	
- SIB_OFF	
- SIB type	Type13.4
- PLMN Value tag	Not Present
- Cell Value tag	1 (1 to 4)
- SEG_COUNT	
- SIB_REP	
- SIB_POS	
- SIB_OFF	
- SIB type	Type14
- PLMN Value tag	Not Present
- Cell Value tag	1 (1 to 4)
- SEG_COUNT	
- SIB_REP	
- SIB_POS	
- SIB_OFF	
- SIB type	Type15
- PLMN Value tag	Not Present
- Cell Value tag	1 (1 to 4)
- SEG_COUNT	
- SIB_REP	
- SIB_POS	
- SIB_OFF	
- SIB type	Type16
- PLMN Value tag	Not Present
- Cell Value tag	1 (1 to 4)
- SEG_COUNT	
- 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.
- 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
- CN domain specific DRX cycle length coefficient	7
- 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 coefficient	7
- UE Timers and constants in CELL_DCH	
-T304	Not Present – Use Default
-N304	~~8~~7
-T308	Not Present – Use Default
-T309	Not Present – Use Default
-T310	Not Present
-N310	Not Present
-T311	Not Present
-T313	15 seconds
-N313	~~1000~~200
-T314	20 seconds
-T315	1800 seconds
-N315	1000
- UE Timers and constants in idle mode	
-T300	~~5~~400 milliseconds
-N300	~~3~~7
-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)~~
- N301	2
- T302	4000 milliseconds~~5 (1 to 8 seconds: waiting for CELL UPDATE CONFIRM message)~~
- N302	3~~ (1 to 8: the re-transmission number of CELL UPDATE message)~~
- T303	2000 milliseconds~~5 (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,5,10,30,60,120,360,720minutes: waiting for cell update in CELL_PCH or CELL_FACH)~~
- T306	120 minutes~~ (infinity,5,10,30,60,120,360,720minutes 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 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 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	200~~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	
- RAT	UTRA FDD
- Mapping Function Parameter List	Not Present
- Function type	
- Map_parameter_1	
- Map_parameter_2	
- Upper_limit	
- Cell selection_and_reselection_quality_-measure	CPICH Ec/N0
- 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] ~~(-32 to 20 by step of 2 TS25.304)~~
- RAT List	Not Present
- RAT identifier	
- Ssearch,RAT	
- SHCS,RAT	
- $S_{limit,SheachRAT}$	Not Present
- Qhyst1s	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	
- HCS_PRIO	0 ~~(0 to 7)~~
- QHCS	0 ~~(0 to 99)~~
- TCR_{MAX}	Not used ~~(not used, 30, 60, 120, 180, 240)~~
- NCR	Not Present
- $TCMAXH_{yst}$	Not Present
- Maximum allowed UL TX power	33dBm
- CHOICE mode	FDD
- Qqualmin	-20dB
- Qrxlevmin	~~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

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

- References to other system information blocks	Not Present
- Cell identity	0000 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_-measure	CPICH Ec/N0
- 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] (-32 to 20 by step of 2 TS25.304)
- RAT List	
- RAT identifier	Not Present
- Ssearch,RAT	
- SHCS,RAT	
- $S_{limit,SheachRAT}$	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	
- HCS_PRIO	0 (0 to 7)
- QHCS	0 (0 to 99)
- TCR_{MAX}	Not used (not used, 30, 60, 120, 180, 240)
- NCR	Not Present
- $TCMAXH_{yst}$	Not Present
- Maximum allowed UL TX power	33dBm
- CHOICE mode	FDD
- Qqualmin	-20dB
- Qrxlevmin	T.B.D -115dBm
- Cell Access Restriction	
- Cell barred	Not barred(not barred, barred)
- Access Class 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)
- 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

Contents of System Information Block type5

- References to other system information blocks	Not Present
- PICH Power offset	0dB
- AICH Power offset	0dB
- Primary CCPCH info	
- TX Diversity indicator	FALSE
- PRACH system information	
- PRACH info	
- CHOICE mode	FDD
- Available Signature	‘0000 0000 1111 1111’B
- Signature	0
- Signature	1
- Signature	2
- 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	10
- Sub channel number	11
- 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	
- 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 Factor
- Gain factor ßc	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)
_- 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	
- 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)
- 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)
- AC-to-ASC mapping	2 (AC13)
- 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 P0~~Ramp Step	3dB
- Preamble Retrans Max	2
- RACH transmission parameters	
- Mmax	2
- 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~~	~~On~~
- 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	1
- 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	0
- 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
- Power offset information	Not Present
- FACH/PCH information	
- Transport Channel Identity	1 (for PCH)
- TFS	(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
- 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
- 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
- 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
- CTCH indicator	FALSE
- PICH info	
- Secondary scrambling code	2
- Channelisation code	SF-1(SF is reference to clause 6.10 Parameter Set)
- Number of PI per frame	18
- STTD indicator	FALSE
- CBS DRX Level 1 information	Not Present

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	
- TX Diversity indicator	FALSE
- PRACH system information	
- PRACH info	
- CHOICE mode	FDD
- Available Signature	'0000 0000 1111 1111'B
- Signature	0
- Signature	1
- Signature	2
- 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	10
- Sub channel number	11
- 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	
- 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 Factor
- Gain factor ßc	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)
_- 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	
- 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)
- Persistence scaling factor	0.9 (for ASC#7)
- AC-to-ASC mapping table	Not Present
- AC-to-ASC mapping	
- AC-to-ASC mapping	
- AC-to-ASC mapping	
- AC-to-ASC mapping	
- AC-to-ASC mapping	
- AC-to-ASC mapping	
- 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 P0~~Ramp Step	3dB
- Preamble Retrans Max	2
- RACH transmission parameters	
- Mmax	2
- 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~~	~~On~~
- 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	1
- STTD indicator	FALSE
- Spreading factor	Reference to clause 6.10 Parameter Set
- Code number	Reference to clause 6.10 Parameter Set
- Pilot symbol existence	FALSE
- TFCI existence	TRUE
- Fixed or Flexible position	Flexible
- Timing offset	0
- 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
- Power offset information	Not Present
- FACH/PCH information	
- Transport Channel Identity	1 (for PCH)
- TFS	(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
- 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
- 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
- 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
- CTCH indicator	FALSE
- PICH info	
- Secondary scrambling code	2
- Channelisation code	SF-1(SF is reference to clause 6.10 Parameter Set)
- Number of PI per frame	18
- STTD indicator	FALSE
- CBS DRX Level 1 information	Not Present

Contents of System Information Block type7

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

- 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
- Cell_selection_and_reselection_quality_measure	CPICH Ec/N0
- Intra-frequency measurement system information	
- Intra-frequency measurement identity number	0
- Intra-frequency cell info list	
- Removed 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 SIB11/12	
- Qoffset1s,n	T.B.D0 dB
- Qoffset2s,n	0 dB
- Maximum allowed UL TX power	33dBm
- HCS neighbouring cell information	Not Present
- HCS_PRIO	
- QHCS	
- HCS Cell Re-selection information	
- Penalty time	
- Temporary_offsets	
- Temporary_offset1	
- Temporary_offset2	
- CHOICE mode	
- Qqualmin	T.B.D
- Qrxlevmin	
- Intra-frequency measurement quantity	
- Filter coefficient	0
- 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 Mode	Event trigger
- 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	TRUE
- Pathloss	FALSE
- CFN-SFN observed time difference	TRUE
- Reporting quantities for monitored set cells	
- SFN-SFN observed time difference	No report
- Cell identity	TRUE
- CPICH Ec/N0	FALSE
- CPICH RSCP	TRUE
- Pathloss	FALSE
- CFN-SFN observed time difference	FALSE
- Reporting quantities for detected set cells	Not Present
- 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	1a
- Triggering condition(mandatory in case of 1a,1b,1e,1f)	monitored set cells
- Reporting Range(optional in case of 1a,1b)	5dB
- cells forbidden to affect reporting range(optional in case of 1a,1b)	Not Present
- Primary CPICH info	
- Primary scrambling code	
- W(optional in case of 1a,1b)	1.0
- Hysteresis (mandatory in case of 1a,1b,1c,1d,1g,1h,1I,1j)	0.0
- Threshold used frequency (in case of 1e,1f,1h,1i,1j)	T.B.D(-125..165)
- Reporting deactivation threshold(mandatory in case of 1a)	1
- Replacement activation threshold(mandatory in case of 1c)	Not Present(not applicable,1,2,3,4,5,6,7)
- Time to trigger	640(0,10,20,40,60,80,100,120,160,200,240,320,640,1280,2560,5000)
- Amount of reporting	Infinity(1,2,4,816,32,64,Infinity)
- Reporting interval	0(0,250,500,1000,2000,4000,8000,16000 milliseconds)
- Reporting cell status	~~Not Present~~
- CHOICE reporting cell	Within monitored cells on used frequency and within monitored cells on non-used frequency
- Maximum number of reporting cells type 2	2
- Inter-frequency measurement system information	Not Present
- 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	

- Read SFN indicator - TX Diversity indicator - Cell Selection and Re-selection info - Qoffsets,n - Maximum allowed UL TX power - HCS neighbouring cell information - HCS_PRIO - QHCS - HCS Cell Re-selection information - Penalty time - Temporary_offsets - Temporary_offset1 - Temporary_offset2 - CHOICE mode - Qqualmin - Qrxlevmin - Inter-frequency measurement quantity - Intra-frequency reporting criteria - Intra-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 criteria	
- Inter-system measurement system information	Not Present
- Traffic volume measurement system information	Not Present
- UE internal measurement system information	Not Present

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 system~~en~~ information	
- Use of HCS	Not used
- Cell_selection_and_reselection_quality_-measure	CPICH Ec/N0
- Intra-frequency measurement system information	
- Intra-frequency measurement identity number	0
- Intra-frequency cell info list	
- Removed 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 SIB11/12~~	
- Qoffset1$_{s,n}$	~~T.B.D~~0 dB
- Qoffset2$_{s,n}$	0 dB
- Maximum allowed UL TX power	33dBm
- HCS neighbouring cell information	Not Present
- HCS_PRIO	
- QHCS	
- HCS Cell Re-selection information	
- Penalty-_time	
- Temporary_offsets	
- Temporary_offset1	
- Temporary_offset2	
- CHOICE mode	
- Qqualmin	~~T.B.D~~
- Qrxlevmin	
- Intra-frequency measurement quantity	
- Filter coefficient	0
- 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 Mode	Event trigger
- 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	TRUE
- Pathloss	FALSE
- CFN-SFN observed time difference	TRUE
- Reporting quantities for monitored set cells	
- SFN-SFN observed time difference	No report
- Cell identity	TRUE
- CPICH Ec/N0	FALSE
- CPICH RSCP	TRUE
- Pathloss	FALSE
- CFN-SFN observed time difference	FALSE
- Reporting quantities for detected set cells	Not Present
- 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	1a
- Triggering condition(mandatory in case of 1a,1b,1e,1f)	monitored set cells
- Reporting Range(optional in case of 1a,1b)	5dB
- cells forbidden to affect reporting range(optional in case of 1a,1b)	Not Present
- Primary CPICH info	
- Primary scrambling code	
- W(optional in case of 1a,1b)	1.0
- Hysteresis (mandatory in case of 1a,1b,1c,1d,1g,1h,1I,1j)	0.0
- Threshold used frequency (in case of 1e,1f,1h,1i,1j)	T.B.D(-125..165)
- Reporting deactivation threshold(mandatory in case of 1a)	1
- Replacement activation threshold(mandatory in case of 1c)	Not Present(not applicable,1,2,3,4,5,6,7)
- Time to trigger	0(0,10,20,40,60,80,100,120,160,200,240,320,640,1280,2560,5000)
- Amount of reporting	Infinity(1,2,4,816,32,64,Infinity)
- Reporting interval	0 (0,250,500,1000,2000,4000,8000,16000 milliseconds)
- Reporting cell status	~~Not Present~~
- CHOICE reporting cell	Within monitored cells on used frequency and within monitored cells on non-used frequency
- Maximum number of reporting cells type 2	2
- Inter-frequency measurement system information	Not Present
- 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	

- Read SFN indicator - TX Diversity indicator - Cell Selection and Re-selection info - Qoffsets,n - Maximum allowed UL TX power - HCS neighbouring cell information - HCS_PRIO - QHCS - HCS Cell Re-selection information - Penalty_time - Temporary_offsets - Temporary_offset1 - Temporary_offset2 - CHOICE mode - Qqualmin - Qrxlevmin - Inter-frequency measurement quantity - Intra-frequency reporting criteria - Intra-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 criteria	
- Inter-system measurement system information	Not Present
- Traffic volume measurement system information	Not Present
- UE internal measurement system information	Not Present

Default settings for cell No.1:

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	100

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:

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	
- Primary scrambling code	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 URA identity	0000 0000 0000 0000 0000 0000 0111B 0000 0000 0000 0100B

Default settings for cell No.7:

Downlink input level Uplink output power PCCPCH/PCPICH carrier number Cell Channel Description - Primary CPICH info - Primary scrambling code	Reference to clause 6.10 Parameter Set Minimum supported by the UE's power class. Reference to clause 6.10 Parameter Set 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 URA identity	0000 0000 0000 0000 0000 0000 1000B 0000 0000 0000 0100B

Default settings for cell No.8:

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

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		Static							
Qrxlevmin *Qrxqualmin*	dBm dB	-90dBm -20dB	-90dBm -20dB	-90dBm -20dB	-90dBm -20dB	-90dBm -20dB	-70dBm -5dB		
UE_TXPWR_MAX_RACH	DBm	Max. RF Output of UE	Max. RF Output of UE	Max. RF Output of UE	Max. RF Output of UE	Max. RF Output of UE	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

Document T1-000285
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 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 to:	T#10	for approval	X	strategic		(for SMG use only)
List expected approval meeting # here ↑		for information		non-strategic		

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: (U)SIM [ ] ME [X] UTRAN / Radio [ ] Core Network [ ]
(at least one should be marked with an X)

Source: Matsushita Communication Industry Co.,Ltd **Date:** 17/10/2000

Subject: Application of ciphering during conformance testing

Work item:

Category: *(only one category Shall be marked With an X)*

F	Correction		**Release:**	Phase 2	
A	Corresponds to a correction in an earlier release			Release 96	
B	Addition of feature			Release 97	
C	Functional modification of feature	X		Release 98	
D	Editorial modification			Release 99	X
				Release 00	

Reason for change:

1. ~~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.~~

1. SECURITY MODE COMMAND message was updated to reflect approved changes in CR-311r2 ("Security Capability" IE) for TS 25.331 v3.2.0.

2. 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.

Changes made in revision 1

3. 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.

Clauses affected: 9

Other specs Other 3G core specifications [ ] → List of CRs:

Affected:				
	Other GSM core specifications		→ List of CRs:	
	MS test specifications	X	→ List of CRs:	CR-012R1 to TS 34.123-1
	BSS test specifications		→ List of CRs:	
	O&M specifications		→ List of CRs:	

Other comments:	

help.doc

<--------- 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
Meqasured 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

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

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	
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 is applied, this IE is needed)~~
- Ciphering mode command	start~~op~~
- Ciphering algorithm	Use one of the supported ciphering algorithms.~~Not Present(Standard UMTS Encryption Algorithm UEA1)~~
- Activation time for DPCH	(256+CFN-(CFN MOD 8 + 8))MOD 256~~Not Present(Used RLC-TM)~~
- Radio bearer downlink ciphering activation time info	Not Present~~(Used RLC-AM or RLC-UM)~~
- 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	
Signalling RB information to setup	Not Present
- RB identity	
- 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	
- MAC logical channel priority	
- 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	4
- PDCP info	Not Present

- RLC info	
- Downlink RLC mode	(TM RLC)
- In-sequence delivery	TRUE
- RB mapping info	
- Information for each multiplexing option	
- Number of RLC logical channels	1
- Uplink transport channel type	DCH
- Transport channel identity	2
- Logical channel identity	1
- MAC logical channel priority	Not Present
- 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	5
- PDCP info	Not Present
- RLC info	
- Downlink RLC mode	(TM RLC)
- In-sequence delivery	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	Not Present
- 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	6
- PDCP info	Not Present
- RLC info	
- Downlink RLC mode	(TM RLC)
- In-sequence delivery	TRUE
- RB mapping info	
- 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	Not Present
- 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	0
- 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
- 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	
- 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
- 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	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	3
RB information to be affected	(AM DCCH for NAS_DT Low 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	4
- MAC logical channel priority	4
- 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(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 β c	0
- Gain factor β d	0
- Power offset Pp-m	0dB
Added or Reconfigured UL TrCH information	
- Transport channel identity	2
- 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
Added or Reconfigured UL TrCH information	
- Transport channel identity	3
- 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
Added or Reconfigured UL TrCH information	(This IE is needed for 12.2 kbps and 10.2 kbps)
- Transport channel identity	4
- TFS	(This IE is repeated for TFI number)
- Dynamic Transport format information	
- 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
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	1
- 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
DRAC static information	Not Present
- 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 β 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 β c	0
- Gain factor β d	0
- Power offset Pp-m	0dB
Added or Reconfigured DL TrCH information	
- Transport channel identity	2
- 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
- DCH quality target	
- BLER Quality value	0.00
- Transparent mode signalling info	Not Present
Added or Reconfigured DL TrCH information	
- Transport channel identity	3
- 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
- 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	4
- 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
- DCH quality target	
- BLER Quality value	0.00
- Transparent mode signalling info	Not Present
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	1
- 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
- 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	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 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	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 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
- 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	
- 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
- Secondary CPICH info	Not Present
- Secondary scrambling code	
- channelisation code	
- DL channelisation code	
- Secondary scrambling code	1
- 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 - 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 - 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	Not Present
- FACH/PCH information - 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 - 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	Not Present
- References to system information blocks - Scheduling information	Not Present

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. ~~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
- 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	
Ciphering mode info	Not Present~~(If ciphering is applied, this IE is needed) stop~~
- Ciphering mode command	
- Ciphering algorithm	~~Not Present(Standard UMTS Encryption Algorithm UEA1)~~
- Activation time for DPCH	~~Not Present(Used RLC-TM)~~
- Radio bearer downlink ciphering activation time info	~~Not Present(Used RLC-AM or RLC-UM)~~
- 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	4
RB information to release	
- RB identity	5
RB information to release	
- RB identity	6
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
- Logical channel identity	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	
- 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
- 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	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	3
RB information to be affected	(AM DCCH for NAS_DT Low 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	4
- MAC logical channel priority	4
- 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(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 β c	0
- Gain factor β d	0
- 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	If TrCH reconfiguration is executed then this is needed(e.g The rate of SRB for DCCH is changed.).
- 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
- 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
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 β 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 β c	0
- Gain factor β d	0
- Power offset Pp-m	0dB
Deleted DL TrCH Information	
- Transport channel identity	2
Deleted DL TrCH Information	
- Transport channel identity	3
Deleted DL TrCH Information	
- Transport channel identity	4
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	1
- 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
- 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	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 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
- 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	
- 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
- Secondary CPICH info	Not Present
- Secondary scrambling code	
- channelisation code	
- DL channelisation code	
- Secondary scrambling code	1
- 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	
- 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 - 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	Not Present
- FACH/PCH information - 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 - 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	Not Present
- References to system information blocks - Scheduling information	Not Present

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
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

Information Element	Value/remark
Message Type	
Integrity check info	Not Present
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.

Contents of RRC CONNECTION SETUP message: UM (Transition to CELL_DCH)

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	
- SRNC identity	0000 0000 0001B
- S-RNTI	0000 0000 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	0
- CHOICE RLC 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)
- In-sequence delivery	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	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
Signalling RB information to setup	(AM DCCH for RRC)
- RB identity	1
- 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	
- 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
- 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	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	
- 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	3
- MAC logical channel priority	3
- 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	3
- 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	
- 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
- 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(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 β c	0
- Gain factor β d	0
- Power offset Pp-m	0dB
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
- 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 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 β c	0
- Gain factor β d	0
- Power offset Pp-m	0dB
Added or Reconfigured DL 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
- 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
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	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 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	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
- 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	
- 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	
- 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
- 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	
- 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 β d	
- FACH/PCH information	Not Present
- 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	
- 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	

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	Not Present.
Security capability	
- Ciphering algorithm capability	~~0000000000000001B(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 0000000000000000B (UEA0)
- Integrity protection algorithm capability	0000000000000001B(UEA1)
~~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 UEA1~~Use the same ciphering algorithm specified in "ciphering algorithm capability" IE in this message.
- 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~~2~~
- RLC sequence number	Current RLC SN+2~~Set to the SN of the last frame sent by RB2~~
- 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
CN domain identity	~~CS domain~~supported domain

Contents of SECURITY MODE COMPLETE message : AM

Information Element	Value/remark
Message Type	
Integrity check info	Not checked
~~Hyper frame number~~	~~Should be not present.~~
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.~~ 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 : 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 : 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
3GPP TSG-T1 Meeting #14
Redondo Beach, USA, 13-15 November 2000

Document T1-000294
e.g. for 3GPP use the format TP-99xxx
or for SMG, use the format P-99-xxx

T1S-000245

CR-Form-v3

CHANGE REQUEST

⌘ **TS 34.108 CR 021** ⌘ rev **-** ⌘ Current version: **3.1.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: ⌘ (U)SIM ☐ ME/UE ☒ Radio Access Network ☐ Core Network ☐

Title:	⌘	Common generic procedure for AS testing
Source:	⌘	Matsushita Communication Industry Co.,Ltd
Work item code:	⌘	***Date:*** ⌘ 14/11/2000
Category:	⌘	**B** ***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 1998)
R99 (Release 1999)
REL-4 (Release 4)
REL-5 (Release 5)

Reason for change:	⌘	Proper Definition of UE initial conditions for Access Stratum 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
Other comments:	⌘	

How to create CRs using this form:
Comprehensive information and tips about how to create CRs can be found at: http://www.3gpp.org/3G_Specs/CRs.htm. 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 ftp://www.3gpp.org/specs/ 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.

7.4 Common generic procedures for AS testing

7.4.1 UE RRC Test States for common procedures

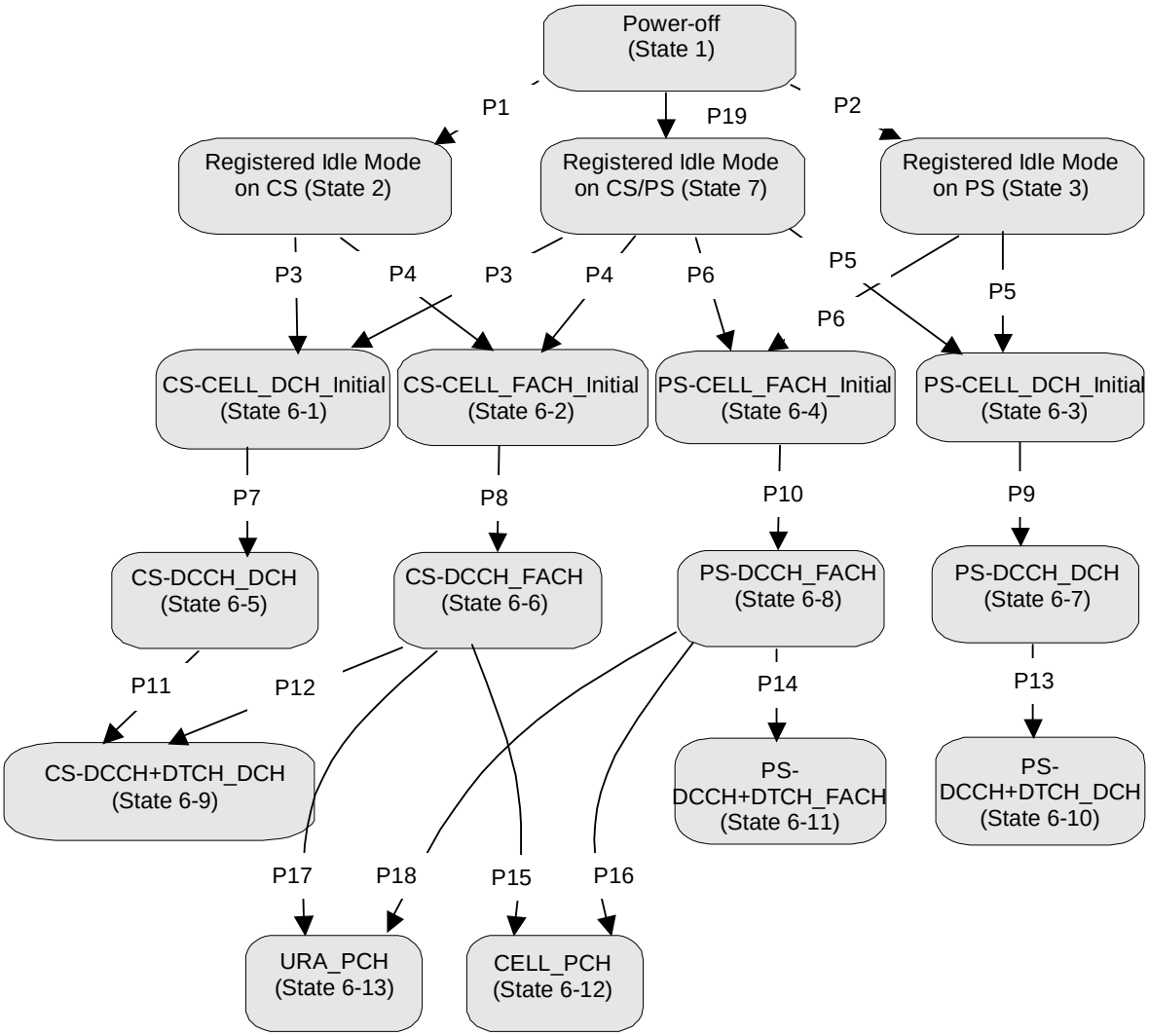

Figure 7.4.1.1: UE RRC test initial states and common procedures

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	SM	GMM
State 1	Power OFF	-----	Null	Detached	Inactive	Detached
State 2	Registered Idle Mode on CS	Idle	Null	Idle	Inactive	Detached
State 3	Registered Idle Mode on PS	Idle	Null	Detached	Inactive	Idle
State 7	Registered Idle Mode on CS/PS	Idle	Null	Idle	Inactive	Idle
State BGP6-1	CS-CELL_DCH_Initial	Connected	Null	As previous	Inactive	As previous
State BGP6-2	CS-CELL_FACH_Initial	Connected	Null	As previous	Inactive	As previous
State BGP6-3	PS-CELL_DCH_Initial	Connected	Null	As previous	Inactive	As previous
State BGP6-4	PS-CELL_FACH_Initial	Connected	Null	As previous	Inactive	As previous
State BGP6-5	CS-DCCH_DCH	Connected (CELL_DCH)	Null	As previous	Inactive	As previous
State BGP6-6	CS-DCCH_FACH	Connected (CELL_FACH)	Null	As previous	Inactive	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	Inactive	As previous
State BGP6-10	PS-DCCH+DTCH_DCH	Connected (CELL_DCH)	Null	As previous	Active	As previous
State BGP6-11	PS-DCCH+DTCH_FACH	Connected (CELL_FACH)	Null	As previous	Active	As previous
~~State BGP6-12~~	~~CS-DCCH_DCH~~	~~Connected (CELL_DCH)~~	~~Null~~	~~As previous~~	~~Inactive~~	~~As previous~~
~~State BGP6-13~~	~~PS-DCCH_DCH~~	~~Connected (CELL_DCH)~~	~~Null~~	~~As previous~~	~~Inactive~~	~~As previous~~
~~State BGP6-14~~	~~PS-DCCH_FACH~~	~~Connected (CELL_FACH)~~	~~Null~~	~~As previous~~	~~Inactive~~	~~As previous~~
State BGP6-15~~2~~	CELL_PCH	Connected (CELL_PCH)	Null	As previous	Inactive	As previous
State BGP6-16~~3~~	URA_PCH	Connected (URA_PCH)	Null	As previous	Inactive	As previous

Table 7.4.1.1: The UE states

State 1, state 2, state 3, P1,P2 and P2~~1~~9 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		Message	Comments
	UE	SS		
1	<--		PAGING TYPE 1 (PCCH)	RRC
2	-->		RRC CONNECTION REQUEST (CCCH)	RRC
3	<--		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.

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.

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:

Step	Direction		Message	Comments
	UE	SS		
1	-->		RRC CONNECTION REQUEST (CCCH)	RRC
2	<--		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 USIM shall be inserted.

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

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	**Direction**		**Message**	**Comments**
	UE	**SS**		
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.

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

7.4.2.2.2.4 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		Message	Comments
	UE	SS		
1		-->	PAGING RESPONSE	RR
2		<--	AUTHENTICATION REQUEST	MM
3		-->	AUTHENTICATION RESPONSE	MM
4		<--	SECURITY MODE COMMAND	RRC
5		-->	SECURITY MODE COMPLETE	RRC
6		<--	SET UP	CC
7		-->	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

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

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		Message	Comments
	UE	SS		
1	<--		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	Direction		Message	Comments
	UE	SS		
1	<--		RADIO BEARER SETUP	RRC RAB SETUP
2	-->		RADIO BEARER SETUP COMPLETE	RRC
3	<--		ALERTING	CC
4	<--		CONNECT	CC
5	-->		CONNECT ACKOWLEDGE	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:

Step	Direction		Message	Comments
	UE	SS		
1	<--		RADIO BEARER SETUP	RRC RAB SETUP
2	-->		RADIO BEARER SETUP COMPLETE	RRC
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

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

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 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		Message	Comments
	UE	SS		
1			SS waits for at least T305, to allow the UE to execute periodic cell update procedure	
2	-->		CELL UPDATE	RRC
3	<--		CELL UPDATE CONFIRM	RRC

7.4.2.7.1.4 Specific message contents

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

Information Element	Value/remark
Message Type	
U-RNTI	
- 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	Value/remark
Message Type	
U-RNTI	
- SRNC identity	Assigned value
- S-RNTI	Assigned value
Integrity check info	Not Present
- Message authentication code	
- RRC message sequence number	
Integrity protection mode info	Not Present
Ciphering mode info	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)	FALSE
RLC reset indicator (for U-plane)	FALSE
CN information info	Not Present
URA identity	0000 0000 0000 0001B
RB with PDCP information	Not Present
Frequency info	Not Present
Maximum allowed UL TX power	33dBm
CHOICE channel requirement	Not Present
Downlink information common for one radio link	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:

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

7.4.2.7.2.4 Specific message contents

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

Information Element	Value/remark
U-RNTI	
- 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	Value/remark
Message Type	
U-RNTI	
- SRNC identity	Assigned value
- S-RNTI	Assigned value
Integrity check info	Not Present
- message authentication code	
- RRC message sequence number	
Integrity protection mode info	Not Present
Ciphering mode info	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)	FALSE
RLC reset indicator(for U-plane)	FALSE
CN information info	Not Present
URA identity	0000 0000 0000 0001B
RB with PDCP information	Not Present
Frequency info	Not Present
Maximum allowed UL TX power	33dBm
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~~

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

~~Step~~	~~Direction~~		~~Message~~	~~Comments~~
	~~UE~~	~~SS~~		
~~1~~	~~<--~~		~~DISCONNECT~~	~~CC~~
~~2~~	~~-->~~		~~RELEASE~~	~~CC~~
~~3~~	~~<--~~		~~RELEASE COMPLETE~~	~~CC~~
~~4~~	~~<--~~		~~RADIO BEARER RELEASE~~	~~RRC~~
~~5~~	~~-->~~		~~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:

Step	Direction		Message	Comments
	UE	SS		
1	<--		DEACTIVATE PDP CONTEXT	SM
2	-->		DEACTIVATE PDP CONTEXT ACCEPT	SM
3	<--		RADIO BEARER RELEASE	RRC
4	-->		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

Document T1-000296
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, 13-15 November 2000

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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	026	Current Version:	3.1.0

GSM (AA.BB) or 3G (AA.BBB) specification number ↑ *↑ CR number as allocated by MCC support team*

For submission to:	T#10	For approval	X	strategic		(for SMG use only)
list expected approval meeting # here ↑		for information		non-strategic		

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)* (U)SIM [ ] ME [X] UTRAN / Radio [ ] Core Network [ ]

Source: Matsushita Communication Industry Co., Ltd **Date:** 13/11/2000

Subject: Application of integrity mode protection to signalling message by default

Work item:

Category: *(only one category shall be marked with an X)*

F	Correction	X	**Release:**	Phase 2	
A	Corresponds to a correction in an earlier release			Release 96	
B	Addition of feature			Release 97	
C	Functional modification of feature			Release 98	
D	Editorial modification			Release 99	X
				Release 00	

Reason for change:

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 leave 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 it 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: Clause 9

Other specs affected:

Other 3G core specifications	[ ]	→ List of CRs:	
Other GSM core specifications	[ ]	→ List of CRs:	
MS test specifications	[X]	→ List of CRs:	
BSS test specifications	[ ]	→ List of CRs:	
O&M specifications	[ ]	→ List of CRs:	

Other comments:


help.doc

<---------- 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-~~3~~2. 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.
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 Present~~The presence of this IE is dependent on IXIT statements in TS 34.123-~~3~~2. 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.
- Message authentication code	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
Meqasured 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

Contents of RADIO BEARER SETUP 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-~~3~~2. 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
- Integrity protection mode command	
- Downlink integrity protection activation info	
- RRC message sequence number	
- RRC message sequence number	
- Integrity protection algorithm	
- Integrity protection initialisation number	
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	Not Present
- 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	
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	
- Information for each multiplexing option	
- 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	
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	
- 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	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	
- 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	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	
- 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
- 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
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	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	
- CHOICE Gain Factors	Signalled Gain Factor
- Gain factor ßc	0
- Gain factor ßd	0
- Reference TFC ID	Not Present
- Power offset Pp-m	0dB
Added or Reconfigured UL TrCH information	
- Transport channel identity	2
- 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
Added or Reconfigured UL TrCH information	
- Transport channel identity	3
- 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
Added or Reconfigured UL TrCH information	(This IE is needed for 12.2 kbps and 10.2 kbps)
- Transport channel identity	4
- TFS	(This IE is repeated for TFI number)
- Dynamic Transport format information	
- 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
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	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	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
DRAC static information	Not Present
- Transmission Time Validity	
- Time duration before retry	
- DRAC Class identity	
DL Transport channel information common for all transport channel	
- SCCPCH TFCS	Not Present
- CHOICE DL parameters	Independent
- DL 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	
- CHOICE Gain Factors	Signalled Gain Factor
- Gain factor ßc	0
- Gain factor ßd	0
- Reference TFC ID	Not Present
- Power offset Pp-m	0dB
Added or Reconfigured DL TrCH information	
- Transport channel identity	2
- CHOICE DL parameters	SameAsUL
- UL TrCH Identity	2
- DCH quality target	
- BLER Quality value	0.00
- Transparent mode signalling info	Not Present
Added or Reconfigured DL TrCH information	
- Transport channel identity	3
- CHOICE DL parameters	SameAsUL
- UL TrCH information	3
Added or Reconfigured DL TrCH information	(This IE is needed for 12.2 kbps and 10.2 kbps)
- Transport channel identity	4
- CHOICE DL parameters	SameAsUL
- UL TrCH information	4
- DCH quality target	
- BLER Quality value	0.00
- Transparent mode signalling info	Not Present
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	1
- CHOICE DL parameters	Independent
- UL TrCH 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	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	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 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	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	1.0
- 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	0 chips
- Secondary CPICH info	Not Present
- Secondary scrambling code	
- channelisation code	
- DL channelisation code	
- Secondary scrambling code	1
- 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
- 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
- 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	Not Present
- Scheduling information	

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-~~3~~2. 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
- Integrity protection mode command	
- 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	
- 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	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	
- 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
- 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
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	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	
- CHOICE Gain Factors	Signalled Gain Factors
- Gain factor ßc	0
- Gain factor ßd	0
- Reference TFC ID	Not Present
- 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	If TrCH reconfiguration is executed then this is needed(e.g The rate of SRB for DCCH is changed.).
- 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	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
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
- CHOICE DL parameters	Independent
- DL 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	
- CHOICE Gain Factors	Signalled Gain Factor
- Gain factor ßc	0
- Gain factor ßd	0
- Reference TFC ID	Not Present
- Power offset Pp-m	0dB
Deleted DL TrCH Information	
- Transport channel identity	2
Deleted DL TrCH Information	
- Transport channel identity	3
Deleted DL TrCH Information	
- Transport channel identity	4
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	1
- CHOICE DL parameters	SameAsUL
- UL TrCH Identity	1
- 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	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 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 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	0 chips
- Secondary CPICH info	Not Present
- Secondary scrambling code	
- channelisation code	
- DL channelisation code	

- Secondary scrambling code	1
- 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
- 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
- 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	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.
- Message authentication code	Checked to see if it's identical to the value of XMAC-I calculated by the SS
- RRC Message sequence number	Checked to see if it is present. This number is used by the SS to compute the XMAC-I

Contents of RRC CONNECTION SETUP message: UM (Transition to CELL_DCH)

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	
- SRNC identity	0000 0000 0001B
- S-RNTI	0000 0000 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	
- CHOICE Uplink RLC mode	UM RLC
- Transmission RLC discard	
- SDU discard mode	Max DAT retransmissions
- MAX_DAT	4
- Timer_MRW	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	1
- Downlink transport channel type	DCH
- Transport channel identity	1
- 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	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
- 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	
- 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	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	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	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
- 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
- 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	
- CHOICE Gain Factors	Signalled Gain Factor
- Gain factor ßc	0
- Gain factor ßd	0
- Reference TFC ID	Not Present
- Power offset Pp-m	0dB
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	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
- CHOICE DL parameters	Independent
- DL 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	Refer to clause 6.10 Parameter Set
- Power offset information	
- CHOICE Gain Factor	Signalled Gain Factor
- Gain factor ßc	0
- Gain factor ßd	0
- Reference TFC ID	Not Present
- Power offset Pp-m	0dB
Added or Reconfigured DL TrCH information	
- Transport channel identity	1
- CHOICE DL parameters	SameAsDL
- UL TrCH Identity	1
- 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	15 slots
- Power Control Algorithm	Algorithm1
- TPC step size	1dB
- Scrambling code type	Long
- Scrambling code number	0 (0 to 16777215)
- Number of DPDCH spreading factor	Not Present(1) 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	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 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	0 chips
- Secondary CPICH info	Not Present
- Secondary scrambling code	
- channelisation code	
- DL channelisation code	
- Secondary scrambling code	1
- 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
- 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
- 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	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
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	0000000000000001B(UEA1)
- Integrity protection algorithm capability	~~0~~0000000000000010B(~~UEA1~~UIA1)
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.
- Message authentication code	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.
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: 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.
- 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.
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: 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.
- Message authentication code	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.
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 ***T1S-000261***
Redondo Beach, CA, USA 13-15 November 2000

CR-Form-v3

CHANGE REQUEST

⌘ **34.108** **CR** **022** ⌘ rev **-** ⌘ Current version: **3.1.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: ⌘ (U)SIM ☐ ME/UE ☒ Radio Access Network ☐ Core Network ☐

Title:	⌘	Requirements for the system simulator for support of Tcell parameter
Source:	⌘	Chairman, T1/SIG
Work item code:	⌘	***Date:*** ⌘ 11-11-00
Category:	⌘	**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 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:	⌘	Will add complexity to system simulator implementations that is not currently warranted by existing test cases.

Clauses affected:	⌘	4.1
Other specs affected:	⌘	☐ Other core specifications ⌘ ☐ Test specifications ☐ O&M Specifications
Other comments:	⌘	

How to create CRs using this form:
Comprehensive information and tips about how to create CRs can be found at: http://www.3gpp.org/3G_Specs/CRs.htm.
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 ftp://www.3gpp.org/specs/ 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
BCCH	BCH	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
CCCH	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_{cell} 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).

Timer tolerance = 10%, or 2 * TTI + t_{delta}, whichever value is the greater.

where t_{delta} 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 2	
Test Frequency ID	**UARFCN**	**Frequency (UL and DL)**	**UARFCN**	**Frequency (UL and DL)**
Low Range	9513	1902.6 MHz	10063	2012.6 MHz
Mid Range	9550	1910 MHz	10087	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 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_{oc} .

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, 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
		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.

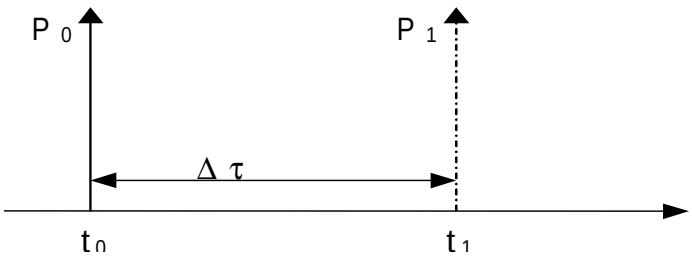

Figure 1: The moving propagation conditions

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

The parameters in the equation are shown in.

A	5 μs
Δω	$40*10^{-3}$ s^{-1}

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.

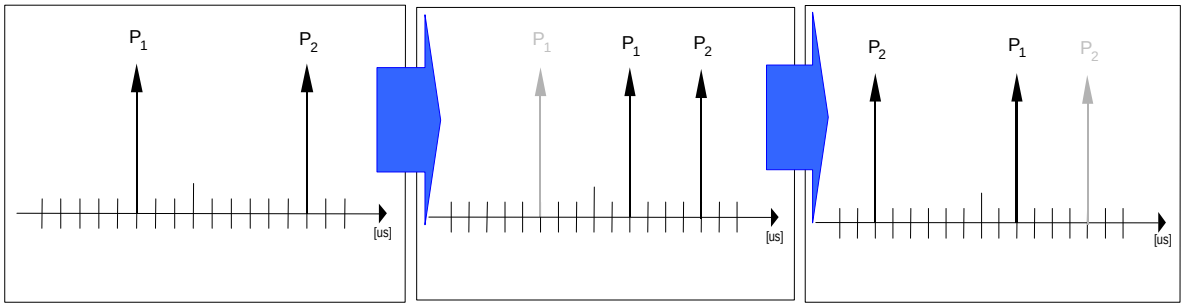

Figure 2: Birth death propagation sequence

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 dB

I_{or} = -25 dBm/3.84 MHz

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

	Power Level at UE Antenna Connector		
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 (Ior) adds to one, assuming that P-CCPCH_Ec/Ior = -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: $\sum DPCH\_E_c/I_{or}$ = -7 dB

I_{or} = -25 dBm/3.84 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 **Tdoc T1S000263**

Redondo Beach, USA, 13rd – 15th November 2000

CR-Form-v3

CHANGE REQUEST

⌘ **34.108 CR 030** ⌘ rev **-** ⌘ Current version: **3.1.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: ⌘ (U)SIM ☐ ME/UE ☐ Radio Access Network ☐ Core Network ☐

Title:	⌘	Addition for System Information parameters (34.108 clause 6.1)
Source:	⌘	NTT DoCoMo
Work item code:	⌘	***Date:*** ⌘
Category:	⌘ **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 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:	⌘	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:	⌘	Test environment will have differences with real environment.

Clauses affected:	⌘	7.2
Other specs affected:	⌘	☐ Other core specifications ⌘ ☐ Test specifications ☐ O&M Specifications
Other comments:	⌘	

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at: http://www.3gpp.org/3G_Specs/CRs.htm. 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 ftp://www.3gpp.org/specs/ 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.

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	1 (1 to 8)
- Supported PLMN types	
- PLMN type	GSM-MAP
- PLMN identity(GSM-MAP)	
- 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.
- ANSI-41 Core Network information	Not Present
- 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	Type1
- PLMN Value tag	1(1 to 256)
- Cell Value tag	Not Present
- SEG_COUNT	1(1 to 16)
- SIB_REP	
- SIB_POS	
- SIB_OFF	
- SIB type	Type2
- PLMN Value tag	1(1 to 256)
- Cell Value tag	Not Present
- SEG_COUNT	1(1 to 16)
- SIB_REP	
- SIB_POS	
- SIB_OFF	
- SIB type	Type3
- 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	Type4
- 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	Type5
- 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	Type6
- 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	Type7
- 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	Type8
- 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	Type9
- 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	Type10
- 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	Type11
- 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	Type12
- 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	Type13
- 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	Type13.1
- 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	Type13.2
- 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	Type13.3
- 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	Type13.4
- 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	Type14
- 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	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	1 (1 to 4)
- SEG_COUNT	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.
- 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
- CN domain specific DRX cycle length coefficient	7
- 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 coefficient	7
- UE Timers and constants in CELL_DCH	
-T304	Not Present – Use Default
-N304	~~8~~7
-T308	Not Present – Use Default
-T309	Not Present – Use Default
-T310	Not Present
-N310	Not Present
-T311	Not Present
-T313	15 seconds
-N313	~~1000~~200
-T314	20 seconds
-T315	1800 seconds
-N315	1000
- UE Timers and constants in idle mode	
-T300	~~5~~400 milliseconds
-N300	~~3~~7
-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)~~
- N301	2
- T302	4000 milliseconds~~5 (1 to 8 seconds: waiting for CELL UPDATE CONFIRM message)~~
- N302	3~~ (1 to 8: the re-transmission number of CELL UPDATE message)~~
- T303	2000 milliseconds~~5 (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,5,10,30,60,120,360,720minutes: waiting for cell update in CELL_PCH or CELL_FACH)~~
- T306	120 minutes~~ (infinity,5,10,30,60,120,360,720minutes 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 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 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	200~~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	
- RAT	UTRA FDD
- Mapping Function Parameter List	~~Not Present~~1
- Function type	linear (0)
- Map_parameter_1	1
- Map_parameter_2	1
- Upper_limit	1
- Cell selection_and_reselection_quality_-measure	CPICH Ec/N0
- 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] ~~(-32 to 20 by step of 2 TS25.304)~~
- RAT List	Not Present
- RAT identifier	
- Ssearch,RAT	
- SHCS,RAT	
- $S_{limit,SheachRAT}$	Not Present
- Qhyst1s	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	
- HCS_PRIO	0 ~~(0 to 7)~~
- QHCS	0 ~~(0 to 99)~~
- TCR_{MAX}	Not used ~~(not used, 30, 60, 120, 180, 240)~~
- NCR	Not Present
- $TCMAXH_{yst}$	Not Present
- Maximum allowed UL TX power	33dBm
- CHOICE mode	FDD
- Qqualmin	-20dB
- Qrxlevmin	~~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 ***Tdoc T1S000264***

Redondo Beach, USA, 13rd – 15th November 2000

CR-Form-v3

CHANGE REQUEST

⌘ **34.108 CR 031** ⌘ rev **-** ⌘ Current version: **3.1.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: ⌘ (U)SIM ☐ ME/UE ☐ Radio Access Network ☐ Core Network ☐

Title:	⌘	Correction for Generic Setup Procedures (34.108 clause 7.2)
Source:	⌘	NTT DoCoMo
Work item code:	⌘	***Date:*** ⌘
Category:	⌘	**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 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: ⌘ Reason for 1), 2)----- Correction for the current version.

Reason for 3)----- In the generic set-up procedure for mobile terminated calls, it should be indicated that ALERTING message could be omitted because the UE does not send the ALERTING message in case of immediate connect.

Reason for 4)-----The procedure for CS/PS combined was not included for the 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 removed.

3) Changing of procedure on 7.2.3.1.3 “Generic call set-up procedure for mobile terminating circuit switched calls”

In the “ALERTING” line, the comment has been added as below.

“This message is optional”

4) Addition of new registration procedure on CS / PS combined mode.(7.2.1 and 7.2.2.2)

Consequences if not approved:	⌘	Test environment will have differences with real environment.

Clauses affected:	⌘	7.2		
Other specs affected:	⌘	☐ Other core specifications ☐ Test specifications ☐ O&M Specifications	⌘	
Other comments:	⌘			

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at: http://www.3gpp.org/3G_Specs/CRs.htm. 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 ftp://www.3gpp.org/specs/ 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

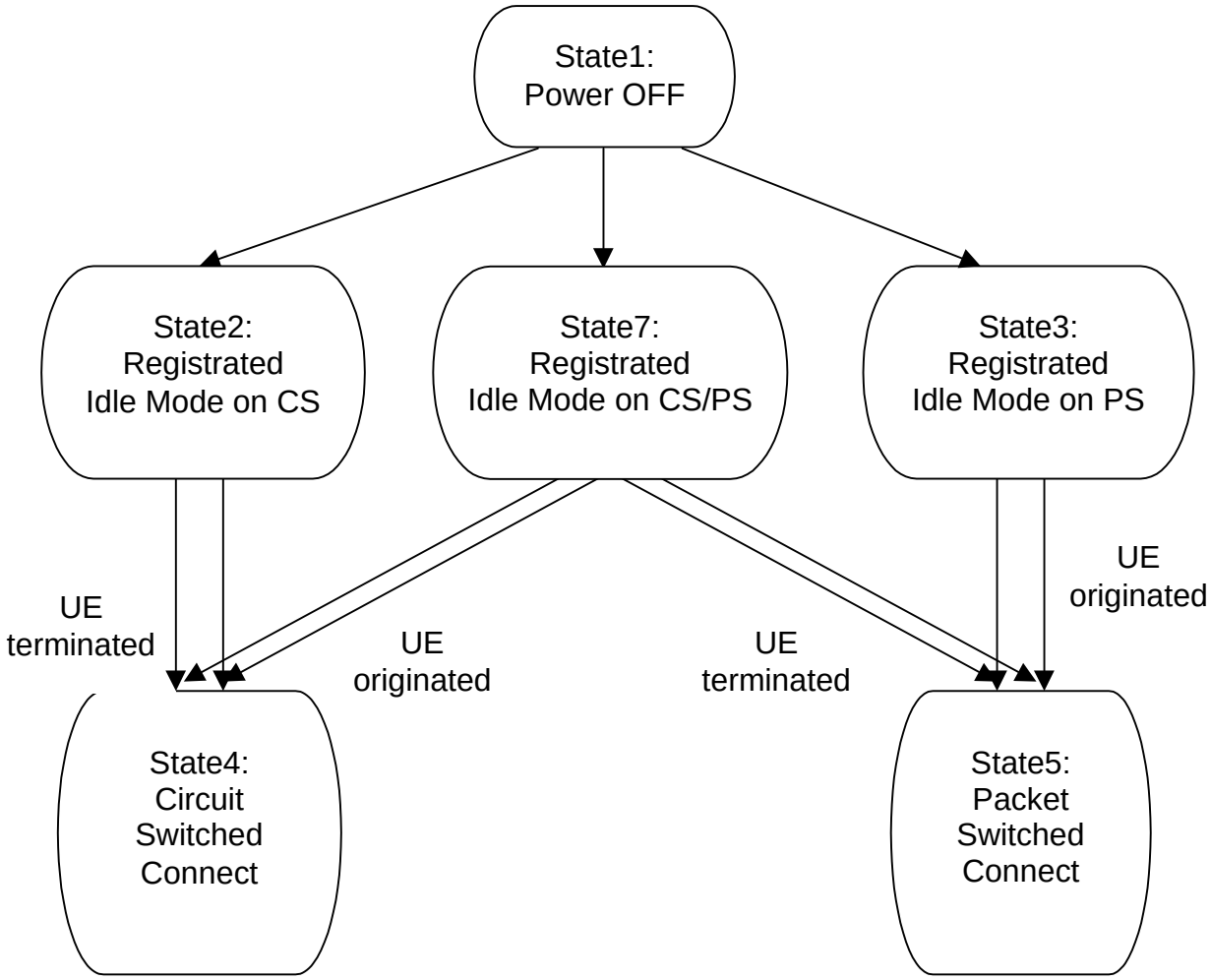

Figure 7.2.1.1: UE Test States for Generic setup procedures

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	~~CS~~ Registered Idle Mode on CS	idle	null	idle	inactive	detached
State3	~~PS~~ Registered Idle Mode on PS	idle	null	detached	inactive	idle
~~State3~~ State4	Circuit Switched Connect	connected	active	connected	inactive	~~detached~~same as previous state
~~State4~~ State5	Packet Switched Connect	connected	null	same as previous state~~detached~~	active	connected
State7	Registered Idle Mode on CS/PS	idle	null	idle	inactive	idle

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-USIM~~Test-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	<--		~~SECULITY~~SECURITY 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 Layer 3 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	<--		~~SECULITY~~SECURITY 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		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		<--	SECURITY MODE COMMAND	RRC
9		-->	SECURITY MODE COMPLETE	RRC
10		<--	ATTACH ACCEPT	GMM
11		-->	ATTACH COMPLETE	GMM
12		<--	RRC CONNECTION RELEASE	RRC
13		-->	RRC CONNECTION RELEASE COMPLETE	RRC

7.2.2.3.4 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-USIM~~Test-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		-->	~~ALEARTING~~ALERTING	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~~		~~-->~~	~~PAGING RESPONSE~~	~~RR~~
~~6~~5		-->	CM SERVICE REQUEST	MM
~~5~~6		<--	AUTHENTICATION REQUEST	MM
~~6~~7		-->	AUTHENTICATION RESPONSE	MM
~~7~~8		<--	SECURITY MODE COMMAND	RRC
~~8~~9		-->	SECURITY MODE COMPLETE	RRC
~~9~~10		-->	SET UP	CC
~~10~~11		<--	CALL PROCEEDING	CC
~~11~~12		<--	RADIO BEARER SETUP	RRC RAB SETUP
~~12~~13		-->	RADIO BEARER SETUP COMPLETE	RRC
~~13~~14		<--	~~ALEARTING~~ALERTING	CC
~~14~~15		<--	CONNECT	CC
~~15~~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 Layer3 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	GMM
8		-->	AUTHENTICATION AND CIPHERING RESPONSE	GMM
9		<--	SECURITY MODE COMMAND	RRC
10		-->	SECURITY MODE COMPLETE	RRC
11		<--	REQUEST PDP CONTEXT ACTIVATION	SM
12		-->	ACTIVATE PDP CONTEXT REQUEST	SM
13		<--	RADIO BEARER SETUP	RRC RAB SETUP
14		-->	RADIO BEARER SETUP COMPLETE	RRC
15		<--	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 Layer3 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”.

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

3GPP TSG-SIG Meeting #14 ***T1S-000266***
Redondo Beach, California, USA, 13-16/11/00

CR-Form-v3

CHANGE REQUEST

⌘ **34.108** **CR** **023** ⌘ rev ⌘ Current version: **3.1.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: ⌘ (U)SIM ☐ ME/UE ☐ Radio Access Network ☐ Core Network ☐

Title:	⌘	Minimum Performance Levels
Source:	⌘	Anite Telecoms Ltd
Work item code:	⌘	***Date:*** ⌘ 14/11/00
Category:	⌘ **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 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: ⌘ 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: ⌘ - 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:	⌘	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

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 multi-cell 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>	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>	
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
BCCH	1	
CCCH	1	
DCCH	1	
PCCH	1	
DTCH	1	
SHCH	1	

4.2.1.1.2 Transport Channels

Transport Channel	Minimum Number	Comments
BCH	1	
FACH	1	
PCH	1	
DCH	n <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

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Redondo Beach, California, USA, 13-16/11/00

Document T1-000307
e.g. for 3GPP use the format TP-99xxx or for SMG, use the format P-99-xxx

T1S-000267

CR-Form-v3

CHANGE REQUEST

⌘ **34.108** **CR** **024** ⌘ rev ⌘ Current version: **3.1.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: ⌘ (U)SIM ☐ ME/UE ☐ Radio Access Network ☐ Core Network ☐

Title:	⌘	Downlink signal conditions and propagation conditions
Source:	⌘	Anite Telecoms Ltd
Work item code:	⌘	***Date:*** ⌘ 9/11/00
Category:	⌘	**D** ***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 1998)
R99 (Release 1999)
REL-4 (Release 4)
REL-5 (Release 5)

Reason for change:	⌘	Propagation conditions are already defined in TS34.121 Annex-D for FDDand TS34.122 Annex-D for TDD. To avoid duplicate definitions, they should be removed but the reference pointers are added. Table 5.4.1.1 and Table 5.4.1.2 in Clause 5.4.1 of 34.108 (V3.1.0) define the power levels for individual Downlink physical channels for both FDD and TDD modes respectively. Similarly Table 5.4.2.1 and Table 5.4.2.2 define the power levels for individual Uplink physical channels for both FDD and TDD modes respectively. The 4 tables are relevant to UE hence they not needed in SS Specifications in the way they are presented. So they are being deleted pending proposals giving values relevant to the system simulator.
Summary of change:	⌘	1) Delete table 5.4.1.1 2) Delete table 5.4.1.2 3) Delete table 5.4.2.1 4) Delete table 5.4.2.1 5) Remove propoagation conditions definitions, and add reference pointer information in clause 5.2
Consequences if not approved:	⌘	Situation remains ambiguous

Clauses affected:	⌘	5.2, 5.3, 5.4

Other specs affected:	⌘	☐ Other core specifications ☐ Test specifications ☐ O&M Specifications	⌘	
Other comments:	⌘			

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>

5.4.2 Uplink Signal Levels

<FFS>

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Document T1-000282
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 T1S000222
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CHANGE REQUEST

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34.108 **CR** **027** Current Version: 3.1.0

GSM (AA.BB) or 3G (AA.BBB) specification number ↑ *↑ CR number as allocated by MCC support team*

For submission to: T#10 *list expected approval meeting # here ↑*

for approval [X] for information [ ]

strategic [ ] non-strategic [ ] *(for SMG use 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)* (U)SIM [ ] ME [X] UTRAN / Radio [ ] Core Network [ ]

Source: Matsushita Communication Industry Co.,Ltd **Date:** 17/10/2000

Subject: Updates to the default message contents in clause 9

Work item:

Category: *(only one category shall be marked with an X)*

F	Correction	[ ]
A	Corresponds to a correction in an earlier release	[ ]
B	Addition of feature	[ ]
C	Functional modification of feature	[X]
D	Editorial modification	[ ]

Release:

Phase 2	[ ]
Release 96	[ ]
Release 97	[ ]
Release 98	[ ]
Release 99	[X]
Release 00	[ ]

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 re-positioned 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).
9. 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 affected: 9

Other specs affected:

Other 3G core specifications		→ List of CRs:
Other GSM core specifications		→ List of CRs:
MS test specifications		→ List of CRs:
BSS test specifications		→ List of CRs:
O&M specifications		→ List of CRs:

Other comments:

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<--------- 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
Meqasured 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

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

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	
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)
- Activation time for DPCH	Not Present(Used RLC-TM)
- Radio bearer downlink ciphering activation time info	Not Present(Used RLC-AM or RLC-UM)
- 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	
URA identity	Not Present
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	
- Information for each multiplexing option	
- 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	
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	
- 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	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
- 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	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	
- 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	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
- 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	
- 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
- 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
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	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.)
- PRACH TFCS	Not Present
- CHOICE Mode	FDD
- 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	
- CHOICE Gain Factors	Signalled Gain Factor
- Gain factor ßc	0
- Gain factor ßd	0
- Reference TFC ID	Not Present
- Power offset Pp-m	0dB
Added or Reconfigured UL TrCH information	
- Transport channel identity	2
- 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
Added or Reconfigured UL TrCH information	
- Transport channel identity	3
- 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
Added or Reconfigured UL TrCH information	(This IE is needed for 12.2 kbps and 10.2 kbps)
- Transport channel identity	4
- TFS	(This IE is repeated for TFI number)
- Dynamic Transport format information	
- 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
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	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	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
DRAC static information	Not Present
- Transmission Time Validity	
- Time duration before retry	
- DRAC Class identity	
DL Transport channel information common for all transport channel	
- SCCPCH TFCS	Not Present
- CHOICE DL parameters	Independent
- DL 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	
- CHOICE Gain Factors	Signalled Gain Factor
- Gain factor ßc	0
- Gain factor ßd	0
- Reference TFC ID	Not Present
- Power offset Pp-m	0dB
Added or Reconfigured DL TrCH information	
- Transport channel identity	2
- CHOICE DL parameters	SameAsUL
- UL TrCH Identity	2
- DCH quality target	
- BLER Quality value	0.00
- Transparent mode signalling info	Not Present
Added or Reconfigured DL TrCH information	
- Transport channel identity	3
- CHOICE DL parameters	SameAsUL
- UL TrCH information	3
Added or Reconfigured DL TrCH information	(This IE is needed for 12.2 kbps and 10.2 kbps)
- Transport channel identity	4
- CHOICE DL parameters	SameAsUL
- UL TrCH information	4
- DCH quality target	
- BLER Quality value	0.00
- Transparent mode signalling info	Not Present
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	1
- CHOICE DL parameters	Independent
- UL TrCH 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	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	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
CHOICE Mode	FDD
- Downlink PDSCH information	Not Present
Downlink information common for all radio links	
- Downlink DPCH info common for all RL	
- CHOICE mode	FDD
- Downlink DPCH power control information	
- DPC mode	0 (single)
- DL rate matching restriction information	Not Present
- 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	1.0
- DeltaSIR2	Not Present
- DeltaSIRafter2	Not Present
- TX Diversity mode	None
- SSDT information	Not Present
- S field	
- Code Word Set	
- Default DPCH Offset Value	0

~~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	0 chips
- Secondary CPICH info	Not Present
- Secondary scrambling code	
- channelisation code	
- DL channelisation code	
- Secondary scrambling code	1
- 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
- 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
- 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

Contents of RADIO BEARER SETUP COMPLETE message: AM

Message Type ~~Hyper frame number~~START Radio bearer uplink ciphering activation time info Other information element	 Not checked SS must follow this IE to cipher on the each RB 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
- 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	
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)
- Activation time for DPCH	Not Present(Used RLC-TM)
- Radio bearer downlink ciphering activation time info	Not Present(Used RLC-AM or RLC-UM)
- 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	
URA identity	Not Present
RAB information to reconfigure list	Not Present
RB information to release	
- 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	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	
- 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
- 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
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	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.)
- PRACH TFCS	Not Present
- CHOICE Mode	FDD
- 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	
- CHOICE Gain Factors	Signalled Gain Factors
- Gain factor ßc	0
- Gain factor ßd	0
- Reference TFC ID	Not Present
- 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	If TrCH reconfiguration is executed then this is needed(e.g The rate of SRB for DCCH is changed.).
- 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	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
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
- CHOICE DL parameters	Independent
- DL 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	
- CHOICE Gain Factors	Signalled Gain Factor
- Gain factor ßc	0
- Gain factor ßd	0
- Reference TFC ID	Not Present
- Power offset Pp-m	0dB
Deleted DL TrCH Information	
- Transport channel identity	2
Deleted DL TrCH Information	
- Transport channel identity	3
Deleted DL TrCH Information	
- Transport channel identity	4
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	1
- CHOICE DL parameters	SameAsUL
- UL TrCH Identity	1
- 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	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
CHOICE Mode	FDD
- Downlink PDSCH information	Not Present
Downlink information common for all radio links	
- Downlink DPCH info common for all RL	
- CHOICE mode	FDD
- Downlink DPCH power control information	
- DPC mode	0 (single)
- 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
~~- 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	1.0
- DeltaSIR2	Not Present
- DeltaSIRafter2	Not Present
- TX Diversity mode	None
- SSDT information	Not Present
- S field	
- Code Word Set	
- Default DPCH Offset Value	0
~~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	0 chips

- Secondary CPICH info	Not Present
- Secondary scrambling code	
- channelisation code	
- DL channelisation code	
- Secondary scrambling code	1
- 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
- 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
- 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	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	
U-RNTI	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

Contents of RRC CONNECTION SETUP message: UM (Transition to CELL_DCH)

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	
- SRNC identity	0000 0000 0001B
- S-RNTI	0000 0000 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	
- CHOICE Uplink RLC mode	UM RLC
- Transmission RLC discard	
- SDU discard mode	Max DAT retransmissions
- MAX_DAT	4
- Timer_MRW	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	1
- Downlink transport channel type	DCH
- Transport channel identity	1
- 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	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
- 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	
- 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	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	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	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
- 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
- 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.)
- PRACH TFCS	Not Present
- CHOICE Mode	FDD
- 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	
- CHOICE Gain Factors	Signalled Gain Factor
- Gain factor ßc	0
- Gain factor ßd	0
- Reference TFC ID	Not Present
- Power offset Pp-m	0dB
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	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
- CHOICE DL parameters	Independent
- DL 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	Refer to clause 6.10 Parameter Set
- Power offset information	
- CHOICE Gain Factor	Signalled Gain Factor
- Gain factor ßc	0
- Gain factor ßd	0
- Reference TFC ID	Not Present
- Power offset Pp-m	0dB
Added or Reconfigured DL TrCH information	
- Transport channel identity	1
- CHOICE DL parameters	SameAsDL
- UL TrCH Identity	1
- 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	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 information common for all radio links	
- Downlink DPCH info common for all RL	
- CHOICE mode	FDD
- Downlink DPCH power control information	
- DPC mode	0 (single)
- DL rate matching restriction information	Not Present
- 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	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	
- Default DPCH Offset Value	0
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	0 chips
- Secondary CPICH info	Not Present
- Secondary scrambling code	
- channelisation code	
- DL channelisation code	
- Secondary scrambling code	1
- 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
- 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
- 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	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
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~~.
- Message Authentication code	Calculated result in SS
- RRC Message sequence number	0
Security capability	
- Ciphering algorithm capability	0000000000000010~~0~~B (UEA0)
- Integrity protection algorithm capability	0000000000000010B(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~~
- Radio bearer downlink ciphering activation time 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
- Radio bearer activation time	
- 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: 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: 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