Source: **T1**

Title: **CR's to TS 34.108 v3.15.0, v4.10.0 and v.5.0.0 for approval**

Agenda item: **5.1.3**

Document for: **Approval**

This document contains the CRs to TS 34.108 v3.15.0, v4.10.0 and v.5.0.0. These CRs have been agreed by T1 and are put forward to TSG T for approval.

TSG T's attention is requested for noting that after approval of CRs T1-040932 (Replacement of the technical content of 34.108 Rel 99 by a pointer to the gathered releases document, CR 336), T1-040933 (Replacement of the technical content of 34.108 Rel 4 by a pointer to the gathered releases document, CR 337) and T1-040931 (Changes to establish one version of 34.108 covering all releases, CR 335), only one version of 34.108 will be maintained, the version 5.x.y. This version will cover the three releases.

Tdoc #	**Title**	**CR#**	**Release**	cat	Version in	Version out
T1-040510	CR to TS 34.108 R99; Correction to IEs "START" and "ul_CounterSynchronisationInfo" .	306	Rel-99	F	3.15.0	5.1.0
T1-040511	CR to TS 34.108 Rel4; Correction to IEs "START" and "ul_CounterSynchronisationInfo" .	307	Rel-4	F	4.10.0	5.1.0
T1-040512	CR to TS 34.108 Rel5; Correction to IEs "START" and "ul_CounterSynchronisationInfo" .	308	Rel-5	F	5.0.0	5.1.0
T1-040522	Correction to HSDPA reference radio bearer configurations	309	REL-5	F	5.0.0	5.1.0
T1-040546	Addition of test procedure for HSDPA RF testing	310	REL-5	F	5.0.0	5.1.0
T1-040555	Physical channel parameters for AM RLC 7 bit Length Indicator TestCases (Rel-4)	311	Rel-4	F	4.10.0	5.1.0
T1-040563	Corrections to the default contents of Security Mode Command (Rel-4)	312	Rel-4	F	4.10.0	5.1.0
T1-040564	Corrections to the default contents	313	R99	F	3.15.0	5.1.0

	of Security Mode Command (R99)					
T1-040569	Physical channel parameters for AM RLC 7 bit Length Indicator TestCases (R99)	314	R99	F	3.15.0	5.1.0
T1-040593	CR to 34.108 REL-5; Corrections to default RRC messages	315	REL-5	F	5.0.0	5.1.0
T1-040654	CR to 34.108 R99: Change of default LAC/RAC for inter-RAT test cases	316	R99	F	3.15.0	5.1.0
T1-040655	CR to 34.108 Rel-4: Change of default LAC/RAC for inter-RAT test cases	317	Rel-4	A	4.10.0	5.1.0
T1-040656	CR to 34.108 Rel-5: Change of default LAC/RAC for inter-RAT test cases	318	Rel-5	A	5.0.0	5.1.0
T1-040673	CR to 34.108 Rel-5: Contents of Physical Channel Reconfiguration message modified to incorporate transition to URA_PCH or CELL_PCH	319	Rel-5	F	5.0.0	5.1.0
T1-040701	Correction of reference test frequencies for UMTS800(band VI)	320	Rel-5	F	5.0.0	5.1.0
T1-040702	Correction of reference test frequencies for UMTS800(band VI)	321	Rel-4	A	4.10.0	5.1.0
T1-040703	Correction of reference test frequencies for UMTS800(band VI)	322	R99	A	3.15.0	5.1.0
T1-040752	Update of generic setup procedures in sections 7.3.4 and 7.3.5.	323	R99	F	3.15.0	5.1.0
T1-040753	Update of generic setup procedures in sections 7.3.4 and 7.3.5.	324	Rel-4	A	4.10.0	5.1.0
T1-040754	Update of generic setup procedures in sections 7.3.4 and 7.3.5.	325	Rel-5	A	5.0.0	5.1.0
T1-040902	Physical channel parameters for AM RLC 7 bit Length Indicator TestCases (Rel-5)	326	Rel-5	F	5.0.0	5.1.0
T1-040903	Corrections to the default contents of Security Mode Command (Rel-5)	327	Rel-5	F	5.0.0	5.1.0
T1-040906	CR to 34.108 R99: Contents of Physical Channel Reconfiguration message modified to incorporate transition to URA_PCH or	328	R99	F	3.15.0	5.1.0

	CELL_PCH					
T1-040907	CR to 34.108 Rel-4: Contents of Physical Channel Reconfiguration message modified to incorporate transition to URA_PCH or CELL_PCH	329	Rel-4	F	4.10.0	5.1.0
T1-040909	Corrections to Contents of Scheduling Block 1 (FDD)	330	Rel-5	F	5.0.0	5.1.0
T1-040911	Corrections to Contents of PHYSICAL CHANNEL RECONFIGURATION message: AM or UM	331	Rel 5	F	5.0.0	5.1.0
T1-040913	Corrections to Contents of RRC CONNECTION SETUP message: UM	332	Rel-5	F	5.0.0	5.1.0
T1-040917	RADIO BEARER SETUP message (FDD) for Test Loop Mode2.	333	Rel-5	F	5.0.0	5.1.0
T1-040926	Corrections to LCR TDD RABs	334	Rel-4	F	4.a.0	5.1.0
T1-040931	Changes to establish one version of 34.108 covering all releases	335	Release 5	A	5.0.0	5.1.0
T1-040932	Replacement of the technical content of 34.108 Rel 99 by a pointer to the gathered releases document	336	R99	D	3.15.0	5.1.0
T1-040933	Replacement of the technical content of 34.108 Rel 4 by a pointer to the gathered releases document	337	Rel-4	D	4.10.0	5.1.0
T1-040934	Addition of generic test procedure for AS test cases using the test loop	338	Release 5	A	5.0.0	5.1.0
T1-040935	Corrections to LCR TDD RABs	339	Rel-5	F	5.0.0	5.1.0

3GPP TSG-T1 Meeting #23
Beijing, China, 10th – 14th May 04

Tdoc T1-040932

CR-Form-v7

CHANGE REQUEST

⌘ **34.108** **CR** 336 ⌘ **rev** **-** ⌘ Current version: **3.15.0** ⌘

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

Proposed change affects: UICC apps⌘ ☐ ME ☐ Radio Access Network ☐ Core Network ☐

Title:	⌘	Replacement of the technical content of 34.108 Rel 99 by a pointer to the gathered releases document
Source:	⌘	MCC
Work item code:	⌘	TEI
Date:	⌘	13/05/2004
Category:	⌘	**D**
Release:	⌘	R99

Use one of the following categories:
F *(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)*
Rel-6	*(Release 6)*

Reason for change:	⌘	The Release 99, Release 4 and Release 5 versions of this document are very similar and do not justify to maintain three different versions. For this reason, T1#24 has decided to cover Releases 99, 4 and 5 by a single version, the version 5, where clear indications are made for text applying to specific release(s). All the other text of version 5 applies by default to the three releases.
Summary of change:	⌘	All the technical content of 34.108 v. 3.15.0 is replaced by a pointer to the version 5 of this TS.
Consequences if not approved:	⌘	Useless overhead of maintenance work to be performed to provide three parallel versions of this TS.

Clauses affected:	⌘	All			
Other specs affected:	⌘	**Y**	**N**		
			X	Other core specifications	⌘
			X	Test specifications	
			X	O&M Specifications	
Other comments:	⌘				

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

1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

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

Foreword

This Technical Specification (TS) has been produced by the 3rd Generation Partnership Project (3GPP).

The contents of the present document are subject to continuing work within the TSG and may change following formal TSG approval. Should the TSG modify the contents of the present document, it will be re-released by the TSG with an identifying change of release date and an increase in version number as follows:

Version x.y.z

where:

x the first digit:

1 presented to TSG for information;

2 presented to TSG for approval;

3 or greater indicates TSG approved document under change control.

y the second digit is incremented for all changes of substance, i.e. technical enhancements, corrections, updates, etc.

z the third digit is incremented when editorial only changes have been incorporated in the document.

Introduction

The definition of the Conformance Tests for UE in 3G will be a complex task as the complete test suite covers RF, EMC and Protocol aspects of the UE.

Each test requires a Test Environment to be defined in which the UE has to operate to defined standards, constraints and performance. The overall task can be simplified if there are a number of well defined and agreed Common Test Environments where every one can be used for a number of tests. Hence the present documents defines testing conditions that are common to several tests avoiding the need to duplicate the same information for every single test.

The present document defines default values for a variety of common areas. Where values are not specified in test cases, the defaults in the present document will apply. If specified, the test case values will take precedence.

The present document addresses the FDD mode as well as the TDD mode.

1 Scope

The present document contains definitions of reference conditions and test signals, default parameters, reference radio bearer configurations used in radio bearer interoperability testing, common radio bearer configurations for other test purposes, common requirements for test equipment and generic set-up procedures for use in UE conformance tests.

2 References, Definitions and Technical Content

~~The following documents contain provisions which, through reference in this text, constitute provisions of the present document.~~

- ~~References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.~~
- ~~For a specific reference, subsequent revisions do not apply.~~
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~~[1] 3GPP TS 34.123-1: "User Equipment (UE) conformance specification; Part 1: Protocol conformance specification".~~

~~[2] 3GPP TS 34.121: "Terminal Conformance Specification; Radio transmission and reception (FDD)".~~

~~[3] 3GPP TS 34.123-2: "User Equipment (UE) conformance specification; Part 2: Implementation Conformance Statement (ICS) proforma specification".~~

~~[4] 3GPP TS 34.124: "ElectroMagnetic compatibility (EMC) requirements for Mobile terminals and ancillary equipment".~~

~~[5] 3GPP TS 34.122: "Terminal Conformance Specification; Radio transmission and reception (TDD)".~~

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~~[7] 3GPP TS 25.301 "Radio Interface Protocol Architecture".~~

~~[9] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".~~

~~[10] 3GPP TR 25.990: "Vocabulary".~~

~~[11] 3GPP TS 25.101: "UE Radio transmission and reception (FDD)".~~

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~~[17] 3GPP TS 29.007: "General requirements on interworking between the Public Land Mobile Network (PLMN) and the Integrated Services Digital Network (ISDN) or Public Switched Telephone Network (PSTN)".~~

[18] 3GPP TR 23.910: "Circuit Switched Data Bearer Service".

[19] Void.

[20] 3GPP TS 25.104: "UTRA (BS) FDD; Radio Transmission and Reception".

[21] 3GPP TS 25.105: "UTRA (BS) TDD; Radio Transmission and Reception".

[22] 3GPP TS 31.101: "UICC Terminal Interface; Physical and Logical Characteristics".

[23] 3GPP TS 31.102: "Characteristics of the USIM Application".

[24] 3GPP TS 33.102: "3G Security; Security Architecture".

[25] 3GPP TS 33.103: "3G Security; Integration Guidelines".

[26] 3GPP TS 33.105: "3G Security; Cryptographic Algorithm Requirements".

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[28] 3GPP TS 25.221: "Physical Channels and mapping of Transport Channels onto Physical channels (TDD)".

[29] 3GPP TS 25.222: "Multiplexing and Channel Coding (TDD)".

[30] 3GPP TS 25.133: "Requirements for support of radio resource management (FDD)".

[31] 3GPP TS 51.010-1: "GSM/EDGE Radio Access Network; Digital cellular telecommunications system (Phase 2+); Mobile Station (MS) conformance specification; Part 1: Conformance specification".

[32] 3GPP TS 24.008: "Mobile radio interface layer 3 specification; Core Network Protocols; Stage 3".

3GPP TS 34.108 Version 5 covers all Release 99 aspects.

{All subsequent sections are deleted up to the "Hystory" Annex not included}

3GPP TSG-T1 Meeting #23
Beijing, China, 10th – 14th May 04

Tdoc T1-040933

CR-Form-v7

CHANGE REQUEST

⌘ **34.108** **CR** 337 ⌘ **rev** **-** ⌘ Current version: **4.10.0** ⌘

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

Proposed change affects: UICC apps⌘ ☐ ME ☐ Radio Access Network ☐ Core Network ☐

Title:	⌘	Replacement of the technical content of 34.108 Rel 4 by a pointer to the gathered releases document
Source:	⌘	MCC
Work item code:	⌘	TEI
Date:	⌘	13/05/2004
Category:	⌘	**D**
Release:	⌘	Rel-4

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F *(correction)*
A *(corresponds to a correction in an earlier release)*
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Summary of change:	⌘	All the technical content of 34.108 v. 4.10.0 is replaced by a pointer to the version 5 of this TS.
Consequences if not approved:	⌘	Useless overhead of maintenance work to be performed to provide three parallel versions of this TS.

Clauses affected:	⌘	All			
Other specs affected:	⌘	**Y**	**N**		
			X	Other core specifications	⌘
			X	Test specifications	
			X	O&M Specifications	
Other comments:	⌘				

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~~[3] 3GPP TS 34.123-2: "User Equipment (UE) conformance specification; Part 2: Implementation Conformance Statement (ICS) proforma specification".~~

~~[4] 3GPP TS 34.124: "ElectroMagnetic compatibility (EMC) requirements for Mobile terminals and ancillary equipment".~~

~~[5] 3GPP TS 34.122: "Terminal Conformance Specification; Radio transmission and reception (TDD)".~~

~~[6] 3GPP TS 34.109: "Terminal Logical Test Interface; Special conformance testing functions".~~

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~~[32] 3GPP TS 24.008: "Mobile radio interface layer 3 specification; Core Network Protocols; Stage 3".~~

3GPP TS 34.108 Version 5 covers all Release 4 aspects.

{All subsequent sections are deleted up to the "Hystory" Annex not included}

3GPP TSG-T1 Meeting #23
Beijing, China, 10th-14th May

Tdoc ⌘T1-040510

CR-Form-v7

CHANGE REQUEST

⌘ **TS 34.108** **CR** **306** ⌘ **rev** **-** ⌘ Current version: **3.15.0** ⌘

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

Proposed change affects: UICC apps⌘ ☐ ME ☒ Radio Access Network ☐ Core Network ☐

Title:	⌘	CR to TS 34.108 R99; Correction to IEs "START" and "ul_CounterSynchronisationInfo".
Source:	⌘	Ericsson, ETSI
Work item code:	⌘	TEI
Date:	⌘	08/04/2004
Category:	⌘	**F**
Release:	⌘	Rel-99

Use one of the following categories:
F *(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)*
Rel-6	*(Release 6)*

Reason for change:	⌘	1. IE "START" is checked in TTCN if Ciphering is ON in the testcases. This change is critical as UEs will be FAILED if ciphering is ON. 2. IE "Uplink counter synchronisation info" is set to not checked, but actually the default handling is to check that it is not present.
Summary of change:	⌘	1. Clarified that IE START is actually checked if Ciphering is ON. 2. Changed value for "Uplink counter synchronisation info" from Not checked to Not present.
Consequences if not approved:	⌘	TC will fail a conformant UE.

Clauses affected:	⌘	9.1.1, 9.1.2

Other specs affected: ⌘	Y	N		⌘
		X	Other core specifications	
		X	Test specifications	
		X	O&M Specifications	

Other comments: ⌘

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

9.1.1 Default RRC Message Contents (FDD)

<<< **Start of modified section** >>>

Contents of CELL UPDATE message: TM

Information Element	Value/remark
Message Type	
U-RNTI	Checked to see if it is set to the following values
- SRNC identity	0000 0000 0001B
- S-RNTI	0000 0000 0000 0000 0001B
RRC transaction identifier	Checked to see if it is absent
Integrity check info	
- 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. The first/ leftmost bit of the bit string contains the most significant bit of the MAC-I.
- 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.
START List	Checked to see if the 'CN domain identity' and 'START' IEs are present for all CN domains supported by the UE (if Ciphering is ON).
- CN domain identity	Checked to see if it is one of the supported CN domains
- START	Check the presence if ciphering is on.~~ed to see if it is present~~ The first/ leftmost bit of the bit string contains the most significant bit of the START.
AM_RLC error indication (RB2, RB3 or RB4)	Checked to see if it is set to 'FALSE'
AM_RLC error indication (RB>4)	Checked to see if it is set to 'FALSE'
Cell update cause	See the test content
Failure cause	Checked to see if it is absent
RB timer indicator	
- T314 expired	Checked to see if it is set to 'FALSE'
- T315 expired	Checked to see if it is set to 'FALSE'
Measured results on RACH	Not checked

<<< **End of modified section** >>>

<<< **Start of modified section** >>>

Contents of INITIAL DIRECT TRANSFER message: AM

Information Element	Value/remark
Message Type	
Integrity check info	
- 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. The first/ leftmost bit of the bit string contains the most significant bit of the MAC-I.
- 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.
CN domain identity	Checked to see if set to supported CN domain as specified in the IXIT statements.
Intra Domain NAS Node Selector	
- CHOICE version	R99
- CHOICE CN type	GSM-MAP
- CHOICE Routing basis	Local (P)TMSI
- Routing parameter	If the IE "CN domain identity" is equal to "CS domain", this bit string is set to to bits b14 through b23 of the TMSI. If the IE "CN domain identity" is equal to "PS domain", this bit string is set to to bits b14 through b23 of the P-TMSI. The TMSI/P-TMSI consists of 4 octets (32bits). This can be represented by a string of bits numbered from b0 to b31, with bit b0 being the least significant. The "Routing parameter" bit string consists of bits b14 through b23 of the TMSI/ PTMSI. The first/ leftmost/ most significant bit of the bit string contains bit b23 of the TMSI/ PTMSI.
- Entered parameter	Not checked
NAS message	Set according to that indicated in specific message content for each test case
START	Not checked (if ciphering is OFF), check the presence if ciphering is ON.
Measured results on RACH	Not checked

<<< **End of modified section** >>>

<<< **Start of modified section** >>>

Contents of PHYSICAL CHANNEL RECONFIGURATION COMPLETE message: AM

Information Element	Value/remark
Message Type	
RRC transaction identifier	Checked to see if it's set to identical value of the same IE in the downlink PHYSICAL CHANNEL RECONFIGURATION message
Integrity check info	
- 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. The first/ leftmost bit of the bit string contains the most significant bit of the MAC-I.
- 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
CHOICE mode	FDD
COUNT-C activation time	Not checked
Radio bearer uplink ciphering activation time info	Not checked
Uplink counter synchronisation info	Not ~~checked~~present

<<< **End of modified section** >>>

<<< **Start of modified section** >>>

Contents of RADIO BEARER SETUP COMPLETE message: AM

Message Type	
RRC transaction identifier	Checked to see if the value is identical to the same IE in the downlink RADIO BEARER SETUP message.
Integrity check info	
- 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. The first/ leftmost bit of the bit string contains the most significant bit of the MAC-I.
- 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.
CHOICE mode	FDD
START	Not checked (if ciphering is OFF), check the presence if ciphering is ON.
COUNT-C activation time	The UE shall include this IE if the following two conditions are fulfilled: (a) The RADIO BEARER SETUP message did not contain the IE "Ciphering activation time for DPCH" and (b) The RADIO BEARER SETUP message established the first RB(s) mapped to RLC-TM for a CN domain. Else, this IE is absent.
Radio bearer uplink ciphering activation time info	Not checked
Uplink counter synchronisation info	Not present~~checked~~

<<< **End of modified section** >>>

<<< **Start of modified section** >>>

Contents of RADIO BEARER RECONFIGURATION COMPLETE message: AM

Information Element	Value/remark
Message Type	
RRC transaction identifier	Checked to see if the value is identical to the same IE in the downlink RADIO BEARER RECONFIGURATION COMPLETE message
Integrity check info	
- 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. The first/ leftmost bit of the bit string contains the most significant bit of the MAC-I.
- 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
CHOICE mode	FDD
COUNT-C activation time	Not checked
Radio bearer uplink ciphering activation time info	Not checked
Uplink counter synchronisation info	Not present~~checked~~

<<< **End of modified section** >>>

<<< **Start of modified section** >>>

Contents of RADIO BEARER RELEASE COMPLETE message: AM

Message Type RRC transaction identifier Integrity check info - Message authentication code - RRC Message sequence number Uplink integrity protection activation info CHOICE mode COUNT-C activation time Radio bearer uplink ciphering activation time info Uplink counter synchronisation info	 Checked to see the value is identical to the same IE in the downlink RADIO BEARER RELEASE message. This IE is checked to see if it is present. The value is compared against the XMAC-I value computed by SS. The first/ leftmost bit of the bit string contains the most significant bit of the MAC-I. This IE is checked to see if it is present. The value is used by SS to compute the XMAC-I value. Not checked. FDD Not checked Not checked Not present~~checked~~

<<< **End of modified section** >>>

<<< **Start of modified section** >>>

Contents of RRC CONNECTION SETUP COMPLETE message: AM

Information Element	Value/remark
Message Type RRC transaction identifier START list UE radio access capability UE radio access capability extension UE system specific capability	 The value of this IE is checked to see that it matches the value of the same IE transmitted in the downlink RRC CONNECTION SETUP message. Not checked (if ciphering is OFF), check the presence if ciphering is ON. Not checked Not checked Not checked

<<< **End of modified section** >>>

<<< **Start of modified section** >>>

Contents of TRANSPORT CHANNEL RECONFIGURATION COMPLETE message: AM

Information Element	Value/remark
Message Type	
RRC transaction identifier	Checked to see if the value is identical to the same IE in the downlink TRANSPORT CHANNEL RECONFIGURATION message
Integrity check info	
- 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. The first/ leftmost bit of the bit string contains the most significant bit of the MAC-I.
- 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
CHOICE mode	FDD
COUNT-C activation time	Not checked
Radio bearer uplink ciphering activation time info	Not checked
Uplink counter synchronisation info	Not present~~checked~~

<<< **End of modified section** >>>

<<< **Start of modified section** >>>

Contents of UTRAN MOBILITY INFORMATION CONFIRM message: AM

Information Element	Value/remark
Message Type	
RRC transaction identifier	Checked to see if it matches the value of the same IE in downlink UTRAN MOBILITY INFORMATION message
Integrity check info	
- 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. The first/ leftmost bit of the bit string contains the most significant bit of the MAC-I.
- 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
COUNT-C activation time	Not checked
Radio bearer uplink ciphering activation time info	Not checked
Uplink counter synchronisation info	Not present~~checked~~

<<< **End of modified section** >>>

9.1.2 Default RRC Message Contents (TDD)

<<< **Start of modified section** >>>

Contents of RADIO BEARER SETUP COMPLETE message: AM

Message Type	
RRC transaction identifier	Checked to see if the value is identical to the same IE in the downlink RADIO BEARER SETUP message.
Integrity check info	
- 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. The first/ leftmost bit of the bit string contains the most significant bit of the MAC-I.
- 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.
CHOICE mode	TDD
START	Not checked (if ciphering is OFF), check the presence if ciphering is ON.
COUNT-C activation time	The presence of this IE depends on the following 2 factors: (a) There exists RB(s) mapped to RLC-TM and (b) UE is transiting to CELL_DCH state after the RB establishment procedure. Else, this IE is absent.
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.
Uplink counter synchronisation info	Not present~~checked~~

<<< **End of modified section** >>>

<<< **Start of modified section** >>>

Contents of RADIO BEARER RELEASE COMPLETE message: AM

Message Type	
RRC transaction identifier	Checked to see the value is identical to the same IE in the downlink RADIO BEARER RELEASE message.
Integrity check info	
- 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. The first/ leftmost bit of the bit string contains the most significant bit of the MAC-I.
- 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.
CHOICE mode	TDD
COUNT-C activation time	The presence of this IE depends on the following 2 factors: (a) There exists RB(s) mapped to RLC-TM and (b) UE is transiting to CELL_DCH state after the RB release procedure. Else, this IE is absent.
Radio bearer uplink ciphering activation time info	If ciphering is not activated in RADIO BEARER RELEASE 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.
Uplink counter synchronisation info	Not present~~checked~~

<<< **End of modified section** >>>

<<< **Start of modified section** >>>

Contents of RRC CONNECTION SETUP COMPLETE message: AM

Information Element	Value/remark
Message Type	
RRC transaction identifier	The value of this IE is checked to see that it matches the value of the same IE transmitted in the downlink RRC CONNECTION SETUP message.
START list	Not checked (if ciphering is OFF), check the presence if ciphering is ON.
UE radio access capability	Not checked
UE radio access capability extension	Not checked
UE system specific capability	Not checked

<<< **End of modified section** >>>

3GPP TSG-T1 Meeting #23
Beijing, China, 10th-14th May

Tdoc ⌘T1-040511

CR-Form-v7

CHANGE REQUEST

⌘ **TS 34.108** **CR** **307** ⌘ **rev** **-** ⌘ Current version: **4.10.0** ⌘

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

Proposed change affects: UICC apps⌘ [ ] ME [X] Radio Access Network [ ] Core Network [ ]

Title:	⌘	CR to TS 34.108 Rel4; Correction to IEs "START" and "ul_CounterSynchronisationInfo".
Source:	⌘	Ericsson, ETSI
Work item code:	⌘	TEI
Date:	⌘	08/04/2004
Category:	⌘	**F**
Release:	⌘	Rel-4

Use one of the following categories:
F *(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)*
Rel-6	*(Release 6)*

Reason for change:	⌘	1. IE "START" is checked in TTCN if Ciphering is ON in the testcases. This change is critical as UEs will be FAILED if ciphering is ON. 2. IE "Uplink counter synchronisation info" is set to not checked, but actually the default handling is to check that it is not present.
Summary of change:	⌘	1. Clarified that IE START is actually checked if Ciphering is ON. 2. Changed value for "Uplink counter synchronisation info" from Not checked to Not present.
Consequences if not approved:	⌘	TC will fail a conformant UE.
Clauses affected:	⌘	9.1.1, 9.1.2

Other specs affected: ⌘	Y	N		⌘
		X	Other core specifications	
		X	Test specifications	
		X	O&M Specifications	

Other comments: ⌘

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

1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

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

9.1 Default Message Contents for Signalling

9.1.1 Default RRC Message Contents (FDD)

<<< **Start of modified section** >>>

Contents of CELL UPDATE message: TM

Information Element	Value/remark
Message Type	
U-RNTI	Checked to see if it is set to the following values
- SRNC identity	0000 0000 0001B
- S-RNTI	0000 0000 0000 0000 0001B
RRC transaction identifier	Checked to see if it is absent
Integrity check info	
- 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. The first/ leftmost bit of the bit string contains the most significant bit of the MAC-I.
- 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.
START List	Checked to see if the 'CN domain identity' and 'START' IEs are present for all CN domains supported by the UE (if Ciphering is ON).
- CN domain identity	Checked to see if it is one of the supported CN domains
- START	Check the presence if ciphering is on.~~ed to see if it is present~~ The first/ leftmost bit of the bit string contains the most significant bit of the START.
AM_RLC error indication (RB2, RB3 or RB4)	Checked to see if it is set to 'FALSE'
AM_RLC error indication (RB>4)	Checked to see if it is set to 'FALSE'
Cell update cause	See the test content
Failure cause	Checked to see if it is absent
RB timer indicator	
- T314 expired	Checked to see if it is set to 'FALSE'
- T315 expired	Checked to see if it is set to 'FALSE'
Measured results on RACH	Not checked

<<< **End of modified section** >>>

<<< **Start of modified section** >>>

Contents of INITIAL DIRECT TRANSFER message: AM

Information Element	Value/remark
Message Type	
Integrity check info	
- 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. The first/ leftmost bit of the bit string contains the most significant bit of the MAC-I.
- 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.
CN domain identity	Checked to see if set to supported CN domain as specified in the IXIT statements.
Intra Domain NAS Node Selector	
- CHOICE version	R99
- CHOICE CN type	GSM-MAP
- CHOICE Routing basis	Local (P)TMSI
- Routing parameter	If the IE "CN domain identity" is equal to "CS domain", this bit string is set to to bits b14 through b23 of the TMSI. If the IE "CN domain identity" is equal to "PS domain", this bit string is set to to bits b14 through b23 of the P-TMSI. The TMSI/P-TMSI consists of 4 octets (32bits). This can be represented by a string of bits numbered from b0 to b31, with bit b0 being the least significant The "Routing parameter" bit string consists of bits b14 through b23 of the TMSI/ PTMSI. The first/ leftmost/ most significant bit of the bit string contains bit b23 of the TMSI/ PTMSI.
- Entered parameter	Not checked
NAS message	Set according to that indicated in specific message content for each test case
START	Not checked (if ciphering is OFF), check the presence if ciphering is ON.
Measured results on RACH	Not checked

<<< **End of modified section** >>>

<<< **Start of modified section** >>>

Contents of PHYSICAL CHANNEL RECONFIGURATION COMPLETE message: AM

Information Element	Value/remark
Message Type	
RRC transaction identifier	Checked to see if it's set to identical value of the same IE in the downlink PHYSICAL CHANNEL RECONFIGURATION message
Integrity check info	
- 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. The first/ leftmost bit of the bit string contains the most significant bit of the MAC-I.
- 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
CHOICE mode	FDD
COUNT-C activation time	Not checked
Radio bearer uplink ciphering activation time info	Not checked
Uplink counter synchronisation info	Not present~~checked~~

<<< **End of modified section** >>>

<<< **Start of modified section** >>>

Contents of RADIO BEARER SETUP COMPLETE message: AM

Message Type	
RRC transaction identifier	Checked to see if the value is identical to the same IE in the downlink RADIO BEARER SETUP message.
Integrity check info	
- 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. The first/ leftmost bit of the bit string contains the most significant bit of the MAC-I.
- 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.
CHOICE mode	FDD
START	Not checked (if ciphering is OFF), check the presence if ciphering is ON.
COUNT-C activation time	The UE shall include this IE if the following two conditions are fulfilled: (a) The RADIO BEARER SETUP message did not contain the IE "Ciphering activation time for DPCH" and (b) The RADIO BEARER SETUP message established the first RB(s) mapped to RLC-TM for a CN domain. Else, this IE is absent.
Radio bearer uplink ciphering activation time info	Not checked
Uplink counter synchronisation info	Not present~~checked~~

<<< **End of modified section** >>>

<<< **Start of modified section** >>>

Contents of RADIO BEARER RECONFIGURATION COMPLETE message: AM

Information Element	Value/remark
Message Type	
RRC transaction identifier	Checked to see if the value is identical to the same IE in the downlink RADIO BEARER RECONFIGURATION COMPLETE message
Integrity check info	
- 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. The first/ leftmost bit of the bit string contains the most significant bit of the MAC-I.
- 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
CHOICE mode	FDD
COUNT-C activation time	Not checked
Radio bearer uplink ciphering activation time info	Not checked
Uplink counter synchronisation info	Not present~~checked~~

<<< **End of modified section** >>>

<<< **Start of modified section** >>>

Contents of RADIO BEARER RELEASE COMPLETE message: AM

Message Type	
RRC transaction identifier	Checked to see the value is identical to the same IE in the downlink RADIO BEARER RELEASE message.
Integrity check info	
- 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. The first/ leftmost bit of the bit string contains the most significant bit of the MAC-I.
- 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.
CHOICE mode	FDD
COUNT-C activation time	Not checked
Radio bearer uplink ciphering activation time info	Not checked
Uplink counter synchronisation info	Not present~~checked~~

<<< **End of modified section** >>>

<<< **Start of modified section** >>>

Contents of RRC CONNECTION SETUP COMPLETE message: AM

Information Element	Value/remark
Message Type	
RRC transaction identifier	The value of this IE is checked to see that it matches the value of the same IE transmitted in the downlink RRC CONNECTION SETUP message.
START list	Not checked (if ciphering is OFF), check the presence if ciphering is ON.
UE radio access capability	Not checked
UE radio access capability extension	Not checked
UE system specific capability	Not checked

<<< **End of modified section** >>>

<<< **Start of modified section** >>>

Contents of TRANSPORT CHANNEL RECONFIGURATION COMPLETE message: AM

Information Element	Value/remark
Message Type	
RRC transaction identifier	Checked to see if the value is identical to the same IE in the downlink TRANSPORT CHANNEL RECONFIGURATION message
Integrity check info	
- 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. The first/ leftmost bit of the bit string contains the most significant bit of the MAC-I.
- 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
CHOICE mode	FDD
COUNT-C activation time	Not checked
Radio bearer uplink ciphering activation time info	Not checked
Uplink counter synchronisation info	Not present~~checked~~

<<< **End of modified section** >>>

<<< **Start of modified section** >>>

Contents of UTRAN MOBILITY INFORMATION CONFIRM message: AM

Information Element	Value/remark
Message Type	
RRC transaction identifier	Checked to see if it matches the value of the same IE in downlink UTRAN MOBILITY INFORMATION message
Integrity check info	
- 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. The first/ leftmost bit of the bit string contains the most significant bit of the MAC-I.
- 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
COUNT-C activation time	Not checked
Radio bearer uplink ciphering activation time info	Not checked
Uplink counter synchronisation info	Not present~~checked~~

<<< **End of modified section** >>>

9.1.2 Default Message Contents for Signalling (TDD)

<<< Start of modified section >>>

Contents of UTRAN MOBILITY INFORMATION CONFIRM message: AM

Information Element	Value/remark
Message Type	
RRC transaction identifier	Checked to see if it matches the value of the same IE in downlink UTRAN MOBILITY INFORMATION message
Integrity check info	
- 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. The first/ leftmost bit of the bit string contains the most significant bit of the MAC-I.
- 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
COUNT-C activation time	Not checked
Radio bearer uplink ciphering activation time info	Not checked
Uplink counter synchronisation info	Not present~~checked~~

<<< **End of modified section** >>>

<<< **Start of modified section** >>>

Contents of TRANSPORT CHANNEL RECONFIGURATION COMPLETE message: AM (1.28 Mcps TDD)

Information Element	Value/remark
Message Type	
RRC transaction identifier	Checked to see if the value is identical to the same IE in the downlink TRANSPORT CHANNEL RECONFIGURATION message
Integrity check info	
- 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. The first/ leftmost bit of the bit string contains the most significant bit of the MAC-I.
- 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
CHOICE mode	TDD
CHOICE TDD option	1.28 Mcps TDD
COUNT-C activation time	Not checked
Radio bearer uplink ciphering activation time info	Not checked
Uplink counter synchronisation info	Not present~~checked~~

<<< **End of modified section** >>>

<<< **Start of modified section** >>>

Contents of CELL UPDATE message: TM

Information Element	Value/remark
Message Type	
U-RNTI	Checked to see if it is set to the following values
- SRNC identity	0000 0000 0001B
- S-RNTI	0000 0000 0000 0000 0001B
RRC transaction identifier	Checked to see if it is absent
Integrity check info	
- 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. The first/ leftmost bit of the bit string contains the most significant bit of the MAC-I.
- 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.
START List	Checked to see if the 'CN domain identity' and 'START' IEs are present for all CN domains supported by the UE (if Ciphering is ON).
- CN domain identity	Checked to see if it is one of the supported CN domains
- START	Check the presence if ciphering is on.~~ed to see if it is present~~ The first/ leftmost bit of the bit string contains the most significant bit of the START.
AM_RLC error indication (RB2, RB3 or RB4)	Checked to see if it is set to 'FALSE'
AM_RLC error indication (RB>4)	Checked to see if it is set to 'FALSE'
Cell update cause	See the test content
Failure cause	Checked to see if it is absent
RB timer indicator	
- T314 expired	Checked to see if it is set to 'FALSE'
- T315 expired	Checked to see if it is set to 'FALSE'
Measured results on RACH	Not checked

<<< **End of modified section** >>>

<<< **Start of modified section** >>>

Contents of PHYSICAL CHANNEL RECONFIGURATION COMPLETE message: AM (1.28 Mcps TDD)

Information Element	Value/remark
Message Type	
RRC transaction identifier	Checked to see if it's set to identical value of the same IE in the downlink PHYSICAL CHANNEL RECONFIGURATION message
Integrity check info	
- 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. The first/ leftmost bit of the bit string contains the most significant bit of the MAC-I.
- 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
CHOICE mode	TDD
CHOICE TDD option	1.28 Mcps TDD
COUNT-C activation time	Not checked
Radio bearer uplink ciphering activation time info	Not checked
Uplink counter synchronisation info	Not present~~checked~~

<<< **End of modified section** >>>

<<< **Start of modified section** >>>

Contents of RADIO BEARER RECONFIGURATION COMPLETE message: AM (1.28 Mcps TDD)

Information Element	Value/remark
Message Type	
RRC transaction identifier	Checked to see if the value is identical to the same IE in the downlink RADIO BEARER RECONFIGURATION message
Integrity check info	
- 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. The first/ leftmost bit of the bit string contains the most significant bit of the MAC-I.
- 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
CHOICE mode	TDD
- CHOICE *TDD option*	1.28 Mcps TDD (No data)
COUNT-C activation time	Not checked
Radio bearer uplink ciphering activation time info	Not checked
Uplink counter synchronisation info	Not present~~checked~~

<<< **End of modified section** >>>

<<< **Start of modified section** >>>

Contents of RADIO BEARER SETUP COMPLETE message: AM

Message Type	
RRC transaction identifier	Checked to see if the value is identical to the same IE in the downlink RADIO BEARER SETUP message.
Integrity check info	
- 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. The first/ leftmost bit of the bit string contains the most significant bit of the MAC-I.
- 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.
CHOICE mode	TDD
START	Not checked (if ciphering is OFF), check the presence if ciphering is ON.
COUNT-C activation time	The presence of this IE depends on the following 2 factors: (a) There exists RB(s) mapped to RLC-TM and (b) UE is transiting to CELL_DCH state after the RB establishment procedure. Else, this IE is absent.
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.
Uplink counter synchronisation info	Not present~~checked~~

<<< **End of modified section** >>>

<<< **Start of modified section** >>>

Contents of RADIO BEARER RELEASE COMPLETE message: AM (1.28 Mcps TDD)

Message Type	
RRC transaction identifier	Checked to see the value is identical to the same IE in the downlink RADIO BEARER RELEASE message.
Integrity check info	
- 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. The first/ leftmost bit of the bit string contains the most significant bit of the MAC-I.
- 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.
CHOICE mode	TDD
- CHOICE TDD option	1.28 Mcps TDD (no data)
COUNT-C activation time	The presence of this IE depends on the following 2 factors: (a) There exists RB(s) mapped to RLC-TM and (b) UE is transiting to CELL_DCH state after the RB release procedure. Else, this IE is absent.
Radio bearer uplink ciphering activation time info	If ciphering is not activated in RADIO BEARER RELEASE 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.
Uplink counter synchronisation info	Not present~~checked~~

<<< **End of modified section** >>>

<<< **Start of modified section** >>>

Contents of RRC CONNECTION SETUP COMPLETE message: AM

Information Element	Value/remark
Message Type	
RRC transaction identifier	The value of this IE is checked to see that it matches the value of the same IE transmitted in the downlink RRC CONNECTION SETUP message.
START list	Not checked (if ciphering is OFF), check the presence if ciphering is ON.
UE radio access capability	Not checked
UE radio access capability extension	Not checked
UE system specific capability	Not checked

<<< **End of modified section** >>>

3GPP TSG-T1 Meeting #23
Beijing, China, 10th-14th May

Tdoc ⌘T1-040512

CR-Form-v7

CHANGE REQUEST

⌘ **TS 34.108** **CR** **308** ⌘ **rev** **-** ⌘ Current version: **5.0.0** ⌘

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

Proposed change affects: UICC apps⌘ ☐ ME ☒ Radio Access Network ☐ Core Network ☐

Title:	⌘	CR to TS 34.108 Rel5; Correction to IEs "START" and "ul_CounterSynchronisationInfo".
Source:	⌘	Ericsson, ETSI
Work item code:	⌘	TEI
Date:	⌘	08/04/2004
Category:	⌘	**F**
Release:	⌘	Rel-5

Use one of the following categories:
F *(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)*
Rel-6	*(Release 6)*

Reason for change:	⌘	1. IE "START" is checked in TTCN if Ciphering is ON in the testcases. This change is critical as UEs will be FAILED if ciphering is ON. 2. IE "Uplink counter synchronisation info" is set to not checked, but actually the default handling is to check that it is not present.
Summary of change:	⌘	1. Clarified that IE START is actually checked if Ciphering is ON. 2. Changed value for "Uplink counter synchronisation info" from Not checked to Not present.
Consequences if not approved:	⌘	TC will fail a conformant UE.

Clauses affected:	⌘	9.1.1, 9.1.2			
Other specs affected:	⌘	**Y**	**N**		
			X	Other core specifications	⌘
			X	Test specifications	
			X	O&M Specifications	
Other comments:	⌘				

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

1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

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

9.1 Default Message Contents for Signalling

9.1.1 Default RRC Message Contents (FDD)

<<< **Start of modified section** >>>

Contents of CELL UPDATE message: TM

Information Element	Value/remark
Message Type	
U-RNTI	Checked to see if it is set to the following values
- SRNC identity	0000 0000 0001B
- S-RNTI	0000 0000 0000 0000 0001B
RRC transaction identifier	Checked to see if it is absent
Integrity check info	
- 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. The first/ leftmost bit of the bit string contains the most significant bit of the MAC-I.
- 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.
START List	Checked to see if the 'CN domain identity' and 'START' IEs are present for all CN domains supported by the UE (if Ciphering is ON).
- CN domain identity	Checked to see if it is one of the supported CN domains
- START	Check the presence if ciphering is on.~~ed to see if it is present~~ The first/ leftmost bit of the bit string contains the most significant bit of the START.
AM_RLC error indication (RB2, RB3 or RB4)	Checked to see if it is set to 'FALSE'
AM_RLC error indication (RB>4)	Checked to see if it is set to 'FALSE'
Cell update cause	See the test content
Failure cause	Checked to see if it is absent
RB timer indicator	
- T314 expired	Checked to see if it is set to 'FALSE'
- T315 expired	Checked to see if it is set to 'FALSE'
Measured results on RACH	Not checked

<<< **End of modified section** >>>

<<< **Start of modified section** >>>

Contents of INITIAL DIRECT TRANSFER message: AM

Information Element	Value/remark
Message Type	
Integrity check info	
- 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. The first/ leftmost bit of the bit string contains the most significant bit of the MAC-I.
- 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.
CN domain identity	Checked to see if set to supported CN domain as specified in the IXIT statements.
Intra Domain NAS Node Selector	
- CHOICE version	R99
- CHOICE CN type	GSM-MAP
- CHOICE Routing basis	Local (P)TMSI
- Routing parameter	If the IE "CN domain identity" is equal to "CS domain", this bit string is set to to bits b14 through b23 of the TMSI. If the IE "CN domain identity" is equal to "PS domain", this bit string is set to to bits b14 through b23 of the P-TMSI. The TMSI/P-TMSI consists of 4 octets (32bits). This can be represented by a string of bits numbered from b0 to b31, with bit b0 being the least significant The "Routing parameter" bit string consists of bits b14 through b23 of the TMSI/ PTMSI. The first/ leftmost/ most significant bit of the bit string contains bit b23 of the TMSI/ PTMSI.
- Entered parameter	Not checked
NAS message	Set according to that indicated in specific message content for each test case
START	Not checked (if ciphering is OFF), check the presence if ciphering is ON.
Measured results on RACH	Not checked

<<< **End of modified section** >>>

<<< **Start of modified section** >>>

Contents of PHYSICAL CHANNEL RECONFIGURATION COMPLETE message: AM

Information Element	Value/remark
Message Type	
RRC transaction identifier	Checked to see if it's set to identical value of the same IE in the downlink PHYSICAL CHANNEL RECONFIGURATION message
Integrity check info	
- 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. The first/ leftmost bit of the bit string contains the most significant bit of the MAC-I.
- 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
CHOICE mode	FDD
COUNT-C activation time	Not checked
Radio bearer uplink ciphering activation time info	Not checked
Uplink counter synchronisation info	Not ~~checked~~present

<<< **End of modified section** >>>

<<< **Start of modified section** >>>

Contents of RADIO BEARER SETUP COMPLETE message: AM

Message Type	
RRC transaction identifier	Checked to see if the value is identical to the same IE in the downlink RADIO BEARER SETUP message.
Integrity check info	
- 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. The first/ leftmost bit of the bit string contains the most significant bit of the MAC-I.
- 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.
CHOICE mode	FDD
START	Not checked (if ciphering is OFF), check the presence if ciphering is ON.
COUNT-C activation time	The UE shall include this IE if the following two conditions are fulfilled: (a) The RADIO BEARER SETUP message did not contain the IE "Ciphering activation time for DPCH" and (b) The RADIO BEARER SETUP message established the first RB(s) mapped to RLC-TM for a CN domain. Else, this IE is absent.
Radio bearer uplink ciphering activation time info	Not checked
Uplink counter synchronisation info	Not ~~checked~~present

<<< **End of modified section** >>>

<<< **Start of modified section** >>>

Contents of RADIO BEARER RECONFIGURATION COMPLETE message: AM

Information Element	Value/remark
Message Type	
RRC transaction identifier	Checked to see if the value is identical to the same IE in the downlink RADIO BEARER RECONFIGURATION COMPLETE message
Integrity check info	
- 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. The first/ leftmost bit of the bit string contains the most significant bit of the MAC-I.
- 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
CHOICE mode	FDD
COUNT-C activation time	Not checked
Radio bearer uplink ciphering activation time info	Not checked
Uplink counter synchronisation info	Not present~~checked~~

<<< **End of modified section** >>>

<<< **Start of modified section** >>>

Contents of RADIO BEARER RELEASE COMPLETE message: AM

Message Type	
RRC transaction identifier	Checked to see the value is identical to the same IE in the downlink RADIO BEARER RELEASE message.
Integrity check info	
- 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. The first/ leftmost bit of the bit string contains the most significant bit of the MAC-I.
- 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.
CHOICE mode	FDD
COUNT-C activation time	Not checked
Radio bearer uplink ciphering activation time info	Not checked
Uplink counter synchronisation info	Not present~~checked~~

<<< **End of modified section** >>>

<<< **Start of modified section** >>>

Contents of RRC CONNECTION SETUP COMPLETE message: AM

Information Element	Value/remark
Message Type	
RRC transaction identifier	The value of this IE is checked to see that it matches the value of the same IE transmitted in the downlink RRC CONNECTION SETUP message.
START list	Not checked (if ciphering is OFF), check the presence if ciphering is ON.
UE radio access capability	Not checked
UE radio access capability extension	Not checked
UE system specific capability	Not checked

<<< **End of modified section** >>>

<<< **Start of modified section** >>>

Contents of TRANSPORT CHANNEL RECONFIGURATION COMPLETE message: AM

Information Element	Value/remark
Message Type	
RRC transaction identifier	Checked to see if the value is identical to the same IE in the downlink TRANSPORT CHANNEL RECONFIGURATION message
Integrity check info	
- 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. The first/ leftmost bit of the bit string contains the most significant bit of the MAC-I.
- 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
CHOICE mode	FDD
COUNT-C activation time	Not checked
Radio bearer uplink ciphering activation time info	Not checked
Uplink counter synchronisation info	Not present~~checked~~

<<< **End of modified section** >>>

<<< **Start of modified section** >>>

Contents of UTRAN MOBILITY INFORMATION CONFIRM message: AM

Information Element	Value/remark
Message Type	
RRC transaction identifier	Checked to see if it matches the value of the same IE in downlink UTRAN MOBILITY INFORMATION message
Integrity check info	
- 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. The first/ leftmost bit of the bit string contains the most significant bit of the MAC-I.
- 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
COUNT-C activation time	Not checked
Radio bearer uplink ciphering activation time info	Not checked
Uplink counter synchronisation info	Not present~~checked~~

<<< **End of modified section** >>>

9.1.2 Default Message Contents for Signalling (TDD)

<<< **Start of modified section** >>>

Contents of UTRAN MOBILITY INFORMATION CONFIRM message: AM

Information Element	Value/remark
Message Type	
RRC transaction identifier	Checked to see if it matches the value of the same IE in downlink UTRAN MOBILITY INFORMATION message

Information Element	Value/remark
Integrity check info	
- 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. The first/ leftmost bit of the bit string contains the most significant bit of the MAC-I.
- 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
COUNT-C activation time	Not checked
Radio bearer uplink ciphering activation time info	Not checked
Uplink counter synchronisation info	Not present~~checked~~

<<< **End of modified section** >>>

<<< **Start of modified section** >>>

Contents of TRANSPORT CHANNEL RECONFIGURATION COMPLETE message: AM (1.28 Mcps TDD)

Information Element	Value/remark
Message Type	
RRC transaction identifier	Checked to see if the value is identical to the same IE in the downlink TRANSPORT CHANNEL RECONFIGURATION message
Integrity check info	
- 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. The first/ leftmost bit of the bit string contains the most significant bit of the MAC-I.
- 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
CHOICE mode	TDD
CHOICE TDD option	1.28 Mcps TDD
COUNT-C activation time	Not checked
Radio bearer uplink ciphering activation time info	Not checked
Uplink counter synchronisation info	Not present~~checked~~

<<< **End of modified section** >>>

<<< **Start of modified section** >>>

Contents of CELL UPDATE message: TM

Information Element	Value/remark
Message Type	
U-RNTI	Checked to see if it is set to the following values
- SRNC identity	0000 0000 0001B
- S-RNTI	0000 0000 0000 0000 0001B
RRC transaction identifier	Checked to see if it is absent
Integrity check info	
- 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. The first/ leftmost bit of the bit string contains the most significant bit of the MAC-I.
- 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.
START List	Checked to see if the 'CN domain identity' and 'START' IEs are present for all CN domains supported by the UE (if Ciphering is ON).
- CN domain identity	Checked to see if it is one of the supported CN domains
- START	Check the presence if ciphering is on.~~ed to see if it is present~~ The first/ leftmost bit of the bit string contains the most significant bit of the START.
AM_RLC error indication (RB2, RB3 or RB4)	Checked to see if it is set to 'FALSE'
AM_RLC error indication (RB>4)	Checked to see if it is set to 'FALSE'
Cell update cause	See the test content
Failure cause	Checked to see if it is absent
RB timer indicator	
- T314 expired	Checked to see if it is set to 'FALSE'
- T315 expired	Checked to see if it is set to 'FALSE'
Measured results on RACH	Not checked

<<< **End of modified section** >>>

<<< **Start of modified section** >>>

Contents of PHYSICAL CHANNEL RECONFIGURATION COMPLETE message: AM (1.28 Mcps TDD)

Information Element	Value/remark
Message Type	
RRC transaction identifier	Checked to see if it's set to identical value of the same IE in the downlink PHYSICAL CHANNEL RECONFIGURATION message
Integrity check info	
- 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. The first/ leftmost bit of the bit string contains the most significant bit of the MAC-I.
- 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
CHOICE mode	TDD
CHOICE TDD option	1.28 Mcps TDD
COUNT-C activation time	Not checked
Radio bearer uplink ciphering activation time info	Not checked
Uplink counter synchronisation info	Not present~~checked~~

<<< **End of modified section** >>>

<<< **Start of modified section** >>>

Contents of RADIO BEARER RECONFIGURATION COMPLETE message: AM (1.28 Mcps TDD)

Information Element	Value/remark
Message Type	
RRC transaction identifier	Checked to see if the value is identical to the same IE in the downlink RADIO BEARER RECONFIGURATION message
Integrity check info	
- 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. The first/ leftmost bit of the bit string contains the most significant bit of the MAC-I.
- 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
CHOICE mode	TDD
- CHOICE *TDD option*	1.28 Mcps TDD (No data)
COUNT-C activation time	Not checked
Radio bearer uplink ciphering activation time info	Not checked
Uplink counter synchronisation info	Not present~~checked~~

<<< **End of modified section** >>>

<<< **Start of modified section** >>>

Contents of RADIO BEARER SETUP COMPLETE message: AM

Message Type	
RRC transaction identifier	Checked to see if the value is identical to the same IE in the downlink RADIO BEARER SETUP message.
Integrity check info	
- 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. The first/ leftmost bit of the bit string contains the most significant bit of the MAC-I.
- 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.
CHOICE mode	TDD
START	Not checked (if ciphering is OFF), check the presence if ciphering is ON.
COUNT-C activation time	The presence of this IE depends on the following 2 factors: (a) There exists RB(s) mapped to RLC-TM and (b) UE is transiting to CELL_DCH state after the RB establishment procedure. Else, this IE is absent.
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.
Uplink counter synchronisation info	Not present~~checked~~

<<< **End of modified section** >>>

<<< **Start of modified section** >>>

Contents of RADIO BEARER RELEASE COMPLETE message: AM (1.28 Mcps TDD)

Message Type	
RRC transaction identifier	Checked to see the value is identical to the same IE in the downlink RADIO BEARER RELEASE message.
Integrity check info	
- 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. The first/ leftmost bit of the bit string contains the most significant bit of the MAC-I.
- 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.
CHOICE mode	TDD
- CHOICE TDD option	1.28 Mcps TDD (no data)
COUNT-C activation time	The presence of this IE depends on the following 2 factors: (a) There exists RB(s) mapped to RLC-TM and (b) UE is transiting to CELL_DCH state after the RB release procedure. Else, this IE is absent.
Radio bearer uplink ciphering activation time info	If ciphering is not activated in RADIO BEARER RELEASE 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.
Uplink counter synchronisation info	Not present~~checked~~

<<< **End of modified section** >>>

<<< **Start of modified section** >>>

Contents of RRC CONNECTION SETUP COMPLETE message: AM

Information Element	Value/remark
Message Type	
RRC transaction identifier	The value of this IE is checked to see that it matches the value of the same IE transmitted in the downlink RRC CONNECTION SETUP message.
START list	Not checked (if ciphering is OFF), check the presence if ciphering is ON.
UE radio access capability	Not checked
UE radio access capability extension	Not checked
UE system specific capability	Not checked

<<< **End of modified section** >>>

3GPP TSG-T1 Meeting #23
Beijing, China, 10th - 14th May 2004

Tdoc ⌘T1-040555

CR-Form-v7

CHANGE REQUEST

⌘ **34.108** **CR** **311** ⌘ **rev** **-** ⌘ Current version: **4.10.0** ⌘

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

Proposed change affects: UICC apps⌘ [ ] ME [X] Radio Access Network [ ] Core Network [ ]

Title:	⌘	Physical channel parameters for AM RLC 7 bit Length Indicator TestCases (Rel-4)
Source:	⌘	Sasken Communication Technologies Limited
Work item code:	⌘	TEI
Date:	⌘	27/04/2004
Category:	⌘	**F**
Release:	⌘	Rel-4

Use one of the following categories:
F *(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)
Rel-6 (Release 6)

Reason for change:	⌘	The Physical channel parameters for AM RLC 7 bit Length Indicator testcases are not specified in 34.108 The Physical channel parameters for UM and AM RLC 15 bit Length Indicators are same. i.e. both refer to 34.108 clause 6.10.2.4.1.26. Based on this it is proposed that Physical channel parameters for AM RLC 7 bit Length Indicator can been taken same as that of UM RLC 7 bit Length Indicator. i.e. refer to 34.108 clause 6.10.2.4.1.23a It is implemented the same way in the approved TTCN. Also it aligns the prose to the approved TTCN.
Summary of change:	⌘	Added a reference for Physical channel parameters for AM RLC 7 bit Length Indicators in 34.108 clause 6.11.3 to refer to 34.108 clause 6.10.2.4.1.23a
Consequences if not approved:	⌘	The prose specification shall be unclear regarding the Physical channel parameters to be used for AM RLC 7 bit Length Indicator testcases.

Clauses affected:	⌘	6.11.3			
Other specs affected:	⌘	**Y** / **N**		⌘	
			X Other core specifications		34.123-1 clause 7.2, 34.108
		X	Test specifications		
			X O&M Specifications		
Other comments:	⌘				

How to create CRs using this form:

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

1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

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

6.11 Common Radio Bearer configurations for other test purposes

The common radio bearer configurations are used for functional testing of various UE functions. Only common configurations that are used by multiple test cases and are not covered by the reference radio bearer configurations in clause 6.10 are specified in the present clause. Radio bearer configurations only used by a single test case are specified in the actual test case itself.

NOTE If not specifically specified then the mid-value of the RM attríbute value range as specified by the actual reference radio bearer configuration shall be applied for testing.

6.11.1 Unacknowledged Mode Radio Bearer configuration (7 bit Length Indicator)

This configuration is based on the Interactive or background / UL:8 DL 8 kbps / PS RAB + UL:3.4 DL 3.4 kbps SRBs for DCCH (see TS 34.108 clause 6.10.2.4.1.23a) with the transport channels parameters of the RAB and TFCS defined as follows:

Transport channel parameters for the Uplink RAB

Higher layer	**RAB/Signalling RB**		RAB
RLC	Logical channel type		DTCH
	RLC mode		UM
	Payload sizes, bit		328
	Max data rate, bps		8200
	UMD PDU header, bit		8
MAC	MAC header, bit		0
	MAC multiplexing		N/A
Layer 1	TrCH type		DCH
	TB sizes, bit		336
	TFS	TF0, bits	0x336
		TF1, bits	1x336
		TF2, bits	2x336 (note)
		TF3, bits	3x336 (note)
		TF4, bits	4x336 (note)
	TTI, ms		40
	Coding type		CC 1/3
	CRC, bit		16
	Max number of bits/TTI after channel coding		1080
	Uplink: Max number of bits/radio frame before rate matching		270
	RM attribute		135-175

TFCS

TFCS size	4
TFCS	(8 kbps RAB, DCCH)= (TF0, TF0), (TF1, TF0), (TF0, TF1), (TF1, TF1)

Transport channel parameters for the Downlink RAB

Higher layer	RAB/Signalling RB		RAB
RLC	Logical channel type		DTCH
	RLC mode		UM
	Payload sizes, bit		328
	Max data rate, bps		8200
	UMD PDU header, bit		8
MAC	MAC header, bit		0
	MAC multiplexing		N/A
Layer 1	TrCH type		DCH
	TB sizes, bit		336
	TFS	TF0, bits	0x336
		TF1, bits	1x336
		TF2, bits	2x336 (note)
		TF3, bits	3x336 (note)
		TF4, bits	4x336 (note)
	TTI, ms		40
	Coding type		CC 1/3
	CRC, bit		16
	Max number of bits/TTI after channel coding		1080
	RM attribute		135-175

TFCS

TFCS size	4
TFCS	(8 kbps RAB, DCCH)= (TF0, TF0), (TF1, TF0), (TF0, TF1), (TF1, TF1)

6.11.2 Unacknowledged Mode Radio Bearer configuration (15 bit Length Indicator)

This configuration is based on the Interactive or background / UL:64 DL 64 kbps / PS RAB + UL:3.4 DL 3.4 kbps SRBs for DCCH (see TS 34.108 clause 6.10.2.4.1.26) with the transport channels parameters of the RAB defined as followed:

Transport channel parameters for the Uplink RAB

Higher layer	RAB/Signalling RB		RAB
RLC	Logical channel type		DTCH
	RLC mode		UM
	Payload sizes, bit		1336
	Max data rate, bps		66800
	UMD PDU header, bit		8
MAC	MAC header, bit		0
	MAC multiplexing		N/A
Layer 1	TrCH type		DCH
	TB sizes, bit		1344
	TFS	TF0, bits	0x1344
		TF1, bits	1x1344
	TTI, ms		20
	Coding type		TC
	CRC, bit		16
	Max number of bits/TTI after channel coding		4092
	Uplink: Max number of bits/radio frame before rate matching		2046
	RM attribute		130-170

Transport channel parameters for the Downlink RAB

Higher layer	RAB/Signalling RB		RAB
RLC	Logical channel type		DTCH
	RLC mode		UM
	Payload sizes, bit		1336
	Max data rate, bps		66800
	UMD PDU header, bit		8
MAC	MAC header, bit		0
	MAC multiplexing		N/A
Layer 1	TrCH type		DCH
	TB sizes, bit		1344
	TFS	TF0, bits	0x1344
		TF1, bits	1x1344
	TTI, ms		20
	Coding type		TC
	CRC, bit		16
	Max number of bits/TTI after channel coding		4092
	RM attribute		130-170

6.11.3 Acknowledged Mode Radio Bearer configuration (7 bit Length Indicator)

This configuration is based on the Interactive or background / UL:8 DL 8 kbps / PS RAB + UL:3.4 DL 3.4 kbps SRBs for DCCH (see TS 34.108 clause 6.10.2.4.1.23a) with the transport channels parameters of the RAB and TFCS defined as follows:

Transport channel parameters for the Uplink RAB

Higher layer	RAB/Signalling RB		RAB
RLC	Logical channel type		DTCH
	RLC mode		AM
	Payload sizes, bit		128
	Max data rate, bps		6400
	UMD PDU header, bit		16
MAC	MAC header, bit		0
	MAC multiplexing		N/A
Layer 1	TrCH type		DCH
	TB sizes, bit		144
	TFS	0x144	0x144
		1x144	1x144
	TTI, ms		20
	Coding type		CC 1/3
	CRC, bit		16
	Max number of bits/TTI after channel coding		504
	Uplink: Max number of bits/radio frame before rate matching		252
	RM attribute		135-175

TFCS

TFCS size	4
TFCS	(RAB, DCCH)= (TF0, TF0), (TF1, TF0), (TF0, TF1), (TF1, TF1)

Transport channel parameters for the Downlink RAB

Higher layer	RAB/Signalling RB		RAB
RLC	Logical channel type		DTCH
	RLC mode		AM
	Payload sizes, bit		128
	Max data rate, bps		6400
	UMD PDU header, bit		16
MAC	MAC header, bit		0
	MAC multiplexing		N/A
Layer 1	TrCH type		DCH
	TB sizes, bit		144
	TFS	0x144	0x144
		1x144	1x144
	TTI, ms		20
	Coding type		CC 1/3
	CRC, bit		16
	Max number of bits/TTI after channel coding		504
	RM attribute		135-175

TFCS

TFCS size	4
TFCS	(RAB, DCCH)= (TF0, TF0), (TF1, TF0), (TF0, TF1), (TF1, TF1)

6.11.4 Acknowledged Mode Radio Bearer configuration (15 bit Length Indicator)

This configuration is based on the Interactive or background / UL:64 DL 64 kbps / PS RAB + UL:3.4 DL 3.4 kbps SRBs for DCCH (see TS 34.108 clause 6.10.2.4.1.26) with the transport channels parameters of the RAB defined as followed.

Transport channel parameters for the Uplink RAB

Higher layer	RAB/Signalling RB		RAB
RLC	Logical channel type		DTCH
	RLC mode		AM
	Payload sizes, bit		1328
	Max data rate, bps		66400
	AMD PDU header, bit		16
MAC	MAC header, bit		0
	MAC multiplexing		N/A
Layer 1	TrCH type		DCH
	TB sizes, bit		1344
	TFS	TF0, bits	0x1344
		TF1, bits	1x1344
	TTI, ms		20
	Coding type		TC
	CRC, bit		16
	Max number of bits/TTI after channel coding		4092
	Uplink: Max number of bits/radio frame before rate matching		2046
	RM attribute		130-170

Transport channel parameters for the Downlink RAB

Higher layer	RAB/Signalling RB		RAB
RLC	Logical channel type		DTCH
	RLC mode		AM
	Payload sizes, bit		1328
	Max data rate, bps		66400
	AMD PDU header, bit		16
MAC	MAC header, bit		0
	MAC multiplexing		N/A
Layer 1	TrCH type		DCH
	TB sizes, bit		1344
	TFS	TF0, bits	0x1344
		TF1, bits	1x1344
	TTI, ms		20
	Coding type		TC
	CRC, bit		16
	Max number of bits/TTI after channel coding		4092
	RM attribute		130-170

6.11.5 Reference Radio Bearer configurations used in Radio Bearer testing for 1.28 Mcps TDD

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CHANGE REQUEST

⌘ **34.108** **CR** 312 ⌘ **rev** **-** ⌘ Current version: **4.10.0** ⌘

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

Proposed change affects: UICC apps⌘ ☐ ME ☒ Radio Access Network ☐ Core Network ☐

Title:	⌘	Corrections to the default contents of Security Mode Command (Rel-4)
Source:	⌘	Sasken Communication Technologies Limited, MCC Task 160
Work item code:	⌘	TEI
Date:	⌘	19/04/2004
Category:	⌘	**F**
Release:	⌘	Rel-4

Use one of the following categories:
F *(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)*
Rel-6	*(Release 6)*

Reason for change: ⌘

As per 3GPP 25.331 clause 8.1.12 .2.1 :
"When configuring ciphering, UTRAN should ensure that the UE needs to store at most two different ciphering configurations (keyset and algorithm) per CN domain, in total over all radio bearers at any given time. For signalling radio bearers the total number of ciphering configurations that need to be stored is at most three"
As per clause 8.1.12.2.2 :
"When configuring Integrity protection, UTRAN should:

1> ensure that the UE needs to store at most three different Integrity protection configurations (keysets) at any given time. This includes the total number of Integrity protection configurations for all signalling radio bearers And also in the same clause, a bit down it emphasises that if an Integrity activation is pending on an RB, the same activation time is to be used.

Based on all such references the best way to avoid such unwanted situations where Integrity and Ciphering Pending activations can exceed than UTRAN is allowed for in TTCN, is to set the Integrity and Ciphering Activation times for all RB's except RB2 same as the existing RRC/RLC Sequence numbers. The Integrity activation for RB2 shall also be immediately as the SMC is to be transmitted with new configuaration, and Ciphering Activation shall be RLC Sequence number +2, assuming the SMC will atmost take 2 RLC PDU's. It should be noted that in TTCN implementations for all tests except (RAB) where ciphering/Integrity can be activated, virtually nothing is transmitted on RAB's, SRB4. Very few messages are transmitted on SRB1, 4 and 0. Hence the sequence numbers in TTCN are non conformant with 34.123-1"
3GPP TTCN is implemented as per the proposed change.

Summary of change:	⌘	In the default message content for Security Mode Command, Changed the RLC sequence number for RB Identities 1,3 and 4 to Current RLC SN.
Consequences if not approved:	⌘	Conformant UE will not be tested properly.

Clauses affected:	⌘	9.1.1			
Other specs affected:	⌘	**Y** / **N** **N** **Y** **N**	Other core specifications Test specifications O&M Specifications	⌘	34.108, 34.123-1
Other comments:	⌘				

How to create CRs using this form:

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

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

9 Default Message Contents

9.1 Default Message Contents for Signalling

9.1.1 Default RRC Message Contents (FDD)

…….

…….

Contents of SECURITY MODE COMMAND message: AM

Information Element	Condition	Value/remark
Message Type	A1, A2	
RRC transaction identifier		Arbitrarily selects an integer between 0 and 3
Integrity check info		
- Message authentication code		Set to MAC-I value computed by the SS. The first/ leftmost bit of the bit string contains the most significant bit of the MAC-I.
- RRC Message Sequence Number		Set to an arbitrarily selected integer between 0 and 15
Security capability		
- Ciphering algorithm capability		
- UEA0		If the UE has indicated support for ciphering algorithm UEA0 in the IE "security capability" in the RRC CONNECTION SETUP COMPLETE message, this IE is set to TRUE.
- UEA1		If the UE has indicated support for ciphering algorithm UEA1 in the IE "security capability" in the RRC CONNECTION SETUP COMPLETE message, this IE is set to TRUE.
- Spare		Spare 2-15 = FALSE
- Integrity protection algorithm capability		0000000000000010B (UIA1)
- UIA1		TRUE
- Spare		Spare 0 and Spare 2-15 = FALSE
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/restart
- Ciphering algorithm		UEA0 or UEA1. The indicated algorithm must be one of the algorithms supported by the UE as indicated in the IE "security capability" in the RRC CONNECTION SETUP COMPLETE message.
- Ciphering activation time for DPCH		Not Present
- 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		
- 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		CS or PS
UE system specific security capability	A1	Not Checked
UE system specific security capability	A2	
- Inter-RAT UE security capability		
- CHOICE *system*		GSM
- GSM security capability		The indicated algorithms must be the same as the algorithms supported by the UE as indicated in the IE " UE system specific capability " in the RRC CONNECTION SETUP COMPLETE message.

Condition	Explanation
A1	UE not supporting GSM
A2	UE supporting GSM

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Tdoc ⌘T1-040564

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CHANGE REQUEST

⌘ **34.108** **CR** 313 ⌘ **rev** **-** ⌘ Current version: **3.15.0** ⌘

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

Proposed change affects: UICC apps⌘ ☐ ME ☒ Radio Access Network ☐ Core Network ☐

Title:	⌘	Corrections to the default contents of Security Mode Command (R99)
Source:	⌘	Sasken Communication Technologies Limited, MCC Task 160
Work item code:	⌘	TEI
Date:	⌘	19/04/2004
Category:	⌘	**F**
Release:	⌘	R99

Use one of the following categories:
F *(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)
Rel-6 (Release 6)

Reason for change: ⌘

As per 3GPP 25.331 clause 8.1.12 .2.1 :
"When configuring ciphering, UTRAN should ensure that the UE needs to store at most two different ciphering configurations (keyset and algorithm) per CN domain, in total over all radio bearers at any given time. For signalling radio bearers the total number of ciphering configurations that need to be stored is at most three"
As per clause 8.1.12.2.2 :
"When configuring Integrity protection, UTRAN should:
1> ensure that the UE needs to store at most three different Integrity protection configurations (keysets) at any given time. This includes the total number of Integrity protection configurations for all signalling radio bearers And also in the same clause, a bit down it emphasises that if an Integrity activation is pending on an RB, the same activation time is to be used.

Based on all such references the best way to avoid such unwanted situations where Integrity and Ciphering Pending activations can exceed than UTRAN is allowed for in TTCN, is to set the Integrity and Ciphering Activation times for all RB's except RB2 same as the existing RRC/RLC Sequence numbers. The Integrity activation for RB2 shall also be immediately as the SMC is to be transmitted with new configuaration, and Ciphering Activation shall be RLC Sequence number +2, assuming the SMC will atmost take 2 RLC PDU's. It should be noted that in TTCN implementations for all tests except (RAB) where ciphering/Integrity can be activated, virtually nothing is transmitted on RAB's, SRB4. Very few messages are transmitted on SRB1, 4 and 0. Hence the sequence numbers in TTCN are non conformant with 34.123-1"
3GPP TTCN is implemented as per the proposed change.

Summary of change: ⌘ In the default message content for Security Mode Command, Changed the

		RLC sequence number for RB Identities 1,3 and 4 to Current RLC SN.
Consequences if not approved:	⌘	Conformant UE will not be tested properly.

Clauses affected:	⌘	9.1.1				
Other specs affected:	⌘	**Y**	**N**		⌘	
			X	Other core specifications		
		X		Test specifications		34.108, 34.123-1
			X	O&M Specifications		
Other comments:	⌘					

How to create CRs using this form:

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1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

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

9 Default Message Contents

9.1 Default Message Contents for Signalling

9.1.1 Default RRC Message Contents (FDD)

……..

……..

Contents of SECURITY MODE COMMAND message: AM

Information Element	Condition	Value/remark
Message Type	A1, A2	
RRC transaction identifier		Arbitrarily selects an integer between 0 and 3
Integrity check info		
- Message authentication code		Set to MAC-I value computed by the SS. The first/ leftmost bit of the bit string contains the most significant bit of the MAC-I.
- RRC Message Sequence Number		Set to an arbitrarily selected integer between 0 and 15
Security capability		
- Ciphering algorithm capability		
- UEA0		If the UE has indicated support for ciphering algorithm UEA0 in the IE "security capability" in the RRC CONNECTION SETUP COMPLETE message, this IE is set to TRUE.
- UEA1		If the UE has indicated support for ciphering algorithm UEA1 in the IE "security capability" in the RRC CONNECTION SETUP COMPLETE message, this IE is set to TRUE.
- Spare		Spare 2-15 = FALSE
- Integrity protection algorithm capability		0000000000000010B (UIA1)
- UIA1		TRUE
- Spare		Spare 0 and Spare 2-15 = FALSE
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/restart
- Ciphering algorithm		UEA0 or UEA1. The indicated algorithm must be one of the algorithms supported by the UE as indicated in the IE "security capability" in the RRC CONNECTION SETUP COMPLETE message.
- Ciphering activation time for DPCH		Not Present
- 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		
- 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. The first/ leftmost bit of the bit string contains the most significant bit of the FRESH.
CN domain identity		CS or PS
UE system specific security capability	A1	Not Present
UE system specific security capability	A2	
- Inter-RAT UE security capability		
- CHOICE *system*		GSM
- GSM security capability		The indicated algorithms must be the same as the algorithms supported by the UE as indicated in the IE " UE system specific capability " in the RRC CONNECTION SETUP COMPLETE message.

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Tdoc ⌘T1-040569

CR-Form-v7

CHANGE REQUEST

⌘ **34.108** **CR** **314** ⌘ **rev** **-** ⌘ Current version: **3.15.0** ⌘

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

Proposed change affects: UICC apps⌘ ☐ ME ☒ Radio Access Network ☐ Core Network ☐

Title:	⌘	Physical channel parameters for AM RLC 7 bit Length Indicator TestCases (R99)
Source:	⌘	Sasken Communication Technologies Limited
Work item code:	⌘	TEI
Date:	⌘	19/04/2004
Category:	⌘	**F**
Release:	⌘	R99

Use one of the following categories:
F *(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)
Rel-6 (Release 6)

Reason for change:	⌘	The Physical channel parameters for AM RLC 7 bit Length Indicator testcases are not specified in 34.108 The Physical channel parameters for UM and AM RLC 15 bit Length Indicators are same. i.e. both refer to 34.108 clause 6.10.2.4.1.26. Based on this it is proposed that Physical channel parameters for AM RLC 7 bit Length Indicator can been taken same as that of UM RLC 7 bit Length Indicator. i.e. refer to 34.108 clause 6.10.2.4.1.23a It is implemented the same way in the approved TTCN. Also it aligns the prose to the approved TTCN.
Summary of change:	⌘	Added a reference for Physical channel parameters for AM RLC 7 bit Length Indicators in 34.108 clause 6.11.3 to refer to 34.108 clause 6.10.2.4.1.23a
Consequences if not approved:	⌘	The prose specification shall be unclear regarding the Physical channel parameters to be used for AM RLC 7 bit Length Indicator testcases.

Clauses affected:	⌘	6.11.3			
Other specs affected:	⌘	**Y** / **N**		⌘	
		☐ / ☒	Other core specifications		34.123-1 clause 7.2, 34.108
		☒ / ☐	Test specifications		
		☐ / ☒	O&M Specifications		
Other comments:	⌘				

How to create CRs using this form:

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

1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

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

6.11 Common Radio Bearer configurations for other test purposes

The common radio bearer configurations are used for functional testing of various UE functions. Only common configurations that are used by multiple test cases and are not covered by the reference radio bearer configurations in clause 6.10 are specified in the present clause. Radio bearer configurations only used by a single test case are specified in the actual test case itself.

NOTE: If not specifically specified then the mid-value of the RM attríbute value range as specified by the actual reference radio bearer configuration shall be applied for testing.

6.11.1 Unacknowledged Mode Radio Bearer configuration (7 bit Length Indicator)

This configuration is based on the Interactive or background / UL:8 DL 8 kbps / PS RAB + UL:3.4 DL 3.4 kbps SRBs for DCCH (see TS 34.108 clause 6.10.2.4.1.23a) with the transport channels parameters of the RAB and TFCS defined as follow:

Transport channel parameters for the Uplink RAB

Higher layer	**RAB/Signalling RB**		RAB
RLC	Logical channel type		DTCH
	RLC mode		UM
	Payload sizes, bit		328
	Max data rate, bps		8200
	UMD PDU header, bit		8
MAC	MAC header, bit		0
	MAC multiplexing		N/A
Layer 1	TrCH type		DCH
	TB sizes, bit		336
	TFS	TF0, bits	0x336
		TF1, bits	1x336
	TTI, ms		40
	Coding type		CC 1/3
	CRC, bit		16
	Max number of bits/TTI after channel coding		1080
	Uplink: Max number of bits/radio frame before rate matching		270
	RM attribute		135-175

TFCS

TFCS size	4
TFCS	(8 kbps RAB, DCCH)= (TF0, TF0), (TF1, TF0), (TF0, TF1), (TF1, TF1)

Transport channel parameters for the Downlink RAB

Higher layer	RAB/Signalling RB		RAB
RLC	Logical channel type		DTCH
	RLC mode		UM
	Payload sizes, bit		328
	Max data rate, bps		8200
	UMD PDU header, bit		8
MAC	MAC header, bit		0
	MAC multiplexing		N/A
Layer 1	TrCH type		DCH
	TB sizes, bit		336
	TFS	TF0, bits	0x336
		TF1, bits	1x336
	TTI, ms		40
	Coding type		CC 1/3
	CRC, bit		16
	Max number of bits/TTI after channel coding		1080
	RM attribute		135-175

TFCS

TFCS size	4
TFCS	(8 kbps RAB, DCCH)= (TF0, TF0), (TF1, TF0), (TF0, TF1), (TF1, TF1)

6.11.2 Unacknowledged Mode Radio Bearer configuration (15 bit Length Indicator)

This configuration is based on the Interactive or background / UL:64 DL 64 kbps / PS RAB + UL:3.4 DL 3.4 kbps SRBs for DCCH (see TS 34.108 clause 6.10.2.4.1.26) with the transport channels parameters of the RAB defined as followed:

Transport channel parameters for the Uplink RAB

Higher layer	RAB/Signalling RB		RAB
RLC	Logical channel type		DTCH
	RLC mode		UM
	Payload sizes, bit		1336
	Max data rate, bps		66800
	UMD PDU header, bit		8
MAC	MAC header, bit		0
	MAC multiplexing		N/A
Layer 1	TrCH type		DCH
	TB sizes, bit		1344
	TFS	TF0, bits	0x1344
		TF1, bits	1x1344
	TTI, ms		20
	Coding type		TC
	CRC, bit		16
	Max number of bits/TTI after channel coding		4092
	Uplink: Max number of bits/radio frame before rate matching		2046
	RM attribute		130-170

Transport channel parameters for the Downlink RAB

Higher layer	RAB/Signalling RB		RAB
RLC	Logical channel type		DTCH
	RLC mode		UM
	Payload sizes, bit		1336
	Max data rate, bps		66800
	UMD PDU header, bit		8
MAC	MAC header, bit		0
	MAC multiplexing		N/A
Layer 1	TrCH type		DCH
	TB sizes, bit		1344
	TFS	TF0, bits	0x1344
		TF1, bits	1x1344
	TTI, ms		20
	Coding type		TC
	CRC, bit		16
	Max number of bits/TTI after channel coding		4092
	RM attribute		130-170

6.11.3 Acknowledged Mode Radio Bearer configuration (7 bit Length Indicator)

This configuration is based on the Interactive or background / UL:8 DL 8 kbps / PS RAB + UL:3.4 DL 3.4 kbps SRBs for DCCH (see TS 34.108 clause 6.10.2.4.1.23a) with the transport channels parameters of the RAB and TFCS defined as follow:

Transport channel parameters for the Uplink RAB

Higher layer	RAB/Signalling RB		RAB
RLC	Logical channel type		DTCH
	RLC mode		AM
	Payload sizes, bit		128
	Max data rate, bps		6400
	UMD PDU header, bit		16
MAC	MAC header, bit		0
	MAC multiplexing		N/A
Layer 1	TrCH type		DCH
	TB sizes, bit		144
	TFS	0x144	0x144
		1x144	1x144
	TTI, ms		20
	Coding type		CC 1/3
	CRC, bit		16
	Max number of bits/TTI after channel coding		504
	Uplink: Max number of bits/radio frame before rate matching		252
	RM attribute		135-175

TFCS

TFCS size	4
TFCS	(RAB, DCCH)= (TF0, TF0), (TF1, TF0), (TF0, TF1), (TF1, TF1)

Transport channel parameters for the Downlink RAB

Higher layer	RAB/Signalling RB		RAB
RLC	Logical channel type		DTCH
	RLC mode		AM
	Payload sizes, bit		128
	Max data rate, bps		6400
	UMD PDU header, bit		16
MAC	MAC header, bit		0
	MAC multiplexing		N/A
Layer 1	TrCH type		DCH
	TB sizes, bit		144
	TFS	0x144	0x144
		1x144	1x144
	TTI, ms		20
	Coding type		CC 1/3
	CRC, bit		16
	Max number of bits/TTI after channel coding		504
	RM attribute		135-175

TFCS

TFCS size	4
TFCS	(RAB, DCCH)= (TF0, TF0), (TF1, TF0), (TF0, TF1), (TF1, TF1)

6.11.4 Acknowledged Mode Radio Bearer configuration (15 bit Length Indicator)

This configuration is based on the Interactive or background / UL:64 DL 64 kbps / PS RAB + UL:3.4 DL 3.4 kbps SRBs for DCCH (see TS 34.108 clause 6.10.2.4.1.26) with the transport channels parameters of the RAB defined as followed.

Transport channel parameters for the Uplink RAB

Higher layer	RAB/Signalling RB		RAB
RLC	Logical channel type		DTCH
	RLC mode		AM
	Payload sizes, bit		1328
	Max data rate, bps		66400
	AMD PDU header, bit		16
MAC	MAC header, bit		0
	MAC multiplexing		N/A
Layer 1	TrCH type		DCH
	TB sizes, bit		1344
	TFS	TF0, bits	0x1344
		TF1, bits	1x1344
	TTI, ms		20
	Coding type		TC
	CRC, bit		16
	Max number of bits/TTI after channel coding		4092
	Uplink: Max number of bits/radio frame before rate matching		2046
	RM attribute		130-170

Transport channel parameters for the Downlink RAB

Higher layer	RAB/Signalling RB		RAB
RLC	Logical channel type		DTCH
	RLC mode		AM
	Payload sizes, bit		1328
	Max data rate, bps		66400
	AMD PDU header, bit		16
MAC	MAC header, bit		0
	MAC multiplexing		N/A
Layer 1	TrCH type		DCH
	TB sizes, bit		1344
	TFS	TF0, bits	0x1344
		TF1, bits	1x1344
	TTI, ms		20
	Coding type		TC
	CRC, bit		16
	Max number of bits/TTI after channel coding		4092
	RM attribute		130-170

7 Generic setup procedures

3GPP TSG-T1 Meeting #23
Beijing, China, 10th - 14th May 2004

Tdoc ⌘T1-040654

CR-Form-v7

CHANGE REQUEST

⌘ **34.108** **CR** **316** ⌘ **rev** **-** ⌘ Current version: **3.15.0** ⌘

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

Proposed change affects: UICC apps⌘ [ ] ME [X] Radio Access Network [ ] Core Network [ ]

Title:	⌘	CR to 34.108 R99: Change of default LAC/RAC for inter-RAT test cases
Source:	⌘	Nortel Networks, Ericsson, ETSI
Work item code:	⌘	TEI
Date:	⌘	16/04/2004
Category:	⌘	**F**
Release:	⌘	R99

Use one of the following categories:
F *(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)*
Rel-6	*(Release 6)*

Reason for change:	⌘	In a real network environment, 2G and 3G cells will use different LAC and RAC. The current default message content in 34.108 and 51.010-1 specify identical LAC RAC across GERAN and UTRAN cells.
Summary of change:	⌘	Default UTRAN SIB#1 content is modified so that for Inter-RAT test cases, GERAN and UTRAN cells use different LAC and RAC
Consequences if not approved:	⌘	Default test configuration will not be representative of a real network environment

Clauses affected:	⌘	6.1.0b			
Other specs affected:	⌘	**Y**	**N**		⌘
			X	Other core specifications	
			X	Test specifications	
			X	O&M Specifications	
Other comments:	⌘				

How to create CRs using this form:
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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://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

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

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), dual mode networks (FDD+TDD), or inter-RAT networks (FDD or TDD + GSM).

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

To simplify TTCN implementation the total number of simultaneous cells in intra-frequency, inter-frequency and inter-RAT cell information lists (SIB11) have been limited to 8 and a specific cell numbering scheme have been defined to associate cell identifiers with type of cell.

- Cell 1, Cell 2, Cell 3, Cell 7 and Cell 8 are associated with FDD/TDD cells using frequency f1;
- Cell 4, Cell 5 and Cell 6 are associated with FDD/TDD cells using frequency f2; and
- Cell 9 and Cell 10 are associated with GSM cells.

For FDD and TDD intra- and inter-frequency cell environment Cell 1 to Cell 8 are used.

For FDD/GSM inter-RAT cell environment Cell 1 to Cell 6, Cell 9 and Cell 10 are used.

In this clause, decimal values are normally used. However, sometimes a hexadecimal value, indicated by an "H", or a binary value, indicated by a "B" is used.

6.1.0a Default Master Information Block and Scheduling Block messages

6.1.0a.1 Grouping SIBs for testing

Mandatory in 34.108	**Used in Idle Mode**	MIB, SB1, (SB2), SIB1, SIB2, SIB3, SIB5, SIB7, SIB11
	Used in Connected Mode	SIB4, SIB6, SIB12
Mandatory for FDD CPCH		SIB8, SIB9
Mandatory for FDD DRAC		SIB10
Mandatory for TDD		SIB14, SIB17
Mandatory for LCS		SIB15, SIB15.1, SIB15.2, SIB15.3
Mandatory for ANSI-41 system		SIB13, SIB13.1, SIB13.2, SIB13.3, SIB13.4
Mandatory for InterSys HO		SIB16
Mandatory for Cell reselection		SIB18

6.1.0a.2 SIB configurations

Currently three SIB configurations are used, Configuration 1 is default for both UTRAN/FDD SYSTEM and UTRAN/FDD + GERAN SYSTEM, or both UTRAN/TDD SYSTEM and UTRAN/TDD + GERAN SYSTEM. Configuration 2 is for test cases which need two S_CCPCH or two PRACH. Configuration 3 is for inter-RAT handover test cases.

Configuration 1	MIB, SB1, SIB1, SIB2, SIB3, SIB4, SIB5, SIB6, SIB7, SIB11, SIB12, SIB18
Configuration 2	MIB, SB1, SIB1, SIB2, SIB3, SIB4, SIB5, SIB7, SIB11, SIB12, SIB18
Configuration 3	MIB, SB1, SIB1, SIB2, SIB3, SIB4, SIB5, SIB7, SIB11, SIB16, SIB18

6.1.0a.3 SIB default schedule

Block Type	MIB	SB1	SIB1	SIB2	SIB3	SIB4	SIB5	SIB6	SIB7	SIB11	SIB12	SIB18
SIB_REP	8	16	64	64	64	64	64	64	16	64	64	64
SEG_ COUNT	1	1	1	1	1	1	4	4	1	3	3	1

Frame No / SIB_POS	0	2	4	6	8	10	12	14
Block Type	MIB	SB1	SIB7	SIB6	MIB	SIB6	SIB6	SIB6

Frame No / SIB_POS	16	18	20	22	24	26	28	30
Block Type	MIB	SB1	SIB7/SIB3	SIB1/SIB2	MIB	SIB12	SIB12	SIB12

Frame No / SIB_POS	32	34	36	38	40	42	44	46
Block Type	MIB	SB1	SIB7/SIB18	SIB5	MIB	SIB5	SIB5	SIB5

Frame No / SIB_POS	48	50	52	54	56	58	60	62
Block Type	MIB	SB1	SIB7/SIB4		MIB	SIB11	SIB11	SIB11

The SEG_COUNT in the table specifies the maximum possible transport BCH blocks scheduled for broadcasting. The more contents a SIB has, the more transport BCH blocks are needed for broadcasting. In order to keep SIB repetition period, SIB_REP, unchanged in different test cases, each specific SIB in the individual test cases after the PER encoding shall not exceed the SEG_COUNT scheduled.

If the transport BCH blocks actually required for a SIB is less than the scheduled SEG_COUNT, the no_segment blocks shall be placed at the rest scheduled transport BCH blocks. In addition, the corresponding SEG_COUNT IE value in MIB or in SB1 shall be set to the number of transport BCH blocks actually required.

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

- MIB value tag	1
- Supported PLMN types	
- PLMN type	GSM-MAP
- PLMN identity	
- MCC digit	Set to the same Mobile Country Codes stored in the test USIM card (TS 34.108 clause 8.3.2.2 EF IMSI(IMSI)).
- MNC digit	Set to the same Mobile Network Codesstored in the test USIM card (TS 34.108 clause 8.3.2.2 EF IMSI(IMSI)).
- ANSI-41 Core Network information	Not Present
- References to other system information blocks and scheduling blocks	
- References to other system information blocks	
- Scheduling information	
- CHOICE Value tag	Cell Value Tag
- Cell Value tag	1
- Scheduling	
- SEG_COUNT	1
- SIB_REP	16
- SIB_POS	2
- SIB_POS offset info	Not Present – use default
- SIB and SB type	Scheduling Block 1
- Scheduling information	
- CHOICE Value tag	PLMN Value tag
- PLMN Value tag	1
- SEG_COUNT	1
- SIB_REP	64
- SIB_POS	22
- SIB_POS offset info	Not Present – use default
- SIB and SB type	System Information Type 1
- Scheduling information	
- CHOICE Value tag	Cell Value tag
- Cell Value tag	1
- SEG_COUNT	1
- SIB_REP	64
- SIB_POS	22
- SIB_POS offset info	Not Present – use default
- SIB and SB type	System Information Type 2
- Scheduling information	
- CHOICE Value tag	Cell Value tag
- Cell Value tag	1
- SEG_COUNT	1
- SIB_REP	64
- SIB_POS	20
- SIB_POS offset info	Not Present – use default
- SIB and SB type	System Information Type 3
- Scheduling information	
- CHOICE Value tag	Cell Value tag
- Cell Value tag	1
- SEG_COUNT	1
- SIB_REP	64
- SIB_POS	52
- SIB_POS offset info	Not Present – use default
- SIB and SB type	System Information Type 4
- Scheduling information	
- CHOICE Value tag	Cell Value tag
- Cell Value tag	1
- SEG_COUNT	4
- SIB_REP	64
- SIB_POS	38
- SIB_POS offset info	
- SIB_OFF	4
- SIB_OFF	2
- SIB_OFF	2
- SIB and SB type	System Information Type 5

Contents of Scheduling Block 1 (FDD)

- References to other system information blocks	
- Scheduling information	
- CHOICE Value tag	Cell Value tag
- Cell Value tag	1
- SEG_COUNT	4
- SIB_REP	64
- SIB_POS	6
- SIB_POS offset info	
- SIB_OFF	4
- SIB_OFF	2
- SIB_OFF	2
- SIB type SIBs only	System Information Type 6
- Scheduling information	
- CHOICE Value tag	Not Present
- SEG_COUNT	1
- SIB_REP	16
- SIB_POS	4
- SIB_POS offset info	Not Present
- SIB type SIBs only	System Information Type 7
- Scheduling information	
- CHOICE Value tag	Cell Value tag
- Cell Value tag	1
- SEG_COUNT	3
- SIB_REP	64
- SIB_POS	58
- SIB_POS offset info	
- SIB_OFF	2
- SIB_OFF	2
- SIB type SIBs only	System Information Type 11
- Scheduling information	
- CHOICE Value tag	Cell Value tag
- Cell Value tag	1
- SEG_COUNT	3
- SIB_REP	64
- SIB_POS	26
- SIB_POS offset info	
- SIB_OFF	2
- SIB_OFF	2
- SIB type SIBs only	System Information Type 12
- Scheduling information	
- CHOICE Value tag	PLMN Value tag
- PLMN Value tag	1
- SEG_COUNT	1
- SIB_REP	64
- SIB_POS	36
- SIB_POS offset info	Not Present
- SIB type SIBs only	System Information Type 18

Contents of Scheduling Block 1 (TDD)

- References to other system information blocks	
- Scheduling information	
- CHOICE Value tag	Cell Value tag
- Cell Value tag	1
- SEG_COUNT	4
- SIB_REP	128
- SIB_POS	3
- SIB_POS offset info	
- SIB_OFF	4
- SIB_OFF	2
- SIB_OFF	2
- SIB_OFF	2
- SIB type SIBs only	System Information Type 6
- Scheduling information	
- CHOICE Value tag	Not Present

- SEG_COUNT	1
- SIB_REP	16
- SIB_POS	2
- SIB_POS offset info	Not Present
- SIB type SIBs only	System Information Type 7
- Scheduling information	
- CHOICE Value tag	Cell Value tag
- Cell Value tag	1
- SEG_COUNT	3
- SIB_REP	64
- SIB_POS	29
- SIB_POS offset info	
- SIB_OFF	2
- SIB_OFF	2
- SIB type SIBs only	System Information Type 11
- Scheduling information	
- CHOICE Value tag	Cell Value tag
- Cell Value tag	1
- SEG_COUNT	3
- SIB_REP	64
- SIB_POS	13
- SIB_POS offset info	
- SIB_OFF	2
- SIB_OFF	2
- SIB type SIBs only	System Information Type 12
- Scheduling information	
- CHOICE Value tag	Cell Value tag
- Cell Value tag	1
- SEG_COUNT	1
- SIB_REP	64
- SIB_POS	54
- SIB_POS offset info	Not Present - use default
- SIB type SIBs only	System Information Type 14
- Scheduling information	
- CHOICE Value tag	PLMN Value tag
- PLMN Value tag	1
- SEG_COUNT	1
- SIB_REP	64
- SIB_POS	6
- SIB_POS offset info	Not Present
- SIB type SIBs only	System Information Type 18

6.1.0a.4 SIB special schedules

6.1.0a.4.1 SIB schedule for two S-CCPCH or two PRACH

FFS

6.1.0a.4.2 SIB schedule for Inter-Rat Handover Test

FFS

6.1.0b Default System Information Block Messages

Contents of System Information Block type 1 (supported PLMN type is GSM-MAP)

- CN common GSM-MAP NAS system information	A1	
- GSM-MAP NAS system information		00 01H
- CN domain system information		
- CN domain identity		PS
- CHOICE CN Type		GSM-MAP
- CN domain specific NAS system information		
- GSM-MAP NAS system information		05 00H
- 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		1E 01H
- CN domain specific DRX cycle length coefficient		7
- CN common GSM-MAP NAS system information	A2	
- GSM-MAP NAS system information		00 80H, Note 1
- CN domain system information		
- CN domain identity		PS
- CHOICE CN Type		GSM-MAP
- CN domain specific NAS system information		
- GSM-MAP NAS system information		00 00H, Note 1
- 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		1E 01H
- CN domain specific DRX cycle length coefficient		7
- UE Timers and constants in idle mode	A1, A2	
-T300		4000 milliseconds
-N300		3
-T312		10 seconds
- N312		1
- UE Timers and constants in connected mode		
- T301		Not Present (2000 milliseconds: default value)
- N301		Not Present (2: default value)
- T302		Not Present (4000 milliseconds: default value)
- N302		Not Present (3: default value)
- T304		Not Present (2000 milliseconds: default value)
- N304		Not Present (2: default value)
- T305		Not Present (30 minutes: default value)
- T307		Not Present (30 seconds: default value)
- T308		Not Present (160 milliseconds: default value)
- T309		Not Present (5 seconds: default value)
- T310		Not Present (160 milliseconds: default value)
- N310		Not Present (4: default value)
- T311		Not Present (2000 milliseconds: default value)
- T312		Not Present (1 seconds: default value)
- N312		Not Present (1: default value)
- T313		Not Present (3 seconds: default value)
- N313		Not Present (20: default value)
- T314		Not Present (12 seconds: default value)
- T315		Not Present (180 seconds: default value)
- N315		Not Present (1: default value)
- T316		Not Present (30 seconds: default value)
- T317		Not Present (180 seconds: default value)
Note1 For Inter-RAT test cases GERAN and UTRAN cells use different LAC and RAC		

Condition	Explanation
A1	FDD cell environment
A2	FDD/GSM inter-RAT cell environment

3GPP TSG-T1 Meeting #23
Beijing, China, 10th - 14th May 2004

Tdoc ⌘T1-040655

CR-Form-v7

CHANGE REQUEST

⌘ **34.108** **CR** **317** ⌘ **rev** **-** ⌘ Current version: **4.10.0** ⌘

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

Proposed change affects: UICC apps⌘ ☐ ME ☒ Radio Access Network ☐ Core Network ☐

Title:	⌘	CR to 34.108 Rel-4: Change of default LAC/RAC for inter-RAT test cases
Source:	⌘	Nortel Networks, Ericsson, ETSI
Work item code:	⌘	TEI
Date:	⌘	16/04/2004
Category:	⌘	**A**
Release:	⌘	Rel-4

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
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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)*
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R97	*(Release 1997)*
R98	*(Release 1998)*
R99	*(Release 1999)*
Rel-4	*(Release 4)*
Rel-5	*(Release 5)*
Rel-6	*(Release 6)*

Reason for change:	⌘	In a real network environment, 2G and 3G cells will use different LAC and RAC. The current default message content in 34.108 and 51.010-1 specify identical LAC RAC across GERAN and UTRAN cells.
Summary of change:	⌘	Default UTRAN SIB#1 content is modified so that for Inter-RAT test cases, GERAN and UTRAN cells use different LAC and RAC
Consequences if not approved:	⌘	Default test configuration will not be representative of a real network environment

Clauses affected:	⌘	6.1.0b

	Y	N		
Other specs affected: ⌘		X	Other core specifications	⌘
		X	Test specifications	
		X	O&M Specifications	

Other comments: ⌘

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6 Reference System Configurations

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

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The UE will eventually have to operate in either single mode networks (FDD or TDD), dual mode networks (FDD+TDD), or inter-RAT networks (FDD or TDD + GSM).

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

To simplify TTCN implementation the total number of simultaneous cells in intra-frequency, inter-frequency and inter-RAT cell information lists (SIB11) have been limited to 8 and a specific cell numbering scheme have been defined to associate cell identifiers with type of cell.

- Cell 1, Cell 2, Cell 3, Cell 7 and Cell 8 are associated with FDD/TDD cells using frequency f1;
- Cell 4, Cell 5 and Cell 6 are associated with FDD/TDD cells using frequency f2; and
- Cell 9 and Cell 10 are associated with GSM cells.

For FDD and TDD intra- and inter-frequency cell environment Cell 1 to Cell 8 are used.

For FDD/GSM inter-RAT cell environment Cell 1 to Cell 6, Cell 9 and Cell 10 are used.

In this clause, decimal values are normally used. However, sometimes a hexadecimal value, indicated by an "H", or a binary value, indicated by a "B" is used.

6.1.0a Default Master Information Block and Scheduling Block messages

6.1.0a.1 Grouping SIBs for testing

Mandatory in 34.108	**Used in Idle Mode**	MIB, SB1, (SB2), SIB1, SIB2, SIB3, SIB5, SIB7, SIB11
	Used in Connected Mode	SIB4, SIB6, SIB12
Mandatory for FDD CPCH		SIB8, SIB9
Mandatory for FDD DRAC		SIB10
Mandatory for TDD		SIB14, SIB17
Mandatory for LCS		SIB15, SIB15.1, SIB15.2, SIB15.3
Mandatory for ANSI-41 system		SIB13, SIB13.1, SIB13.2, SIB13.3, SIB13.4
Mandatory for InterSys HO		SIB16
Mandatory for Cell reselection		SIB18

6.1.0a.2 SIB configurations

Currently three SIB configurations are used, Configuration 1 is default for both UTRAN/FDD SYSTEM and UTRAN/FDD + GERAN SYSTEM, or both UTRAN/TDD SYSTEM and UTRAN/TDD + GERAN SYSTEM. Configuration 2 is for test cases which need two S_CCPCH or two PRACH. Configuration 3 is for inter-RAT handover test cases.

Configuration 1	MIB, SB1, SIB1, SIB2, SIB3, SIB4, SIB5, SIB6, SIB7, SIB11, SIB12, SIB18
Configuration 2	MIB, SB1, SIB1, SIB2, SIB3, SIB4, SIB5, SIB7, SIB11, SIB12, SIB18
Configuration 3	MIB, SB1, SIB1, SIB2, SIB3, SIB4, SIB5, SIB7, SIB11, SIB16, SIB18

6.1.0a.3 SIB default schedule

Block Type	MIB	SB1	SIB1	SIB2	SIB3	SIB4	SIB5	SIB6	SIB7	SIB11	SIB12	SIB18
SIB_REP	8	16	64	64	64	64	64	64	16	64	64	64
SEG_ COUNT	1	1	1	1	1	1	4	4	1	3	3	1

Frame No / SIB_POS	0	2	4	6	8	10	12	14
Block Type	MIB	SB1	SIB7	SIB6	MIB	SIB6	SIB6	SIB6

Frame No / SIB_POS	16	18	20	22	24	26	28	30
Block Type	MIB	SB1	SIB7/SIB3	SIB1/SIB2	MIB	SIB12	SIB12	SIB12

Frame No / SIB_POS	32	34	36	38	40	42	44	46
Block Type	MIB	SB1	SIB7/SIB18	SIB5	MIB	SIB5	SIB5	SIB5

Frame No / SIB_POS	48	50	52	54	56	58	60	62
Block Type	MIB	SB1	SIB7/SIB4		MIB	SIB11	SIB11	SIB11

The SEG_COUNT in the table specifies the maximum possible transport BCH blocks scheduled for broadcasting. The more contents a SIB has, the more transport BCH blocks are needed for broadcasting. In order to keep SIB repetition period, SIB_REP, unchanged in different test cases, each specific SIB in the individual test cases after the PER encoding shall not exceed the SEG_COUNT scheduled.

If the transport BCH blocks actually required for a SIB is less than the scheduled SEG_COUNT, the no_segment blocks shall be placed at the rest scheduled transport BCH blocks. In addition, the corresponding SEG_COUNT IE value in MIB or in SB1 shall be set to the number of transport BCH blocks actually required.

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

- MIB value tag	1
- Supported PLMN types	
- PLMN type	GSM-MAP
- PLMN identity	
- MCC digit	Set to the same Mobile Country Codes stored in the test USIM card (TS 34.108 clause 8.3.2.2 EF IMSI(IMSI)).
- MNC digit	Set to the same Mobile Network Codesstored in the test USIM card (TS 34.108 clause 8.3.2.2 EF IMSI(IMSI)).
- ANSI-41 Core Network information	Not Present
- References to other system information blocks and scheduling blocks	
- References to other system information blocks	
- Scheduling information	
- CHOICE Value tag	Cell Value Tag
- Cell Value tag	1
- Scheduling	
- SEG_COUNT	1
- SIB_REP	16
- SIB_POS	2
- SIB_POS offset info	Not Present – use default
- SIB and SB type	Scheduling Block 1
- Scheduling information	
- CHOICE Value tag	PLMN Value tag
- PLMN Value tag	1
- SEG_COUNT	1
- SIB_REP	64
- SIB_POS	22
- SIB_POS offset info	Not Present – use default
- SIB and SB type	System Information Type 1
- Scheduling information	
- CHOICE Value tag	Cell Value tag
- Cell Value tag	1
- SEG_COUNT	1
- SIB_REP	64
- SIB_POS	22
- SIB_POS offset info	Not Present – use default
- SIB and SB type	System Information Type 2
- Scheduling information	
- CHOICE Value tag	Cell Value tag
- Cell Value tag	1
- SEG_COUNT	1
- SIB_REP	64
- SIB_POS	20
- SIB_POS offset info	Not Present – use default
- SIB and SB type	System Information Type 3
- Scheduling information	
- CHOICE Value tag	Cell Value tag
- Cell Value tag	1
- SEG_COUNT	1
- SIB_REP	64
- SIB_POS	52
- SIB_POS offset info	Not Present – use default
- SIB and SB type	System Information Type 4
- Scheduling information	
- CHOICE Value tag	Cell Value tag
- Cell Value tag	1
- SEG_COUNT	4
- SIB_REP	64
- SIB_POS	38
- SIB_POS offset info	
- SIB_OFF	4
- SIB_OFF	2

- SIB_OFF	2
- SIB and SB type	System Information Type 5

Contents of Scheduling Block 1 (FDD and 1.28 Mcps TDD)

- References to other system information blocks	
- Scheduling information	
- CHOICE Value tag	Cell Value tag
- Cell Value tag	1
- SEG_COUNT	4
- SIB_REP	64
- SIB_POS	6
- SIB_POS offset info	
- SIB_OFF	4
- SIB_OFF	2
- SIB_OFF	2
- SIB type SIBs only	System Information Type 6
- Scheduling information	
- CHOICE Value tag	Not Present
- SEG_COUNT	1
- SIB_REP	16
- SIB_POS	4
- SIB_POS offset info	Not Present
- SIB type SIBs only	System Information Type 7
- Scheduling information	
- CHOICE Value tag	Cell Value tag
- Cell Value tag	1
- SEG_COUNT	3
- SIB_REP	64
- SIB_POS	58
- SIB_POS offset info	
- SIB_OFF	2
- SIB_OFF	2
- SIB type SIBs only	System Information Type 11
- Scheduling information	
- CHOICE Value tag	Cell Value tag
- Cell Value tag	1
- SEG_COUNT	3
- SIB_REP	64
- SIB_POS	26
- SIB_POS offset info	
- SIB_OFF	2
- SIB_OFF	2
- SIB type SIBs only	System Information Type 12
- Scheduling information	
- CHOICE Value tag	PLMN Value tag
- PLMN Value tag	1
- SEG_COUNT	1
- SIB_REP	64
- SIB_POS	36
- SIB_POS offset info	Not Present
- SIB type SIBs only	System Information Type 18

Contents of Scheduling Block 1 (3.84 Mcps TDD)

- References to other system information blocks	
- Scheduling information	
- CHOICE Value tag	Cell Value tag
- Cell Value tag	1
- SEG_COUNT	4
- SIB_REP	128
- SIB_POS	3
- SIB_POS offset info	
- SIB_OFF	4
- SIB_OFF	2

- SIB_OFF	2
- SIB type SIBs only	System Information Type 6
- Scheduling information	
- CHOICE Value tag	Not Present
- SEG_COUNT	1
- SIB_REP	16
- SIB_POS	2
- SIB_POS offset info	Not Present
- SIB type SIBs only	System Information Type 7
- Scheduling information	
- CHOICE Value tag	Cell Value tag
- Cell Value tag	1
- SEG_COUNT	3
- SIB_REP	64
- SIB_POS	29
- SIB_POS offset info	
- SIB_OFF	2
- SIB_OFF	2
- SIB type SIBs only	System Information Type 11
- Scheduling information	
- CHOICE Value tag	Cell Value tag
- Cell Value tag	1
- SEG_COUNT	3
- SIB_REP	64
- SIB_POS	13
- SIB_POS offset info	
- SIB_OFF	2
- SIB_OFF	2
- SIB type SIBs only	System Information Type 12
- Scheduling information	
- CHOICE Value tag	Cell Value tag
- Cell Value tag	1
- SEG_COUNT	1
- SIB_REP	64
- SIB_POS	54
- SIB_POS offset info	Not Present - use default
- SIB type SIBs only	System Information Type 14
- Scheduling information	
- CHOICE Value tag	PLMN Value tag
- PLMN Value tag	1
- SEG_COUNT	1
- SIB_REP	64
- SIB_POS	6
- SIB_POS offset info	Not Present
- SIB type SIBs only	System Information Type 18

6.1.0a.4 SIB special schedules

6.1.0a.4.1 SIB schedule for two S-CCPCH or two PRACH

FFS

6.1.0a.4.2 SIB schedule for Inter-Rat Handover Test

FFS

6.1.0b Default System Information Block Messages

Contents of System Information Block type 1 (supported PLMN type is GSM-MAP)

- CN common GSM-MAP NAS system information	A1	
- GSM-MAP NAS system information		00 01H
- CN domain system information		

- CN domain identity		PS
- CHOICE CN Type		GSM-MAP
- CN domain specific NAS system information		
- GSM-MAP NAS system information		05 00H
- 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		1E 01H
- CN domain specific DRX cycle length coefficient		7
- CN common GSM-MAP NAS system information	A2	
- GSM-MAP NAS system information		00 80H, Note 1
- CN domain system information		
- CN domain identity		PS
- CHOICE CN Type		GSM-MAP
- CN domain specific NAS system information		
- GSM-MAP NAS system information		00 00H, Note 1
- 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		1E 01H
- CN domain specific DRX cycle length coefficient		7
- UE Timers and constants in idle mode	A1, A2	
-T300		4000 milliseconds
-N300		3
-T312		10 seconds
- N312		1
- UE Timers and constants in connected mode		
- T301		Not Present (2000 milliseconds: default value)
- N301		Not Present (2: default value)
- T302		Not Present (4000 milliseconds: default value)
- N302		Not Present (3: default value)
- T304		Not Present (2000 milliseconds: default value)
- N304		Not Present (2: default value)
- T305		Not Present (30 minutes: default value)
- T307		Not Present (30 seconds: default value)
- T308		Not Present (160 milliseconds: default value)
- T309		Not Present (5 seconds: default value)
- T310		Not Present (160 milliseconds: default value)
- N310		Not Present (4: default value)
- T311		Not Present (2000 milliseconds: default value)
- T312		Not Present (1 seconds: default value)
- N312		Not Present (1: default value)
- T313		Not Present (3 seconds: default value)
- N313		Not Present (20: default value)
- T314		Not Present (12 seconds: default value)
- T315		Not Present (180 seconds: default value)
- N315		Not Present (1: default value)
- T316		Not Present (30 seconds: default value)
- T317		Not Present (180 seconds: default value)
Note1 For Inter-RAT test cases GERAN and UTRAN cells use different LAC and RAC		

Condition	Explanation
A1	FDD cell environment
A2	FDD/GSM inter-RAT cell environment

3GPP TSG-T1 Meeting #23
Beijing, China, 10th - 14th May 2004

Tdoc ⌘T1-040656

CR-Form-v7

CHANGE REQUEST

⌘ **34.108** **CR** **318** ⌘ **rev** **-** ⌘ Current version: **5.0.0** ⌘

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

Proposed change affects: UICC apps⌘ ☐ ME ☒ Radio Access Network ☐ Core Network ☐

Title:	⌘	CR to 34.108 Rel-5: Change of default LAC/RAC for inter-RAT test cases
Source:	⌘	Nortel Networks, Ericsson, ETSI
Work item code:	⌘	TEI
Date:	⌘	16/04/2004
Category:	⌘	**A**
Release:	⌘	Rel-5

Use one of the following categories:
F *(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)*
Rel-6 *(Release 6)*

Reason for change:	⌘	In a real network environment, 2G and 3G cells will use different LAC and RAC. The current default message content in 34.108 and 51.010-1 specify identical LAC RAC across GERAN and UTRAN cells.
Summary of change:	⌘	Default UTRAN SIB#1 content is modified so that for Inter-RAT test cases, GERAN and UTRAN cells use different LAC and RAC
Consequences if not approved:	⌘	Default test configuration will not be representative of a real network environment

Clauses affected:	⌘	6.1.0b

Other specs affected: ⌘	Y	N	
		X	Other core specifications ⌘
		X	Test specifications
		X	O&M Specifications

Other comments: ⌘

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

1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.
2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

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

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), dual mode networks (FDD+TDD), or inter-RAT networks (FDD or TDD + GSM).

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

To simplify TTCN implementation the total number of simultaneous cells in intra-frequency, inter-frequency and inter-RAT cell information lists (SIB11) have been limited to 8 and a specific cell numbering scheme have been defined to associate cell identifiers with type of cell.

- Cell 1, Cell 2, Cell 3, Cell 7 and Cell 8 are associated with FDD/TDD cells using frequency f1;
- Cell 4, Cell 5 and Cell 6 are associated with FDD/TDD cells using frequency f2; and
- Cell 9 and Cell 10 are associated with GSM cells.

For FDD and TDD intra- and inter-frequency cell environment Cell 1 to Cell 8 are used.

For FDD/GSM inter-RAT cell environment Cell 1 to Cell 6, Cell 9 and Cell 10 are used.

In this clause, decimal values are normally used. However, sometimes a hexadecimal value, indicated by an "H", or a binary value, indicated by a "B" is used.

6.1.0a Default Master Information Block and Scheduling Block messages

6.1.0a.1 Grouping SIBs for testing

Mandatory in 34.108	**Used in Idle Mode**	MIB, SB1, (SB2), SIB1, SIB2, SIB3, SIB5, SIB7, SIB11
	Used in Connected Mode	SIB4, SIB6, SIB12
Mandatory for FDD CPCH		SIB8, SIB9
Mandatory for FDD DRAC		SIB10
Mandatory for TDD		SIB14, SIB17
Mandatory for LCS		SIB15, SIB15.1, SIB15.2, SIB15.3
Mandatory for ANSI-41 system		SIB13, SIB13.1, SIB13.2, SIB13.3, SIB13.4
Mandatory for InterSys HO		SIB16
Mandatory for Cell reselection		SIB18

6.1.0a.2 SIB configurations

Currently three SIB configurations are used, Configuration 1 is default for both UTRAN/FDD SYSTEM and UTRAN/FDD + GERAN SYSTEM, or both UTRAN/TDD SYSTEM and UTRAN/TDD + GERAN SYSTEM. Configuration 2 is for test cases which need two S_CCPCH or two PRACH. Configuration 3 is for inter-RAT handover test cases.

Configuration 1	MIB, SB1, SIB1, SIB2, SIB3, SIB4, SIB5, SIB6, SIB7, SIB11, SIB12, SIB18
Configuration 2	MIB, SB1, SIB1, SIB2, SIB3, SIB4, SIB5, SIB7, SIB11, SIB12, SIB18
Configuration 3	MIB, SB1, SIB1, SIB2, SIB3, SIB4, SIB5, SIB7, SIB11, SIB16, SIB18

6.1.0a.3 SIB default schedule

Block Type	MIB	SB1	SIB1	SIB2	SIB3	SIB4	SIB5	SIB6	SIB7	SIB11	SIB12	SIB18
SIB_REP	8	16	64	64	64	64	64	64	16	64	64	64
SEG_ COUNT	1	1	1	1	1	1	4	4	1	3	3	1

Frame No / SIB_POS	0	2	4	6	8	10	12	14
Block Type	MIB	SB1	SIB7	SIB6	MIB	SIB6	SIB6	SIB6

Frame No / SIB_POS	16	18	20	22	24	26	28	30
Block Type	MIB	SB1	SIB7/SIB3	SIB1/SIB2	MIB	SIB12	SIB12	SIB12

Frame No / SIB_POS	32	34	36	38	40	42	44	46
Block Type	MIB	SB1	SIB7/SIB18	SIB5	MIB	SIB5	SIB5	SIB5

Frame No / SIB_POS	48	50	52	54	56	58	60	62
Block Type	MIB	SB1	SIB7/SIB4		MIB	SIB11	SIB11	SIB11

The SEG_COUNT in the table specifies the maximum possible transport BCH blocks scheduled for broadcasting. The more contents a SIB has, the more transport BCH blocks are needed for broadcasting. In order to keep SIB repetition period, SIB_REP, unchanged in different test cases, each specific SIB in the individual test cases after the PER encoding shall not exceed the SEG_COUNT scheduled.

If the transport BCH blocks actually required for a SIB is less than the scheduled SEG_COUNT, the no_segment blocks shall be placed at the rest scheduled transport BCH blocks. In addition, the corresponding SEG_COUNT IE value in MIB or in SB1 shall be set to the number of transport BCH blocks actually required.

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

- MIB value tag	1
- Supported PLMN types	
- PLMN type	GSM-MAP
- PLMN identity	
- MCC digit	Set to the same Mobile Country Codes stored in the test USIM card (TS 34.108 clause 8.3.2.2 EF IMSI(IMSI)).
- MNC digit	Set to the same Mobile Network Codesstored in the test USIM card (TS 34.108 clause 8.3.2.2 EF IMSI(IMSI)).
- ANSI-41 Core Network information	Not Present
- References to other system information blocks and scheduling blocks	
- References to other system information blocks	
- Scheduling information	
- CHOICE Value tag	Cell Value Tag
- Cell Value tag	1
- Scheduling	
- SEG_COUNT	1
- SIB_REP	16
- SIB_POS	2
- SIB_POS offset info	Not Present – use default
- SIB and SB type	Scheduling Block 1
- Scheduling information	
- CHOICE Value tag	PLMN Value tag
- PLMN Value tag	1
- SEG_COUNT	1
- SIB_REP	64
- SIB_POS	22
- SIB_POS offset info	Not Present – use default
- SIB and SB type	System Information Type 1
- Scheduling information	
- CHOICE Value tag	Cell Value tag
- Cell Value tag	1
- SEG_COUNT	1
- SIB_REP	64
- SIB_POS	22
- SIB_POS offset info	Not Present – use default
- SIB and SB type	System Information Type 2
- Scheduling information	
- CHOICE Value tag	Cell Value tag
- Cell Value tag	1
- SEG_COUNT	1
- SIB_REP	64
- SIB_POS	20
- SIB_POS offset info	Not Present – use default
- SIB and SB type	System Information Type 3
- Scheduling information	
- CHOICE Value tag	Cell Value tag
- Cell Value tag	1
- SEG_COUNT	1
- SIB_REP	64
- SIB_POS	52
- SIB_POS offset info	Not Present – use default
- SIB and SB type	System Information Type 4
- Scheduling information	
- CHOICE Value tag	Cell Value tag
- Cell Value tag	1
- SEG_COUNT	4
- SIB_REP	64
- SIB_POS	38
- SIB_POS offset info	
- SIB_OFF	4
- SIB_OFF	2

- SIB_OFF	2
- SIB and SB type	System Information Type 5

Contents of Scheduling Block 1 (FDD and 1.28 Mcps TDD)

- References to other system information blocks	
- Scheduling information	
- CHOICE Value tag	Cell Value tag
- Cell Value tag	1
- SEG_COUNT	4
- SIB_REP	64
- SIB_POS	6
- SIB_POS offset info	
- SIB_OFF	4
- SIB_OFF	2
- SIB_OFF	2
- SIB type SIBs only	System Information Type 6
- Scheduling information	
- CHOICE Value tag	Not Present
- SEG_COUNT	1
- SIB_REP	16
- SIB_POS	4
- SIB_POS offset info	Not Present
- SIB type SIBs only	System Information Type 7
- Scheduling information	
- CHOICE Value tag	Cell Value tag
- Cell Value tag	1
- SEG_COUNT	3
- SIB_REP	64
- SIB_POS	58
- SIB_POS offset info	
- SIB_OFF	2
- SIB_OFF	2
- SIB type SIBs only	System Information Type 11
- Scheduling information	
- CHOICE Value tag	Cell Value tag
- Cell Value tag	1
- SEG_COUNT	3
- SIB_REP	64
- SIB_POS	26
- SIB_POS offset info	
- SIB_OFF	2
- SIB_OFF	2
- SIB type SIBs only	System Information Type 12
- Scheduling information	
- CHOICE Value tag	PLMN Value tag
- PLMN Value tag	1
- SEG_COUNT	1
- SIB_REP	64
- SIB_POS	36
- SIB_POS offset info	Not Present
- SIB type SIBs only	System Information Type 18

Contents of Scheduling Block 1 (3.84 Mcps TDD)

- References to other system information blocks	
- Scheduling information	
- CHOICE Value tag	Cell Value tag
- Cell Value tag	1
- SEG_COUNT	4
- SIB_REP	128
- SIB_POS	3
- SIB_POS offset info	
- SIB_OFF	4
- SIB_OFF	2

- SIB_OFF	2
- SIB type SIBs only	System Information Type 6
- Scheduling information	
- CHOICE Value tag	Not Present
- SEG_COUNT	1
- SIB_REP	16
- SIB_POS	2
- SIB_POS offset info	Not Present
- SIB type SIBs only	System Information Type 7
- Scheduling information	
- CHOICE Value tag	Cell Value tag
- Cell Value tag	1
- SEG_COUNT	3
- SIB_REP	64
- SIB_POS	29
- SIB_POS offset info	
- SIB_OFF	2
- SIB_OFF	2
- SIB type SIBs only	System Information Type 11
- Scheduling information	
- CHOICE Value tag	Cell Value tag
- Cell Value tag	1
- SEG_COUNT	3
- SIB_REP	64
- SIB_POS	13
- SIB_POS offset info	
- SIB_OFF	2
- SIB_OFF	2
- SIB type SIBs only	System Information Type 12
- Scheduling information	
- CHOICE Value tag	Cell Value tag
- Cell Value tag	1
- SEG_COUNT	1
- SIB_REP	64
- SIB_POS	54
- SIB_POS offset info	Not Present - use default
- SIB type SIBs only	System Information Type 14
- Scheduling information	
- CHOICE Value tag	PLMN Value tag
- PLMN Value tag	1
- SEG_COUNT	1
- SIB_REP	64
- SIB_POS	6
- SIB_POS offset info	Not Present
- SIB type SIBs only	System Information Type 18

6.1.0a.4 SIB special schedules

6.1.0a.4.1 SIB schedule for two S-CCPCH or two PRACH

FFS

6.1.0a.4.2 SIB schedule for Inter-Rat Handover Test

FFS

6.1.0b Default System Information Block Messages

Contents of System Information Block type 1 (supported PLMN type is GSM-MAP)

- CN common GSM-MAP NAS system information	A1	
- GSM-MAP NAS system information		00 01H
- CN domain system information		

- CN domain identity		PS
- CHOICE CN Type		GSM-MAP
- CN domain specific NAS system information		
- GSM-MAP NAS system information		05 00H
- 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		1E 01H
- CN domain specific DRX cycle length coefficient		7
- CN common GSM-MAP NAS system information	A2	
- GSM-MAP NAS system information		00 80H, Note 1
- CN domain system information		
- CN domain identity		PS
- CHOICE CN Type		GSM-MAP
- CN domain specific NAS system information		
- GSM-MAP NAS system information		00 00H, Note 1
- 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		1E 01H
- CN domain specific DRX cycle length coefficient		7
- UE Timers and constants in idle mode	A1, A2	
-T300		4000 milliseconds
-N300		3
-T312		10 seconds
- N312		1
- UE Timers and constants in connected mode		
- T301		Not Present (2000 milliseconds: default value)
- N301		Not Present (2: default value)
- T302		Not Present (4000 milliseconds: default value)
- N302		Not Present (3: default value)
- T304		Not Present (2000 milliseconds: default value)
- N304		Not Present (2: default value)
- T305		Not Present (30 minutes: default value)
- T307		Not Present (30 seconds: default value)
- T308		Not Present (160 milliseconds: default value)
- T309		Not Present (5 seconds: default value)
- T310		Not Present (160 milliseconds: default value)
- N310		Not Present (4: default value)
- T311		Not Present (2000 milliseconds: default value)
- T312		Not Present (1 seconds: default value)
- N312		Not Present (1: default value)
- T313		Not Present (3 seconds: default value)
- N313		Not Present (20: default value)
- T314		Not Present (12 seconds: default value)
- T315		Not Present (180 seconds: default value)
- N315		Not Present (1: default value)
- T316		Not Present (30 seconds: default value)
- T317		Not Present (180 seconds: default value)
Note1 For Inter-RAT test cases GERAN and UTRAN cells use different LAC and RAC		

Condition	Explanation
A1	FDD cell environment
A2	FDD/GSM inter-RAT cell environment

3GPP TSG-T1 Meeting #23
Beijing, China, 10th – 14th May 2004

Tdoc ⌘T1-040673

CR-Form-v7

CHANGE REQUEST

⌘ **34.108** **CR** 319 ⌘ **rev** - ⌘ Current version: **5.0.0** ⌘

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Proposed change affects: UICC apps⌘ ☐ ME ☒ Radio Access Network ☐ Core Network ☐

Title:	⌘	CR to 34.108 Rel-5: Contents of Physical Channel Reconfiguration message modified to incorporate transition to URA_PCH or CELL_PCH
Source:	⌘	Anite
Work item code:	⌘	TEI
Date:	⌘	29/04/2004
Category:	⌘	**F**
Release:	⌘	Rel-5

Use one of the following categories:
F *(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)*
Rel-6	*(Release 6)*

Reason for change:	⌘	Currently the contents of Physical Channel Reconfiguration message in case of transition to URA_PCH, CELL_PCH are not specified in TS 34.108. The content of the message currently used in TS 34.123-3 TTCN for these transitions is incorrect with respect to the core specifications 25.331 Section 8.2.2.3.
Summary of change:	⌘	Message contents for PHYSICAL CHANNEL RECONFIGURATION message: AM or UM for the transitions to URA_PCH or CELL_PCH are specified.
Consequences if not approved:	⌘	No reference message for transition to URA_PCH and CELL_PCH using Physical Channel Reconfiguration.

Clauses affected:	⌘	9.1.1			
Other specs affected:	⌘	**Y**	**N**		
			X	Other core specifications	⌘
			X	Test specifications	34.123-3
			X	O&M Specifications	
Other comments:	⌘	The empty table should also be removed.			

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

9 Default Message Contents

9.1 Default Message Contents for Signalling

9.1.1 Default RRC Message Contents (FDD)

……..

<< Start of Modified Section >>

Contents of PHYSICAL CHANNEL RECONFIGURATION message: AM or UM

Information Element	Condition	Value/remark	Version
Message Type	A1, A2, A3, A4, A5, A6, A7, A8, A9, A10		
RRC transaction identifier		Arbitrarily selects an integer between 0 and 3	
Integrity check info			
- message authentication code		SS calculates the value of MAC-I for this message and writes to this IE. The first/ leftmost bit of the bit string contains the most significant bit of the MAC-I.	
- RRC message sequence number		SS provides the value of this IE, from its internal counter.	
Integrity protection mode info		Not Present	
Ciphering mode info		Not Present	
Activation time	A1, A2, A3	(256+CFN-(CFN MOD 8 + 8))MOD 256	
Activation time	A4, A5, A6, A7, A8, A9, A10	Not Present	
New U-RNTI		Not Present	
New C-RNTI	A1, A2, A3, A4, A7, A8, A9, A10	Not Present	
New C-RNTI	A5, A6	'1010 1010 1010 1010'	
New DSCH-RNTI	A1, A2, A3, A4, A5, A6, A7, A8, A9, A10	Not Present	
New H-RNTI	A1, A2, A3, A4, A5, A6, A7, A8, A9, A10	Not Present	REL-5
RRC State indicator	A1, A2, A3, A4	CELL_DCH	
RRC State indicator	A5, A6	CELL_FACH	
RRC State indicator	A7, A8	URA_PCH	
RRC State indicator	A9, A10	CELL_PCH	
UTRAN DRX cycle length coefficient	A1, A2, A3, A4, A5, A6	Not Present	
UTRAN DRX cycle length coefficient	A7, A8, A9, A10	3	
CN information info		Not Present	
URA identity		Not Present	
Downlink counter synchronisation info		Not Present	
Frequency info	A1, A2, A3, A4, A5		
- UARFCN uplink (Nu)		Reference to clause 5.1 Test frequencies	
- UARFCN downlink (Nd)		Reference to clause 5.1 Test frequencies	
Frequency info	A6, A7, A8, A9, A10	Not Present	
Maximum allowed UL TX power		33dBm	
CHOICE *channel requirement*	A5, A6, A7, A8, A9, A10	Not Present	
CHOICE *channel requirement*	A1, A2, A3, A4	Uplink DPCH info	
- Uplink DPCH power control info			
- DPCCH power offset		-6dB	
- PC Preamble		1 frame	
- SRB delay		7 frames	
- Power Control Algorithm		Algorithm1	
- TPC step size		1dB	
- Scrambling code type		Long	
- Scrambling code number		0 (0 to 16777215)	

Information Element	Condition	Value/remark	Version
- Number of DPDCH - spreading factor - TFCI existence - Number of FBI bit - Puncturing Limit		Not Present(1) Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set	
CHOICE Mode - Downlink PDSCH information	A1, A2, A3, A4, A5, A6, A7, A8, A9, A10	FDD Not Present	
Downlink HS-PDSCH Information	A1, A2, A3, A4, A5, A6, A7, A8, A9, A10	Not Present	REL-5
Downlink information common for all radio links - Downlink DPCH info common for all RL - Timing indicator - CFN-targetSFN frame offset - Downlink DPCH power control information - DPC mode - CHOICE mode - Power offset $P_{Pilot-DPDCH}$ - DL rate matching restriction information - Spreading factor - Fixed or Flexible Position - TFCI existence - CHOICE SF - DPCH compressed mode info - TX Diversity mode - SSDT information - Default DPCH Offset Value	A1, A2, A3	 Maintain Not Present 0 (single) FDD 0 Not Present Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Not Present None Not Present Not Present	
Downlink information common for all radio links - Downlink DPCH info common for all RL - Timing indicator - CFN-targetSFN frame offset - Downlink DPCH power control information - DPC mode - CHOICE mode - Power offset $P_{Pilot-DPDCH}$ - DL rate matching restriction information - Spreading factor - Fixed or Flexible Position - TFCI existence - CHOICE SF - DPCH compressed mode info - TX Diversity mode - SSDT information - Default DPCH Offset Value	A4	 Initialise Not Present 0 (single) FDD 0 Not Present Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Not Present None Not Present Arbitrary set to value 0..306688 by step of 512	
Downlink information common for all radio links	A5, A6, A7, A8, A9, A10	Not Present	
Downlink information for each radio links - Choice mode - Primary CPICH info	A1, A2,A3	 FDD	

Information Element	Condition	Value/remark	Version
- Primary scrambling code		Ref. to the Default setting in TS34.108 clause 6.1 (FDD)	
- PDSCH with SHO DCH info		Not Present	
- PDSCH code mapping		Not Present	
- Serving HS-DSCH radio link indicator		FALSE	REL-5
- Downlink DPCH info for each RL			
- CHOICE mode		FDD	
- Primary CPICH usage for channel estimation		Primary CPICH may be used	
- DPCH frame offset		Set to value : Default DPCH Offset Value (as currently stored in SS) mod 38400	
- Power offset $P_{Pilot-DPDCH}$		0	
- Secondary CPICH info		Not Present	
- DL channelisation code			
- Secondary scrambling code		5	
- Spreading factor		Reference to TS34.108 clause 6.10 Parameter Set	
- Code number		0	
- Scrambling code change		No change	
- TPC combination index		0	
- SSDT Cell Identity		Not Present	
- Closed loop timing adjustment mode		Not Present	
- SCCPCH information for FACH		Not Present	
Downlink information for each radio links	A4		
- Choice mode		FDD	
- Primary CPICH info			
- Primary scrambling code		Ref. to the Default setting in TS34.108 clause 6.1 (FDD)	
- PDSCH with SHO DCH info		Not Present	
- PDSCH code mapping		Not Present	
- Serving HS-DSCH radio link indicator		FALSE	REL-5
- Downlink DPCH info for each RL			
- CHOICE mode		FDD	
- Primary CPICH usage for channel estimation		Primary CPICH may be used	
- DPCH frame offset		Set to value : Default DPCH Offset Value mod 38400	
- Power offset $P_{Pilot-DPDCH}$		0	
- Secondary CPICH info		Not Present	
- DL channelisation code			
- Secondary scrambling code		5	
- Spreading factor		Reference to TS34.108 clause 6.10 Parameter Set	
- Code number		0	
- Scrambling code change		No change	
- TPC combination index		0	
- SSDT Cell Identity		Not Present	
- Closed loop timing adjustment mode		Not Present	
- SCCPCH information for FACH		Not Present	
- Downlink information for each radio link	A5		
- Choice mode		FDD	
- Primary CPICH info			
- Primary scrambling code		Ref. to the Default setting in TS34.108 clause 6.1 (FDD)	
- PDSCH with SHO DCH info		Not Present	
- PDSCH code mapping		Not Present	
- Serving HS-DSCH radio link indicator		FALSE	REL-5
- Downlink DPCH info for each RL		Not Present	
- SCCPCH Information for FACH		Not Present	
- Downlink information for each radio link	A6, A7, A8, A9, A10	Not Present	

Condition	Explanation
A1	This IE need for "Non speech in CS"
A2	This IE need for "Speech in CS"
A3	This IE need for "Packet to CELL_DCH from CELL_DCH in PS"
A4	This IE need for "Packet to CELL_DCH from CELL_FACH in PS"
A5	This IE need for "Packet to CELL_FACH from CELL_DCH in PS"
A6	This IE need for "Packet to CELL_FACH from CELL_FACH in PS"
A7	This IE need for “Packet to URA_PCH from CELL_FACH in PS”
A8	This IE need for “Packet to URA_PCH from CELL_DCH in PS”
A9	This IE need for “Packet to CELL_PCH from CELL_FACH in PS”
A10	This IE need for “Packet to CELL_PCH from CELL_DCH in PS”

<< End of Modified Section >>

CR-Form-v7

CHANGE REQUEST

⌘ **34.108** **CR** 320 ⌘ **rev** **-** ⌘ Current version: **5.0.0** ⌘

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

Proposed change affects: UICC apps⌘ ☐ ME ☒ Radio Access Network ☐ Core Network ☐

Title:	⌘	Correction of reference test frequencies for UMTS800(band VI)
Source:	⌘	NTT DoCoMo Inc.
Work item code:	⌘	***Date:*** ⌘ 28/04/2004
Category:	⌘	**F** ***Release:*** ⌘ Rel-5

Use one of the following categories:
F *(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)*
Rel-6	*(Release 6)*

Reason for change:	⌘	Additional channel numbers of mid renge is deleted for band VI in core specification TS25.101.
Summary of change:	⌘	Test Frequency and UARFCN of mid range for Operating Band VI is changed into 835.0MHz (UL General UARFCN: 4175) and 880.0MHz (DL General UARFCN: 4400)
Consequences if not approved:	⌘	Test specification is not consistent with the core specification. Tests of mid range for Band VI are not operate .

Clauses affected:	⌘	5.1			
Other specs affected:	⌘	**Y**	**N**		⌘
			X	Other core specifications	
			X	Test specifications	
			X	O&M Specifications	
Other comments:	⌘				

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

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 for FDD and 3.84 Mcps TDD option, and 0.8 MHz for 1.28 Mcps TDD option since the channel's width is 1.6 MHz. The raster spacing is 200KHz. Similarly the highest test frequency (downlink and uplink) needs to be offset downwardly by at least 2.6 MHz for FDD and 3.84 Mcps TDD option, and 0.8 MHz for 1.28 Mcps TDD option.

NOTE1: 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 for FDD and 3.84 Mcps TDD option, and 0.8 MHz for 1.28 Mcps TDD option.

NOTE2: In Band VI, to avoid interference with adjacent frequency bands the lowest test frequency (downlink and uplink) needs to be offset upwardly by at least 2,5 MHz, highest test frequency (downlink and uplink) needs to be offset downwardly by at least 2,5 MHz from the edge frequencies since additional center frequencies are specified according to [11] ~~and the center frequencies for these channels are shifted 100kHz relative to the normal raster~~.

5.1.1 FDD Mode Test frequencies

UTRA/FDD is designed to operate in one of three paired bands [11]. The reference test frequencies for the common test environment for each of the 4 operating bands are defined in the following tables:

5.1.1.1 FDD reference test frequencies for Operating Band I

Test Frequency ID	UARFCN	Frequency of Uplink	UARFCN	Frequency of Downlink
Low Range	9 613	1 922.6 MHz	10 563	2 112.6 MHz
Mid Range	9 750	1 950.0 MHz	10 700	2 140.0 MHz
High Range	9 887	1 977.4 MHz	10 837	2 167.4 MHz

5.1.1.2 FDD reference test frequencies for Operating Band II

Test Frequency ID	UARFCN	Frequency of Uplink	UARFCN	Frequency of Downlink
Low Range	9 263	1 852.6 MHz	9 663	1 932.6 MHz
Mid Range	9 400	1 880 MHz	9 800	1 960 MHz
High Range	9 537	1 907.4 MHz	9 937	1 987.4 MHz

5.1.1.3 FDD reference test frequencies for Operating Band III

Test Frequency ID	UARFCN	Frequency of Uplink	UARFCN	Frequency of Downlink
Low Range	8 563	1 712.6 MHz	9 038	1 807.6 MHz
Mid Range	8 737	1 747.4 MHz	9 212	1 842.4 MHz
High Range	8 912	1 782.4 MHz	9 387	1 877.4 MHz

5.1.1.4 FDD reference test frequencies for Operating Band VI

Test Frequency ID	UARFCN	Frequency of Uplink	UARFCN	Frequency of Downlink
Low Range	812	832.5 MHz	1 037	877.5 MHz
Mid Range	~~825~~4175	835.~~1~~0MHz	~~1 050~~4400	880.~~1~~0 MHz
High Range	837	837.5 MHz	1 062	882.5 MHz

3GPP TSG-T1 Meeting #23
Beijing ,China, 10 May – 14 May

Tdoc ⌘T1-040702

CR-Form-v7

CHANGE REQUEST

⌘ **34.108** **CR** 321 ⌘ **rev** **-** ⌘ Current version: **4.10.0** ⌘

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

Proposed change affects: UICC apps⌘ ☐ ME ☒ Radio Access Network ☐ Core Network ☐

Title:	⌘	Correction of reference test frequencies for UMTS800(band VI)
Source:	⌘	NTT DoCoMo Inc.
Work item code:	⌘	***Date:*** ⌘ 28/04/2004
Category:	⌘	**A** ***Release:*** ⌘ Rel-4

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*
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Use one of the following releases:

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R97	*(Release 1997)*
R98	*(Release 1998)*
R99	*(Release 1999)*
Rel-4	*(Release 4)*
Rel-5	*(Release 5)*
Rel-6	*(Release 6)*

Reason for change:	⌘	Additional channel numbers of mid renge is deleted for band VI in core specification TS25.101.
Summary of change:	⌘	Test Frequency and UARFCN of mid range for Operating Band VI is changed into 835.0MHz (UL General UARFCN: 4175) and 880.0MHz (DL General UARFCN: 4400)
Consequences if not approved:	⌘	Test specification is not consistent with the core specification. Tests of mid range for Band VI are not operate .

Clauses affected:	⌘	5.1			
Other specs affected:	⌘	**Y**	**N**		
			X	Other core specifications	⌘
			X	Test specifications	
			X	O&M Specifications	
Other comments:	⌘				

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NOTE1: 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 for FDD and 3.84 Mcps TDD option, and 0.8 MHz for 1.28 Mcps TDD option.

NOTE2: In Band VI, to avoid interference with adjacent frequency bands the lowest test frequency (downlink and uplink) needs to be offset upwardly by at least 2,5 MHz, highest test frequency (downlink and uplink) needs to be offset downwardly by at least 2,5 MHz from the edge frequencies since additional center frequencies are specified according to [11] ~~and the center frequencies for these channels are shifted 100kHz relative to the normal raster~~.

5.1.1 FDD Mode Test frequencies

UTRA/FDD is designed to operate in one of three paired bands [11]. The reference test frequencies for the common test environment for each of the 4 operating bands are defined in the following tables:

5.1.1.1 FDD reference test frequencies for Operating Band I

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5.1.1.2 FDD reference test frequencies for Operating Band II

Test Frequency ID	UARFCN	Frequency of Uplink	UARFCN	Frequency of Downlink
Low Range	9 263	1 852.6 MHz	9 663	1 932.6 MHz
Mid Range	9 400	1 880 MHz	9 800	1 960 MHz
High Range	9 537	1 907.4 MHz	9 937	1 987.4 MHz

5.1.1.3 FDD reference test frequencies for Operating Band III

Test Frequency ID	UARFCN	Frequency of Uplink	UARFCN	Frequency of Downlink
Low Range	8 563	1 712.6 MHz	9 038	1 807.6 MHz
Mid Range	8 737	1 747.4 MHz	9 212	1 842.4 MHz
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Test Frequency ID	UARFCN	Frequency of Uplink	UARFCN	Frequency of Downlink
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3GPP TSG-T1 Meeting #23
Beijing ,China, 10 May – 14 May

Tdoc ⌘T1-040703

CR-Form-v7

CHANGE REQUEST

⌘ **34.108** **CR** 322 ⌘ **rev** **-** ⌘ Current version: **3.15.0** ⌘

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

Proposed change affects: UICC apps⌘ ☐ ME ☒ Radio Access Network ☐ Core Network ☐

Title:	⌘	Correction of reference test frequencies for UMTS800(band VI)
Source:	⌘	NTT DoCoMo Inc.
Work item code:	⌘	***Date:*** ⌘ 28/04/2004
Category:	⌘	**A** ***Release:*** ⌘ R99

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
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R97	*(Release 1997)*
R98	*(Release 1998)*
R99	*(Release 1999)*
Rel-4	*(Release 4)*
Rel-5	*(Release 5)*
Rel-6	*(Release 6)*

Reason for change:	⌘	Additional channel numbers of mid renge is deleted for band VI in core specification TS25.101.
Summary of change:	⌘	Test Frequency and UARFCN of mid range for Operating Band VI is changed into 835.0MHz (UL General UARFCN: 4175) and 880.0MHz (DL General UARFCN: 4400)
Consequences if not approved:	⌘	Test specification is not consistent with the core specification. Tests of mid range for Band VI are not operate .

Clauses affected:	⌘	5.1			
Other specs affected:	⌘	**Y**	**N**		
			X	Other core specifications	⌘
			X	Test specifications	
			X	O&M Specifications	
Other comments:	⌘				

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5 Reference Test Conditions

5.1 Test frequencies

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NOTE1: 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.

NOTE2: In Band VI, to avoid interference with adjacent frequency bands the lowest test frequency (downlink and uplink) needs to be offset upwardly by at least 2,5 MHz, highest test frequency (downlink and uplink) needs to be offset downwardly by at least 2,5 MHz from the edge frequencies since additional center frequencies are specified according to [11]~~ and the center frequencies for these channels are shifted 100kHz relative to the normal raster~~.

5.1.1 FDD Mode Test frequencies

UTRA/FDD is designed to operate in one of three paired bands [11]. The reference test frequencies for the common test environment for each of the 4 operating bands are defined in the following tables:

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High Range	9 887	1 977.4 MHz	10 837	2 167.4 MHz

5.1.1.2 FDD reference test frequencies for Operating Band II

Test Frequency ID	UARFCN	Frequency of Uplink	UARFCN	Frequency of Downlink
Low Range	9 263	1 852.6 MHz	9 663	1 932.6 MHz
Mid Range	9 400	1 880 MHz	9 800	1 960 MHz
High Range	9 537	1 907.4 MHz	9 937	1 987.4 MHz

5.1.1.3 FDD reference test frequencies for Operating Band III

Test Frequency ID	UARFCN	Frequency of Uplink	UARFCN	Frequency of Downlink
Low Range	8 563	1 712.6 MHz	9 038	1 807.6 MHz
Mid Range	8 737	1 747.4 MHz	9 212	1 842.4 MHz
High Range	8 912	1 782.4 MHz	9 387	1 877.4 MHz

5.1.1.4 FDD reference test frequencies for Operating Band VI

Test Frequency ID	UARFCN	Frequency of Uplink	UARFCN	Frequency of Downlink
Low Range	812	832.5 MHz	1 037	877.5 MHz
Mid Range	~~825~~4175	835.1MHz	~~1 050~~4400	880.1 MHz
High Range	837	837.5 MHz	1 062	882.5 MHz

3GPP TSG-T1 Meeting #23
Beijing, China, 10th - 14th May 2004

Tdoc ⌘T1-040902

CR-Form-v7

CHANGE REQUEST

⌘ **34.108** **CR** **326** ⌘ **rev** **-** ⌘ Current version: **5.0.0** ⌘

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

Proposed change affects: UICC apps⌘ ☐ ME ☒ Radio Access Network ☐ Core Network ☐

Title:	⌘	Physical channel parameters for AM RLC 7 bit Length Indicator TestCases (Rel-5)
Source:	⌘	Sasken Communication Technologies Limited
Work item code:	⌘	TEI
Date:	⌘	19/04/2004
Category:	⌘	**F**
Release:	⌘	Rel-5

Use one of the following categories:
F *(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)*
Rel-6	*(Release 6)*

Reason for change:	⌘	The Physical channel parameters for AM RLC 7 bit Length Indicator testcases are not specified in 34.108 The Physical channel parameters for UM and AM RLC 15 bit Length Indicators are same. i.e. both refer to 34.108 clause 6.10.2.4.1.26. Based on this it is proposed that Physical channel parameters for AM RLC 7 bit Length Indicator can been taken same as that of UM RLC 7 bit Length Indicator. i.e. refer to 34.108 clause 6.10.2.4.1.23a It is implemented the same way in the approved TTCN. Also it aligns the prose to the approved TTCN.
Summary of change:	⌘	Added a reference for Physical channel parameters for AM RLC 7 bit Length Indicators in 34.108 clause 6.11.3 to refer to 34.108 clause 6.10.2.4.1.23a
Consequences if not approved:	⌘	The prose specification shall be unclear regarding the Physical channel parameters to be used for AM RLC 7 bit Length Indicator testcases.

Clauses affected:	⌘	6.11.3			
Other specs affected:	⌘	**Y** / **N**		⌘	
		☐ / ☒	Other core specifications		34.123-1 clause 7.2, 34.108
		☒ / ☐	Test specifications		
		☐ / ☒	O&M Specifications		
Other comments:	⌘				

How to create CRs using this form:

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

1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

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

6.11 Common Radio Bearer configurations for other test purposes

The common radio bearer configurations are used for functional testing of various UE functions. Only common configurations that are used by multiple test cases and are not covered by the reference radio bearer configurations in clause 6.10 are specified in the present clause. Radio bearer configurations only used by a single test case are specified in the actual test case itself.

NOTE If not specifically specified then the mid-value of the RM attríbute value range as specified by the actual reference radio bearer configuration shall be applied for testing.

6.11.1 Unacknowledged Mode Radio Bearer configuration (7 bit Length Indicator)

This configuration is based on the Interactive or background / UL:8 DL 8 kbps / PS RAB + UL:3.4 DL 3.4 kbps SRBs for DCCH (see TS 34.108 clause 6.10.2.4.1.23a) with the transport channels parameters of the RAB and TFCS defined as follows:

Transport channel parameters for the Uplink RAB

Higher layer	**RAB/Signalling RB**		RAB
RLC	Logical channel type		DTCH
	RLC mode		UM
	Payload sizes, bit		328
	Max data rate, bps		8200
	UMD PDU header, bit		8
MAC	MAC header, bit		0
	MAC multiplexing		N/A
Layer 1	TrCH type		DCH
	TB sizes, bit		336
	TFS	TF0, bits	0x336
		TF1, bits	1x336
		TF2, bits	2x336 (note)
		TF3, bits	3x336 (note)
		TF4, bits	4x336 (note)
	TTI, ms		40
	Coding type		CC 1/3
	CRC, bit		16
	Max number of bits/TTI after channel coding		1080
	Uplink: Max number of bits/radio frame before rate matching		270
	RM attribute		135-175

TFCS

TFCS size	4
TFCS	(8 kbps RAB, DCCH)= (TF0, TF0), (TF1, TF0), (TF0, TF1), (TF1, TF1)

Transport channel parameters for the Downlink RAB

Higher layer	RAB/Signalling RB		RAB
RLC	Logical channel type		DTCH
	RLC mode		UM
	Payload sizes, bit		328
	Max data rate, bps		8200
	UMD PDU header, bit		8
MAC	MAC header, bit		0
	MAC multiplexing		N/A
Layer 1	TrCH type		DCH
	TB sizes, bit		336
	TFS	TF0, bits	0x336
		TF1, bits	1x336
		TF2, bits	2x336 (note)
		TF3, bits	3x336 (note)
		TF4, bits	4x336 (note)
	TTI, ms		40
	Coding type		CC 1/3
	CRC, bit		16
	Max number of bits/TTI after channel coding		1080
	RM attribute		135-175

TFCS

TFCS size	4
TFCS	(8 kbps RAB, DCCH)= (TF0, TF0), (TF1, TF0), (TF0, TF1), (TF1, TF1)

6.11.2 Unacknowledged Mode Radio Bearer configuration (15 bit Length Indicator)

This configuration is based on the Interactive or background / UL:64 DL 64 kbps / PS RAB + UL:3.4 DL 3.4 kbps SRBs for DCCH (see TS 34.108 clause 6.10.2.4.1.26) with the transport channels parameters of the RAB defined as followed:

Transport channel parameters for the Uplink RAB

Higher layer	RAB/Signalling RB		RAB
RLC	Logical channel type		DTCH
	RLC mode		UM
	Payload sizes, bit		1336
	Max data rate, bps		66800
	UMD PDU header, bit		8
MAC	MAC header, bit		0
	MAC multiplexing		N/A
Layer 1	TrCH type		DCH
	TB sizes, bit		1344
	TFS	TF0, bits	0x1344
		TF1, bits	1x1344
	TTI, ms		20
	Coding type		TC
	CRC, bit		16
	Max number of bits/TTI after channel coding		4092
	Uplink: Max number of bits/radio frame before rate matching		2046
	RM attribute		130-170

Transport channel parameters for the Downlink RAB

Higher layer	RAB/Signalling RB		RAB
RLC	Logical channel type		DTCH
	RLC mode		UM
	Payload sizes, bit		1336
	Max data rate, bps		66800
	UMD PDU header, bit		8
MAC	MAC header, bit		0
	MAC multiplexing		N/A
Layer 1	TrCH type		DCH
	TB sizes, bit		1344
	TFS	TF0, bits	0x1344
		TF1, bits	1x1344
	TTI, ms		20
	Coding type		TC
	CRC, bit		16
	Max number of bits/TTI after channel coding		4092
	RM attribute		130-170

6.11.3 Acknowledged Mode Radio Bearer configuration (7 bit Length Indicator)

This configuration is based on the Interactive or background / UL:8 DL 8 kbps / PS RAB + UL:3.4 DL 3.4 kbps SRBs for DCCH (see TS 34.108 clause 6.10.2.4.1.23a) with the transport channels parameters of the RAB and TFCS defined as follows:

Transport channel parameters for the Uplink RAB

Higher layer	RAB/Signalling RB		RAB
RLC	Logical channel type		DTCH
	RLC mode		AM
	Payload sizes, bit		128
	Max data rate, bps		6400
	UMD PDU header, bit		16
MAC	MAC header, bit		0
	MAC multiplexing		N/A
Layer 1	TrCH type		DCH
	TB sizes, bit		144
	TFS	0x144	0x144
		1x144	1x144
	TTI, ms		20
	Coding type		CC 1/3
	CRC, bit		16
	Max number of bits/TTI after channel coding		504
	Uplink: Max number of bits/radio frame before rate matching		252
	RM attribute		135-175

TFCS

TFCS size	4
TFCS	(RAB, DCCH)= (TF0, TF0), (TF1, TF0), (TF0, TF1), (TF1, TF1)

Transport channel parameters for the Downlink RAB

Higher layer	RAB/Signalling RB		RAB
RLC	Logical channel type		DTCH
	RLC mode		AM
	Payload sizes, bit		128
	Max data rate, bps		6400
	UMD PDU header, bit		16
MAC	MAC header, bit		0
	MAC multiplexing		N/A
Layer 1	TrCH type		DCH
	TB sizes, bit		144
	TFS	0x144	0x144
		1x144	1x144
	TTI, ms		20
	Coding type		CC 1/3
	CRC, bit		16
	Max number of bits/TTI after channel coding		504
	RM attribute		135-175

TFCS

TFCS size	4
TFCS	(RAB, DCCH)= (TF0, TF0), (TF1, TF0), (TF0, TF1), (TF1, TF1)

6.11.4 Acknowledged Mode Radio Bearer configuration (15 bit Length Indicator)

This configuration is based on the Interactive or background / UL:64 DL 64 kbps / PS RAB + UL:3.4 DL 3.4 kbps SRBs for DCCH (see TS 34.108 clause 6.10.2.4.1.26) with the transport channels parameters of the RAB defined as followed.

Transport channel parameters for the Uplink RAB

Higher layer	RAB/Signalling RB		RAB
RLC	Logical channel type		DTCH
	RLC mode		AM
	Payload sizes, bit		1328
	Max data rate, bps		66400
	AMD PDU header, bit		16
MAC	MAC header, bit		0
	MAC multiplexing		N/A
Layer 1	TrCH type		DCH
	TB sizes, bit		1344
	TFS	TF0, bits	0x1344
		TF1, bits	1x1344
	TTI, ms		20
	Coding type		TC
	CRC, bit		16
	Max number of bits/TTI after channel coding		4092
	Uplink: Max number of bits/radio frame before rate matching		2046
	RM attribute		130-170

Transport channel parameters for the Downlink RAB

Higher layer	RAB/Signalling RB		RAB
RLC	Logical channel type		DTCH
	RLC mode		AM
	Payload sizes, bit		1328
	Max data rate, bps		66400
	AMD PDU header, bit		16
MAC	MAC header, bit		0
	MAC multiplexing		N/A
Layer 1	TrCH type		DCH
	TB sizes, bit		1344
	TFS	TF0, bits	0x1344
		TF1, bits	1x1344
	TTI, ms		20
	Coding type		TC
	CRC, bit		16
	Max number of bits/TTI after channel coding		4092
	RM attribute		130-170

6.11.5 Reference Radio Bearer configurations used in Radio Bearer testing for 1.28 Mcps TDD

3GPP TSG-T1 Meeting #23
Beijing, China, 10th – 14th May 2004

Tdoc ⌘T1-040903

CR-Form-v7

CHANGE REQUEST

⌘ **34.108** **CR** 327 ⌘ **rev** **-** ⌘ Current version: **5.0.0** ⌘

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

Proposed change affects: UICC apps⌘ ☐ ME ☒ Radio Access Network ☐ Core Network ☐

Title:	⌘	Corrections to the default contents of Security Mode Command (Rel-5)
Source:	⌘	Sasken Communication Technologies Limited, MCC Task 160
Work item code:	⌘	TEI
Date:	⌘	07/05/2004
Category:	⌘	**F**
Release:	⌘	Rel-5

Use one of the following categories:
F *(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)*
Rel-6 *(Release 6)*

Reason for change: ⌘

As per 3GPP 25.331 clause 8.1.12.2.1 :
"When configuring ciphering, UTRAN should ensure that the UE needs to store at most two different ciphering configurations (keyset and algorithm) per CN domain, in total over all radio bearers at any given time. For signalling radio bearers the total number of ciphering configurations that need to be stored is at most three"
As per clause 8.1.12.2.2 :
"When configuring Integrity protection, UTRAN should:
1> ensure that the UE needs to store at most three different Integrity protection configurations (keysets) at any given time. This includes the total number of Integrity protection configurations for all signalling radio bearers And also in the same clause, a bit down it emphasises that if an Integrity activation is pending on an RB, the same activation time is to be used.

Based on all such references the best way to avoid such unwanted situations where Integrity and Ciphering Pending activations can exceed than UTRAN is allowed for in TTCN, is to set the Integrity and Ciphering Activation times for all RB's except RB2 same as the existing RRC/RLC Sequence numbers. The Integrity activation for RB2 shall also be immediately as the SMC is to be transmitted with new configuaration, and Ciphering Activation shall be RLC Sequence number +2, assuming the SMC will atmost take 2 RLC PDU's. It should be noted that in TTCN implementations for all tests except (RAB) where ciphering/Integrity can be activated, virtually nothing is transmitted on RAB's, SRB4. Very few messages are transmitted on SRB1, 4 and 0. Hence the sequence numbers in TTCN are non conformant with 34.123-1"
3GPP TTCN is implemented as per the proposed change.

Summary of change:	⌘	In the default message content for Security Mode Command, Changed the RLC sequence number for RB Identities 1,3 and 4 to Current RLC SN.
Consequences if not approved:	⌘	Conformant UE will not be tested properly.

Clauses affected:	⌘	9.1.1			
Other specs affected:	⌘	**Y** / **N** **N** **Y** **N**	Other core specifications Test specifications O&M Specifications	⌘	34.108, 34.123-1
Other comments:	⌘				

How to create CRs using this form:

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

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

9 Default Message Contents

9.1 Default Message Contents for Signalling

9.1.1 Default RRC Message Contents (FDD)

…….

…….

Contents of SECURITY MODE COMMAND message: AM

Information Element	Condition	Value/remark
Message Type	A1, A2	
RRC transaction identifier		Arbitrarily selects an integer between 0 and 3
Integrity check info		
- Message authentication code		Set to an arbitrarily selected 32-bits integer. The first/ leftmost bit of the bit string contains the most significant bit of the MAC-I.
- RRC Message Sequence Number		Set to an arbitrarily selected integer between 0 and 15
Security capability		
- Ciphering algorithm capability		
- UEA0		If ciphering is not indicated to be active on IXIT statements in TS 34.123-2, set this IE to TRUE.
- UEA1		If ciphering is indicated to be active on IXIT statements in TS 34.123-2, set this IE to TRUE.
- Spare		FALSE
- Integrity protection algorithm capability		0000000000000010B (UIA1)
- UIA1		TRUE
- Spare		FALSE
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/restart
- Ciphering algorithm		Use the same ciphering algorithm specified in "ciphering algorithm capability" IE in this message.
- Ciphering activation time for DPCH		Not Present
- 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		
- 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
UE system specific security capability	A1	Not Checked
UE system specific security capability	A2	
- Inter-RAT UE security capability		
- CHOICE *system*		GSM
- GSM security capability		The indicated algorithms must be the same as the algorithms supported by the UE as indicated in the IE " UE system specific capability " in the RRC CONNECTION SETUP COMPLETE message.

Condition	Explanation
A1	UE not supporting GSM
A2	UE supporting GSM

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Beijing, China, 10th – 14th May 2004

Tdoc ⌘T1-040906

CR-Form-v7

CHANGE REQUEST

⌘ **34.108** **CR** 328 ⌘ **rev** - ⌘ Current version: **3.15.0** ⌘

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

Proposed change affects: UICC apps⌘ ☐ ME ☒ Radio Access Network ☐ Core Network ☐

Title:	⌘	CR to 34.108 R99: Contents of Physical Channel Reconfiguration message modified to incorporate transition to URA_PCH or CELL_PCH
Source:	⌘	Anite
Work item code:	⌘	TEI
Date:	⌘	11/05/2004
Category:	⌘	**F**
Release:	⌘	R99

Use one of the following categories:
F *(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)*
Rel-6	*(Release 6)*

Reason for change:	⌘	Currently the contents of Physical Channel Reconfiguration message in case of transition to URA_PCH, CELL_PCH are not specified in TS 34.108. The content of the message currently used in TS 34.123-3 TTCN for these transitions is incorrect with respect to the core specifications 25.331 Section 8.2.2.3.
Summary of change:	⌘	Message contents for PHYSICAL CHANNEL RECONFIGURATION message: AM or UM for the transitions to URA_PCH or CELL_PCH are specified.
Consequences if not approved:	⌘	No reference message for transition to URA_PCH and CELL_PCH using Physical Channel Reconfiguration.

Clauses affected:	⌘	9.1.1			
Other specs affected:	⌘	**Y**	**N**		
			X	Other core specifications	⌘ 34.123-3
			X	Test specifications	
			X	O&M Specifications	
Other comments:	⌘	The empty table should also be removed.			

How to create CRs using this form:
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Below is a brief summary:

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2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

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

9 Default Message Contents

9.1 Default Message Contents for Signalling

9.1.1 Default RRC Message Contents (FDD)

....

<< Start of Modified Section >>

Contents of PHYSICAL CHANNEL RECONFIGURATION message: AM or UM

Information Element	Condition	Value/remark
Message Type	A1, A2, A3, A4, A5, A6, A7, A8, A9, A10	
RRC transaction identifier		Arbitrarily selects an integer between 0 and 3
Integrity check info		
- message authentication code		SS calculates the value of MAC-I for this message and writes to this IE. The first/ leftmost bit of the bit string contains the most significant bit of the MAC-I.
- RRC message sequence number		SS provides the value of this IE, from its internal counter.
Integrity protection mode info		Not Present
Ciphering mode info		Not Present
Activation time	A1, A2, A3	(256+CFN-(CFN MOD 8 + 8))MOD 256
Activation time	A4, A5, A6, A7, A8, A9, A10	Not Present
New U-RNTI		Not Present
New C-RNTI	A1, A2, A3, A4, A7, A8, A9, A10	Not Present
New C-RNTI	A5, A6	'1010 1010 1010 1010'
New DSCH-RNTI	A1, A2, A3, A4, A5, A6, A7, A8, A9, A10	Not Present
RRC State indicator	A1, A2, A3, A4	CELL_DCH
RRC State indicator	A5, A6	CELL_FACH
RRC State indicator	A7, A8	URA_PCH
RRC State indicator	A9, A10	CELL_PCH
UTRAN DRX cycle length coefficient	A1, A2, A3, A4, A5, A6	Not Present
UTRAN DRX cycle length coefficient	A7, A8, A9, 10	3
CN information info		Not Present
URA identity		Not Present
Downlink counter synchronisation info		Not Present
Frequency info	A1, A2, A3, A4, A5	
- UARFCN uplink (Nu)		Reference to clause 5.1 Test frequencies
- UARFCN downlink (Nd)		Reference to clause 5.1 Test frequencies
Frequency info	A6, A7, A8, A9, A10	Not Present
Maximum allowed UL TX power		33dBm
CHOICE *channel requirement*	A5, A6, A7, A8, A9, A10	Not Present
CHOICE *channel requirement*	A1, A2, A3, A4	Uplink DPCH info
- Uplink DPCH power control info		
- DPCCH power offset		-80dB (i.e. ASN.1 IE value of –40)
- PC Preamble		1 frame
- SRB delay		7 frames
- 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		Reference to TS34.108 clause 6.10 Parameter Set
- TFCI existence		Reference to TS34.108 clause 6.10 Parameter Set
- Number of FBI bit		Reference to TS34.108 clause 6.10

Information Element	Condition	Value/remark
- Puncturing Limit		Parameter Set Reference to TS34.108 clause 6.10 Parameter Set
CHOICE Mode - Downlink PDSCH information	A1, A2, A3, A4, A5, A6, A7, A8, A9, A10	FDD Not Present
Downlink information common for all radio links - Downlink DPCH info common for all RL - Timing indicator - CFN-targetSFN frame offset - Downlink DPCH power control information - DPC mode - CHOICE mode - Power offset $P_{Pilot-DPDCH}$ - DL rate matching restriction information - Spreading factor - Fixed or Flexible Position - TFCI existence - CHOICE SF - DPCH compressed mode info - TX Diversity mode - SSDT information - Default DPCH Offset Value	A1, A2, A3	 Maintain Not Present 0 (single) FDD 0 Not Present Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Not Present None Not Present Not Present
Downlink information common for all radio links - Downlink DPCH info common for all RL - Timing indicator - CFN-targetSFN frame offset - Downlink DPCH power control information - DPC mode - CHOICE mode - Power offset $P_{Pilot-DPDCH}$ - DL rate matching restriction information - Spreading factor - Fixed or Flexible Position - TFCI existence - CHOICE SF - DPCH compressed mode info - TX Diversity mode - SSDT information - Default DPCH Offset Value	A4	 Initialise Not Present 0 (single) FDD 0 Not Present Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Not Present None Not Present Arbitrary set to value 0..306688 by step of 512
Downlink information common for all radio links	A5, A6, A7, A8, A9, A10	Not Present
Downlink information for each radio links - Choice mode - Primary CPICH info - Primary scrambling code - PDSCH with SHO DCH info - PDSCH code mapping - Downlink DPCH info for each RL - CHOICE mode - Primary CPICH usage for channel estimation - DPCH frame offset - Power offset $P_{Pilot-DPDCH}$	A1, A2,A3	 FDD Ref. to the Default setting in TS34.108 clause 6.1 (FDD) Not Present Not Present FDD Primary CPICH may be used Set to value : Default DPCH Offset Value (as currently stored in SS) mod 38400 0

Information Element	Condition	Value/remark
- Secondary CPICH info - DL channelisation code - Secondary scrambling code - Spreading factor - Code number - Scrambling code change - TPC combination index - SSDT Cell Identity - Closed loop timing adjustment mode - SCCPCH information for FACH		Not Present 5 Reference to TS34.108 clause 6.10 Parameter Set 0 No change 0 Not Present Not Present Not Present
Downlink information for each radio links - Choice mode - Primary CPICH info - Primary scrambling code - PDSCH with SHO DCH info - PDSCH code mapping - Downlink DPCH info for each RL - CHOICE mode - Primary CPICH usage for channel estimation - DPCH frame offset - Power offset $P_{Pilot-DPDCH}$ - Secondary CPICH info - DL channelisation code - Secondary scrambling code - Spreading factor - Code number - Scrambling code change - TPC combination index - SSDT Cell Identity - Closed loop timing adjustment mode - SCCPCH information for FACH	A4	 FDD Ref. to the Default setting in TS34.108 clause 6.1 (FDD) Not Present Not Present FDD Primary CPICH may be used Set to value : Default DPCH Offset Value mod 38400 0 Not Present 5 Reference to TS34.108 clause 6.10 Parameter Set 0 No change 0 Not Present Not Present Not Present
- Downlink information for each radio link - Choice mode - Primary CPICH info - Primary scrambling code - PDSCH with SHO DCH info - PDSCH code mapping - Downlink DPCH info for each RL - SCCPCH Information for FACH	A5	 FDD Ref. to the Default setting in TS34.108 clause 6.1 (FDD) Not Present Not Present Not Present Not Present
- Downlink information for each radio link	A6, A7, A8, A9, A10	Not Present

Condition	Explanation
A1	This IE need for "Non speech in CS"
A2	This IE need for "Speech in CS"
A3	This IE need for "Packet to CELL_DCH from CELL_DCH in PS"
A4	This IE need for "Packet to CELL_DCH from CELL_FACH in PS"
A5	This IE need for "Packet to CELL_FACH from CELL_DCH in PS"
A6	This IE need for "Packet to CELL_FACH from CELL_FACH in PS"
A7	This IE need for “Packet to URA_PCH from CELL_FACH in PS”
A8	This IE need for “Packet to URA_PCH from CELL_DCH in PS”
A9	This IE need for “Packet to CELL_PCH from CELL_FACH in PS”
A10	This IE need for “Packet to CELL_PCH from CELL_DCH in PS”

<< End of Modified Section >>

3GPP TSG-T1 Meeting #23
Beijing, China, 10th – 14th May 2004

Tdoc ⌘T1-040907

CR-Form-v7

CHANGE REQUEST

⌘ **34.108** **CR** 329 ⌘ **rev** - ⌘ Current version: **4.10.0** ⌘

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

Proposed change affects: UICC apps⌘ ☐ ME ☒ Radio Access Network ☐ Core Network ☐

Title:	⌘	CR to 34.108 Rel-4: Contents of Physical Channel Reconfiguration message modified to incorporate transition to URA_PCH or CELL_PCH
Source:	⌘	Anite
Work item code:	⌘	TEI
Date:	⌘	11/05/2004
Category:	⌘	**F**
Release:	⌘	Rel-4

Use one of the following categories:
F *(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)*
Rel-6	*(Release 6)*

Reason for change:	⌘	Currently the contents of Physical Channel Reconfiguration message in case of transition to URA_PCH, CELL_PCH are not specified in TS 34.108. The content of the message currently used in TS 34.123-3 TTCN for these transitions is incorrect with respect to the core specifications 25.331 Section 8.2.2.3.
Summary of change:	⌘	Message contents for PHYSICAL CHANNEL RECONFIGURATION message: AM or UM for the transitions to URA_PCH or CELL_PCH are specified.
Consequences if not approved:	⌘	No reference message for transition to URA_PCH and CELL_PCH using Physical Channel Reconfiguration.

Clauses affected:	⌘	9.1.1			
Other specs affected:	⌘	**Y**	**N**		
			X	Other core specifications	⌘
			X	Test specifications	34.123-3
			X	O&M Specifications	
Other comments:	⌘	The empty table should also be removed.			

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

1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

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

9 Default Message Contents

9.1 Default Message Contents for Signalling

9.1.1 Default RRC Message Contents (FDD)

…

<< Start of Modified Section >>

Contents of PHYSICAL CHANNEL RECONFIGURATION message: AM or UM

Information Element	Condition	Value/remark
Message Type	A1, A2, A3, A4, A5, A6, A7, A8, A9, A10	
RRC transaction identifier		Arbitrarily selects an integer between 0 and 3
Integrity check info		
- message authentication code		SS calculates the value of MAC-I for this message and writes to this IE. The first/ leftmost bit of the bit string contains the most significant bit of the MAC-I.
- RRC message sequence number		SS provides the value of this IE, from its internal counter.
Integrity protection mode info		Not Present
Ciphering mode info		Not Present
Activation time	A1, A2, A3	(256+CFN-(CFN MOD 8 + 8))MOD 256
Activation time	A4, A5, A6, A7, A8, A9, A10	Not Present
New U-RNTI		Not Present
New C-RNTI	A1, A2, A3, A4, A7, A8, A9, A10	Not Present
New C-RNTI	A5, A6	'1010 1010 1010 1010'
New DSCH-RNTI	A1, A2, A3, A4, A5, A6, A7, A8, A9, A10	Not Present
RRC State indicator	A1, A2, A3, A4	CELL_DCH
RRC State indicator	A5, A6	CELL_FACH
RRC State indicator	A7, A8	URA_PCH
RRC State indicator	A9, A10	CELL_PCH
UTRAN DRX cycle length coefficient	A1, A2, A3, A4, A5, A6	Not Present
UTRAN DRX cycle length coefficient	A7, A8, A9, A10	3
CN information info		Not Present
URA identity		Not Present
Downlink counter synchronisation info		Not Present
Frequency info	A1, A2, A3, A4, A5	
- UARFCN uplink (Nu)		Reference to clause 5.1 Test frequencies
- UARFCN downlink (Nd)		Reference to clause 5.1 Test frequencies
Frequency info	A6 A7, A8, A9, A10	Not Present
Maximum allowed UL TX power		33dBm
CHOICE *channel requirement*	A5, A6 A7, A8, A9, A10	Not Present
CHOICE *channel requirement*	A1, A2, A3, A4	Uplink DPCH info
- Uplink DPCH power control info		
- DPCCH power offset		-80dB (i.e. ASN.1 IE value of –40)
- PC Preamble		1 frame
- SRB delay		7 frames
- 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		Reference to TS34.108 clause 6.10 Parameter Set

Information Element	Condition	Value/remark
- TFCI existence		Reference to TS34.108 clause 6.10 Parameter Set
- Number of FBI bit		Reference to TS34.108 clause 6.10 Parameter Set
- Puncturing Limit		Reference to TS34.108 clause 6.10 Parameter Set
CHOICE Mode	A1, A2, A3, A4, A5, A6 A7, A8, A9, A10	FDD
- Downlink PDSCH information		Not Present
Downlink information common for all radio links	A1, A2, A3	
- Downlink DPCH info common for all RL		
- Timing indicator		Maintain
- CFN-targetSFN frame offset		Not Present
- Downlink DPCH power control information		
- DPC mode		0 (single)
- CHOICE mode		FDD
- Power offset $P_{Pilot-DPDCH}$		0
- DL rate matching restriction information		Not Present
- Spreading factor		Reference to TS34.108 clause 6.10 Parameter Set
- Fixed or Flexible Position		Reference to TS34.108 clause 6.10 Parameter Set
- TFCI existence		Reference to TS34.108 clause 6.10 Parameter Set
- CHOICE SF		Reference to TS34.108 clause 6.10 Parameter Set
- DPCH compressed mode info		Not Present
- TX Diversity mode		None
- SSDT information		Not Present
- Default DPCH Offset Value		Not Present
Downlink information common for all radio links	A4	
- Downlink DPCH info common for all RL		
- Timing indicator		Initialise
- CFN-targetSFN frame offset		Not Present
- Downlink DPCH power control information		
- DPC mode		0 (single)
- CHOICE mode		FDD
- Power offset $P_{Pilot-DPDCH}$		0
- DL rate matching restriction information		Not Present
- Spreading factor		Reference to TS34.108 clause 6.10 Parameter Set
- Fixed or Flexible Position		Reference to TS34.108 clause 6.10 Parameter Set
- TFCI existence		Reference to TS34.108 clause 6.10 Parameter Set
- CHOICE SF		Reference to TS34.108 clause 6.10 Parameter Set
- DPCH compressed mode info		Not Present
- TX Diversity mode		None
- SSDT information		Not Present
- Default DPCH Offset Value		Arbitrary set to value 0..306688 by step of 512
Downlink information common for all radio links	A5, A6 A7, A8, A9, A10	Not Present
Downlink information for each radio links	A1, A2,A3	
- Choice mode		FDD
- Primary CPICH info		
- Primary scrambling code		Ref. to the Default setting in TS34.108 clause 6.1 (FDD)
- PDSCH with SHO DCH info		Not Present
- PDSCH code mapping		Not Present
- Downlink DPCH info for each RL		
- CHOICE mode		FDD
- Primary CPICH usage for channel estimation		Primary CPICH may be used

Information Element	Condition	Value/remark
- DPCH frame offset		Set to value : Default DPCH Offset Value (as currently stored in SS) mod 38400
- Power offset $P_{Pilot-DPDCH}$		0
- Secondary CPICH info		Not Present
- DL channelisation code		
- Secondary scrambling code		5
- Spreading factor		Reference to TS34.108 clause 6.10 Parameter Set
- Code number		0
- Scrambling code change		No change
- TPC combination index		0
- SSDT Cell Identity		Not Present
- Closed loop timing adjustment mode		Not Present
- SCCPCH information for FACH		Not Present
Downlink information for each radio links	A4	
- Choice mode		FDD
- Primary CPICH info		
- Primary scrambling code		Ref. to the Default setting in TS34.108 clause 6.1 (FDD)
- PDSCH with SHO DCH info		Not Present
- PDSCH code mapping		Not Present
- Downlink DPCH info for each RL		
- CHOICE mode		FDD
- Primary CPICH usage for channel estimation		Primary CPICH may be used
- DPCH frame offset		Set to value : Default DPCH Offset Value mod 38400
- Power offset $P_{Pilot-DPDCH}$		0
- Secondary CPICH info		Not Present
- DL channelisation code		
- Secondary scrambling code		5
- Spreading factor		Reference to TS34.108 clause 6.10 Parameter Set
- Code number		0
- Scrambling code change		No change
- TPC combination index		0
- SSDT Cell Identity		Not Present
- Closed loop timing adjustment mode		Not Present
- SCCPCH information for FACH		Not Present
- Downlink information for each radio link	A5	
- Choice mode		FDD
- Primary CPICH info		
- Primary scrambling code		Ref. to the Default setting in TS34.108 clause 6.1 (FDD)
- PDSCH with SHO DCH info		Not Present
- PDSCH code mapping		Not Present
- Downlink DPCH info for each RL		Not Present
- SCCPCH Information for FACH		Not Present
- Downlink information for each radio link	A6 A7, A8, A9, A10	Not Present

Condition	Explanation
A1	This IE need for "Non speech in CS"
A2	This IE need for "Speech in CS"
A3	This IE need for "Packet to CELL_DCH from CELL_DCH in PS"
A4	This IE need for "Packet to CELL_DCH from CELL_FACH in PS"
A5	This IE need for "Packet to CELL_FACH from CELL_DCH in PS"
A6	This IE need for "Packet to CELL_FACH from CELL_FACH in PS"
A7	This IE need for “Packet to URA_PCH from CELL_FACH in PS”
A8	This IE need for “Packet to URA_PCH from CELL_DCH in PS”
A9	This IE need for “Packet to CELL_PCH from CELL_FACH in PS”
A10	This IE need for “Packet to CELL_PCH from CELL_DCH in PS”

<< End of Modified Section >>

3GPP TSG-T WG1 Meeting #23
Beijing, China, May 10th-14th, 2004

Tdoc ⌘T1-040522

CR-Form-v7

CHANGE REQUEST

⌘ **34.108** **CR** 309 ⌘ **rev** **-** ⌘ Current version: **5.0.0** ⌘

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

Proposed change affects: UICC apps⌘ ☐ ME ☒ Radio Access Network ☐ Core Network ☐

Title:	⌘	Correction to HSDPA reference radio bearer configurations
Source:	⌘	Ericsson
Work item code:	⌘	HSDPA
Date:	⌘	2004-04-16
Category:	⌘	**F**
Release:	⌘	REL-5

Use one of the following categories:
F *(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)*
Rel-6	*(Release 6)*

Reason for change:	⌘	The FDD HSDPA reference radio bearer configurations was by mistake put into the TDD section of 34.108 by a CR at T1#22.
Summary of change:	⌘	FDD HSDPA reference radio bearer combinations moved from section 6.10.3.4.6 to 6.10.2.4.5.
Consequences if not approved:	⌘	Misplaced FDD HSDPA reference radio bearer combinations.

Clauses affected:	⌘	6.10.3.4.6, 6.10.2.4.5

	Y	N		
Other specs affected: ⌘		X	Other core specifications	⌘
	X		Test specifications	34.123-1
		X	O&M Specifications	

Other comments:	⌘	A related CR to 34.123-1 can be found in T1-040521 to correct the references to the FDD HSDPA reference radio bearer combinations in the radio bearer test cases.

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

1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be

downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

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

<Start of first modified section>

6.10 Reference Radio Bearer configurations used in Radio Bearer interoperability testing

The reference radio bearer configurations are typical configurations of the radio interface. This sub-set of the mandatory set of radio bearer configurations supported by the UE is intended to be used as test configurations for testing of the UE. The purpose of the reference radio bearer configurations is to ensure interoperability of UE's in different regions and networks.

The reference radio bearer configurations are used in the radio bearer interoperability test cases, clause 14 of TS 34.123-1 [1]. The reference radio bearer configurations are also intended to be the first choice for other test cases where a radio bearer configuration is needed. For test cases requiring alternative configurations not provided by the reference radio bearer configurations then these specific radio bearer configurations are either specified in the actual test case itself; or in case the configurations are used by more than one test case then these common radio bearer configurations are specified in clause 6.11 of the present document.

NOTE If not specifically specified then the mid-value of the RM attríbute value range as specified by the actual reference radio bearer configuration shall be applied for testing.

6.10.1 QoS Architecture and RAB attributes

From a user point-of-view services are considered end-to-end, this means from a Terminal Equipment (TE) to another TE. An End-to-End Service may have a certain Quality of Service (QoS) which is provided for the user through the different networks. In UMTS, it is the UMTS Bearer Service that provides the requested QoS through the use of different QoS classes as defined in TS 23.107.

The UMTS Bearer Service consists of two parts, the Radio Access Bearer Service, RAB, and the Core Network Bearer Service. The Radio Access Bearer Service is realised by a Radio Bearer Service and an Iu-Bearer Service. The relationship between the services is illustrated in figure 6.10.1.1.

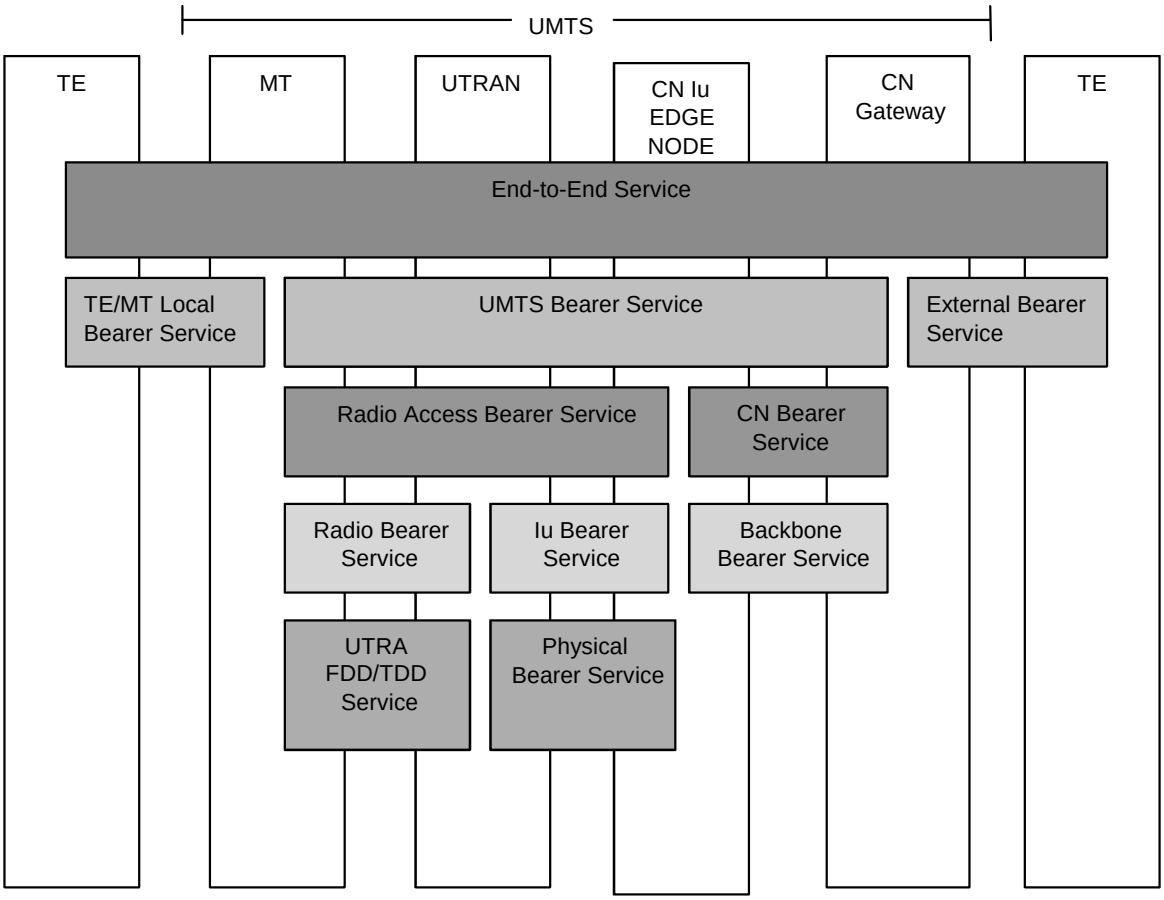

Figure 6.10.1.1: UMTS QoS Architecture

The Radio Access Bearer Service is characterised by a number of attributes such as Traffic class, Maximum bit rate, Guaranteed bit rate, SDU error ratio, Residual BER, Transfer Delay etc. As a first approach the four following attributes have been considered to come up with the parameter settings in clause 6.10.2.4 for FDD mode and 6.10.3.4 for TDD mode:

- Traffic class;
- SSD;
- Maximum bit rate;
- Residual BER.

The Traffic classes are explained in table 6.10.1.1. The Maximum bit rate has been considered at RLC layer and Physical Layer for the acknowledged and unacknowledged modes respectively. The Residual BER is understood as BER at RLC layer and Transport BLER for the acknowledged and unacknowledged modes respectively.

NOTE: The maximum bit rate in 6.10.2.4 for FDD mode and 6.10.3.4 for TDD mode is one of the RAB attribute as described above. For Interactive/Background PS RABs, however, the maximum bit rate of Radio Bearer can be lower than the maximum bit rate of RAB attributes due to radio resource management. Bit rates of Interactive/Background PS RABs described in 6.10.2.4 for FDD mode and 6.10.3.4 for TDD mode may represent the maximum bit rate of Radio Bearer taking account into this management.

Table 6.10.1.1: Traffic classes

Traffic class	**Conversational class** conversational RT	**Streaming class** streaming RT	**Interactive class** Interactive best effort	**Background** Background best effort
Fundamental characteristics	- Preserve time relation (variation) between information entities of the stream Conversational pattern (stringent and low delay)	- Preserve time relation (variation) between information entities of the stream (i.e. some but constant delay)	Request response pattern Preserve payload content	Destination is not expecting the data within a certain time Preserve payload content
Example of the application	- speech, video, …	- facsimile (NT) - streaming audio and video	- Web browsing	- background download of emails

6.10.2 RAB and signalling RB for FDD

6.10.2.1 RABs and signalling RBs

In the following clauses, the typical parameter sets are presented for reference RABs, signalling RBs and important combinations of them. The data rate given for each RAB is the maximum data rate that can be supported by that RAB.

NOTE: The granularity for each RAB needs to be clarified.

Table 6.10.2.1.1: Prioritised RABs.

#	Traffic class [15]	SSD [15]	Max. rate, kbps	CS/PS
1	Conversational	Speech	UL:12.2 DL:12.2	CS
1a	Conversational	Speech	UL:(12.2 7.95 5.9 4.75) DL:(12.2 7.95 5.9 4.75)	CS
2	Conversational	Speech	UL:10.2 DL:10.2	CS
2a	Conversational	Speech	UL:(10.2, 6.7, 5.9, 4.75) DL:(10.2, 6.7, 5.9, 4.75)	CS
3	Conversational	Speech	UL:7.95 DL:7.95	CS
4	Conversational	Speech	UL:7.4 DL:7.4	CS
4a	Conversational	Speech	UL:(7.4, 6.7, 5.9, 4.75) DL:(7.4, 6.7, 5.9, 4.75)	CS
5	Conversational	Speech	UL:6.7 DL:6.7	CS
6	Conversational	Speech	UL:5.9 DL:5.9	CS
7	Conversational	Speech	UL:5.15 DL:5.15	CS
8	Conversational	Speech	UL:4.75 DL:4.75	CS
9	Conversational	Unknown	UL:28.8 DL:28.8	CS
10	Conversational	Unknown	UL:64 DL:64	CS
11	Conversational	Unknown	UL:32 DL:32	CS
11a	Conversational	Unknown	UL:8 DL:8	PS
12	Streaming	Unknown	UL:14.4 DL:14.4	CS
13	Streaming	Unknown	UL:28.8 DL:28.8	CS
14	Streaming	Unknown	UL:57.6 DL:57.6	CS
15	Void			
15a	Streaming	Unknown	UL:16 DL:64	PS
16	Void			
17	Void			
18	Void			
19	Void			
20	Interactive or Background	N/A	UL:32 DL:8	PS
20a	Interactive or Background	N/A	UL:8 DL:8	PS
20b	Interactive or Background	N/A	UL:16 DL:16	PS
20c	Interactive or Background	N/A	UL:32 DL:32	PS
21	Void			
22	Interactive or Background	N/A	UL:32 DL:64	PS
23	Interactive or Background	N/A	UL:64 DL:64	PS
24	Interactive or Background	N/A	UL:64 DL:128	PS
25	Interactive or Background	N/A	UL:128 DL:128	PS
26	Interactive or Background	N/A	UL:64 DL:384	PS
27	Interactive or Background	N/A	UL:128 DL:384	PS
28	Interactive or Background	N/A	UL:384 DL:384	PS
29	Interactive or Background	N/A	UL:64 DL:2048	PS
30	Interactive or Background	N/A	UL:128 DL:2048	PS
31	Void			
32	Interactive or Background	N/A	UL:64 DL:256	PS
33	Interactive or Background	N/A	UL:0 DL:32	PS
34	Interactive or Background	N/A	UL:32 DL: 0	PS
35	Interactive or Background	N/A	UL:64 DL:144	PS
36	Interactive or Background	N/A	UL:144 DL:144	PS
37	Reserved for future use			
38	Reserved for future use			
39	Reserved for future use			

Table 6.10.2.1.2: Signalling RBs

#	Maximum rate, kbps	Logical channel	PhyCh onto which SRBs are mapped
1	UL:1.7 DL:1.7	DCCH	DPCH
2	UL:3.4 DL:3.4	DCCH	DPCH
3	UL:13.6 DL:13.6	DCCH	DPCH
4	DL:27.2 (alt. 40.8)	DCCH	SCCPCH
5	UL:16.6	CCCH	PRACH
6	DL:30.4 (alt. 45.6)	CCCH	SCCPCH
7	DL:33.2 (alt. 49.8)	BCCH:	SCCPCH
8	DL:24 (alt. 6.4)	PCCH	SCCPCH

6.10.2.2 Combinations of RABs and Signalling RBs

In the present document, physical channel parameters for following combinations of RABs and signalling RBs on a CCTrCH are described.

NOTE: It is understood that for speech service the AMR mode may be operated asymmetrically for the uplink and downlink.

Combinations on DPCH

1) Stand-alone UL:1.7 DL:1.7 kbps SRBs for DCCH.

2) Stand-alone UL:3.4 DL:3.4 kbps SRBs for DCCH.

3) Stand-alone UL:13.6 DL:13.6 kbps SRBs for DCCH.

4) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

4a) Conversational / speech / UL:(12.2 7.95 5.9 4.75) DL:(12.2 7.95 5.9 4.75) kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

5) Conversational / speech / UL:10.2 DL:10.2 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

5a) Conversational / speech / UL:(10.2, 6.7, 5.9, 4.75) DL:(10.2, 6.7, 5.9, 4.75) kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

6) Conversational / speech / UL:7.95 DL:7.95 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

7) Conversational / speech / UL:7.4 DL:7.4 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

7a) Conversational / speech / UL:(7.4, 6.7, 5.9, 4.75) DL:(7.4, 6.7, 5.9, 4.75) kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

8) Conversational / speech / UL:6.7 DL:6.7 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

9) Conversational / speech / UL:5.9 DL:5.9 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

10) Conversational / speech / UL:5.15 DL:5.15 kbps / CS RAB
+ UL:1.7 DL:1.7 kbps SRBs for DCCH.

11) Conversational / speech / UL:4.75 DL:4.75 kbps / CS RAB
+ UL:1.7 DL:1.7 kbps SRBs for DCCH.

12) Conversational / unknown / UL:28.8 DL:28.8 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

13) Conversational / unknown / UL:64 DL:64 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

14) Conversational / unknown / UL:32 DL:32 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

15) Streaming / unknown / UL:14.4/DL:14.4 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

16) Streaming / unknown / UL:28.8/DL:28.8 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

17) Streaming / unknown / UL:57.6/DL:57.6 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

18) Void

19) Void.

20) Void.

21) Void.

22) Void.

23) Interactive or background / UL:32 DL:8 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

23a) Interactive or background / UL:8 DL:8 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

23b) Interactive or background / UL:16 DL:16 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

23c) Interactive or background / UL:32 DL:32 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

23d) Interactive or background / UL:32 DL:32 kbps / PS RAB (20 ms TTI)
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

24) Void

25) Interactive or background / UL:32 DL: 64 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

26) Interactive or background / UL:64 DL: 64 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

27) Interactive or background / UL:64 DL:128 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

28) Interactive or background / UL:128 DL:128 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

29) Interactive or background / UL:64 DL:144 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

30) Interactive or background / UL:144 DL:144 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

31) Interactive or background / UL:64 DL:256 kbps / PS RAB
+ UL:3.4 DL: 3.4 kbps SRBs for DCCH.

32) Interactive or background / UL:64 DL:384 kbps / PS RAB
+ UL:3.4 DL: 3.4 kbps SRBs for DCCH.

33) Interactive or background / UL:128 DL:384 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

34) Interactive or background / UL:384 DL:384 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

35) Interactive or background / UL:64 DL:2048 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

36) Void

37) Void

38) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ Interactive or background / UL:32 DL:8 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

38a) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ Interactive or background / UL:0 DL:0 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

38b) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ Interactive or background / UL:8 DL:8 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

38c) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ Interactive or background / UL:32 DL:32 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

38d) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ Interactive or background / UL:64 DL:64 kbps / PS RAB
+ Interactive or background / UL:64 DL:64 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

38e) Conversational / speech / UL:(12.2 7.95 5.9 4.75) DL:(12.2 7.95 5.9 4.75) kbps / CS RAB
+ Interactive or background / UL:0 DL:0 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

38f) Conversational / speech / UL:(12.2 7.95 5.9 4.75) DL:(12.2 7.95 5.9 4.75) kbps / CS RAB
+ Interactive or background / UL:8 DL:8 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

38g) Conversational / speech / UL:(12.2 7.95 5.9 4.75) DL:(12.2 7.95 5.9 4.75) kbps / CS RAB
+ Interactive or background / UL:16 DL:16 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

38h) Conversational / speech / UL:(12.2 7.95 5.9 4.75) DL:(12.2 7.95 5.9 4.75) kbps / CS RAB
+ Interactive or background / UL:32 DL:32 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

38i) Conversational / speech / UL:(12.2 7.95 5.9 4.75) DL:(12.2 7.95 5.9 4.75) kbps / CS RAB
+ Interactive or background / UL:64 DL:64 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

38j) Conversational / speech / UL:(12.2 7.95 5.9 4.75) DL:(12.2 7.95 5.9 4.75) kbps / CS RAB
+ Interactive or background / UL:64 DL:128 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

39) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ Interactive or background / UL:32 DL:64 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

40) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ Interactive or background / UL:64 DL:64 kbps / PS RAB
+ UL:3.4 DL: 3.4 kbps SRBs for DCCH.

41) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ Interactive or background / UL:64 DL:128 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

42) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ Interactive or background / UL:64 DL:256 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

43) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ Interactive or background / UL:64 DL:384 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

44) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ Interactive or background / UL:128 DL:2048 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

45) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ Streaming / unknown / UL:57.6 DL:57.6 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

46) Void

47) Void.

48) Void.

49) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ Conversational / unknown / UL:64 DL:64 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

49a) Conversational / speech / UL:(12.2 7.95 5.9 4.75) DL:(12.2 7.95 5.9 4.75) kbps / CS RAB
+ Conversational / unknown / UL:64 DL:64 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

50) Conversational / unknown / UL:64 DL:64 kbps / CS RAB
+ Conversational / unknown / UL:64 DL:64 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

51) Conversational / unknown / UL:64 DL:64 kbps / CS RAB
+ Interactive or background / UL:64 DL:64 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

51a) Conversational / unknown / UL:64 DL:64 kbps / CS RAB
+ Interactive or Background / UL:8 DL:8 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

51b) Conversational / unknown / UL:64 DL:64 kbps / CS RAB
+ Interactive or Background / UL:16 DL:64 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

52) Conversational / unknown / UL:64 DL:64 kbps / CS RAB
+ Interactive or background / UL:64 DL:128 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

53) Conversational / unknown / UL:64 DL:64 kbps / CS RAB
+ Interactive or background / UL:128 DL:128 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

54) Void

55) Void.

56) Interactive or background / UL:8 DL:8 kbps / PS RAB
+ Interactive or background / UL:8 DL:8 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

57) Interactive or background / UL:64 DL:64 kbps / PS RAB
+ Interactive or background / UL:64 DL:64 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

58) Streaming / unknown / UL:16 DL:64 kbps / PS RAB
+ Interactive or background / UL:8 DL:8 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

59) Reserved for future use.

60) Reserved for future use.

61) Conversational / unknown / UL:8 DL:8 kbps / PS RAB
+ Interactive or Background / UL:8 DL:8 kbps / PS RAB +
+ UL:3.4 DL:3.4 kbps SRBs for DCCH

62) Reserved for future use.

63) Reserved for future use.

Combinations on DSCH and DPCH

1) Void

2) Interactive or background / UL:64 DL:384 kbps / PS RAB
+ UL:3.4 DL: 3.4 kbps SRBs for DCCH.

3) Interactive or background / UL:64 DL:2048 kbps / PS RAB
+ UL:3.4 DL: 3.4 kbps SRBs for DCCH.

4) Void

5) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ Interactive or background / UL:64 DL:384 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

6) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ Interactive or background / UL:64 DL:2048 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

Combinations on SCCPCH

1) Stand-alone 24 kbps SRB for PCCH.

2) Interactive or background / DL:32 kbps / PS RAB
+ SRB for CCCH
+ SRBs for DCCH
+ SRB for BCCH.

3) Interactive or background / DL:32 kbps / PS RAB
+ SRB for PCCH
+ SRB for CCCH
+ SRBs for DCCH
+ SRB for BCCH.

4) RB for CTCH
+ SRB for CCCH
+SRB for BCCH

Combinations on PRACH

1) Interactive or background / UL:32 kbps / PS RAB
+ SRB for CCCH
+ SRBs for DCCH.

Combinations on DPCH and HS-PDSCH

1) Interactive or background / UL:64 DL: [max bit rate depending on UE category] / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

2) Interactive or background / UL:384 DL: [max bit rate depending on UE category] / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.10.2.3 Example of linkage between RABs and services

RABs, which are included in the present document, can provide the services as shown in table 6.10.1.1. Furthermore, the required BER for each RAB, which is assumed in the present document, is shown in table 6.10.2.3.1.

Table 6.10.2.3.1: Example of linkage between RABs and services

RAB				Residual BER [15]	Services
Traffic class [15]	SSD [15]	Max. rate, kbps	CS/PS		
Conversational	Speech	UL:4.75-12.2 DL:4.75-12.2	CS	$5x10^{-4}$, $1x10^{-3}$, $5x10^{-3}$	AMR speech
Conversational	Unknown	UL:64 DL:64	CS	$1x10^{-4}$ or $1x10^{-6}$	UDI 1B, 64k 3G-324M [15]
Conversational	Unknown	UL:32 DL:32	CS	$1x10^{-4}$ or $1x10^{-6}$	32k 3G-324M [15]
Conversational	Unknown	UL:28.8 DL:28.8	CS	$1x10^{-3}$	Transparent modem
Streaming	Unknown	UL:14.4 DL:14.4	CS	$1x10^{-3}$	FAX[6]
Streaming	Unknown	UL:28.8 DL:28.8	CS	$1x10^{-3}$	FAX [18] PIAFS 32 kbps
Streaming	Unknown	UL:57.6 DL:57.6	CS	$1x10^{-3}$	Modem [18], FTM [17] PIAFS 64 kbps
Streaming	Unknown	UL:64-128 or DL:64-384	CS	$1x10^{-3}$ or $1x10^{-4}$	Streaming video, uni-directional
Interactive or Background	N/A	UL:32-384 DL:8-2048	PS	$1x10^{-3}$ or $1x10^{-4}$	Packet

NOTE 1: SMS can be provided via the signalling RB (DCCH) on DPCH or SCCPCH.

NOTE 2: CBS can be provided via the signalling RB (CTCH) on SCCPCH.

NOTE 3: UDI *n*B can be provided via *n* RABs of conversational 64 kbps.

<End of modified section>

<Start of next modified section>

6.10.2.4.4 Combinations on PRACH

6.10.2.4.4.1 Interactive/Background 32 kbps PS RAB + SRB for CCCH + SRB for DCCH

6.10.2.4.4.1.1 Transport channel parameters

6.10.2.4.4.1.1.1 Transport channel parameter for Interactive/Background 32 kbps PS RAB, SRB for CCCH, SRB for DCCH

Higher layer	RAB/signalling RB		**RAB**	**SRB#0**	**SRB#1**	**SRB#2**	**SRB#3**	**SRB#4**
	User of Radio Bearer		Interactive/ Background RAB	RRC	RRC	RRC	NAS_DT High prio	NAS_DT Low prio
RLC	Logical channel type		DTCH	CCCH	DCCH	DCCH	DCCH	DCCH
	RLC mode		AM	TM	UM	AM	AM	AM
	Payload sizes, bit		320	166	136	128	128	128
	Max data rate, bps		32000	16600	13600	12800	12800	12800
	AMD/UMD/TrD PDU header, bit		16	0	8	16	16	16
MAC	MAC header, bit		24	2	24	24	24	24
	MAC multiplexing		6 logical channel multiplexing					
Layer 1	TrCH type		RACH					
	TB sizes, bit		360	168	168	168	168	168
	TFS	TF0, bits	1x168					
		TF1, bits	1x360					
	TTI, ms		20 (alt. 10)					
	Coding type		CC 1/2					
	CRC, bit		16					
	Max number of bits/TTI after channel coding		768	384	384	384	384	384
	Max number of bits/ Radio frame before rate matching		384 (alt. 768)	192 (alt. 384)	192 (alt. 384)	192 (alt. 384)	192 (alt. 384)	192 (alt. 384)

6.10.2.4.4.1.1.2 TFCS

TFCS size	2
TFCS	32 kbps + SRBs for CCCH/ DCCH = TF0, TF1

6.10.2.4.4.1.2 Physical channel parameters

PRACH	Minimum Spreading factor	64 (alt. 32)
	Max number of data bits/radio frame	600 (alt. 1200)
	Puncturing Limit	1

6.10.2.4.4.2 Interactive/Background 32 kbps PS RAB + Interactive/Background 32 kbps PS RAB + SRB for CCCH + SRB for DCCH

6.10.2.4.4.2.1 Transport channel parameters

6.10.2.4.4.2.1.1 Transport channel parameters for Interactive/Background 32 kbps PS RAB, Interactive/Background 32 kbps PS RAB, SRB for CCCH, SRB for DCCH

Higher layer	RAB/signalling RB	**RAB**	**RAB**	**SRB#0**	**SRB#1**	**SRB#2**	**SRB#3**	**SRB#4**
	User of Radio Bearer	Interactive/ Background RAB	Interactive/ Background RAB	RRC	RRC	RRC	NAS_DT High prio	NAS_DT Low prio
RLC	Logical channel type	DTCH	DTCH	CCCH	DCCH	DCCH	DCCH	DCCH
	RLC mode	AM	AM	TM	UM	AM	AM	AM
	Payload sizes, bit	320	320	166	136	128	128	128
	Max data rate, bps	32000	32000	16600	13600	12800	12800	12800
	AMD/UMD/TrD PDU header, bit	16	16	0	8	16	16	16
MAC	MAC header, bit	24	24	2	24	24	24	24
	MAC multiplexing	7 logical channel multiplexing						
Layer 1	TrCH type	RACH						
	TB sizes, bit	360	360	168	168	168	168	168
	TFS TF0, bits	1x168						
	TFS TF1, bits	1x360						
	TTI, ms	20 (alt. 10)						
	Coding type	CC ½						
	CRC, bit	16						
	Max number of bits/TTI after channel coding	768	768	384	384	384	384	384
	Max number of bits/ Radio frame before rate matching	384 (alt. 768)	384 (alt 768)	192 (alt. 384)	192 (alt. 384)	192 (alt. 384)	192 (alt. 384)	192 (alt. 384)

6.10.2.4.4.2.1.2 TFCS

TFCS size	2
TFCS	32 kbps RAB+ 32 kbps RAB + SRBs for CCCH/ DCCH = TF0, TF1

6.10.2.4.4.2.2 Physical channel parameters

PRACH	Minimum Spreading factor	64 (alt. 32)
	Max number of data bits/radio frame	600 (alt. 1200)
	Puncturing Limit	1

6.10.2.4.5 Combinations on DPCH and HS-PDSCH

6.10.2.4.5.1 Interactive or background / UL:64 DL: [max bit rate depending on UE category] / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.10.2.4.5.1.1 Uplink

See clause 6.10.2.4.1.26.1.

6.10.2.4.5.1.2 Downlink

6.10.2.4.5.1.2.1 Transport channel parameters

6.10.2.4.5.1.2.1.1 Transport channel parameters for HS-DSCH

6.10.2.4.5.1.2.1.1.1 MAC-d flow parameters for Interactive or background / DL: [max bit rate depending on UE category] / PS RAB

Higher layer	RAB/Signalling RB	**RAB**
RLC	Logical channel type	DTCH
	RLC mode	AM
	Payload sizes, bit	320 (alt. 640)
	Max data rate, bps	depends on UE category NOTE1
	AMD PDU header, bit	16
MAC	MAC-d header, bit	0
	MAC multiplexing	N/A
	MAC-d PDU size, bit	336 (alt. 656)
	MAC-hs header fixed part, bit	21
Layer 1	TrCH type	HS-DSCH
	TTI	2 ms
	Coding type	TC
	CRC, bit	24

NOTE1: The peak throughput may be limited by the maximum number of MAC-d PDUs that can be included in a single MAC-hs PDU (see [25.321]).

6.10.2.4.5.1.2.1.2 Transport channel parameters for DCH

6.10.2.4.5.1.2.1.2.1 Transport channel parameters for UL:3.4 DL: 3.4 kbps SRBs for DCCH

See clause 6.10.2.4.1.2.2.1.1.

6.10.2.4.5.1.2.1.2.2 TFCS

See clause 6.10.2.4.1.2.2.1.2.

6.10.2.4.5.1.2.2 Physical channel parameters

6.10.2.4.5.1.2.2.1 Physical channel parameters on DPCH

See clause 6.10.2.4.1.2.2.2.

6.10.2.4.5.1.2.2.21 Physical channel parameters on HS-PDSCH

Note that each alternative configuration in physical channel parameters is stand-alone and can be associated with any of the RAB alternatives in the transport channel parameters.

UE HS-DSCH Physical Layer category 1:

HS-PDSCH	Number of processes	2, (alt. 8)
	Process memory size	Split equally among all processes
	Max Data Rate	1.2Mbps, (alt. 400kbps)

UE HS-DSCH Physical Layer category 2:

HS-PDSCH	Number of processes	2, (alt. 8)
	Process memory size	Split equally among all processes
	Max Data Rate	1.2Mbps, (alt. 600kbps)]

UE HS-DSCH Physical Layer category 3:

HS-PDSCH	Number of processes	3, (alt. 8)
	Process memory size	Split equally among all processes
	Max Data Rate	1.8Mbps, (alt. 900kbps)

UE HS-DSCH Physical Layer category 4:

HS-PDSCH	Number of processes	3, (alt. 8)
	Process memory size	Split equally among all processes
	Max Data Rate	1.8Mbps, (alt. 1.2Mbps)

UE HS-DSCH Physical Layer category 5:

HS-PDSCH	Number of processes	6, (alt. 8)
	Process memory size	Split equally among all processes
	Max Data Rate	3.65Mbps, (alt. 3.6Mbps)

UE HS-DSCH Physical Layer category 6:

HS-PDSCH	Number of processes	6, (alt. 8)
	Process memory size	Split equally among all processes
	Max Data Rate	3.65Mbps, (alt. 3.65Mbps)

UE HS-DSCH Physical Layer category 7:

HS-PDSCH	Number of processes	6, (alt. 8)
	Process memory size	Split equally among all processes
	Max Data Rate	7.3Mbps, (alt. 7.2Mbps)

UE HS-DSCH Physical Layer category 8:

HS-PDSCH	Number of processes	6, (alt. 8)
	Process memory size	Split equally among all processes
	Max Data Rate	7.3Mbps, (alt. 7.3Mbps)

UE HS-DSCH Physical Layer category 9:

HS-PDSCH	Number of processes	6, (alt. 8)
	Process memory size	Split equally among all processes
	Max Data Rate	10.2Mbps, (alt. 10.2Mbps)

UE HS-DSCH Physical Layer category 10:

HS-PDSCH	Number of processes	6, (alt. 8)
	Process memory size	Split equally among all processes
	Max Data Rate	14.4Mbps, (alt. 10.8Mbps)

UE HS-DSCH Physical Layer category 11:

HS-PDSCH	Number of processes	3, (alt. 8)
	Process memory size	Split equally among all processes
	Max Data Rate	900kbps, (alt. 450kbps)

UE HS-DSCH Physical Layer category 12:

HS-PDSCH	Number of processes	6, (alt. 8)
	Process memory size	Split equally among all processes
	Max Data Rate	1.8Mbps, (alt. 1.8Mbps)

6.10.2.4.5.2 Interactive or background / UL:384 DL: [max bit rate depending on UE category] / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.10.2.4.5.2.1 Uplink

See clause 6.10.2.4.1.34.1.

6.10.2.4.5.2.2 Downlink

6.10.2.4.5.2.2.1 Transport channel parameters

6.10.2.4.5.2.2.1.1 Transport channel parameters for HS-DSCH

6.10.2.4.5.2.2.1.1.1 MAC-d flow parameters for Interactive or background / DL: [max bit rate depending on UE category] / PS RAB

Higher Layer	RAB/Signalling RB	**RAB**
RLC	Logical channel type	DTCH
	RLC mode	AM
	Payload sizes, bit	320 (alt. 640)
	Max data rate, bps	depends on UE category NOTE1
	AMD PDU header, bit	16
MAC	MAC-d header, bit	0
	MAC multiplexing	N/A
	MAC-d PDU size, bit	336 (alt. 656)
	MAC-hs header fixed part, bit	21
Layer 1	TrCH type	HS-DSCH
	TTI	2 ms
	Coding type	TC
	CRC, bit	24

NOTE1: The peak throughput may be limited by the maximum number of MAC-d PDUs that can be included in a single MAC-hs PDU (see [25.321]).

6.10.2.4.5.2.2.1.2 Transport channel parameters for DCH

6.10.2.4.5.2.2.1.2.1 Transport channel parameters for UL:3.4 DL: 3.4 kbps SRBs for DCCH

See clause 6.10.2.4.1.2.2.1.1.

6.10.2.4.5.2.2.1.2.2 TFCS

See clause 6.10.2.4.1.2.2.1.2.

6.10.2.4.5.2.2.2 Physical channel parameters

6.10.2.4.5.2.2.2.1 Physical channel parameters on DPCH

See clause 6.10.2.4.1.2.2.2.

6.10.2.4.5.2.2.2.2 Physical channel parameters on HS-PDSCH

Note that each alternative configuration in physical channel parameters is stand-alone and can be associated with any of the RAB alternatives in the transport channel parameters.

UE HS-DSCH Physical Layer category 1:

HS-PDSCH	Number of processes	2, (alt. 8)
	Process memory size	Split equally among all processes
	Max Data Rate	1.2Mbps, (alt. 400kbps)

UE HS-DSCH Physical Layer category 2:

HS-PDSCH	Number of processes	2, (alt. 8)
	Process memory size	Split equally among all processes
	Max Data Rate	1.2Mbps, (alt. 600kbps)]

UE HS-DSCH Physical Layer category 3:

HS-PDSCH	Number of processes	3, (alt. 8)
	Process memory size	Split equally among all processes
	Max Data Rate	1.8Mbps, (alt. 900kbps)

UE HS-DSCH Physical Layer category 4:

HS-PDSCH	Number of processes	3, (alt. 8)
	Process memory size	Split equally among all processes
	Max Data Rate	1.8Mbps, (alt. 1.2Mbps)

UE HS-DSCH Physical Layer category 5:

HS-PDSCH	Number of processes	6, (alt. 8)
	Process memory size	Split equally among all processes
	Max Data Rate	3.65Mbps, (alt. 3.6Mbps)

UE HS-DSCH Physical Layer category 6:

HS-PDSCH	Number of processes	6, (alt. 8)
	Process memory size	Split equally among all processes
	Max Data Rate	3.65Mbps, (alt. 3.65Mbps)

UE HS-DSCH Physical Layer category 7:

HS-PDSCH	Number of processes	6, (alt. 8)
	Process memory size	Split equally among all processes
	Max Data Rate	7.3Mbps, (alt. 7.2Mbps)

UE HS-DSCH Physical Layer category 8:

HS-PDSCH	Number of processes	6, (alt. 8)
	Process memory size	Split equally among all processes
	Max Data Rate	7.3Mbps, (alt. 7.3Mbps)

UE HS-DSCH Physical Layer category 9:

HS-PDSCH	Number of processes	6, (alt. 8)
	Process memory size	Split equally among all processes
	Max Data Rate	10.2Mbps, (alt. 10.2Mbps)

UE HS-DSCH Physical Layer category 10:

HS-PDSCH	Number of processes	6, (alt. 8)
	Process memory size	Split equally among all processes
	Max Data Rate	14.4Mbps, (alt. 10.8Mbps)

UE HS-DSCH Physical Layer category 11:

HS-PDSCH	Number of processes	3, (alt. 8)
	Process memory size	Split equally among all processes
	Max Data Rate	900kbps, (alt. 450kbps)

UE HS-DSCH Physical Layer category 12:

HS-PDSCH	Number of processes	6, (alt. 8)
	Process memory size	Split equally among all processes
	Max Data Rate	1.8Mbps, (alt. 1.8Mbps)

<End of modified section>

<Start of next modified section>

6.10.3.4.6 Combinations on DPCH and HS-PDSCH

6.10.3.4.6.1 Interactive or background / UL:64 DL: [max bit rate depending on UE category] / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.10.3.4.6.1.1 Uplink

See clause 6.10.2.4.1.26.1.

6.10.3.4.6.1.2 Downlink

6.10.3.4.6.1.2.1 Transport channel parameters

6.10.3.4.6.1.2.1.1 Transport channel parameters for HS-DSCH

6.10.3.4.6.1.2.1.1.1 MAC-d flow parameters for Interactive or background / DL: [max bit rate depending on UE category] / PS RAB

Higher layer	RAB/Signalling RB	**RAB**
RLC	Logical channel type	DTCH
	RLC mode	AM
	Payload sizes, bit	320 (alt. 640)
	Max data rate, bps	depends on UE category NOTE1
	AMD PDU header, bit	16
MAC	MAC-d header, bit	0
	MAC multiplexing	N/A
	MAC-d PDU size, bit	336 (alt. 656)
	MAC-hs header fixed part, bit	21
Layer 1	TrCH type	HS-DSCH
	TTI	2 ms
	Coding type	TC
	CRC, bit	24

NOTE1: The peak throughput may be limited by the maximum number of MAC-d PDUs that can be included in a single MAC-hs PDU (see [25.321]).

6.10.3.4.6.1.2.1.2 Transport channel parameters for DCH

6.10.3.4.6.1.2.1.2.1 Transport channel parameters for UL:3.4 DL: 3.4 kbps SRBs for DCCH

See clause 6.10.2.4.1.2.2.1.1.

6.10.3.4.6.1.2.1.2.2 TFCS

See clause 6.10.2.4.1.2.2.1.2.

~~6.10.3.4.6.1.2.2 Physical channel parameters~~

~~6.10.3.4.6.1.2.2.1 Physical channel parameters on DPCH~~

~~See clause 6.10.2.4.1.2.2.2.~~

~~6.10.3.4.6.1.2.2.21 Physical channel parameters on HS-PDSCH~~

~~Note that each alternative configuration in physical channel parameters is stand-alone and can be associated with any of the RAB alternatives in the transport channel parameters.~~

~~UE HS-DSCH Physical Layer category 1:~~

~~HS-PDSCH~~	~~Number of processes~~	~~2, (alt. 8)~~
	~~Process memory size~~	~~Split equally among all processes~~
	~~Max Data Rate~~	~~1.2Mbps, (alt. 400kbps)~~

~~UE HS-DSCH Physical Layer category 2:~~

~~HS-PDSCH~~	~~Number of processes~~	~~2, (alt. 8)~~
	~~Process memory size~~	~~Split equally among all processes~~
	~~Max Data Rate~~	~~1.2Mbps, (alt. 600kbps)]~~

~~UE HS-DSCH Physical Layer category 3:~~

~~HS-PDSCH~~	~~Number of processes~~	~~3, (alt. 8)~~
	~~Process memory size~~	~~Split equally among all processes~~
	~~Max Data Rate~~	~~1.8Mbps, (alt. 900kbps)~~

~~UE HS-DSCH Physical Layer category 4:~~

~~HS-PDSCH~~	~~Number of processes~~	~~3, (alt. 8)~~
	~~Process memory size~~	~~Split equally among all processes~~
	~~Max Data Rate~~	~~1.8Mbps, (alt. 1.2Mbps)~~

~~UE HS-DSCH Physical Layer category 5:~~

~~HS-PDSCH~~	~~Number of processes~~	~~6, (alt. 8)~~
	~~Process memory size~~	~~Split equally among all processes~~
	~~Max Data Rate~~	~~3.65Mbps, (alt. 3.6Mbps)~~

~~UE HS-DSCH Physical Layer category 6:~~

~~HS-PDSCH~~	~~Number of processes~~	~~6, (alt. 8)~~
	~~Process memory size~~	~~Split equally among all processes~~
	~~Max Data Rate~~	~~3.65Mbps, (alt. 3.65Mbps)~~

~~UE HS-DSCH Physical Layer category 7:~~

~~HS-PDSCH~~	~~Number of processes~~	~~6, (alt. 8)~~
	~~Process memory size~~	~~Split equally among all processes~~
	~~Max Data Rate~~	~~7.3Mbps, (alt. 7.2Mbps)~~

~~UE HS-DSCH Physical Layer category 8:~~

~~HS-PDSCH~~	~~Number of processes~~	~~6, (alt. 8)~~
	~~Process memory size~~	~~Split equally among all processes~~
	~~Max Data Rate~~	~~7.3Mbps, (alt. 7.3Mbps)~~

~~UE HS-DSCH Physical Layer category 9:~~

~~HS-PDSCH~~	~~Number of processes~~	~~6, (alt. 8)~~
	~~Process memory size~~	~~Split equally among all processes~~
	~~Max Data Rate~~	~~10.2Mbps, (alt. 10.2Mbps)~~

~~UE HS-DSCH Physical Layer category 10:~~

~~HS-PDSCH~~	~~Number of processes~~	~~6, (alt. 8)~~
	~~Process memory size~~	~~Split equally among all processes~~
	~~Max Data Rate~~	~~14.4Mbps, (alt. 10.8Mbps)~~

~~UE HS-DSCH Physical Layer category 11:~~

~~HS-PDSCH~~	~~Number of processes~~	~~3, (alt. 8)~~
	~~Process memory size~~	~~Split equally among all processes~~
	~~Max Data Rate~~	~~900kbps, (alt. 450kbps)~~

~~UE HS-DSCH Physical Layer category 12:~~

~~HS-PDSCH~~	~~Number of processes~~	~~6, (alt. 8)~~
	~~Process memory size~~	~~Split equally among all processes~~
	~~Max Data Rate~~	~~1.8Mbps, (alt. 1.8Mbps)~~

~~6.10.3.4.6.2 Interactive or background / UL:384 DL: [max bit rate depending on UE category] / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH~~

~~6.10.3.4.6.2.1 Uplink~~

~~See clause 6.10.2.4.1.34.1.~~

6.10.3.4.6.2.2 Downlink

6.10.3.4.6.2.2.1 Transport channel parameters

6.10.3.4.6.2.2.1.1 Transport channel parameters for HS-DSCH

6.10.3.4.6.2.2.1.1.1 MAC-d flow parameters for Interactive or background / DL: [max bit rate depending on UE category] / PS RAB

Higher Layer	RAB/Signalling RB	**RAB**
RLC	Logical channel type	DTCH
	RLC mode	AM
	Payload sizes, bit	320 (alt. 640)
	Max data rate, bps	depends on UE category NOTE1
	AMD PDU header, bit	16
MAC	MAC-d header, bit	0
	MAC multiplexing	N/A
	MAC-d PDU size, bit	336 (alt. 656)
	MAC-hs header fixed part, bit	21
Layer 1	TrCH type	HS-DSCH
	TTI	2 ms
	Coding type	TC
	CRC, bit	24

NOTE1: The peak throughput may be limited by the maximum number of MAC-d PDUs that can be included in a single MAC-hs PDU (see [25.321]).

6.10.3.4.6.2.2.1.2 Transport channel parameters for DCH

6.10.3.4.6.2.2.1.2.1 Transport channel parameters for UL:3.4 DL: 3.4 kbps SRBs for DCCH

See clause 6.10.2.4.1.2.2.1.1.

6.10.3.4.6.2.2.1.2.2 TFCS

See clause 6.10.2.4.1.2.2.1.2.

6.10.3.4.6.2.2.2 Physical channel parameters

6.10.3.4.6.2.2.2.1 Physical channel parameters on DPCH

See clause 6.10.2.4.1.2.2.2.

6.10.3.4.6.2.2.2.2 Physical channel parameters on HS-PDSCH

Note that each alternative configuration in physical channel parameters is stand-alone and can be associated with any of the RAB alternatives in the transport channel parameters.

UE HS-DSCH Physical Layer category 1:

HS-PDSCH	Number of processes	2, (alt. 8)
	Process memory size	Split equally among all processes
	Max Data Rate	1.2Mbps, (alt. 400kbps)

UE HS-DSCH Physical Layer category 2:

~~HS-PDSCH~~	~~Number of processes~~	~~2, (alt. 8)~~
	~~Process memory size~~	~~Split equally among all processes~~
	~~Max Data Rate~~	~~1.2Mbps, (alt. 600kbps)]~~

~~UE HS-DSCH Physical Layer category 3:~~

~~HS-PDSCH~~	~~Number of processes~~	~~3, (alt. 8)~~
	~~Process memory size~~	~~Split equally among all processes~~
	~~Max Data Rate~~	~~1.8Mbps, (alt. 900kbps)~~

~~UE HS-DSCH Physical Layer category 4:~~

~~HS-PDSCH~~	~~Number of processes~~	~~3, (alt. 8)~~
	~~Process memory size~~	~~Split equally among all processes~~
	~~Max Data Rate~~	~~1.8Mbps, (alt. 1.2Mbps)~~

~~UE HS-DSCH Physical Layer category 5:~~

~~HS-PDSCH~~	~~Number of processes~~	~~6, (alt. 8)~~
	~~Process memory size~~	~~Split equally among all processes~~
	~~Max Data Rate~~	~~3.65Mbps, (alt. 3.6Mbps)~~

~~UE HS-DSCH Physical Layer category 6:~~

~~HS-PDSCH~~	~~Number of processes~~	~~6, (alt. 8)~~
	~~Process memory size~~	~~Split equally among all processes~~
	~~Max Data Rate~~	~~3.65Mbps, (alt. 3.65Mbps)~~

~~UE HS-DSCH Physical Layer category 7:~~

~~HS-PDSCH~~	~~Number of processes~~	~~6, (alt. 8)~~
	~~Process memory size~~	~~Split equally among all processes~~
	~~Max Data Rate~~	~~7.3Mbps, (alt. 7.2Mbps)~~

~~UE HS-DSCH Physical Layer category 8:~~

~~HS-PDSCH~~	~~Number of processes~~	~~6, (alt. 8)~~
	~~Process memory size~~	~~Split equally among all processes~~
	~~Max Data Rate~~	~~7.3Mbps, (alt. 7.3Mbps)~~

~~UE HS-DSCH Physical Layer category 9:~~

~~HS-PDSCH~~	~~Number of processes~~	~~6, (alt. 8)~~
	~~Process memory size~~	~~Split equally among all processes~~
	~~Max Data Rate~~	~~10.2Mbps, (alt. 10.2Mbps)~~

~~UE HS-DSCH Physical Layer category 10:~~

~~HS-PDSCH~~	~~Number of processes~~	~~6, (alt. 8)~~
	~~Process memory size~~	~~Split equally among all processes~~
	~~Max Data Rate~~	~~14.4Mbps, (alt. 10.8Mbps)~~

~~UE HS-DSCH Physical Layer category 11:~~

~~HS-PDSCH~~	~~Number of processes~~	~~3, (alt. 8)~~
	~~Process memory size~~	~~Split equally among all processes~~
	~~Max Data Rate~~	~~900kbps, (alt. 450kbps)~~

~~UE HS-DSCH Physical Layer category 12:~~

~~HS-PDSCH~~	~~Number of processes~~	~~6, (alt. 8)~~
	~~Process memory size~~	~~Split equally among all processes~~
	~~Max Data Rate~~	~~1.8Mbps, (alt. 1.8Mbps)~~

<End of modified section>

3GPP TSG-T WG1 Meeting #23
Beijing, China, May 10th-14th, 2004

Tdoc ⌘T1-040546

CR-Form-v7

CHANGE REQUEST

⌘ **34.108** **CR** 310 ⌘ **rev** **-** ⌘ Current version: **5.0.0** ⌘

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

Proposed change affects: UICC apps⌘ ☐ ME ☒ Radio Access Network ☐ Core Network ☐

Title:	⌘	Addition of test procedure for HSDPA RF testing
Source:	⌘	Ericsson
Work item code:	⌘	HSDPA
Date:	⌘	2004-04-27
Category:	⌘	**F**
Release:	⌘	REL-5

Use one of the following categories:
F *(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)*
Rel-6	*(Release 6)*

Reason for change:	⌘	Addition of generic test procedure for HSDPA RF testing
Summary of change:	⌘	1. Editorial corrections to 7.3.2.3, 7.3.2.4.1 and 9.2.1. 2. New section (7.3.6) for test procedure for HSDPA RF performance requirement added. 3. Default message added to section 9.2.1 for RADIO BEARER SETUP message: AM or UM (HSDPA)
Consequences if not approved:	⌘	Test procedure for HSDPA RF test cases missing.

Clauses affected:	⌘	7.3.2.3, 7.3.2.4.1, 7.3.6 (new) and 9.2.1

Other specs affected: ⌘	Y	N		⌘
		X	Other core specifications	
		X	Test specifications	
		X	O&M Specifications	

Other comments: ⌘

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

1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be

downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

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

<Start of first modified section>

7.3 Test procedures for RF test

7.3.1 UE Test States for RF testing

In this clause, the states of the UE for the test are defined.

		RRC	CC	MM	SM	GMM
State1	Power OFF	-----	null	detached	inactive	detached
State2	CS Registered Idle Mode	idle	null	idle	inactive	detached
State3	PS Registered Idle Mode	idle	null	detached	inactive	idle
State4	Test Mode	connected	null	detached	inactive	detached

7.3.2 Test procedure for TX, RX and Performance Requirement (without handover)

7.3.2.1 Initial conditions

System Simulator

- 1cell, default parameters.

User Equipment

The UE shall initially be operated under normal RF test conditions if not otherwise stated in the initial conditions for the actual test case.

The Test-USIM shall be inserted.

The UE has a valid TMSI (CS) after the execution of the procedure described in 7.2.2.1

The UE has a valid P-TMSI (PS) after the execution of the procedure described in 7.2.2.2

7.3.2.2 Definition of system information messages

The default system information messages specified in clause 6.1 are used with the following exceptions.

Contents of System information block type 1: RRC

Information Element	Value/remark
- CN domain system information	
- CN domain identity	PS
- CHOICE CN Type	GSM-MAP
- CN domain specific NAS system information	
- GSM-MAP NAS system information	00 00
- 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	00(T3212 is set to infinity) 01
- CN domain specific DRX cycle length coefficient	7
- UE Timers and constants in connected mode	
- T305	Infinity

7.3.2.3 Procedure

For UE supporting CS

Step	Direction		Message	Comments
	UE	SS		
1		<--	SYSTEM INFORMATION (BCCH)	Broadcast
2		<--	PAGING TYPE1 (PCCH)	Paging (CS domain, TMSI)
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		<--	ACTIVATE RB TEST MODE	TC
12		-->	ACTIVATE RB TEST MODE COMPLETE	TC
13		<--	RADIO BEARER SETUP	RRC (RAB SETUP)
14		-->	RADIO BEARER SETUP COMPLETE	RRC
15		<--	CLOSE UE TEST LOOP (DCCH)	TC (UE test loop mode set up)
16		-->	CLOSE UE TEST LOOP COMPLETE	TC (confirms that loopback entities for the radio bearer(s) have been created and loop back is activated)
17		<--	OPEN UE TEST LOOP	TC
18		-->	OPEN UE TEST LOOP COMPLETE	TC
19		<--	RRC CONNECTION RELEASE	RRC
20		-->	RRC CONNECTION RELEASE COMPLETE	RRC

For UE supporting PS only

Step	Direction		Message	Comments
	UE	SS		
1		<--	SYSTEM INFORMATION (BCCH)	Broadcast
2		<--	PAGING TYPE1 (PCCH)	Paging (PS domain, P-TMSI)
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		<--	ACTIVATE RB TEST MODE	TC
12		-->	ACTIVATE RB TEST MODE COMPLETE	TC
13		<--	RADIO BEARER SETUP	RRC (RAB SETUP)
14		-->	RADIO BEARER SETUP COMPLETE	RRC
15		<--	CLOSE UE TEST LOOP (DCCH)	TC (UE test loop mode set up)
16		-->	CLOSE UE TEST LOOP COMPLETE	TC (confirms that loopback entities for the radio bearer(s) have been created and loop back is activated)
17		<--	OPEN UE TEST LOOP	TC
18		-->	OPEN UE TEST LOOP COMPLETE	TC
1~~8~~9		<--	RRC CONNECTION RELEASE	RRC
20		-->	RRC CONNECTION RELEASE COMPLETE	RRC

7.3.2.4 Specific message contents

The default message contents specified in clause 9.2 are used with the following exceptions.

7.3.2.4.1 ATTACH ACCEPT

This message is sent from the SS to the UE, used for the UE supporting PS only.

Contents of Attach Accept message: GMM

Information Element	Value/remark
Periodic RA update timer	E0 (timer is deactivated)

7.3.2.4.2 Reference measurement channels

The configurations of the reference measurement channels for RF tests are described in TS 34.121[2] Annex C for FDD and TS 34.122 [5] Annex C for TDD.

7.3.2.4.3 UE test loop mode

The messages in this sub-clause are sent from the SS to the UE, determining the UE test loop mode for the RF tests.

UE test loop mode 1 without DCCH dummy transmission

Default. See clause 9.2.

UE test loop mode 1 with DCCH dummy transmission

Contents of CLOSE UE TEST LOOP: TC

Information Element	Value/remark
UE test loop mode	UE test loop mode 1 DCCH dummy transmission set to "enabled". 00000100B

UE test loop mode 2 without DCCH dummy transmission

Contents of CLOSE UE TEST LOOP: TC

Information Element	Value/remark
UE test loop mode	UE test loop mode 2 DCCH dummy transmission set to "disabled". 00000001B

7.3.2.4.4 Compressed mode

[T.B.D.]

7.3.2.4.5 Transmit diversity mode

[T.B.D.]

7.3.3 Test procedure for Rx Spurious Emission

7.3.3.1 Initial conditions

System Simulator

- 1cell, default parameters.

User Equipment

The UE shall be operated under RF test conditions.

The Test-USIM shall be inserted.

The UE has a valid TMSI (CS) after the execution of the procedure described in 7.2.2.1

The UE has a valid P-TMSI (PS) after the execution of the procedure described in 7.2.2.2

7.3.3.2 Definition of system information messages

The default system information messages specified in clause 6.1 are used with the following exceptions.

Contents of System information block type 1: RRC

Information Element	Value/remark
- CN domain system information	
- CN domain identity	PS
- CHOICE CN Type	GSM-MAP
- CN domain specific NAS system information	
- GSM-MAP NAS system information	00 00
- 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	00(T3212 is set to infinity) 01
- CN domain specific DRX cycle length coefficient	7
- UE Timers and constants in connected mode	
- T305	Infinity

7.3.3.2a Procedure

For UE supporting CS

Step	Direction		Message	Comments
	UE	SS		
1		<--	SYSTEM INFORMATION (BCCH)	Broadcast
2		<--	PAGING TYPE1 (PCCH)	Paging (CS domain, TMSI)
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		<--	ACTIVATE RB TEST MODE	TC
12		-->	ACTIVATE RB TEST MODE COMPLETE	TC
13		<--	RADIO BEARER SETUP	RRC - RAB SETUP using Reference Radio Bearer Configuration - RRC state indicator is set to "CELL_FACH"
14		-->	RADIO BEARER SETUP COMPLETE	RRC
15		<--	RRC CONNECTION RELEASE	RRC
16		-->	RRC CONNECTION RELEASE COMPLETE	RRC

For UE supporting PS only

Step	Direction		Message	Comments
	UE	SS		
1		<--	SYSTEM INFORMATION (BCCH)	Broadcast
2		<--	PAGING TYPE1 (PCCH)	Paging (PS domain, P-TMSI)
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		<--	ACTIVATE RB TEST MODE	TC
12		-->	ACTIVATE RB TEST MODE COMPLETE	TC
13		<--	RADIO BEARER SETUP	RRC - RAB SETUP using Reference Radio Bearer Configuration - RRC state indicator is set to "CELL_FACH"
14		-->	RADIO BEARER SETUP COMPLETE	RRC
15		<--	RRC CONNECTION RELEASE	RRC
16		-->	RRC CONNECTION RELEASE COMPLETE	RRC

7.3.3.4 Specific message contents

The default message contents specified in clause 9.2 are used with the following exceptions.

Contents of RADIO BEARER SETUP message: RRC

Information Element	Value/remark
New C-RNTI	'1010 1010 1010 1010'
RRC State indicator	CELL_FACH

Contents of Attach Accept message: GMM

Information Element	Value/remark
Periodic RA update timer	E0 (timer is deactivated)

7.3.4 Test procedure for Handover

7.3.4.1 Initial conditions

System Simulator

- Intra-frequency hard handover:
  - 2 cells, default parameters according to Cell 1 and Cell 2 in clause 6.1.4.
- Inter-frequency hard handover:
  - 2 cells, default parameters according to Cell 1 and Cell 4 in clause 6.1.4.
- Inter-system handover UTRAN FDD to GSM:
  - 2 cells, default parameters according to Cell 1 and Cell 9 in clause 6.1.4.

User Equipment

The UE shall be initially operated under the normal RF test conditions if not otherwise stated in the initial conditions for the actual test case.

The Test-USIM shall be inserted.

The UE has a valid TMSI (CS) after the execution of the procedure described in 7.2.2.1

The UE has a valid P-TMSI (PS) after the execution of the procedure described in 7.2.2.2

7.3.4.2 Definition of system information messages

The default system information messages specified in clause 6.1 are used with the following exceptions.

Contents of System information block type 1: RRC

Information Element	Value/remark
- CN domain system information	
- CN domain identity	PS
- CHOICE CN Type	GSM-MAP
- CN domain specific NAS system information	
- GSM-MAP NAS system information	00 00
- 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	00(T3212 is set to infinity) 01
- CN domain specific DRX cycle length coefficient	7
- UE Timers and constants in connected mode	
- T305	Infinity

For the intra-frequency hard handover the default messages for SIB11 and SIB12 as specified for Cell 1 and Cell 2 in clause 6.1.4 are used.

For the inter-frequency hard handover the default messages for SIB11 and SIB12 as specified for Cell 1 and Cell 4 in clause 6.1.4 are used.

For the inter-system handover from UTRAN FDD to GSM the default messages for SIB11 and SIB12 as specified for Cell 1 and Cell 9 in clause 6.1.4 are used.

7.3.4.3 Procedure

For UE supporting CS

Step	Direction		Message	Comments
	UE	SS		
1		<--	SYSTEM INFORMATION (BCCH)	Broadcast
2		<--	PAGING TYPE1 (PCCH)	Paging (CS domain, TMSI)
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		<--	ACTIVATE RB TEST MODE	TC
12		-->	ACTIVATE RB TEST MODE COMPLETE	TC
13		<--	RADIO BEARER SETUP	RRC - RAB SETUP using Reference Radio Bearer Configuration - RRC state indicator is set to "CELL_DCH"
14		-->	RADIO BEARER SETUP COMPLETE	RRC
15		<--	RRC CONNECTION RELEASE	RRC
16		-->	RRC CONNECTION RELEASE COMPLETE	RRC

For UE supporting PS only

Step	Direction		Message	Comments
	UE	SS		
1		<--	SYSTEM INFORMATION (BCCH)	Broadcast
2		<--	PAGING TYPE1 (PCCH)	Paging (PS domain, P-TMSI)
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		<--	ACTIVATE RB TEST MODE	TC
12		-->	ACTIVATE RB TEST MODE COMPLETE	TC
13		<--	RADIO BEARER SETUP	RRC - RAB SETUP using Reference Radio Bearer Configuration - RRC state indicator is set to "CELL_DCH"
14		-->	RADIO BEARER SETUP COMPLETE	RRC
15		<--	RRC CONNECTION RELEASE	RRC
16		-->	RRC CONNECTION RELEASE COMPLETE	RRC

7.3.4.4 Specific message contents

The default message contents specified in clause 9.2 are used with the following exceptions.

Contents of RADIO BEARER SETUP message: RRC

Information Element	Value/remark
New C-RNTI	'1010 1010 1010 1010'
RRC State indicator	CELL_DCH

Contents of Attach Accept message: GMM

Information Element	Value/remark
Periodic RA update timer	E0 (timer is deactivated)

7.3.5 Test procedure for Measurement Performance Requirement

FFS

7.3.6 Test procedure for HSDPA RF Performance Requirement

7.3.6.1 Initial conditions

System Simulator

- 1 HS-DSCH cell, default parameters.

User Equipment

The UE shall initially be operated under normal RF test conditions if not otherwise stated in the initial conditions for the actual test case.

The Test-USIM shall be inserted.

The UE has a valid P-TMSI (PS) after the execution of the procedure described in 7.2.2.2

7.3.6.2 Definition of system information messages

The default system information messages specified in clause 6.1 are used with the following exceptions.

Contents of System information block type 1: RRC

Information Element	Value/remark
- CN domain system information	
- CN domain identity	PS
- CHOICE CN Type	GSM-MAP
- CN domain specific NAS system information	
- GSM-MAP NAS system information	00 00
- 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	00(T3212 is set to infinity) 01
- CN domain specific DRX cycle length coefficient	7
- UE Timers and constants in connected mode	
- T305	Infinity

7.3.6.3 Procedure

Step	Direction		Message	Comments
	UE	SS		
1	<--		SYSTEM INFORMATION (BCCH)	Broadcast
2	<--		PAGING TYPE1 (PCCH)	Paging (PS domain, P-TMSI)
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	<--		ACTIVATE RB TEST MODE	TC
12	-->		ACTIVATE RB TEST MODE COMPLETE	TC
13	<--		RADIO BEARER SETUP	RRC (RAB SETUP)
14	-->		RADIO BEARER SETUP COMPLETE	RRC
15	<-->			Perform test
16	<--		RRC CONNECTION RELEASE	RRC
17	-->		RRC CONNECTION RELEASE COMPLETE	RRC

7.3.6.4 Specific message contents

The default message contents specified in clause 9.2 are used with the following exceptions.

7.3.6.4.1 ATTACH ACCEPT

This message is sent from the SS to the UE, used for the UE supporting PS only.

Contents of Attach Accept message: GMM

Information Element	Value/remark
Periodic RA update timer	E0 (timer is deactivated)

7.3.6.4.2 RADIO BEARER SETUP

For step 13, the messages in clause 9.2 titled "Contents of RADIO BEARER SETUP message: AM or UM (HSDPA)" is used.

The configurations of the fixed reference channels for HSDPA RF tests are described in TS 34.121[2] Annex C for FDD and TS 34.122 [5] Annex C for TDD.

<End of modified section>

<Start of next modified section>

9.2 Default Message Contents for RF

This clause contains the default values of common messages for RF test. The parameters of the UL/DL reference measurement channel 12.2kbps, the DL reference measurement channel for BTFD, UE test loop mode 1 without Dummy DCCH transmission and UE test loop mode 2 with Dummy DCCH transmission are set to default message contents.

9.2.1 Default Message Contents for RF (FDD)

Contents of Activate RB Test Mode message

Information Element	Value/remark
Protocol discriminator	F (Length 1/2)
Skip indicator	0 (Length 1/2)
Message Type	44h

Contents of Close UE Test Loop message (UE test loop mode 1 without Dummy DCCH transmission)

Information Element	Value/remark
Protocol discriminator	F (Length 1/2)
Skip indicator	0 (Length 1/2)
Message Type	40h
UE test loop mode	00h
UE test loop mode 1 LB setup	03h 00h F4h 0Ah

Contents of Close UE Test Loop message (UE test loop mode 2 without Dummy DCCH transmission)

Information Element	Value/remark
Protocol discriminator	F (Length 1/2)
Skip indicator	0 (Length 1/2)
Message Type	40h
UE test loop mode	01h

Contents of Open UE Test Loop message

Information Element	Value/remark
Protocol discriminator	F (Length 1/2)
Skip indicator	0 (Length 1/2)
Message Type	42h

Contents of PAGING TYPE 1 message: TM (CS)

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

Contents of PAGING TYPE 1 message: TM (PS)

Information Element	Value/remark
Message Type	
Paging record list	
-Paging record	
- CHOICE Used paging identity	CN identity
- Paging cause	Terminating Interactive Call
- CN domain identity	PS domain
- CHOICE UE identity	
- IMSI (GSM-MAP)	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 (UE supports CS RAB)

Information Element	Value/remark
Message Type	
RRC transaction identifier	Arbitrarily selects an integer between 0 and 3
Integrity check info	
- message authentication code	SS calculates the value of MAC-I for this message and writes to this IE. The first/ leftmost bit of the bit string contains the most significant bit of the MAC-I.
- RRC message sequence number	SS provides the value of this IE, from its internal counter.
Integrity protection mode info	Not Present
Ciphering mode info	Not Present
Activation time	(256+CFN-(CFN MOD 8 + 8))MOD 256
New U-RNTI	Not Present
New C-RNTI	Not Present
New DSCH-RNTI	Not Present
RRC State indicator	CELL_DCH
UTRAN DRX cycle length coefficient	Not Present
CN information info	Not Present
URA identity	Not Present
Signalling RB information to setup	Not Present
RAB information for setup list	
- RAB information for setup	
- RAB info	
- RAB identity	0000 0001B The first/ leftmost bit of the bit string contains the most significant bit of the RAB identity.
- CN domain identity	CS domain
- NAS Synchronization Indicator	Not Present
- Re-establishment timer	UseT314
- RB information to setup list	
- RB information to setup	
- RB identity	10
- PDCP info	Not Present
- CHOICE RLC info type	RLC info
- CHOICE Uplink RLC mode	TM RLC
- Transmission RLC discard	Not Present
- Segmentation indication	FALSE
- CHOICE Downlink RLC mode	TM RLC
- Segmentation indication	FALSE
- RB mapping info	
- Information for each multiplexing option	
- RLC logical channel mapping indicator	Not Present
- Number of uplink RLC logical channels	1
- Uplink transport channel type	DCH
- UL Transport channel identity	1
- Logical channel identity	Not Present
- CHOICE RLC size list	Configured
- MAC logical channel priority	7
- Downlink RLC logical channel info	
- Number of downlink RLC logical channels	1
- Downlink transport channel type	DCH
- DL DCH Transport channel identity	6
- DL DSCH Transport channel identity	Not Present
- Logical channel identity	Not Present
RB information to be affected list	Not Present
Downlink counter synchronisation info	Not Present
UL Transport channel information for all transport channels	
- PRACH TFCS	Not Present
- CHOICE mode	FDD
- TFC subset	Not Present
- UL DCH TFCS	
- CHOICE TFCI signalling	Normal
- TFCI Field 1 information	
- CHOICE TFCS representation	Complete reconfiguration

Information Element	Value/remark
- TFCS complete reconfigure information	
- CHOICE CTFC Size	2 bit CTFC
- CTFC information	4 TFCs
- 2bit CTFC	0
-Power offset Information	
- CHOICE Gain Factors	Computed Gain Factors
- Reference TFC ID	0
- CHOICE mode	FDD
- Power offset P_{p-m}	Not Present
- 2bit CTFC	2
- Power offset Information	
- CHOICE Gain Factors	Computed Gain Factors
- Reference TFC ID	0
- CHOICE mode	FDD
- Power offset P_{p-m}	Not Present
- 2bit CTFC	1
- Power offset Information	
- CHOICE Gain Factors	Computed Gain Factors
- Reference TFC ID	0
- CHOICE mode	FDD
- Power offset P_{p-m}	Not Present
- 2bit CTFC	3
- Power offset Information	
- CHOICE Gain Factors	Signalled Gain Factors
- CHOICE mode	FDD
- Gain factor ßc	8
- Gain factor ßd	15
- Reference TFC ID	0
- CHOICE mode	FDD
- Power offset P_{p-m}	Not Present
Deleted UL TrCH information list	Not Present
Added or Reconfigured UL TrCH information list	1
- Added or Reconfigured UL TrCH information	
- Uplink transport channel type	DCH
- UL Transport channel identity	1
- TFS	
- CHOICE Transport channel type	Dedicated transport channels
- Dynamic Transport Format Information	
- RLC size	244 bits
- Number of TBs and TTI List	2
- Transmission Time Interval	Not Present
- Number of Transport blocks	0
- Transmission Time Interval	Not Present
- Number of Transport blocks	1
- CHOICE Logical Channel List	ALL
- Semi-static Transport Format Information	
- Transmission time interval	20
- Type of channel coding	Convolutional
- Coding Rate	1/3
- Rate matching attribute	256
- CRC size	16
CHOICE mode	FDD
- CPCH set ID	Not Present
- Added or Reconfigured TrCH information for DRAC list	Not Present
DL Transport channel information common for all transport channel	
- SCCPCH TFCS	Not Present
- CHOICE mode	FDD
- CHOICE DL parameters	Same as UL
Deleted DL TrCH information list	Not Present
Added or Reconfigured DL TrCH information list	1
- Added or Reconfigured DL TrCH information	
- Downlink transport channel type	DCH
- DL Transport channel identity	6
- CHOICE DL parameters	Same as UL
- Uplink transport channel type	DCH

Information Element	Value/remark
- UL TrCH identity	1
- DCH quality target	
- BLER Quality value	-2.0
Frequency info	Not Present
Maximum allowed UL TX power	33dBm
CHOICE channel requirement	Uplink DPCH info
- Uplink DPCH power control info	
- CHOICE mode	FDD
- DPCCH power offset	-6dB
- PC Preamble	1 frame
- SRB delay	7 frames
- Power Control Algorithm	Algorithm1
- TPC step size	1dB
- CHOICE mode	FDD
- Scrambling code type	Long
- Scrambling code number	0 (0 to 16777215)
- Number of DPDCH	1
- spreading factor	64
- TFCI existence	TRUE
- Number of FBI bit	Not Present(0)
- Puncturing Limit	1
CHOICE Mode	FDD
- Downlink PDSCH information	Not Present
Downlink information common for all radio links	
- Downlink DPCH info common for all RL	
- Timing indicator	Maintain
- CFN-targetSFN frame offset	Not Present
- Downlink DPCH power control information	
- CHOICE mode	FDD
- DPC mode	0 (single)
- CHOICE mode	FDD
- Power offset $P_{Pilot-DPDCH}$	0
- DL rate matching restriction information	Not Present
- Spreading factor	128
- Fixed or Flexible Position	Fixed
- TFCI existence	TRUE
- CHOICE SF	128
- Number of bits for Pilot bits	8
- CHOICE mode	FDD
- DPCH compressed mode info	Not Present
- TX Diversity mode	None
- SSDT information	Not Present
- Default DPCH Offset Value	Not Present
Downlink information ~~for~~ per radio link list	
- Downlink information for each radio link	
- CHOICE mode	FDD
- Primary CPICH info	
- Primary scrambling code	100
- PDSCH with SHO DCH info	Not Present
- PDSCH code mapping	Not Present
- Downlink DPCH info for each RL	
- CHOICE mode	FDD
- Primary CPICH usage for channel estimation	Primary CPICH may be used
- DPCH frame offset	Set to value Default DPCH Offset Value (as currently stored in SS) mod 38400
- Secondary CPICH info	Not Present
- DL channelisation code	
- Secondary scrambling code	1
- Spreading factor	128
- Code number	0
- Scrambling code change	No change
- TPC combination index	0
- SSDT Cell Identity	Not Present
- Closed loop timing adjustment mode	Not Present
- SCCPCH information for FACH	Not Present

Contents of RADIO BEARER SETUP message: AM or UM (UE supports PS RAB only)

Information Element	Value/remark
Message Type	
RRC transaction identifier	Arbitrarily selects an integer between 0 and 3
Integrity check info	
- message authentication code	SS calculates the value of MAC-I for this message and writes to this IE. The first/ leftmost bit of the bit string contains the most significant bit of the MAC-I.
- RRC message sequence number	SS provides the value of this IE, from its internal counter.
Integrity protection mode info	Not Present
Ciphering mode info	Not Present
Activation time	Not Present
New U-RNTI	Not Present
New C-RNTI	Not Present
New DSCH-RNTI	Not Present
RRC State indicator	CELL_DCH
UTRAN DRX cycle length coefficient	Not Present
CN information info	Not Present
URA identity	Not Present
Signalling RB information to setup	Not Present
RAB information for setup list	
- RAB information for setup	
- RAB info	(AM DTCH for PS domain)
- RAB identity	0000 0101B The first/ leftmost bit of the bit string contains the most significant bit of the RAB identity.
- CN domain identity	PS domain
- NAS Synchronization Indicator	Not Present
- Re-establishment timer	useT315
- RB information to setup	
- RB identity	20
- PDCP info	
- Support for lossless SRNS relocation	FALSE
- Max PDCP SN window size	Not present
- PDCP PDU header	Absent
- Header compression information	Not present
- CHOICE RLC info type	RLC info
- CHOICE Uplink RLC mode	AM RLC
- Transmission RLC discard	
- CHOICE SDU discard mode	No Discard
- MAX_DAT	15
- Transmission window size	128
- Timer_RST	500
- Max_RST	4
- Polling info	
- Timer_poll_prohibit	200
- Timer_poll	200
- Poll_PDU	Not Present
- Poll_SDU	1
- Last transmission PDU poll	TRUE
- Last retransmission PDU poll	TRUE
- Poll_Windows	99
- Timer_poll_periodic	Not Present
- CHOICE Downlink RLC mode	AM RLC
- In-sequence delivery	TRUE
- Receiving window size	128
- Downlink RLC status info	
- Timer_status_prohibit	200
- Timer_EPC	Not Present
- Missing PDU indicator	TRUE
- Timer_STATUS_periodic	Not Present
- RB mapping info	
- Information for each multiplexing option	2 RBMuxOptions
- RLC logical channel mapping indicator	Not Present
- Number of uplink RLC logical channels	1

Information Element	Value/remark
- Uplink transport channel type	DCH
- UL Transport channel identity	1
- Logical channel identity	Not Present
- CHOICE RLC size list	Configured
- MAC logical channel priority	8
- Downlink RLC logical channel info	
- Number of downlink RLC logical channels	1
- Downlink transport channel type	DCH
- DL DCH Transport channel identity	6
- DL DSCH Transport channel identity	Not Present
- Logical channel identity	Not Present
- RLC logical channel mapping indicator	Not Present
- Number of uplink RLC logical channels	1
- Uplink transport channel type	RACH
- UL Transport channel identity	Not Present
- Logical channel identity	7
- CHOICE RLC size list	Explicit list
- RLC size index	Reference to TS34.108 clause 6 Parameter Set
- MAC logical channel priority	8
- Downlink RLC logical channel info	
- Number of downlink RLC logical channels	1
- Downlink transport channel type	FACH
- DL DCH Transport channel identity	Not Present
- DL DSCH Transport channel identity	Not Present
- Logical channel identity	7
RB information to be affected list	Not Present
Downlink counter synchronisation info	Not Present
UL Transport channel information for all transport channels	
- PRACH TFCS	Not Present
- CHOICE mode	FDD
- TFC subset	Not Present
- UL DCH TFCS	
- CHOICE TFCI signalling	Normal
- TFCI Field 1 information	
- CHOICE TFCS representation	Complete reconfiguration
- TFCS complete reconfigure information	
- CHOICE CTFC Size	Number of bits used must be enough to cover all combinations of CTFC from TS34.108 clause 6.10.2.4 Parameter Set.
- CTFC information	This IE is repeated for TFC numbers and reference to TS34.108 clause 6.10.2.4 Parameter Set
- CTFC	Reference to TS34.108 clause 6.10.2.4 Parameter Set
- Power offset information	
- CHOICE Gain Factors	Computed Gain Factors(The last TFC is set to Signalled Gain Factors)
- Gain factor βc	11 (below 64 kbps) 9 (higher than 64 kbps) (Not Present if the CHOICE Gain Factors is set to Computed Gain Factors)
- Gain factor βd	15 (Not Present if the CHOICE Gain Factors is set to Computed Gain Factors)
- Reference TFC ID	0
- CHOICE mode	FDD
- Power offset $P_{p\text{-}m}$	Not Present
Deleted UL TrCH information list	Not Present
Added or Reconfigured UL TrCH information list	1
Added or Reconfigured UL TrCH information	1 DCH added, 1 DCH reconfigured
- Uplink transport channel type	DCH
- UL Transport channel identity	1
- TFS	
- CHOICE Transport channel type	Dedicated transport channels
- Dynamic Transport format information	

Information Element	Value/remark
- RLC Size	Reference to TS34.108 clause 6.10 Parameter Set
- Number of TBs and TTI List	(This IE is repeated for TFI number.)
- Transmission Time Interval	Not Present
- Number of Transport blocks	Reference to TS34.108 clause 6.10 Parameter Set
- CHOICE Logical Channel list	All
- Semi-static Transport Format information	
- Transmission time interval	Reference to TS34.108 clause 6.10 Parameter Set
- Type of channel coding	Reference to TS34.108 clause 6.10 Parameter Set
- Coding Rate	Reference to TS34.108 clause 6.10 Parameter Set
- Rate matching attribute	Reference to TS34.108 clause 6.10 Parameter Set
- CRC size	Reference to TS34.108 clause 6.10 Parameter Set
- Uplink transport channel type	DCH
- UL Transport channel identity	5
- TFS	
- CHOICE Transport channel type	Dedicated transport channels
- Dynamic Transport format information	
- RLC Size	Reference to TS34.108 clause 6.10 Parameter Set
- Number of TBs and TTI List	(This IE is repeated for TFI number.)
- Transmission Time Interval	Not Present
- Number of Transport blocks	Reference to TS34.108 clause 6.10 Parameter Set
- CHOICE Logical Channel list	All
- Semi-static Transport Format information	
- Transmission time interval	Reference to TS34.108 clause 6.10 Parameter Set
- Type of channel coding	Reference to TS34.108 clause 6.10 Parameter Set
- Coding Rate	Reference to TS34.108 clause 6.10 Parameter Set
- Rate matching attribute	Reference to TS34.108 clause 6.10 Parameter Set
- CRC size	Reference to TS34.108 clause 6.10 Parameter Set
CHOICE mode	FDD
- CPCH set ID	Not Present
- Added or Reconfigured TrCH information for DRAC list	Not Present
DL Transport channel information common for all transport channel	
- SCCPCH TFCS	Not Present
- CHOICE mode	FDD
- CHOICE DL parameters	Explicit
- DL DCH TFCS	
- CHOICE TFCI Signalling	Normal
- TFCI Field 1 Information	
- CHOICE TFCS representation	Complete reconfiguration
- TFCS complete reconfigure	
- CHOICE CTFC Size	Number of bits used must be enough to cover all combinations of CTFC from clause TS34.108 clause 6.10.2.4 Parameter Set.
- CTFC information	This IE is repeated for TFC numbers and reference to TS34.108 clause 6.10.2.4
- CTFC	Reference to TS34.108 clause 6.10.2.4 Parameter Set
- Power offset information	Not Present
Added or Reconfigured DL TrCH information list	1
Added or Reconfigured DL TrCH information	2 TrCHs(DCH for DCCH and DCH for DTCH)
- Downlink transport channel type	DCH
- DL Transport channel identity	10

Information Element	Value/remark
- CHOICE DL parameters	Same as UL
- Uplink transport channel type	DCH
- UL TrCH identity	5
- DCH quality target	
- BLER Quality value	-2.0
- Downlink transport channel type	DCH
- DL Transport channel identity	6
- CHOICE DL parameters	Explicit
- TFS	
- CHOICE Transport channel type	Dedicated transport channel
- Dynamic transport format information	
- RLC Size	Reference to TS34.108 clause 6.10 Parameter Set
- Number of TBs and TTI List	(This IE is repeated for TFI number.)
- Dynamic transport format information	
- Transmission Time Interval	Not Present
- Number of Transport blocks	Reference to TS34.108 clause 6.10 Parameter Set
- CHOICE Logical Channel list	All
- Semi-static Transport Format information	
- Transmission time interval	Reference to TS34.108 clause 6.10 Parameter Set
- Type of channel coding	Reference to TS34.108 clause 6.10 Parameter Set
- Coding Rate	Reference to TS34.108 clause 6.10 Parameter Set
- Rate matching attribute	Reference to TS34.108 clause 6.10 Parameter Set
- CRC size	Reference to TS34.108 clause 6.10 Parameter Set
- DCH quality target	
- BLER Quality value	-2.0
Frequency info	Not Present
Maximum allowed UL TX power	33dBm
CHOICE channel requirement	Uplink DPCH info
- Uplink DPCH power control info	
- CHOICE mode	FDD
- DPCCH power offset	-6dB
- PC Preamble	1 frame
- SRB delay	7 frames
- Power Control Algorithm	Algorithm1
- TPC step size	1dB
- CHOICE mode	FDD
- Scrambling code type	Long
- Scrambling code number	0 (0 to 16777215)
- Number of DPDCH	1
- spreading factor	64
- TFCI existence	TRUE
- Number of FBI bit	Not Present(0)
- Puncturing Limit	1
CHOICE Mode	FDD
- Downlink PDSCH information	Not Present
Downlink information common for all radio links	
- Downlink DPCH info common for all RL	
- Timing indicator	Maintain
- CFN-targetSFN frame offset	Not Present
- Downlink DPCH power control information	
- CHOICE mode	FDD
- DPC mode	0 (single)
- CHOICE mode	FDD
- Power offset $P_{Pilot\text{-}DPDCH}$	0
- DL rate matching restriction information	Not Present
- Spreading factor	Reference to TS34.108 clause 6.10 Parameter Set
- Fixed or Flexible Position	Reference to TS34.108 clause 6.10 Parameter Set
- TFCI existence	Reference to TS34.108 clause 6.10 Parameter

Information Element	Value/remark
- CHOICE SF	Set Reference to TS34.108 clause 6.10 Parameter Set
- CHOICE mode	FDD
- DPCH compressed mode info	Not Present
- TX Diversity mode	None
- SSDT information	Not Present
- Default DPCH Offset Value	Not Present
Downlink information ~~for~~ per radio link list	
- Downlink information for each radio link	
- CHOICE mode	FDD
- Primary CPICH info	
- Primary scrambling code	100
- PDSCH with SHO DCH info	Not Present
- PDSCH code mapping	Not Present
- Downlink DPCH info for each RL	
- CHOICE mode	FDD
- Primary CPICH usage for channel estimation	Primary CPICH may be used
- DPCH frame offset	Set to value Default DPCH Offset Value (as currently stored in SS) mod 38400
- Secondary CPICH info	Not Present
- DL channelisation code	
- Secondary scrambling code	Not present
- Spreading factor	Reference to TS34.108 clause 6.10 Parameter Set
- Code number	Depends upon radio bearer used.
- Scrambling code change	No change
- TPC combination index	0
- SSDT Cell Identity	Not Present
- Closed loop timing adjustment mode	Not Present
- SCCPCH information for FACH	Not Present

Contents of RADIO BEARER SETUP message: AM or UM (HSDPA)

Information Element	Value/remark	Version
Message Type		
RRC transaction identifier	Arbitrarily selects an integer between 0 and 3	
Integrity check info		
- message authentication code	SS calculates the value of MAC-I for this message and writes to this IE. The first/ leftmost bit of the bit string contains the most significant bit of the MAC-I.	
- RRC message sequence number	SS provides the value of this IE, from its internal counter.	
Integrity protection mode info	Not Present	
Ciphering mode info	Not Present	
Activation time	Not Present	
New U-RNTI	Not Present	
New C-RNTI	Not Present	
New DSCH-RNTI	Not Present	
New H-RNTI	'1010 1010 1010 1010'	REL-5
RRC State indicator	CELL_DCH	
UTRAN DRX cycle length coefficient	Not Present	
CN information info	Not Present	
URA identity	Not Present	
Signalling RB information to setup	Not Present	
RAB information for setup list		
- RAB information for setup		
- RAB info	(high-speed AM DTCH for PS domain)	
- RAB identity	0000 0110B The first/ leftmost bit of the bit string contains the most significant bit of the RAB identity.	
- CN domain identity	PS domain	
- NAS Synchronization Indicator	Not Present	
- Re-establishment timer	UseT315	
- RB information to setup		
- RB identity	23	
- PDCP info		
- Support for lossless SRNS relocation	FALSE	
- Max PDCP SN window size	Not present	
- PDCP PDU header	Absent	
- Header compression information	Not present	
- CHOICE RLC info type	RLC info	
- CHOICE Uplink RLC mode	AM RLC	
- Transmission RLC discard		
- CHOICE SDU discard mode	No Discard	
- MAX_DAT	15	
- Transmission window size	128	
- Timer_RST	500	
- Max_RST	4	
- Polling info		
- Timer_poll_prohibit	100	
- Timer_poll	100	
- Poll_PDU	Not Present	
- Poll_SDU	1	
- Last transmission PDU poll	TRUE	
- Last retransmission PDU poll	TRUE	
- Poll_Windows	99	
- Timer_poll_periodic	Not Present	
- CHOICE Downlink RLC mode	AM RLC	
- In-sequence delivery	TRUE	
- Receiving window size	768	
- Downlink RLC status info		
- Timer_status_prohibit	100	
- Timer_EPC	Not Present	
- Missing PDU indicator	TRUE	
- Timer_STATUS_periodic	Not Present	
- RB mapping info		
- Information for each multiplexing option	2 RBMuxOptions	
- RLC logical channel mapping indicator	Not Present	

Information Element	Value/remark	Version
- Number of uplink RLC logical channels	1	
- Uplink transport channel type	DCH	
- UL Transport channel identity	1	
- Logical channel identity	Not Present	
- CHOICE RLC size list	Configured	
- MAC logical channel priority	8	
- Downlink RLC logical channel info		
- Number of downlink RLC logical channels	1	
- Downlink transport channel type	HS-DSCH	
- DL DCH Transport channel identity	Not Present	
- DL DSCH Transport channel identity	Not Present	
- DL HS-DSCH MAC-d flow identity	0	
- Logical channel identity	Not Present	
- RLC logical channel mapping indicator	Not Present	
- Number of uplink RLC logical channels	1	
- Uplink transport channel type	RACH	
- UL Transport channel identity	Not Present	
- Logical channel identity	7	
- CHOICE RLC size list	Explicit list	
- RLC size index	Reference to TS34.108 clause 6 Parameter Set	
- MAC logical channel priority	8	
- Downlink RLC logical channel info		
- Number of downlink RLC logical channels	1	
- Downlink transport channel type	FACH	
- DL DCH Transport channel identity	Not Present	
- DL DSCH Transport channel identity	Not Present	
- Logical channel identity	7	
RB information to be affected list	Not Present	
Downlink counter synchronisation info	Not Present	
UL Transport channel information for all transport channels		
- PRACH TFCS	Not Present	
- CHOICE mode	FDD	
- TFC subset	Not Present	
- UL DCH TFCS		
- CHOICE TFCI signalling	Normal	
- TFCI Field 1 information		
- CHOICE TFCS representation	Complete reconfiguration	
- TFCS complete reconfigure information		
- CHOICE CTFC Size	Number of bits used must be enough to cover all combinations of CTFC from TS34.108 clause 6.10.2.4 Parameter Set.	
- CTFC information	This IE is repeated for TFC numbers and reference to TS34.108 clause 6.10.2.4 Parameter Set	
- CTFC	Reference to TS34.108 clause 6.10.2.4 Parameter Set	
- Power offset information		
- CHOICE Gain Factors	Computed Gain Factors(The last TFC is set to Signalled Gain Factors)	
- Gain factor βc	11 (below 64 kbps) 9 (higher than 64 kbps) (Not Present if the CHOICE Gain Factors is set to Computed Gain Factors)	
- Gain factor βd	15 (Not Present if the CHOICE Gain Factors is set to Computed Gain Factors)	
- Reference TFC ID	0	
- CHOICE mode	FDD	
- Power offset P p-m	Not Present	
Deleted UL TrCH information list	Not Present	
Added or Reconfigured UL TrCH information list	1	
Added or Reconfigured UL TrCH information	1 DCH added, 1 DCH reconfigured	
- Uplink transport channel type	DCH	
- UL Transport channel identity	1	
- TFS		
- CHOICE Transport channel type	Dedicated transport channels	

Information Element	Value/remark	Version
- Dynamic Transport format information		
- RLC Size	Reference to TS34.108 clause 6.10 Parameter Set	
- Number of TBs and TTI List	(This IE is repeated for TFI number.)	
- Transmission Time Interval	Not Present	
- Number of Transport blocks	Reference to TS34.108 clause 6.10 Parameter Set	
- CHOICE Logical Channel list	All	
- Semi-static Transport Format information		
- Transmission time interval	Reference to TS34.108 clause 6.10 Parameter Set	
- Type of channel coding	Reference to TS34.108 clause 6.10 Parameter Set	
- Coding Rate	Reference to TS34.108 clause 6.10 Parameter Set	
- Rate matching attribute	Reference to TS34.108 clause 6.10 Parameter Set	
- CRC size	Reference to TS34.108 clause 6.10 Parameter Set	
- Uplink transport channel type	DCH	
- UL Transport channel identity	5	
- TFS		
- CHOICE Transport channel type	Dedicated transport channels	
- Dynamic Transport format information		
- RLC Size	Reference to TS34.108 clause 6.10 Parameter Set	
- Number of TBs and TTI List	(This IE is repeated for TFI number.)	
- Transmission Time Interval	Not Present	
- Number of Transport blocks	Reference to TS34.108 clause 6.10 Parameter Set	
- CHOICE Logical Channel list	All	
- Semi-static Transport Format information		
- Transmission time interval	Reference to TS34.108 clause 6.10 Parameter Set	
- Type of channel coding	Reference to TS34.108 clause 6.10 Parameter Set	
- Coding Rate	Reference to TS34.108 clause 6.10 Parameter Set	
- Rate matching attribute	Reference to TS34.108 clause 6.10 Parameter Set	
- CRC size	Reference to TS34.108 clause 6.10 Parameter Set	
CHOICE mode	FDD	
- CPCH set ID	Not Present	
- Added or Reconfigured TrCH information for DRAC list	Not Present	
DL Transport channel information common for all transport channel		
- SCCPCH TFCS	Not Present	
- CHOICE mode	FDD	
- CHOICE DL parameters	Explicit	
- DL DCH TFCS		
- CHOICE TFCI Signalling	Normal	
- TFCI Field 1 Information		
- CHOICE TFCS representation	Complete reconfiguration	
- TFCS complete reconfigure		
- CHOICE CTFC Size	Number of bits used must be enough to cover all combinations of CTFC from clause TS34.108 clause 6.10.2.4 Parameter Set.	
- CTFC information	This IE is repeated for TFC numbers and reference to TS34.108 clause 6.10.2.4	
- CTFC	Reference to TS34.108 clause 6.10.2.4 Parameter Set	
- Power offset information	Not Present	
Deleted DL TrCH information	Not Present	
Added or Reconfigured DL TrCH information list	1	
Added or Reconfigured DL TrCH information	2 TrCHs(DCH for DCCH and HS-DSCH for	

Information Element	Value/remark	Version
	DTCH)	
- Downlink transport channel type	DCH	
- DL Transport channel identity	10	
- CHOICE DL parameters	Same as UL	
- Uplink transport channel type	DCH	
- UL TrCH identity	5	
- DCH quality target		
- BLER Quality value	-2.0	
- Downlink transport channel type	HS-DSCH	
- DL Transport channel identity	Not Present	
- CHOICE DL parameters	HS-DSCH	
- HARQ Info		
- Number of Processes	Reference to TS34.121 [2] Annex C Fixed Reference Channels	
- CHOICE *Memory Partitioning*	Implicit	
- Added or reconfigured MAC-d flow		
- MAC-hs queue to add or reconfigure list	(one queue)	
- MAC-hs queue Id	0	
- MAC-d Flow Identity	0	
- T1	50???? Where is inter-TTI distance specified????	
- MAC-hs window size	16	
- MAC-d PDU size Info		
- MAC-d PDU size	Reference to TS34.121 [2] Annex C Fixed Reference Channels	
- MAC-d PDU size index	0	
- MAC-hs queue to delete list	Not present	
- DCH quality target	Not present	
Frequency info	Not Present	
Maximum allowed UL TX power	33dBm	
CHOICE channel requirement	Uplink DPCH info	
- Uplink DPCH power control info		
- CHOICE mode	FDD	
- DPCCH power offset	-6dB	
- PC Preamble	1 frame	
- SRB delay	7 frames	
- Power Control Algorithm	Algorithm1	
- TPC step size	1dB	
- Δ_{ACK}	3	REL-5
- Δ_{NACK}	3	REL-5
- Ack-Nack repetition factor	1	REL-5
- CHOICE mode	FDD	
- Scrambling code type	Long	
- Scrambling code number	0 (0 to 16777215)	
- Number of DPDCH	Not Present (1)	
- spreading factor	Reference to TS34.108 clause 6.10.2.4 Parameter Set	
- TFCI existence	TRUE	
- Number of FBI bit	Not Present(0)	
- Puncturing Limit	1	
CHOICE Mode	FDD	
- Downlink PDSCH information	Not Present	
Downlink information common for all radio links		
- Downlink DPCH info common for all RL		
- Timing indicator	Maintain	
- CFN-targetSFN frame offset	Not Present	
- Downlink DPCH power control information		
- CHOICE mode	FDD	
- DPC mode	0 (single)	
- CHOICE mode	FDD	
- Power offset $P_{Pilot-DPDCH}$	0	
- DL rate matching restriction information	Not Present	
- Spreading factor	Reference to TS34.108 clause 6.10 Parameter Set	
- Fixed or Flexible Position	Reference to TS34.108 clause 6.10 Parameter Set	

Information Element	Value/remark	Version
- TFCI existence	Reference to TS34.108 clause 6.10 Parameter Set	
- CHOICE SF	Reference to TS34.108 clause 6.10 Parameter Set	
- CHOICE mode	FDD	
- DPCH compressed mode info	Not Present	
- TX Diversity mode	None	
- SSDT information	Not Present	
- Default DPCH Offset Value	Not Present	
Downlink HS-PDSCH Information		
- HS-SCCH Info		
- CHOICE mode	FDD	
- DL Scrambling Code		
- HS-SCCH Channelisation Code Information		
- HS-SCCH Channelisation Code	1	
- Measurement Feedback Info		
- CHOICE mode	FDD	
- POhsdsch	6 dB	
- CQI Feedback cycle, k	2 ms	
- CQI repetition factor	1	
- Δ_{CQI}	5 (corresponds to 0dB in relative power offset)	
- CHOICE mode	FDD (no data)	
Downlink information per radio link list		
- Downlink information for each radio link		
- CHOICE mode	FDD	
- Primary CPICH info		
- Primary scrambling code	100	
- PDSCH with SHO DCH info	Not Present	
- PDSCH code mapping	Not Present	
- Serving HS-DSCH radio link indicator	TRUE	REL-5
- Downlink DPCH info for each RL		
- CHOICE mode	FDD	
- Primary CPICH usage for channel estimation	Primary CPICH may be used	
- DPCH frame offset	Set to value Default DPCH Offset Value (as currently stored in SS) mod 38400	
- Secondary CPICH info	Not Present	
- DL channelisation code		
- Secondary scrambling code	Not present	
- Spreading factor	Reference to TS34.108 clause 6.10 Parameter Set	
- Code number	Depends upon radio bearer used.	
- Scrambling code change	No change	
- TPC combination index	0	
- SSDT Cell Identity	Not Present	
- Closed loop timing adjustment mode	Not Present	
- SCCPCH information for FACH	Not Present	

<End of modified section>

3GPP TSG-T WG1 Meeting #23
Beijing, China, May 10th-14th, 2004

Tdoc ⌘T1-040593

CR-Form-v7

CHANGE REQUEST

⌘ **34.108** **CR** 315 ⌘ **rev** **-** ⌘ Current version: **5.0.0** ⌘

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

Proposed change affects: UICC apps⌘ ☐ ME ☒ Radio Access Network ☐ Core Network ☐

Title:	⌘	CR to 34.108 REL-5; Corrections to default RRC messages
Source:	⌘	Ericsson
Work item code:	⌘	HSDPA
Date:	⌘	03/05/2004
Category:	⌘	**F**
Release:	⌘	REL-5

Use one of the following categories:
F *(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)
Rel-6 (Release 6)

Reason for change: ⌘

1. During a serving HS-DSCH cell change, MAC-hs reset is now performed using the Physical channel reconfiguration procedure instead of Transport Channel Reconfiguration. This was changed in the CR 2264 into TS 25.331 v5.8.0 approved by TSG-RAN in March 2004. The IE "MAC-hs reset indicator" was also changed from a mandatory Boolean to an optional enumerated(True).

2. Some HS-DSCH specific Information elements are missing.

3. Editorial errors were introduced during CR implementation.

Summary of change: ⌘

PHYSICAL CHANNEL RECONFIGURATION:
- The empty table should be removed.
- Yellow highlighting should be removed.
- MAC-hs reset indicator indicated in IE "Downlink information common for all radio links" as "Not Present".
- The IEs deltaAck, deltaNack, Ack-Nack repetition factor are marked as "Not Present".

RADIO BEARER SETUP:
- Yellow highlighting should be removed.
- MAC-hs reset indicator removed from IE "Added or reconfigured DL TrCH information".
- MAC-hs reset indicator indicated in IE "Downlink information common for all radio links" as "TRUE".
- Values for the IEs deltaAck, deltaNack, Ack-Nack repetition factor are added.
- The value for the IE deltaCQI has been changed to a more typical one.

		RADIO BEARER RECONFIGURATION: - Yellow highlighting should be removed. - MAC-hs reset indicator indicated in IE “Downlink information common for all radio links” as “Not Present”. - The IEs deltaAck, deltaNack, Ack-Nack repetition factor are marked as “Not Present”. RADIO BEARER RELEASE: - Yellow highlighting should be removed. - MAC-hs reset indicator indicated in IE “Downlink information common for all radio links” as “Not Present”. - The IEs deltaAck, deltaNack, Ack-Nack repetition factor are marked as “Not Present”. TRANSPORT CHANNEL RECONFIGURATION: - Yellow highlighting should be removed. - MAC-hs reset indicator indicated in IE “Downlink information common for all radio links” as “Not Present”. - The IEs deltaAck, deltaNack, Ack-Nack repetition factor are marked as “Not Present”.
Consequences if not approved:	⌘	Misalignment with the core specification.

Clauses affected:	⌘	9.1.1				
Other specs affected:	⌘	**Y**	**N**		⌘	
			X	Other core specifications		
			X	Test specifications		
			X	O&M Specifications		
Other comments:	⌘					

How to create CRs using this form:

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

1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

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

9.1.1 Default RRC Message Contents (FDD)

[…]

Contents of PHYSICAL CHANNEL RECONFIGURATION message: AM or UM

[Note to MCC: This table should be removed]

[Note to MCC: Yellow highlighting should be removed]

Information Element	Condition	Value/remark	Version
Message Type	A1, A2, A3, A4, A5, A6		
RRC transaction identifier		Arbitrarily selects an integer between 0 and 3	
Integrity check info			
- message authentication code		SS calculates the value of MAC-I for this message and writes to this IE. The first/ leftmost bit of the bit string contains the most significant bit of the MAC-I.	
- RRC message sequence number		SS provides the value of this IE, from its internal counter.	
Integrity protection mode info		Not Present	
Ciphering mode info		Not Present	
Activation time	A1, A2, A3	(256+CFN-(CFN MOD 8 + 8))MOD 256	
Activation time	A4, A5, A6	Not Present	
New U-RNTI		Not Present	
New C-RNTI	A1, A2, A3, A4	Not Present	
New C-RNTI	A5, A6	'1010 1010 1010 1010'	
New DSCH-RNTI	A1, A2, A3, A4, A5, A6	Not Present	
New H-RNTI	A1, A2, A3, A4, A5, A6	Not Present	REL-5
RRC State indicator	A1, A2, A3, A4	CELL_DCH	
RRC State indicator	A5, A6	CELL_FACH	
UTRAN DRX cycle length coefficient	A1, A2, A3, A4, A5, A6	Not Present	
CN information info		Not Present	
URA identity		Not Present	
Downlink counter synchronisation info		Not Present	
Frequency info	A1, A2, A3, A4, A5		
- UARFCN uplink (Nu)		Reference to clause 5.1 Test frequencies	
- UARFCN downlink (Nd)		Reference to clause 5.1 Test frequencies	
Frequency info	A6	Not Present	
Maximum allowed UL TX power		33dBm	
CHOICE *channel requirement*	A5, A6	Not Present	
CHOICE *channel requirement*	A1, A2, A3, A4	Uplink DPCH info	
- Uplink DPCH power control info			
- DPCCH power offset		-6dB	
- PC Preamble		1 frame	
- SRB delay		7 frames	
- Power Control Algorithm		Algorithm1	
- TPC step size		1dB	
- Δ_{ACK}		Not Present	REL-5
- Δ_{NACK}		Not Present	REL-5
- Ack-Nack repetition factor		Not Present	REL-5
- Scrambling code type		Long	
- Scrambling code number		0 (0 to 16777215)	
- Number of DPDCH		Not Present(1)	
- spreading factor		Reference to TS34.108 clause 6.10 Parameter Set	
- TFCI existence		Reference to TS34.108 clause 6.10 Parameter Set	
- Number of FBI bit		Reference to TS34.108 clause 6.10 Parameter Set	
- Puncturing Limit		Reference to TS34.108 clause 6.10 Parameter Set	
CHOICE Mode	A1, A2, A3, A4, A5, A6	FDD	
- Downlink PDSCH information		Not Present	
Downlink HS-PDSCH Information	A1, A2, A3,	Not Present	REL-5

Information Element	Condition	Value/remark	Version
	A4, A5, A6		
Downlink information common for all radio links - Downlink DPCH info common for all RL - Timing indicator - CFN-targetSFN frame offset - Downlink DPCH power control information - DPC mode - CHOICE mode - Power offset $P_{Pilot-DPDCH}$ - DL rate matching restriction information - Spreading factor - Fixed or Flexible Position - TFCI existence - CHOICE SF - DPCH compressed mode info - TX Diversity mode - SSDT information - Default DPCH Offset Value - MAC-hs reset indicator	A1, A2, A3	 Maintain Not Present 0 (single) FDD 0 Not Present Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Not Present None Not Present Not Present Not Present	REL-5
Downlink information common for all radio links - Downlink DPCH info common for all RL - Timing indicator - CFN-targetSFN frame offset - Downlink DPCH power control information - DPC mode - CHOICE mode - Power offset $P_{Pilot-DPDCH}$ - DL rate matching restriction information - Spreading factor - Fixed or Flexible Position - TFCI existence - CHOICE SF - DPCH compressed mode info - TX Diversity mode - SSDT information - Default DPCH Offset Value - MAC-hs reset indicator	A4	 Initialise Not Present 0 (single) FDD 0 Not Present Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Not Present None Not Present Arbitrary set to value 0..306688 by step of 512 Not Present	REL-5
Downlink information common for all radio links	A5, A6	Not Present	
Downlink information for each radio links - Choice mode - Primary CPICH info - Primary scrambling code - PDSCH with SHO DCH info - PDSCH code mapping - Serving HS-DSCH radio link indicator - Downlink DPCH info for each RL - CHOICE mode - Primary CPICH usage for channel estimation - DPCH frame offset - Power offset $P_{Pilot-DPDCH}$ - Secondary CPICH info - DL channelisation code - Secondary scrambling code - Spreading factor	A1, A2,A3	 FDD Ref. to the Default setting in TS34.108 clause 6.1 (FDD) Not Present Not Present FALSE FDD Primary CPICH may be used Set to value : Default DPCH Offset Value (as currently stored in SS) mod 38400 0 Not Present 5 Reference to TS34.108 clause 6.10	REL-5

Information Element	Condition	Value/remark	Version
- Code number - Scrambling code change - TPC combination index - SSDT Cell Identity - Closed loop timing adjustment mode - SCCPCH information for FACH		Parameter Set 0 No change 0 Not Present Not Present Not Present	
Downlink information for each radio links - Choice mode - Primary CPICH info - Primary scrambling code - PDSCH with SHO DCH info - PDSCH code mapping - Serving HS-DSCH radio link indicator - Downlink DPCH info for each RL - CHOICE mode - Primary CPICH usage for channel estimation - DPCH frame offset - Power offset $P_{Pilot-DPDCH}$ - Secondary CPICH info - DL channelisation code - Secondary scrambling code - Spreading factor - Code number - Scrambling code change - TPC combination index - SSDT Cell Identity - Closed loop timing adjustment mode - SCCPCH information for FACH	A4	 FDD Ref. to the Default setting in TS34.108 clause 6.1 (FDD) Not Present Not Present FALSE FDD Primary CPICH may be used Set to value : Default DPCH Offset Value mod 38400 0 Not Present 5 Reference to TS34.108 clause 6.10 Parameter Set 0 No change 0 Not Present Not Present Not Present	REL-5
- Downlink information for each radio link - Choice mode - Primary CPICH info - Primary scrambling code - PDSCH with SHO DCH info - PDSCH code mapping - Serving HS-DSCH radio link indicator - Downlink DPCH info for each RL - SCCPCH Information for FACH	A5	 FDD Ref. to the Default setting in TS34.108 clause 6.1 (FDD) Not Present Not Present FALSE Not Present Not Present	REL-5
- Downlink information for each radio link	A6	Not Present	

Condition	Explanation
A1	This IE need for "Non speech in CS"
A2	This IE need for "Speech in CS"
A3	This IE need for "Packet to CELL_DCH from CELL_DCH in PS"
A4	This IE need for "Packet to CELL_DCH from CELL_FACH in PS"
A5	This IE need for "Packet to CELL_FACH from CELL_DCH in PS"
A6	This IE need for "Packet to CELL_FACH from CELL_FACH in PS"

[…]

Contents of RADIO BEARER SETUP message: AM or UM

[Note to MCC: Yellow highlighting should be removed]

Information Element	Condition	Value/remark	Version
Message Type	A1, A2, A3, A4, A5, A6, A7, A8 , A9		REL-5
RRC transaction identifier		Arbitrarily selects an integer between 0 and 3	
Integrity check info			
- message authentication code		SS calculates the value of MAC-I for this message and writes to this IE. The first/ leftmost bit of the bit string contains the most significant bit of the MAC-I.	
- RRC message sequence number		SS provides the value of this IE, from its internal counter.	
Integrity protection mode info		Not Present	
Ciphering mode info		Not Present	
Activation time	A1, A2, A3 , A9	(256+CFN-(CFN MOD 8 + 8))MOD 256	REL-5
Activation time	A4, A5, A6, A7, A8	Not Present	
New U-RNTI	A1, A2, A3, A4, A5, A6, A7, A8 , A9	Not Present	REL-5
New C-RNTI	A1, A2, A3, A4, A7, A8 , A9	Not Present	REL-5
New C-RNTI	A5, A6	'1010 1010 1010 1010'	
New DSCH-RNTI	A1, A2, A3, A4, A5, A6, A7, A8 , A9	Not Present	REL-5
New H-RNTI	A1, A2, A3, A4, A5, A6, A7, A8	Not Present	REL-5
New H-RNTI	A9	'1010 1010 1010 1010'	REL-5
RRC State indicator	A1, A2, A3, A4, A7, A8 , A9	CELL_DCH	REL-5
RRC State indicator	A5, A6	CELL_FACH	
UTRAN DRX cycle length coefficient	A1, A2, A3, A4, A5, A6, A7, A8 , A9	Not Present	REL-5
CN information info		Not Present	
URA identity		Not Present	
Signalling RB information to setup		Not Present	
RAB information for setup	A1, A7		
- RAB info			
- RAB identity		0000 0001B The first/ leftmost bit of the bit string contains the most significant bit of the RAB identity.	
- CN domain identity		CS domain	
- NAS Synchronization Indicator		Not Present	
- Re-establishment timer		useT314	
- RB information to setup			
- RB identity		10	
- PDCP info		Not Present	
- CHOICE RLC info type		RLC info	
- CHOICE Uplink RLC mode		TM RLC	
- Transmission RLC discard		Not Present	
- Segmentation indication		FALSE	

Information Element	Condition	Value/remark	Version
- CHOICE Downlink RLC mode		TM RLC	
- Segmentation indication		FALSE	
- RB mapping info			
- Information for each multiplexing option			
- RLC logical channel mapping indicator		Not Present	
- Number of uplink RLC logical channels		1	
- Uplink transport channel type		DCH	
- UL Transport channel identity		1	
- Logical channel identity		Not Present	
- CHOICE RLC size list		Configured	
- MAC logical channel priority		7	
- Downlink RLC logical channel info			
- Number of downlink RLC logical channels		1	
- Downlink transport channel type		DCH	
- DL DCH Transport channel identity		6	
- DL DSCH Transport channel identity		Not Present	
- Logical channel identity		Not Present	
RAB information for setup	A2, A8		
- RAB info			
- RAB identity		0000 0001B The first/ leftmost bit of the bit string contains the most significant bit of the RAB identity.	
- CN domain identity		CS domain	
- NAS Synchronization Indicator		Not Present	
- Re-establishment timer		useT314	
- RB information to setup			
- RB identity		10	
- PDCP info		Not Present	
- CHOICE RLC info type		RLC info	
- CHOICE Uplink RLC mode		TM RLC	
- Transmission RLC discard		Not Present	
- Segmentation indication		FALSE	
- CHOICE Downlink RLC mode		TM RLC	
- Segmentation indication		FALSE	
- RB mapping info			
- Information for each multiplexing option			
- RLC logical channel mapping indicator		Not Present	
- Number of uplink RLC logical channels		1	
- Uplink transport channel type		DCH	
- UL Transport channel identity		1	
- Logical channel identity		Not Present	
- CHOICE RLC size list		Configured	
- MAC logical channel priority		6	
- Downlink RLC logical channel info			
- Number of downlink RLC logical channels		1	
- Downlink transport channel type		DCH	
- DL DCH Transport channel identity		6	
- DL DSCH Transport channel identity		Not Present	
- Logical channel identity		Not Present	
- RB identity		11	
- PDCP info		Not Present	
- CHOICE RLC info type		RLC info	
- CHOICE Uplink RLC mode		TM RLC	
- Transmission RLC discard		Not Present	
- Segmentation indication		FALSE	
- CHOICE Downlink RLC mode		TM RLC	
- Segmentation indication		FALSE	
- RB mapping info			
- Information for each multiplexing option			
- RLC logical channel mapping indicator		Not Present	
- Number of uplink RLC logical channels		1	
- Uplink transport channel type		DCH	
- UL Transport channel identity		2	
- Logical channel identity		Not Present	

Information Element	Condition	Value/remark	Version
- CHOICE RLC size list		Configured	
- MAC logical channel priority		6	
- Downlink RLC logical channel info			
- Number of downlink RLC logical channels		1	
- Downlink transport channel type		DCH	
- DL DCH Transport channel identity		7	
- DL DSCH Transport channel identity		Not Present	
- Logical channel identity		Not Present	
- RB identity		12	
- PDCP info		Not Present	
- CHOICE RLC info type		RLC info	
- CHOICE Uplink RLC mode		TM RLC	
- Transmission RLC discard		Not Present	
- Segmentation indication		FALSE	
- CHOICE Downlink RLC mode		TM RLC	
- Segmentation indication		FALSE	
- RB mapping info			
- Information for each multiplexing option			
- RLC logical channel mapping indicator		Not Present	
- Number of uplink RLC logical channels		1	
- Uplink transport channel type		DCH	
- UL Transport channel identity		3	
- Logical channel identity		Not Present	
- CHOICE RLC size list		Configured	
- MAC logical channel priority		6	
- Downlink RLC logical channel info			
- Number of downlink RLC logical channels		1	
- Downlink transport channel type		DCH	
- DL DCH Transport channel identity		8	
- DL DSCH Transport channel identity		Not Present	
- Logical channel identity		Not Present	
RAB information for setup	A3, A4, A5, A6		
- RAB info		(AM DTCH for PS domain)	
- RAB identity		0000 0101B The first/ leftmost bit of the bit string contains the most significant bit of the RAB identity.	
- CN domain identity		PS domain	
- NAS Synchronization Indicator		Not Present	
- Re-establishment timer		useT315	
- RB information to setup			
- RB identity		20	
- PDCP info			
- Support for lossless SRNS relocation		FALSE	
- Max PDCP SN window size		Not present	
- PDCP PDU header		Absent	
- Header compression information		Not present	
- CHOICE RLC info type		RLC info	
- CHOICE Uplink RLC mode		AM RLC	
- Transmission RLC discard			
- CHOICE SDU discard mode		No Discard	
- MAX_DAT		15	
- Transmission window size		128	
- Timer_RST		500	
- Max_RST		4	
- Polling info			
- Timer_poll_prohibit		200	
- Timer_poll		200	
- Poll_PDU		Not Present	
- Poll_SDU		1	
- Last transmission PDU poll		TRUE	
- Last retransmission PDU poll		TRUE	
- Poll_Windows		99	
- Timer_poll_periodic		Not Present	

Information Element	Condition	Value/remark	Version
- CHOICE Downlink RLC mode		AM RLC	
- In-sequence delivery		TRUE	
- Receiving window size		128	
- Downlink RLC status info			
- Timer_status_prohibit		200	
- Timer_EPC		Not Present	
- Missing PDU indicator		TRUE	
- Timer_STATUS_periodic		Not Present	
- RB mapping info			
- Information for each multiplexing option		2 RBMuxOptions	
- RLC logical channel mapping indicator		Not Present	
- Number of uplink RLC logical channels		1	
- Uplink transport channel type		DCH	
- UL Transport channel identity		1	
- Logical channel identity		Not Present	
- CHOICE RLC size list		Configured	
- MAC logical channel priority		8	
- Downlink RLC logical channel info			
- Number of downlink RLC logical channels		1	
- Downlink transport channel type		DCH	
- DL DCH Transport channel identity		6	
- DL DSCH Transport channel identity		Not Present	
- Logical channel identity		Not Present	
- RLC logical channel mapping indicator		Not Present	
- Number of uplink RLC logical channels		1	
- Uplink transport channel type		RACH	
- UL Transport channel identity		Not Present	
- Logical channel identity		7	
- CHOICE RLC size list		Explicit list	
- RLC size index		Reference to TS34.108 clause 6 Parameter Set	
- MAC logical channel priority		8	
- Downlink RLC logical channel info			
- Number of downlink RLC logical channels		1	
- Downlink transport channel type		FACH	
- DL DCH Transport channel identity		Not Present	
- DL DSCH Transport channel identity		Not Present	
- Logical channel identity		7	
RAB information for setup	A9		REL-5
- RAB info		(high-speed AM DTCH for PS domain)	
- RAB identity		0000 0110B The first/ leftmost bit of the bit string contains the most significant bit of the RAB identity.	
- CN domain identity		PS domain	
- NAS Synchronization Indicator		Not Present	
- Re-establishment timer		useT315	
- RB information to setup			
- RB identity		23	
- PDCP info			
- Support for lossless SRNS relocation		FALSE	
- Max PDCP SN window size		Not present	
- PDCP PDU header		Absent	
- Header compression information		Not present	
- CHOICE RLC info type		RLC info	
- CHOICE Uplink RLC mode		AM RLC	
- Transmission RLC discard			
- CHOICE SDU discard mode		No Discard	
- MAX_DAT		15	
- Transmission window size		128	
- Timer_RST		500	
- Max_RST		4	
- Polling info			
- Timer_poll_prohibit		100	
- Timer_poll		100	

Information Element	Condition	Value/remark	Version
- Poll_PDU		Not Present	
- Poll_SDU		1	
- Last transmission PDU poll		TRUE	
- Last retransmission PDU poll		TRUE	
- Poll_Windows		99	
- Timer_poll_periodic		Not Present	
- CHOICE Downlink RLC mode		AM RLC	
- In-sequence delivery		TRUE	
- Receiving window size		768	
- Downlink RLC status info			
- Timer_status_prohibit		100	
- Timer_EPC		Not Present	
- Missing PDU indicator		TRUE	
- Timer_STATUS_periodic		Not Present	
- RB mapping info			
- Information for each multiplexing option		3 RBMuxOptions	
- RLC logical channel mapping indicator		Not Present	
- Number of uplink RLC logical channels		1	
- Uplink transport channel type		DCH	
- UL Transport channel identity		1	
- Logical channel identity		Not Present	
- CHOICE RLC size list		Configured	
- MAC logical channel priority		8	
- Downlink RLC logical channel info			
- Number of downlink RLC logical channels		1	
- Downlink transport channel type		DCH	
- DL DCH Transport channel identity		6	
- DL DSCH Transport channel identity		Not Present	
- DL HS-DSCH MAC-d flow identity		Not Present	
- Logical channel identity		Not Present	
- RLC logical channel mapping indicator		Not Present	
- Number of uplink RLC logical channels		1	
- Uplink transport channel type		DCH	
- UL Transport channel identity		1	
- Logical channel identity		Not Present	
- CHOICE RLC size list		Configured	
- MAC logical channel priority		8	
- Downlink RLC logical channel info			
- Number of downlink RLC logical channels		1	
- Downlink transport channel type		HS-DSCH	
- DL DCH Transport channel identity		Not Present	
- DL DSCH Transport channel identity		Not Present	
- DL HS-DSCH MAC-d flow identity		0	
- Logical channel identity		Not Present	
- RLC logical channel mapping indicator		Not Present	
- Number of uplink RLC logical channels		1	
- Uplink transport channel type		RACH	
- UL Transport channel identity		Not Present	
- Logical channel identity		7	
- CHOICE RLC size list		Explicit list	
- RLC size index		Reference to TS34.108 clause 6 Parameter Set	
- MAC logical channel priority		8	
- Downlink RLC logical channel info			
- Number of downlink RLC logical channels		1	
- Downlink transport channel type		FACH	
- DL DCH Transport channel identity		Not Present	
- DL DSCH Transport channel identity		Not Present	
- Logical channel identity		7	
RB information to be affected	A1, A2, A3, A4, A5, A6, A7, A8 , A9	Not Present	REL-5

Information Element	Condition	Value/remark	Version
Downlink counter synchronisation info	A1, A2, A3, A4, A5, A6, A7, A8 , A9	Not Present	REL-5
UL Transport channel information for all transport channels	A1, A2, A3, A4, A5, A6, A7, A8 , A9		REL-5
- PRACH TFCS		Not Present	
- CHOICE mode		FDD	
- TFC subset		Not Present	
- UL DCH TFCS			
- CHOICE TFCI signalling		Normal	
- TFCI Field 1 information			
- CHOICE TFCS representation		Complete reconfiguration	
- TFCS complete reconfigure information			
- CHOICE CTFC Size		Number of bits used must be enough to cover all combinations of CTFC from TS34.108 clause 6.10.2.4 Parameter Set.	
- CTFC information		This IE is repeated for TFC numbers and reference to TS34.108 clause 6.10.2.4 Parameter Set	
- CTFC		Reference to TS34.108 clause 6.10.2.4 Parameter Set	
- Power offset information			
- CHOICE Gain Factors		Computed Gain Factors(The last TFC is set to Signalled Gain Factors)	
- Gain factor βc		11 (below 64 kbps) 9 (higher than 64 kbps) (Not Present if the CHOICE Gain Factors is set to Computed Gain Factors)	
- Gain factor βd		15 (Not Present if the CHOICE Gain Factors is set to Computed Gain Factors)	
- Reference TFC ID		0	
- CHOICE mode		FDD	
- Power offset P p-m		Not Present	
Deleted UL TrCH information	A1, A2, A3, A4, A5, A6, A7, A8 , A9	Not Present	REL-5
Added or Reconfigured UL TrCH information	A1, A3 A4, A5, A6, A7 , A9	1 DCH added, 1 DCH reconfigured	REL-5
- Uplink transport channel type		DCH	
- UL Transport channel identity		1	
- TFS			
- CHOICE Transport channel type		Dedicated transport channels	
- Dynamic Transport format information			
- RLC Size		Reference to TS34.108 clause 6.10 Parameter Set	
- Number of TBs and TTI List		(This IE is repeated for TFI number.)	
- Transmission Time Interval		Not Present	
- Number of Transport blocks		Reference to TS34.108 clause 6.10 Parameter Set	
- CHOICE Logical Channel list		All	
- Semi-static Transport Format information			
- Transmission time interval		Reference to TS34.108 clause 6.10 Parameter Set	
- Type of channel coding		Reference to TS34.108 clause 6.10 Parameter Set	
- Coding Rate		Reference to TS34.108 clause 6.10	

Information Element	Condition	Value/remark	Version
- Rate matching attribute		Parameter Set Reference to TS34.108 clause 6.10	
- CRC size		Parameter Set Reference to TS34.108 clause 6.10	
- Uplink transport channel type		Parameter Set DCH	
- UL Transport channel identity		5	
- TFS			
- CHOICE Transport channel type		Dedicated transport channels	
- Dynamic Transport format information			
- RLC Size		Reference to TS34.108 clause 6.10	
- Number of TBs and TTI List		Parameter Set (This IE is repeated for TFI number.)	
- Transmission Time Interval		Not Present	
- Number of Transport blocks		Reference to TS34.108 clause 6.10	
- CHOICE Logical Channel list		Parameter Set All	
- Semi-static Transport Format information			
- Transmission time interval		Reference to TS34.108 clause 6.10	
- Type of channel coding		Parameter Set Reference to TS34.108 clause 6.10	
- Coding Rate		Parameter Set Reference to TS34.108 clause 6.10	
- Rate matching attribute		Parameter Set Reference to TS34.108 clause 6.10	
- CRC size		Parameter Set Reference to TS34.108 clause 6.10	
Added or Reconfigured UL TrCH information	A2, A8	Parameter Set 4 TrCHs(DCH for DCCH and 3DCHs for DTCH)	
- Uplink transport channel type		DCH	
- UL Transport channel identity		5	
- TFS			
- CHOICE Transport channel type		Dedicated transport channels	
- Dynamic Transport format information			
- RLC Size		Reference to TS34.108 clause 6.10	
- Number of TBs and TTI List		Parameter Set (This IE is repeated for TFI number.)	
- Transmission Time Interval		Not Present	
- Number of Transport blocks		Reference to TS34.108 clause 6.10	
- CHOICE Logical Channel list		Parameter Set All	
- Semi-static Transport Format information			
- Transmission time interval		Reference to TS34.108 clause 6.10	
- Type of channel coding		Parameter Set Reference to TS34.108 clause 6.10	
- Coding Rate		Parameter Set Reference to TS34.108 clause 6.10	
- Rate matching attribute		Parameter Set Reference to TS34.108 clause 6.10	
- CRC size		Parameter Set Reference to TS34.108 clause 6.10	
- Uplink transport channel type		Parameter Set DCH	
- UL Transport channel identity		1	
- TFS			
- CHOICE Transport channel type		Dedicated transport channels	
- Dynamic Transport format information			
- RLC Size		Reference to TS34.108 clause 6.10	
- Number of TBs and TTI List		Parameter Set (This IE is repeated for TFI number.)	
- Transmission Time Interval		Not Present	
- Number of Transport blocks		Reference to TS34.108 clause 6.10	
- CHOICE Logical Channel list		Parameter Set All	
- Semi-static Transport Format information			
- Transmission time interval		Reference to TS34.108 clause 6.10	

Information Element	Condition	Value/remark	Version
- Type of channel coding		Parameter Set Reference to TS34.108 clause 6.10	
- Coding Rate		Parameter Set Reference to TS34.108 clause 6.10	
- Rate matching attribute		Parameter Set Reference to TS34.108 clause 6.10	
- CRC size		Parameter Set Reference to TS34.108 clause 6.10	
- Uplink transport channel type - UL Transport channel identity - TFS		Parameter Set DCH 2	
- CHOICE Transport channel type - Dynamic Transport format information		Dedicated transport channels	
- RLC Size		Reference to TS34.108 clause 6.10 Parameter Set	
- Number of TBs and TTI List - Transmission Time Interval - Number of Transport blocks		(This IE is repeated for TFI number.) Not Present Reference to TS34.108 clause 6.10 Parameter Set	
- CHOICE Logical Channel list - Semi-static Transport Format information - Transmission time interval		All Reference to TS34.108 clause 6.10 Parameter Set	
- Type of channel coding		Reference to TS34.108 clause 6.10 Parameter Set	
- Coding Rate		Reference to TS34.108 clause 6.10 Parameter Set	
- Rate matching attribute		Reference to TS34.108 clause 6.10 Parameter Set	
- CRC size		Reference to TS34.108 clause 6.10 Parameter Set	
- Uplink transport channel type - UL Transport channel identity - TFS		DCH 3	
- CHOICE Transport channel type - Dynamic Transport format information		Dedicated transport channels	
- RLC Size		Reference to TS34.108 clause 6.10 Parameter Set	
- Number of TBs and TTI List - Transmission Time Interval - Number of Transport blocks		(This IE is repeated for TFI number.) Not Present Reference to TS34.108 clause 6.10 Parameter Set	
- CHOICE Logical Channel list - Semi-static Transport Format information - Transmission time interval		All Reference to TS34.108 clause 6.10 Parameter Set	
- Type of channel coding		Reference to TS34.108 clause 6.10 Parameter Set	
- Coding Rate		Reference to TS34.108 clause 6.10 Parameter Set	
- Rate matching attribute		Reference to TS34.108 clause 6.10 Parameter Set	
- CRC size		Reference to TS34.108 clause 6.10 Parameter Set	
CHOICE *mode*	A1, A2, A3, A4, A5, A6, A7, A8 , A9	FDD	REL-5
- CPCH set ID - Added or Reconfigured TrCH information for DRAC list		Not Present Not Present	
DL Transport channel information common for all transport channel - SCCPCH TFCS - CHOICE mode	A1, A2, A7, A8	 Not Present FDD	

Information Element	Condition	Value/remark	Version
- CHOICE DL parameters		SameasUL	
DL Transport channel information common for all transport channel - SCCPCH TFCS - CHOICE mode - CHOICE DL parameters - DL DCH TFCS - CHOICE TFCI Signalling - TFCI Field 1 Information - CHOICE TFCS representation - TFCS complete reconfigure - CHOICE CTFC Size - CTFC information - CTFC - Power offset information	A3, A4, A5, A6 , A9	 Not Present FDD Explicit Normal Complete reconfiguration Number of bits used must be enough to cover all combinations of CTFC from clause TS34.108 clause 6.10.2.4 Parameter Set. This IE is repeated for TFC numbers and reference to TS34.108 clause 6.10.2.4 Reference to TS34.108 clause 6.10.2.4 Parameter Set Not Present	REL-5
Deleted DL TrCH information	A1, A2, A3, A4, A5, A6, A7, A8 , A9	Not Present	REL-5
Added or Reconfigured DL TrCH information - Downlink transport channel type - DL Transport channel identity - CHOICE DL parameters - Uplink transport channel type - UL TrCH identity - DCH quality target - BLER Quality value - Downlink transport channel type - DL Transport channel identity - CHOICE DL parameters - Uplink transport channel type - UL TrCH identity - DCH quality target - BLER Quality value	A1	1 DCH added, 1 DCH reconfigured DCH 6 Same as UL DCH 1 -2.0 DCH 10 Same as UL DCH 5 -2.0	
Added or Reconfigured DL TrCH information - Downlink transport channel type - DL Transport channel identity - CHOICE DL parameters - Uplink transport channel type - UL TrCH identity - DCH quality target - BLER Quality value - Downlink transport channel type - DL Transport channel identity - CHOICE DL parameters - TFS - CHOICE Transport channel type - Dynamic transport format information - RLC Size - Number of TBs and TTI List - Dynamic transport format information - Transmission Time Interval - Number of Transport blocks - CHOICE Logical Channel list - Semi-static Transport Format information - Transmission time interval	A3, A4, A5, A6, A7	2 TrCHs(DCH for DCCH and DCH for DTCH) DCH 10 Same as UL DCH 5 -2.0 DCH 6 Explicit Dedicated transport channel Reference to TS34.108 clause 6.10 Parameter Set (This IE is repeated for TFI number.) Not Present Reference to TS34.108 clause 6.10 Parameter Set All Reference to TS34.108 clause 6.10	

Information Element	Condition	Value/remark	Version
		Parameter Set	
- Type of channel coding		Reference to TS34.108 clause 6.10 Parameter Set	
- Coding Rate		Reference to TS34.108 clause 6.10 Parameter Set	
- Rate matching attribute		Reference to TS34.108 clause 6.10 Parameter Set	
- CRC size		Reference to TS34.108 clause 6.10 Parameter Set	
- DCH quality target			
- BLER Quality value		-2.0	
Added or Reconfigured DL TrCH information	A2, A8	4 TrCHs(DCH for DCCH and 3DCHs for DTCH)	
- Downlink transport channel type		DCH	
- DL Transport channel identity		10	
- CHOICE DL parameters		Same as UL	
- Uplink transport channel type		DCH	
- UL TrCH identity		5	
- DCH quality target			
- BLER Quality value		2.0	
- Downlink transport channel type		DCH	
- DL Transport channel identity		6	
- CHOICE DL parameters		Explicit	
- TFS			
- CHOICE Transport channel type		Dedicated transport channel	
- Dynamic transport format information			
- RLC Size		Reference to TS34.108 clause 6.10 Parameter Set	
- Number of TBs and TTI List		(This IE is repeated for TFI number.)	
- Dynamic transport format information			
- Transmission Time Interval		Not Present	
- Number of Transport blocks		Reference to TS34.108 clause 6.10 Parameter Set	
- CHOICE Logical Channel list		All	
- Semi-static Transport Format information			
- Transmission time interval		Reference to TS34.108 clause 6.10 Parameter Set	
- Type of channel coding		Reference to TS34.108 clause 6.10 Parameter Set	
- Coding Rate		Reference to TS34.108 clause 6.10 Parameter Set	
- Rate matching attribute		Reference to TS34.108 clause 6.10 Parameter Set	
- CRC size		Reference to TS34.108 clause 6.10 Parameter Set	
- DCH quality target			
- BLER Quality value		Not Present	
- Downlink transport channel type		DCH	
- DL Transport channel identity		7	
- CHOICE DL parameters		Explicit	
- TFS			
- CHOICE Transport channel type		Dedicated transport channel	
- Dynamic transport format information			
- RLC Size		Reference to TS34.108 clause 6.10 Parameter Set	
- Number of TBs and TTI List		(This IE is repeated for TFI number.)	
- Dynamic transport format information			
- Transmission Time Interval		Not Present	
- Number of Transport blocks		Reference to TS34.108 clause 6.10 Parameter Set	
- CHOICE Logical Channel list		All	
- Semi-static Transport Format information			
- Transmission time interval		Reference to TS34.108 clause 6.10 Parameter Set	
- Type of channel coding		Reference to TS34.108 clause 6.10 Parameter Set	
- Coding Rate		Reference to TS34.108 clause 6.10	

Information Element	Condition	Value/remark	Version
- Rate matching attribute		Parameter Set Reference to TS34.108 clause 6.10 Parameter Set	
- CRC size		Reference to TS34.108 clause 6.10 Parameter Set	
- DCH quality target			
- BLER Quality value		Not Present	
- Downlink transport channel type		DCH	
- DL Transport channel identity		8	
- CHOICE DL parameters		Explicit	
- TFS			
- CHOICE Transport channel type		Dedicated transport channel	
- Dynamic transport format information			
- RLC Size		Reference to TS34.108 clause 6.10 Parameter Set	
- Number of TBs and TTI List		(This IE is repeated for TFI number.)	
- Dynamic transport format information			
- Transmission Time Interval		Not Present	
- Number of Transport blocks		Reference to TS34.108 clause 6.10 Parameter Set	
- CHOICE Logical Channel list		All	
- Semi-static Transport Format information			
- Transmission time interval		Reference to TS34.108 clause 6.10 Parameter Set	
- Type of channel coding		Reference to TS34.108 clause 6.10 Parameter Set	
- Coding Rate		Reference to TS34.108 clause 6.10 Parameter Set	
- Rate matching attribute		Reference to TS34.108 clause 6.10 Parameter Set	
- CRC size		Reference to TS34.108 clause 6.10 Parameter Set	
- DCH quality target			
- BLER Quality value		Not Present	
Added or Reconfigured DL TrCH information	A9	3 TrCHs (DCH for DCCH and DCH plus HS-DSCH for DTCH)	REL-5
- Downlink transport channel type		DCH	
- DL Transport channel identity		10	
- CHOICE DL parameters		Same as UL	
- Uplink transport channel type		DCH	
- UL TrCH identity		5	
- DCH quality target			
- BLER Quality value		-2.0	
- Downlink transport channel type		DCH	
- DL Transport channel identity		6	
- CHOICE DL parameters		Explicit	
- TFS			
- CHOICE Transport channel type		Dedicated transport channel	
- Dynamic transport format information			
- RLC Size		Reference to TS34.108 clause 6.10 Parameter Set	
- Number of TBs and TTI List		(This IE is repeated for TFI number.)	
- Dynamic transport format information			
- Transmission Time Interval		Not Present	
- Number of Transport blocks		Reference to TS34.108 clause 6.10 Parameter Set	
- CHOICE Logical Channel list		All	
- Semi-static Transport Format information			
- Transmission time interval		Reference to TS34.108 clause 6.10 Parameter Set	
- Type of channel coding		Reference to TS34.108 clause 6.10 Parameter Set	
- Coding Rate		Reference to TS34.108 clause 6.10 Parameter Set	
- Rate matching attribute		Reference to TS34.108 clause 6.10 Parameter Set	
- CRC size		Reference to TS34.108 clause 6.10	

Information Element	Condition	Value/remark	Version
- DCH quality target		Parameter Set	
- BLER Quality value		-2.0	
- Downlink transport channel type		HS-DSCH	
- DL Transport channel identity		Not Present	
- CHOICE DL parameters		HS-DSCH	
- HARQ Info			
- Number of Processes		6	
- CHOICE *Memory Partitioning*		Implicit	
~~- MAC-hs reset indicator~~		~~TRUE~~	
- Added or reconfigured MAC-d flow			
- MAC-hs queue to add or reconfigure list		(one queue)	
- MAC-hs queue Id		0	
- MAC-d Flow Identity		0	
- T1		50	
- MAC-hs window size		16	
- MAC-d PDU size Info			
- MAC-d PDU size		336	
- MAC-d PDU size index		0	
- MAC-hs queue to delete list		Not present	
- DCH quality target		Not present	
Frequency info	A1, A2, A3, A4, A5, A7, A8 , A9		REL-5
- UARFCN uplink (Nu)		Reference to clause 5.1 Test frequencies if frequency is different from the current frequency otherwise set to Not Present.	
- UARFCN downlink (Nd)		Reference to clause 5.1 Test frequencies if frequency is different from the current frequency otherwise set to Not Present.	
Frequency info	A6	Not Present	
Maximum allowed UL TX power	A1, A2, A3, A4, A7, A8 , A9	33dBm	REL-5
Maximum allowed UL TX power	A5, A6	Not Present	
CHOICE channel requirement	A1, A2, A3, A4, A7, A8 ~~, A9~~	Uplink DPCH info	~~REL-5~~
- Uplink DPCH power control info			
- DPCCH power offset		-6dB	
- PC Preamble		1 frame	
- SRB delay		7 frames	
- Power Control Algorithm		Algorithm1	
- TPC step size		1dB	
- Δ_{ACK}		Not Present	REL-5
- Δ_{NACK}		Not Present	REL-5
- Ack-Nack repetition factor		Not Present	REL-5
- Scrambling code type		Long	
- Scrambling code number		0 (0 to 16777215)	
- Number of DPDCH		Not Present(1)	
- spreading factor		Reference to TS34.108 clause 6.10 Parameter Set	
- TFCI existence		Reference to TS34.108 clause 6.10 Parameter Set	
- Number of FBI bit		Reference to TS34.108 clause 6.10 Parameter Set	
- Puncturing Limit		Reference to TS34.108 clause 6.10 Parameter Set	
CHOICE channel requirement	A9	Uplink DPCH info	REL-5

Information Element	Condition	Value/remark	Version
- Uplink DPCH power control info			
- DPCCH power offset		-6dB	
- PC Preamble		1 frame	
- SRB delay		7 frames	
- Power Control Algorithm		Algorithm1	
- TPC step size		1dB	
- Δ_{ACK}		3	
- Δ_{NACK}		3	
- Ack-Nack repetition factor		1	
- Scrambling code type		Long	
- Scrambling code number		0 (0 to 16777215)	
- Number of DPDCH		Not Present(1)	
- spreading factor		Reference to TS34.108 clause 6.10 Parameter Set	
- TFCI existence		Reference to TS34.108 clause 6.10 Parameter Set	
- Number of FBI bit		Reference to TS34.108 clause 6.10 Parameter Set	
- Puncturing Limit		Reference to TS34.108 clause 6.10 Parameter Set	
CHOICE channel requirement	A5,A6	Not Present	
CHOICE Mode	A1, A2, A3, A4, A5, A6, A7, A8 , A9	FDD	REL-5
- Downlink PDSCH information		Not Present	
Downlink information common for all radio links	A1, A2, A3 ~~, A9~~		~~REL-5~~
- Downlink DPCH info common for all RL			
- Timing indicator		Maintain	
- CFN-targetSFN frame offset		Not Present	
- Downlink DPCH power control information			
- DPC mode		0 (single)	
- CHOICE mode		FDD	
- Power offset $P_{Pilot-DPDCH}$		0	
- DL rate matching restriction information		Not Present	
- Spreading factor		Reference to TS34.108 clause 6.10 Parameter Set	
- Fixed or Flexible Position		Reference to TS34.108 clause 6.10 Parameter Set	
- TFCI existence		Reference to TS34.108 clause 6.10 Parameter Set	
- CHOICE SF		Reference to TS34.108 clause 6.10 Parameter Set	
- CHOICE mode		FDD	
- DPCH compressed mode info		Not Present	
- TX Diversity mode		None	
- SSDT information		Not Present	
- Default DPCH Offset Value		Not Present	
Downlink information common for all radio links	A9		REL-5
- Downlink DPCH info common for all RL			
- Timing indicator		Maintain	
- CFN-targetSFN frame offset		Not Present	
- Downlink DPCH power control information			
- DPC mode		0 (single)	
- CHOICE mode		FDD	
- Power offset $P_{Pilot-DPDCH}$		0	
- DL rate matching restriction information		Not Present	
- Spreading factor		Reference to TS34.108 clause 6.10 Parameter Set	
- Fixed or Flexible Position		Reference to TS34.108 clause 6.10 Parameter Set	
- TFCI existence		Reference to TS34.108 clause 6.10	

Information Element	Condition	Value/remark	Version
- CHOICE SF		Parameter Set Reference to TS34.108 clause 6.10 Parameter Set	
- CHOICE mode - DPCH compressed mode info - TX Diversity mode - SSDT information - Default DPCH Offset Value - MAC-hs reset indicator		FDD Not Present None Not Present Not Present TRUE	
Downlink information common for all radio links - Downlink DPCH info common for all RL - Timing indicator - CFN-targetSFN frame offset - Downlink DPCH power control information - DPC mode - CHOICE mode - Power offset $P_{Pilot-DPDCH}$ - DL rate matching restriction information - Spreading factor - Fixed or Flexible Position - TFCI existence - CHOICE SF - CHOICE mode - DPCH compressed mode info - TX Diversity mode - SSDT information - Default DPCH Offset Value	A4,A7,A8	 Initialise Not Present 0 (single) FDD 0 Not Present Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set FDD Not Present None Not Present Arbitrary set to value 0..306688 by step of 512	
Downlink HS-PDSCH Information	A1, A2, A3, A4, A5, A6, A7, A8	Not Present	REL-5
Downlink HS-PDSCH Information - HS-SCCH Info - CHOICE mode - DL Scrambling Code - HS-SCCH Channelisation Code Information - HS-SCCH Channelisation Code - Measurement Feedback Info - CHOICE mode - POhsdsch - CQI Feedback cycle, k - CQI repetition factor - Δ_{CQI} - CHOICE mode	A9	 FDD 1 FDD 6 dB 4 ms 1 5 (corresponds to 0dB in relative power offset) ~~3 dB~~ FDD (no data)	REL-5
Downlink information common for all radio links	A5,A6	Not Present	
Downlink information for each radio link list - Downlink information for each radio link - Choice mode - Primary CPICH info - Primary scrambling code - PDSCH with SHO DCH info - PDSCH code mapping - Serving HS-DSCH radio link indicator - Downlink DPCH info for each RL - Primary CPICH usage for channel estimation - DPCH frame offset	A1, A2, A3, A4, A7, A8	 FDD Ref. to the Default setting in TS34.108 clause 6.1 (FDD) Not Present Not Present FALSE Primary CPICH may be used Set to value Default DPCH Offset Value (as currently stored in SS) mod 38400	 REL-5

Information Element	Condition	Value/remark	Version
- Secondary CPICH info		Not Present	
- DL channelisation code			
- Secondary scrambling code		1	
- Spreading factor		Reference to TS34.108 clause 6.10 Parameter Set	
- Code number		0	
- Scrambling code change		No change	
- TPC combination index		0	
- SSDT Cell Identity		Not Present	
- Closed loop timing adjustment mode		Not Present	
- SCCPCH information for FACH		Not Present	
Downlink information for each radio link list	A5		
- Downlink information for each radio link			
- Choice mode		FDD	
- Primary CPICH info			
- Primary scrambling code		Ref. to the Default setting in TS34.108 clause 6.1 (FDD)	
- PDSCH with SHO DCH info		Not Present	
- PDSCH code mapping		Not Present	
- Serving HS-DSCH radio link indicator		FALSE	REL-5
- Downlink DPCH info for each RL		Not present	
- SCCPCH information for FACH		Not Present	
Downlink information for each radio link list	A9		REL-5
- Downlink information for each radio link			
- Choice mode		FDD	
- Primary CPICH info			
- Primary scrambling code		Ref. to the Default setting in TS34.108 clause 6.1 (FDD)	
- PDSCH with SHO DCH info		Not Present	
- PDSCH code mapping		Not Present	
- Serving HS-DSCH radio link indicator		TRUE	
- Downlink DPCH info for each RL			
- Primary CPICH usage for channel estimation		Primary CPICH may be used	
- DPCH frame offset		Set to value Default DPCH Offset Value (as currently stored in SS) mod 38400	
- Secondary CPICH info		Not Present	
- DL channelisation code			
- Secondary scrambling code		1	
- Spreading factor		Reference to TS34.108 clause 6.10 Parameter Set	
- Code number		0	
- Scrambling code change		No change	
- TPC combination index		0	
- SSDT Cell Identity		Not Present	
- Closed loop timing adjustment mode		Not Present	
- SCCPCH information for FACH		Not Present	
Downlink information for each radio link list	A6	Not Present	

Condition	Explanation	Version
A1	This IE need for "Non speech to CELL_DCH from CELL_DCH in CS"	
A2	This IE need for "Speech to CELL_DCH from CELL_DCH in CS"	
A3	This IE need for "Packet to CELL_DCH from CELL_DCH in PS"	
A4	This IE need for "Packet to CELL_DCH from CELL_FACH in PS"	
A5	This IE need for "Packet to CELL_FACH from CELL_DCH in PS"	
A6	This IE need for "Packet to CELL_FACH from CELL_FACH in PS"	
A7	This IE need for "Non speech to CELL_DCH from CELL_FACH in CS"	
A8	This IE need for "Speech to CELL_DCH from CELL_FACH in CS"	
A9	This IE is needed for "Packet to CELL_DCH / HS-DSCH from CELL_DCH in PS"	REL-5

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Contents of RADIO BEARER RECONFIGURATION message: AM or UM

[Note to MCC: Yellow highlighting should be removed]

Information Element	Condition	Value/remark	Version
Message Type	A1,A2,A3, A4,A5,A6		
RRC transaction identifier		Arbitrarily selects an integer between 0 and 3	
Integrity check info			
- message authentication code		SS calculates the value of MAC-I for this message and writes to this IE. The first/ leftmost bit of the bit string contains the most significant bit of the MAC-I.	
- RRC message sequence number		SS provides the value of this IE, from its internal counter.	
Integrity protection mode info		Not Present	
Ciphering mode info		Not Present	
Activation time	A1,A2,A3	(256+CFN-(CFN MOD 8 + 8))MOD 256	
Activation time	A4, A5,A6	Not Present	
New U-RNTI		Not Present	
New C-RNTI	A1, A2, A3, A4,	Not Present	
New C-RNTI	A5, A6	'1010 1010 1010 1010'	
New DSCH-RNTI	A1, A2, A3, A4, A5, A6	Not Present	
New H-RNTI	A1, A2, A3, A4, A5, A6	Not Present	REL-5
RRC State indicator	A1, A2, A3, A4	CELL_DCH	
RRC State indicator	A5, A6	CELL_FACH	
UTRAN DRX cycle length coefficient	A1,A2,A3, A4,A5,A6	Not Present	
CN information info		Not Present	
URA identity		Not Present	
RAB information to reconfigure list		Not Present	
RB information to reconfigure list	A1	TS25.331 specifies that "Although this IE is not always required, need is MP to align with ASN.1".	
- RB information to reconfigure		(UM DCCH for RRC)	
- RB identity		1	
- PDCP info		Not Present	
- PDCP SN info		Not Present	
- RLC info		Not Present	
- RB mapping info		Not Present	
- RB stop/continue		Not Present	
- RB information to reconfigure		(AM DCCH for RRC)	
- RB identity		2	
- PDCP info		Not Present	
- PDCP SN info		Not Present	
- RLC info		Not Present	
- RB mapping info		Not Present	
- RB stop/continue		Not Present	
- RB information to reconfigure		(AM DCCH for NAS_DT High priority)	
- RB identity		3	
- PDCP info		Not Present	
- PDCP SN info		Not Present	
- RLC info		Not Present	
- RB mapping info		Not Present	
- RB stop/continue		Not Present	
- RB information to reconfigure		(AM DCCH for NAS_DT Low priority)	
- RB identity		4	
- PDCP info		Not Present	
- PDCP SN info		Not Present	
- RLC info		Not Present	
- RB mapping info		Not Present	
- RB stop/continue		Not Present	
- RB information to reconfigure		(TM DTCH)	
- RB identity		10	
- PDCP info		Not Present	
- PDCP SN info		Not Present	

Information Element	Condition	Value/remark	Version
- RLC info		Not Present	
- RB mapping info		Not Present	
- RB stop/continue		Not Present	
RB information to reconfigure list	A2	TS25.331 specifies that "Although this IE is not always required, need is MP to align with ASN.1".	
- RB information to reconfigure		(UM DCCH for RRC)	
- RB identity		1	
- PDCP info		Not Present	
- PDCP SN info		Not Present	
- RLC info		Not Present	
- RB mapping info		Not Present	
- RB stop/continue		Not Present	
- RB information to reconfigure		(AM DCCH for RRC)	
- RB identity		2	
- PDCP info		Not Present	
- PDCP SN info		Not Present	
- RLC info		Not Present	
- RB mapping info		Not Present	
- RB stop/continue		Not Present	
- RB information to reconfigure		(AM DCCH for NAS_DT High priority)	
- RB identity		3	
- PDCP info		Not Present	
- PDCP SN info		Not Present	
- RLC info		Not Present	
- RB mapping info		Not Present	
- RB stop/continue		Not Present	
- RB information to reconfigure		(AM DCCH for NAS_DT Low priority)	
- RB identity		4	
- PDCP info		Not Present	
- PDCP SN info		Not Present	
- RLC info		Not Present	
- RB mapping info		Not Present	
- RB stop/continue		Not Present	
- RB information to reconfigure		(TM DTCH)	
- RB identity		10	
- PDCP info		Not Present	
- PDCP SN info		Not Present	
- RLC info		Not Present	
- RB mapping info		Not Present	
- RB stop/continue		Not Present	
- RB information to reconfigure		(TM DTCH)	
- RB identity		11	
- PDCP info		Not Present	
- PDCP SN info		Not Present	
- RLC info		Not Present	
- RB mapping info		Not Present	
- RB stop/continue		Not Present	
- RB information to reconfigure		(TM DTCH) (This IE is needed for 12.2 kbps and 10.2 kbps)	
- RB identity		12	
- PDCP info		Not Present	
- PDCP SN info		Not Present	
- RLC info		Not Present	
- RB mapping info		Not Present	
- RB stop/continue		Not Present	
RB information to reconfigure list	A3,A4,A5, A6	TS25.331 specifies that "Although this IE is not always required, need is MP to align with ASN.1".	
- RB information to reconfigure		(UM DCCH for RRC)	
- RB identity		1	
- PDCP info		Not Present	
- PDCP SN info		Not Present	
- RLC info		Not Present	
- RB mapping info		Not Present	
- RB stop/continue		Not Present	

Information Element	Condition	Value/remark	Version
- RB information to reconfigure - RB identity - PDCP info - PDCP SN info - RLC info - RB mapping info - RB stop/continue - RB information to reconfigure - RB identity - PDCP info - PDCP SN info - RLC info - RB mapping info - RB stop/continue - RB information to reconfigure - RB identity - PDCP info - PDCP SN info - RLC info - RB mapping info - RB stop/continue - RB information to reconfigure - RB identity - PDCP info - PDCP SN info - RLC info - RB mapping info - RB stop/continue		(AM DCCH for RRC) 2 Not Present Not Present Not Present Not Present Not Present (AM DCCH for NAS_DT High priority) 3 Not Present Not Present Not Present Not Present Not Present (AM DCCH for NAS_DT Low priority) 4 Not Present Not Present Not Present Not Present Not Present (AM DTCH) 20 Not Present Not Present Not Present Not Present Not Present	
RB information to be affected	A1, A2, A3,A4,A5, A6	Not Present	
UL Transport channel information for all transport channels	A1, A2, A5,A6	Not Present	
UL Transport channel information for all transport channels - PRACH TFCS - CHOICE mode - TFC subset - UL DCH TFCS - CHOICE TFCI signalling - TFCI Field 1 information - CHOICE TFCS representation - TFCS complete reconfigure information - CHOICE CTFC Size - CTFC information - CTFC - Power offset information - CHOICE Gain Factors - Gain factor βc - Gain factor βd	A3, A4	 Not Present FDD Not Present Normal Complete reconfiguration Number of bits used must be enough to cover all combinations of CTFC from TS34.108 clause 6.10.2.4 Parameter Set. This IE is repeated for TFC numbers and reference to TS34.108 clause 6.10.2.4 Parameter Set Reference to TS34.108 clause 6.10.2.4 Parameter Set Computed Gain Factors(The last TFC is set to Signalled Gain Factors) 11 (below 64 kbps) 9 (higher than 64 kbps) (Not Present if the CHOICE Gain Factors is set to ComputedGain Factors) 15 (Not Present if the CHOICE Gain Factors is set to ComputedGain Factors)	

Information Element	Condition	Value/remark	Version
- Reference TFC ID - CHOICE mode - Power offset P p-m		0 FDD Not Present	
Deleted UL TrCH information	A1, A2, A3, A4, A5,A6	Not Present	
Added or Reconfigured UL TrCH information	A1, A2, A5,A6	Not Present	
Added or Reconfigured UL TrCH information - Uplink transport channel type - UL Transport channel identity - TFS - CHOICE Transport channel type - Dynamic Transport format information - RLC Size - Number of TBs and TTI List - Transmission Time Interval - Number of Transport blocks - CHOICE Logical Channel list - Semi-static Transport Format information - Transmission time interval - Type of channel coding - Coding Rate - Rate matching attribute - CRC size - Uplink transport channel type - UL Transport channel identity - TFS - CHOICE Transport channel type - Dynamic Transport format information - RLC Size - Number of TBs and TTI List - Transmission Time Interval - Number of Transport blocks - CHOICE Logical Channel list - Semi-static Transport Format information - Transmission time interval - Type of channel coding - Coding Rate - Rate matching attribute - CRC size	A4	2 TrCHs(DCH for DCCH and DCH for DTCH) DCH 5 Dedicated transport channels Reference to TS34.108 clause 6.10 Parameter Set (This IE is repeated for TFI number.) Not Present Reference to TS34.108 clause 6.10 Parameter Set All Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set DCH 1 Dedicated transport channels Reference to TS34.108 clause 6.10 Parameter Set (This IE is repeated for TFI number.) Not Present Reference to TS34.108 clause 6.10 Parameter Set All Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set	
Added or Reconfigured UL TrCH information - Uplink transport channel type - UL Transport channel identity - TFS - CHOICE Transport channel type - Dynamic Transport format information - RLC Size - Number of TBs and TTI List - Transmission Time Interval - Number of Transport blocks	A3	(DCH for DTCH) DCH 1 Dedicated transport channels Reference to TS34.108 clause 6.10 Parameter Set (This IE is repeated for TFI number.) Not Present Reference to TS34.108 clause 6.10 Parameter Set	

Information Element	Condition	Value/remark	Version
- CHOICE Logical Channel list - Semi-static Transport Format information - Transmission time interval - Type of channel coding - Coding Rate - Rate matching attribute - CRC size		All Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set	
CHOICE mode - CPCH set ID - Added or Reconfigured TrCH information for DRAC list	A1,A2,A3, A4,A5,A6	FDD Not Present Not Present	
DL Transport channel information common for all transport channel	A1, A2, A5, A6	Not Present	
DL Transport channel information common for all transport channel - SCCPCH TFCS - CHOICE mode - CHOICE DL parameters - DL DCH TFCS - CHOICE TFCI Signalling - TFCI Field 1 Information - CHOICE TFCS representation - TFCS complete reconfigure - CHOICE CTFC Size - CTFC information - CTFC - Power offset information	A3,A4	 Not Present FDD Explicit Normal Complete reconfiguration Number of bits used must be enough to cover all combinations of CTFC from clause TS34.108 clause 6.10.2.4 Parameter Set. This IE is repeated for TFC numbers and reference to TS34.108 clause 6.10.2.4 Reference to TS34.108 clause 6.10.2.4 Parameter Set Not Present	
Deleted DL TrCH information	A1, A2, A3, A4, A5,A6	Not Present	
Added or Reconfigured DL TrCH information	A1, A2, A5, A6	Not Present	
Added or Reconfigured DL TrCH information - Downlink transport channel type - DL Transport channel identity - CHOICE DL parameters - Uplink transport channel type - UL TrCH identity - DCH quality target - BLER Quality value - Downlink transport channel type - DL Transport channel identity - CHOICE DL parameters - TFS - CHOICE Transport channel type - Dynamic transport format information - RLC Size - Number of TBs and TTI List - Dynamic transport format information - Transmission Time Interval - Number of Transport blocks - Semi-static Transport Format information - Transmission time interval	A4	2 TrCHs(DCH for DCCH and DCH for DTCH) DCH 10 Same as UL DCH 5 Not Present DCH 6 Explicit Dedicated transport channel Reference to TS34.108 clause 6.10 Parameter Set (This IE is repeated for TFI number.) Not Present Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10	

Information Element	Condition	Value/remark	Version
- Type of channel coding		Parameter Set Reference to TS34.108 clause 6.10	
- Coding Rate		Parameter Set Reference to TS34.108 clause 6.10	
- Rate matching attribute		Parameter Set Reference to TS34.108 clause 6.10	
- CRC size		Parameter Set Reference to TS34.108 clause 6.10	
- DCH quality target - BLER Quality value		Parameter Set -2.0	
Added or Reconfigured DL TrCH information - Downlink transport channel type - DL Transport channel identity - CHOICE DL parameters - TFS - CHOICE Transport channel type - Dynamic transport format information - RLC Size - Number of TBs and TTI List - Dynamic transport format information - Transmission Time Interval - Number of Transport blocks - Semi-static Transport Format information - Transmission time interval - Type of channel coding - Coding Rate - Rate matching attribute - CRC size - DCH quality target - BLER Quality value	A3	 DCH 6 Explicit Dedicated transport channel Reference to TS34.108 clause 6.10 Parameter Set (This IE is repeated for TFI number.) Not Present Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set -2.0	
Frequency info - UARFCN uplink (Nu) - UARFCN downlink (Nd)	A1,A2,A3, A4,A5	 Reference to clause 5.1 Test frequencies Reference to clause 5.1 Test frequencies	
Frequency info	A6	Not Present	
Maximum allowed UL TX power	A1,A2,A3, A4,A5,A6	33dBm	
CHOICE channel requirement -Uplink DPCH power control info - DPCCH power offset - PC Preamble - SRB delay - Power Control Algorithm - TPC step size - Δ_{ACK} - Δ_{NACK} - Ack-Nack repetition factor - Scrambling code type - Scrambling code number - Number of DPDCH - spreading factor - TFCI existence - Number of FBI bit	A1, A2, A3, A4	Uplink DPCH info -6dB 1 frame 7 frames Algorithm1 1dB Not Present Not Present Not Present Long 0 (0 to 16777215) Not Present(1) Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10	 REL-5 REL-5 REL-5

Information Element	Condition	Value/remark	Version
- Puncturing Limit		Parameter Set Reference to TS34.108 clause 6.10 Parameter Set	
CHOICE channel requirement	A5, A6	Not Present	
CHOICE Mode - Downlink PDSCH information	A1,A2,A3, A4,A5,A6	FDD Not Present	
Downlink HS-PDSCH Information	A1, A2, A3, A4, A5, A6	Not Present	REL-5
Downlink information common for all radio links	A5, A6	Not Present	
Downlink information common for all radio links - Downlink DPCH info common for all RL - Timing indicator - CFN-targetSFN frame offset - Downlink DPCH power control information - DPC mode - CHOICE mode - Power offset $P_{Pilot-DPDCH}$ - DL rate matching restriction information - Spreading factor - Fixed or Flexible Position - TFCI existence - CHOICE SF - DPCH compressed mode info - TX Diversity mode - SSDT information - Default DPCH Offset Value - MAC-hs reset indicator	A1, A2, A3	 Maintain Not Present 0 (single) FDD 0 Not Present Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Not Present None Not Present Not Present Not Present	REL-5
Downlink information common for all radio links - Downlink DPCH info common for all RL - Timing indicator - CFN-targetSFN frame offset - Downlink DPCH power control information - DPC mode - CHOICE mode - Power offset $P_{Pilot-DPDCH}$ - DL rate matching restriction information - Spreading factor - Fixed or Flexible Position - TFCI existence - CHOICE SF - DPCH compressed mode info - TX Diversity mode - SSDT information - Default DPCH Offset Value - MAC-hs reset indicator	A4	 Initialise Not Present 0 (single) FDD 0 Not Present Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Not Present None Not Present Present Arbitrary set to value 0..306688 by step of 512 Not Present	REL-5
Downlink information per radio link list -Downlink information for each radio link - Choice mode - Primary CPICH info - Primary scrambling code - PDSCH with SHO DCH info - PDSCH code mapping - Serving HS-DSCH radio link indicator - Downlink DPCH info for each RL	A1, A2, A3	 FDD Ref. to the Default setting in TS34.108 clause 6.1 (FDD) Not Present Not Present FALSE	REL-5

Information Element	Condition	Value/remark	Version
- Primary CPICH usage for channel estimation		Primary CPICH may be used	
- DPCH frame offset		Set to value Default DPCH Offset Value (as currently stored in SS) mod 38400	
- Secondary CPICH info		Not Present	
- Secondary scrambling code			
- channelisation code			
- DL channelisation code			
- Secondary scrambling code		2	
- Spreading factor		Reference to TS34.108 clause 6.10 Parameter Set	
- Code number		0	
- Scrambling code change		No change	
- TPC combination index		0	
- SSDT Cell Identity		Not Present	
- Closed loop timing adjustment mode		Not Present	
- SCCPCH information for FACH		Not Present	
Downlink information per radio link list	A4		
-Downlink information for each radio link			
- Choice mode		FDD	
- Primary CPICH info			
- Primary scrambling code		Ref. to the Default setting in TS34.108 clause 6.1 (FDD)	
- PDSCH with SHO DCH info		Not Present	
- PDSCH code mapping		Not Present	
- Serving HS-DSCH radio link indicator		FALSE	REL-5
- Downlink DPCH info for each RL			
- Primary CPICH usage for channel estimation		Primary CPICH may be used	
- DPCH frame offset		Set to value : Default DPCH Offset Value mod 38400	
- Secondary CPICH info		Not Present	
- Secondary scrambling code			
- channelisation code			
- DL channelisation code			
- Secondary scrambling code		2	
- Spreading factor		Reference to TS34.108 clause 6.10 Parameter Set	
- Code number		0	
- Scrambling code change		No change	
- TPC combination index		0	
- SSDT Cell Identity		Not Present	
- Closed loop timing adjustment mode		Not Present	
- SCCPCH information for FACH		Not Present	
- Downlink information for each radio link	A5		
- Choice mode		FDD	
- Primary CPICH info			
- Primary scrambling code		Ref. to the Default setting in TS34.108 clause 6.1 (FDD)	
- PDSCH with SHO DCH info		Not Present	
- PDSCH code mapping		Not Present	
- Serving HS-DSCH radio link indicator		FALSE	REL-5
- Downlink DPCH info for each RL		Not present	
- SCCPCH Information for FACH		Not Present	
- Downlink information for each radio link	A6	Not Present	

Condition	Explanation
A1	This IE need for "Non speech in CS"
A2	This IE need for "Speech in CS"
A3	This IE need for "Packet to CELL_DCH from CELL_DCH in PS"
A4	This IE need for "Packet to CELL_DCH from CELL_FACH in PS"
A5	This IE need for "Packet to CELL_FACH from CELL_DCH in PS"
A6	This IE need for "Packet to CELL_FACH from CELL_FACH in PS"

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Contents of RADIO BEARER RELEASE message: AM or UM

[Note to MCC: Yellow highlighting should be removed]

Information Element		Value/remark	Version
Message Type	A1, A2, A3, A4, A5, A6, A7, A8 , A9		REL-5
RRC transaction identifier		Arbitrarily selects an integer between 0 and 3	
Integrity check info - message authentication code		SS calculates the value of MAC-I for this message and writes to this IE. The first/ leftmost bit of the bit string contains the most significant bit of the MAC-I.	
- RRC message sequence number		SS provides the value of this IE, from its internal counter.	
Integrity protection mode info		Not Present	
Ciphering mode info		Not Present	
Activation time	A1, A2, A3, A7, A8 , A9	(256+CFN-(CFN MOD 8 + 8))MOD 256	REL-5
Activation time	A4, A5, A6	Not Present	
New U-RNTI		Not Present	
New C-RNTI	A1,A2,A3, A4 , A9	Not Present	REL-5
New C-RNTI	A5, A6, A7, A8	'1010 1010 1010 1010'	
New DSCH-RNTI	A1, A2, A3, A4, A5, A6, A7, A8 , A9	Not Present	REL-5
RRC State indicator	A1,A2, A3, A4 , A9	CELL_DCH	REL-5
RRC State indicator	A5, A6, A7, A8	CELL_FACH	
UTRAN DRX cycle length coefficient	A1,A2,A3, A4,A5,A6, A7, A8 , A9	Not Present	REL-5
CN information info		Not Present	
Signalling Connection release indication		Not Present	
URA identity		Not Present	
RAB information to reconfigure list		Not Present	
RB information to release - RB identity	A1,A2, A7, A8	10	
RB information to release - RB identity	A2, A8	11	
RB information to release - RB identity	A2, A8	12	
RB information to release - RB identity	A3, A4, A5, A6	20	
RB information to release - RB identity	A9	23	REL-5
RB information to be affected	A1,A2, A3,A4,A5, A6, A7, A8 , A9	Not Present	REL-5
Downlink counter synchronisation info	A1,A2,A3, A4,A5,A6, A7, A8 , A9	Not Present	REL-5

Information Element		Value/remark	Version
UL Transport channel information for all transport channels	A1, A2, A3, A4, A5, A6, A7, A8 , A9	TFCS reconfigured to fit the new transport channel configuration.	REL-5
Deleted UL TrCH Information - Uplink transport channel type - Transport channel identity	A1,A2, A3, A4, A5, A6, A7, A8 , A9	 DCH 1	REL-5
Deleted UL TrCH Information - Uplink transport channel type - Transport channel identity	A2, A8	 DCH 2	
Deleted UL TrCH Information - Uplink transport channel type - Transport channel identity	A2, A8	 DCH 3	
Added or Reconfigured UL TrCH information	A5, A6, A7, A8	Not Present	
Added or Reconfigured UL TrCH information	A1, A2, A3, A4 , A9	TrCHs(DCH for DCCH)	REL-5
- Uplink transport channel type		DCH	
- UL Transport channel identity		5	
- TFS			
- CHOICE Transport channel type		Dedicated transport channels	
- Dynamic Transport format information			
- RLC Size		According to TS34.108 clause 6.10.2.4.1.3 (standalone 13.6 kbps signalling radio bearer)	
- Number of TBs and TTI List		(This IE is repeated for TFI number.)	
- Transmission Time Interval		According to TS34.108 clause 6.10.2.4.1.3 (standalone 13.6 kbps signalling radio bearer)	
- Number of Transport blocks		According to TS34.108 clause 6.10.2.4.1.3 (standalone 13.6 kbps signalling radio bearer)	
- CHOICE Logical Channel list		All	
- Semi-static Transport Format information			
- Transmission time interval		According to TS34.108 clause 6.10.2.4.1.3 (standalone 13.6 kbps signalling radio bearer)	
- Type of channel coding		According to TS34.108 clause 6.10.2.4.1.3 (standalone 13.6 kbps signalling radio bearer)	
- Coding Rate		According to TS34.108 clause 6.10.2.4.1.3 (standalone 13.6 kbps signalling radio bearer)	
- Rate matching attribute		According to TS34.108 clause 6.10.2.4.1.3 (standalone 13.6 kbps signalling radio bearer)	
- CRC size		According to TS34.108 clause 6.10.2.4.1.3 (standalone 13.6 kbps signalling radio bearer)	
DL Transport channel information for all transport channels	A1, A2, A3, A4, A5, A6, A7, A8 , A9	TFCS reconfigured to fit the new transport channel configuration.	REL-5
Deleted DL TrCH Information - Downlink transport channel type - Transport channel identity	A1, A2, A3, A4, A5, A6, A7, A8 , A9	 DCH 6	REL-5

Information Element		Value/remark	Version
Deleted DL TrCH Information - Downlink transport channel type - Transport channel identity	A2, A8	 DCH 7	
Deleted DL TrCH Information - Downlink transport channel type - Transport channel identity	A2, A8	 DCH 8	
Deleted DL TrCH Information - Downlink transport channel type - DL HS-DSCH MAC-d flow identity	A9	 HS-DSCH 0	REL-5
Added or Reconfigured DL TrCH information	A5, A6, A7, A8	Not Present	
Added or Reconfigured DL TrCH information	A1, A2, A3, A4 , A9	1 TrCHs(DCH for DCCH)	 REL-5
- Downlink transport channel type		DCH	
- DL Transport channel identity		10	
- CHOICE DL parameters		Same as UL	
- Uplink transport channel type		DCH	
- UL TrCH identity		5	
- DCH quality target			
- BLER Quality value		Not Present	
Frequency info - UARFCN uplink (Nu) - UARFCN downlink (Nd) Maximum allowed UL TX power	A1,A2,A3, A4,A5, A7, A8 , A9	 Reference to clause 5.1 Test frequencies Reference to clause 5.1 Test frequencies 33dBm	 REL-5
Frequency info	A6	Not Present	
CHOICE *channel requirement*	A5, A6, A7, A8	Not Present	
CHOICE channel requirement - Uplink DPCH power control info - DPCCH power offset - PC Preamble - SRB delay - Power Control Algorithm - TPC step size - Δ_{ACK} - Δ_{NACK} - Ack-Nack repetition factor - Scrambling code type - Scrambling code number - Number of DPDCH - spreading factor - TFCI existence - Number of FBI bit - Puncturing Limit	A1,A2,A3, A4 , A9	Uplink DPCH info -80dB (i.e. ASN.1 IE value of –40) 1 frame 7 frames Algorithm1 1dB Not Present Not Present Not Present Long 0 (0 to 16777215) Not Present(1) Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set	 REL-5 REL-5 REL-5 REL-5
CHOICE Mode - Downlink PDSCH information	A1,A2,A3, A4,A5,A6, A7, A8 , A9	FDD Not Present	 REL-5
Downlink HS-PDSCH Information	A1, A2, A3, A4, A5, A6, A7, A8, A9	Not Present	REL-5
Downlink information common for all radio links	A5, A6,	Not Present	

Information Element		Value/remark	Version
	A7, A8		
Downlink information common for all radio links - Downlink DPCH info common for all RL - Timing indicator - CFN-targetSFN frame offset - Downlink DPCH power control information - DPC mode - CHOICE mode - Power offset $P_{Pilot-DPDCH}$ - DL rate matching restriction information - Spreading factor - Fixed or Flexible Position - TFCI existence - CHOICE SF - DPCH compressed mode info - TX Diversity mode - SSDT information - Default DPCH Offset Value - MAC-hs reset indicator	A1,A2, A3 , A9	 Maintain Not Present 0 (single) FDD 0 Not Present Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Not Present None Not Present Not Present Not Present	REL-5 REL-5
Downlink information common for all radio links - Downlink DPCH info common for all RL - Timing indicator - CFN-targetSFN frame offset - Downlink DPCH power control information - DPC mode - CHOICE mode - Power offset $P_{Pilot-DPDCH}$ - DL rate matching restriction information - Spreading factor - Fixed or Flexible Position - TFCI existence - CHOICE SF - DPCH compressed mode info - TX Diversity mode - SSDT information - Default DPCH Offset Value - MAC-hs reset indicator	A4	 Initialise Not Present 0 (single) FDD 0 Not Present Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Not Present None Not Present Arbitrary set to value 0..306688 by step of 512 Not Present	 REL-5
Downlink information for each radio link list -Downlink information for each radio link - Choice mode - Primary CPICH info - Primary scrambling code - PDSCH with SHO DCH info - PDSCH code mapping - Serving HS-DSCH radio link indicator - Downlink DPCH info for each RL - Primary CPICH usage for channel estimation - DPCH frame offset - Secondary CPICH info - Secondary scrambling code - channelisation code	A1,A2,A3 , A9	 FDD Ref. to the Default setting in TS34.108 clause 6.1 (FDD) Not Present Not Present FALSE Primary CPICH may be used Set to value Default DPCH Offset Value (as currently stored in SS) mod 38400 Not Present	REL-5 REL-5

Information Element		Value/remark	Version
- DL channelisation code - Secondary scrambling code - Spreading factor - Code number - Scrambling code change - TPC combination index - SSDT Cell Identity - Closed loop timing adjustment mode - SCCPCH information for FACH		 3 Reference to TS34.108 clause 6.10 Parameter Set 0 No change 0 Not Present Not Present Not Present	
Downlink information for each radio link list -Downlink information for each radio link - Choice mode - Primary CPICH info - Primary scrambling code - PDSCH with SHO DCH info - PDSCH code mapping - Serving HS-DSCH radio link indicator - Downlink DPCH info for each RL - Primary CPICH usage for channel estimation - DPCH frame offset - Secondary CPICH info - Secondary scrambling code - channelisation code - DL channelisation code - Secondary scrambling code - Spreading factor - Code number - Scrambling code change - TPC combination index - SSDT Cell Identity - Closed loop timing adjustment mode - SCCPCH information for FACH	A4	 FDD Ref. to the Default setting in TS34.108 clause 6.1 (FDD) Not Present Not Present FALSE Primary CPICH may be used Set to value : Default DPCH Offset Value mod 38400 Not Present 3 Reference to TS34.108 clause 6.10 Parameter Set 0 No change 0 Not Present Not Present Not Present	REL-5
- Downlink information for each radio link - Choice mode - Primary CPICH info - Primary scrambling code - PDSCH with SHO DCH info - PDSCH code mapping - Serving HS-DSCH radio link indicator - Downlink DPCH info for each RL - SCCPCH information for FACH	A5, A7, A8	 FDD Ref. to the Default setting in TS34.108 clause 6.1 (FDD) Not Present Not Present FALSE Not present Not Present	REL-5
- Downlink information for each radio link	A6	Not Present	

Condition	Explanation	Version
A1	This IE need for "Non speech in CS"	
A2	This IE need for "Speech in CS"	
A3	This IE need for "Packet to CELL_DCH from CELL_DCH in PS"	
A4	This IE need for "Packet to CELL_DCH from CELL_FACH in PS"	
A5	This IE need for "Packet to CELL_FACH from CELL_DCH in PS"	
A6	This IE need for "Packet to CELL_FACH from CELL_FACH in PS"	
A7	This IE need for "Non speech to CELL_FACH from CELL_DCH in CS"	
A8	This IE need for "Speech to CELL_FACH from CELL_DCH in CS"	
A9	This IE is needed for "Packet to CELL_DCH from CELL_DCH / HS-DSCH in PS"	REL-5

[…]

Contents of TRANSPORT CHANNEL RECONFIGURATION message: AM or UM

[Note to MCC: Yellow highlighting should be removed]

Information Element	Condition	Value/remark	Version
Message Type	A1, A2, A3, A4, A5, A6		
RRC transaction identifier		Arbitrarily selects an integer between 0 and 3	
Integrity check info			
- message authentication code		SS calculates the value of MAC-I for this message and writes to this IE. The first/ leftmost bit of the bit string contains the most significant bit of the MAC-I.	
- RRC message sequence number		SS provides the value of this IE, from its internal counter.	
Integrity protection mode info		Not Present	
Ciphering mode info		Not Present	
Activation time	A1, A2, A3	(256+CFN-(CFN MOD 8 + 8))MOD 256	
Activation time	A4, A5, A6	Not Present	
New U-RNTI		Not Present	
New C-RNTI	A1, A2, A3, A4	Not Present	
New C-RNTI	A5, A6	'1010 1010 1010 1010'	
New DSCH-RNTI	A1, A2, A3, A4, A5, A6	Not Present	
New H-RNTI	A1, A2, A3, A4, A5, A6	Not Present	REL-5
RRC State indicator	A1, A2, A3, A4	CELL_DCH	
RRC State indicator	A5, A6	CELL_FACH	
UTRAN DRX cycle length coefficient	A1, A2, A3, A4,A5,A6	Not Present	
CN information info		Not Present	
URA identity		Not Present	
Downlink counter synchronisation info		Not Present	
UL Transport channel information for all transport channels	A1, A2, A5, A6	Not Present	

Information Element	Condition	Value/remark	Version
UL Transport channel information for all transport channels	A3, A4		
- PRACH TFCS		Not Present	
- CHOICE mode		FDD	
- TFC subset		Not Present	
- UL DCH TFCS			
- CHOICE TFCI signalling		Normal	
- TFCI Field 1 information			
- CHOICE TFCS representation		Complete reconfiguration	
- TFCS complete reconfigure information			
- CHOICE CTFC Size		Number of bits used must be enough to cover all combinations of CTFC from TS34.108 clause 6.10.2.4 Parameter Set.	
- CTFC information		This IE is repeated for TFC numbers and reference to TS34.108 clause 6.10.2.4 Parameter Set	
- CTFC		Reference to TS34.108 clause 6.10.2.4 Parameter Set	
- Power offset information			
- CHOICE Gain Factors		Computed Gain Factors(The last TFC is set to Signalled Gain Factors)	
- Gain factor βc		11 (below 64 kbps) 9 (higher than 64 kbps) (Not Present if the CHOICE Gain Factors is set to ComputedGain Factors)	
- Gain factor βd		15 (Not Present if the CHOICE Gain Factors is set to ComputedGain Factors)	
- Reference TFC ID		0	
- CHOICE mode		FDD	
- Power offset $P_{p\text{-}m}$		Not Present	
Added or Reconfigured UL TrCH information	A1, A2, A5, A6	Not Present	

Information Element	Condition	Value/remark	Version
Added or Reconfigured UL TrCH information	A4	2 TrCHs(DCH for DCCH and DCH for DTCH)	
- Uplink transport channel type		DCH	
- UL Transport channel identity		5	
- TFS			
- CHOICE Transport channel type		Dedicated transport channels	
- Dynamic Transport format information			
- RLC Size		Reference to TS34.108 clause 6.10 Parameter Set	
- Number of TBs and TTI List		(This IE is repeated for TFI number.)	
- Transmission Time Interval		Not Present	
- Number of Transport blocks		Reference to TS34.108 clause 6.10 Parameter Set	
- CHOICE Logical Channel list		All	
- Semi-static Transport Format information			
- Transmission time interval		Reference to TS34.108 clause 6.10 Parameter Set	
- Type of channel coding		Reference to TS34.108 clause 6.10 Parameter Set	
- Coding Rate		Reference to TS34.108 clause 6.10 Parameter Set	
- Rate matching attribute		Reference to TS34.108 clause 6.10 Parameter Set	
- CRC size		Reference to TS34.108 clause 6.10 Parameter Set	
- Uplink transport channel type		DCH	
- UL Transport channel identity		1	
- TFS			
- CHOICE Transport channel type		Dedicated transport channels	
- Dynamic Transport format information			
- RLC Size		Reference to TS34.108 clause 6.10 Parameter Set	
- Number of TBs and TTI List		(This IE is repeated for TFI number.)	
- Transmission Time Interval		Not Present	
- Number of Transport blocks		Reference to TS34.108 clause 6.10 Parameter Set	
- CHOICE Logical Channel list		All	
- Semi-static Transport Format information			
- Transmission time interval		Reference to TS34.108 clause 6.10 Parameter Set	
- Type of channel coding		Reference to TS34.108 clause 6.10 Parameter Set	
- Coding Rate		Reference to TS34.108 clause 6.10 Parameter Set	
- Rate matching attribute		Reference to TS34.108 clause 6.10 Parameter Set	
- CRC size		Reference to TS34.108 clause 6.10 Parameter Set	
Added or Reconfigured UL TrCH information	A3	(DCH for DTCH)	
- Uplink transport channel type		DCH	
- UL Transport channel identity		1	
- TFS			
- CHOICE Transport channel type		Dedicated transport channels	
- Dynamic Transport format information			
- RLC Size		Reference to TS34.108 clause 6.10 Parameter Set	
- Number of TBs and TTI List		(This IE is repeated for TFI number.)	
- Transmission Time Interval		Not Present	
- Number of Transport blocks		Reference to TS34.108 clause 6.10 Parameter Set	
- CHOICE Logical Channel list		All	
- Semi-static Transport Format information			
- Transmission time interval		Reference to TS34.108 clause 6.10 Parameter Set	
- Type of channel coding		Reference to TS34.108 clause 6.10 Parameter Set	
- Coding Rate		Reference to TS34.108 clause 6.10	

Information Element	Condition	Value/remark	Version
- Rate matching attribute		Parameter Set Reference to TS34.108 clause 6.10	
- CRC size		Parameter Set Reference to TS34.108 clause 6.10	
CHOICE *mode*	A1,A2,A3, A4,A5,A6	Parameter Set FDD	
- CPCH set ID		Not Present	
- Added or Reconfigured TrCH information for DRAC list		Not Present	
DL Transport channel information common for all transport channel	A1, A2, A5,A6	Not Present	
DL Transport channel information common for all transport channel	A3,A4		
- SCCPCH TFCS		Not Present	
- CHOICE mode		FDD	
- CHOICE DL parameters		Explicit	
- DL DCH TFCS			
- CHOICE TFCI Signalling		Normal	
- TFCI Field 1 Information			
- CHOICE TFCS representation		Complete reconfiguration	
- TFCS complete reconfigure			
- CHOICE CTFC Size		Number of bits used must be enough to cover all combinations of CTFC from clause TS34.108 clause 6.10.2.4 Parameter Set.	
- CTFC information		This IE is repeated for TFC numbers and reference to TS34.108 clause 6.10.2.4	
- CTFC		Reference to TS34.108 clause 6.10.2.4 Parameter Set	
- Power offset information		Not Present	
Added or Reconfigured DL TrCH information	A1, A2, A5, A6	Not Present	

Information Element	Condition	Value/remark	Version
Added or Reconfigured DL TrCH information	A4	2 TrCHs(DCH for DCCH and DCH for DTCH)	
- Downlink transport channel type		DCH	
- DL Transport channel identity		10	
- CHOICE DL parameters		Same as UL	
- Uplink transport channel type		DCH	
- UL TrCH identity		5	
- DCH quality target			
- BLER Quality value		Not Present	
- Downlink transport channel type		DCH	
- DL Transport channel identity		6	
- CHOICE DL parameters		Explicit	
- TFS			
- CHOICE Transport channel type		Dedicated transport channel	
- Dynamic transport format information			
- RLC Size		Reference to TS34.108 clause 6.10 Parameter Set	
- Number of TBs and TTI List		(This IE is repeated for TFI number.)	
- Dynamic transport format information			
- Transmission Time Interval		Not Present	
- Number of Transport blocks		Reference to TS34.108 clause 6.10 Parameter Set	
- Semi-static Transport Format information			
- Transmission time interval		Reference to TS34.108 clause 6.10 Parameter Set	
- Type of channel coding		Reference to TS34.108 clause 6.10 Parameter Set	
- Coding Rate		Reference to TS34.108 clause 6.10 Parameter Set	
- Rate matching attribute		Reference to TS34.108 clause 6.10 Parameter Set	
- CRC size		Reference to TS34.108 clause 6.10 Parameter Set	
- DCH quality target			
- BLER Quality value		-2.0	
Added or Reconfigured DL TrCH information	A3		
- Downlink transport channel type		DCH	
- DL Transport channel identity		6	
- CHOICE DL parameters		Explicit	
- TFS			
- CHOICE Transport channel type		Dedicated transport channel	
- Dynamic transport format information			
- RLC Size		Reference to TS34.108 clause 6.10 Parameter Set	
- Number of TBs and TTI List		(This IE is repeated for TFI number.)	
- Dynamic transport format information			
- Transmission Time Interval		Not Present	
- Number of Transport blocks		Reference to TS34.108 clause 6.10 Parameter Set	
- Semi-static Transport Format information			
- Transmission time interval		Reference to TS34.108 clause 6.10 Parameter Set	
- Type of channel coding		Reference to TS34.108 clause 6.10 Parameter Set	
- Coding Rate		Reference to TS34.108 clause 6.10 Parameter Set	
- Rate matching attribute		Reference to TS34.108 clause 6.10 Parameter Set	
- CRC size		Reference to TS34.108 clause 6.10 Parameter Set	
- DCH quality target			
- BLER Quality value		-2.0	
Frequency info	A1,A2,A3, A4,A5		
- UARFCN uplink (Nu)		Reference to clause 5.1 Test frequencies	
- UARFCN downlink (Nd)		Reference to clause 5.1 Test	

Information Element	Condition	Value/remark	Version
		frequencies	
Frequency info	A6	Not Present	
Maximum allowed UL TX power	A1,A2,A3, A4,A5,A6	33dBm	
CHOICE *channel requirement*	A5, A6	Not Present	
CHOICE channel requirement -Uplink DPCH power control info - DPCCH power offset - PC Preamble - SRB delay - Power Control Algorithm - TPC step size - Δ_{ACK} - Δ_{NACK} - Ack-Nack repetition factor - Scrambling code type - Scrambling code number - Number of DPDCH - spreading factor - TFCI existence - Number of FBI bit - Puncturing Limit	A1, A2, A3, A4	Uplink DPCH info -6dB 1 frame 7 frames Algorithm1 1dB Not Present Not Present Not Present Long 0 (0 to 16777215) Not Present(1) Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set	 REL-5 REL-5 REL-5
CHOICE Mode - Downlink PDSCH information	A1,A2,A3, A4,A5,A6	FDD Not Present	
Downlink HS-PDSCH Information	A1, A2, A3, A4, A5, A6	Not Present	REL-5
Downlink information common for all radio links	A5, A6	Not Present	
Downlink information common for all radio links - Downlink DPCH info common for all RL - Timing indicator - CFN-targetSFN frame offset - Downlink DPCH power control information - DPC mode - CHOICE mode - Power offset $P_{Pilot-DPDCH}$ - DL rate matching restriction information - Spreading factor - Fixed or Flexible Position - TFCI existence - CHOICE SF - DPCH compressed mode info - TX Diversity mode - SSDT information - Default DPCH Offset Value - MAC-hs reset indicator	A1, A2, A3	 Maintain Not Present 0 (single) FDD 0 Not Present Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Not Present None Not Present Not Present Not Present	 REL-5
Downlink information common for all radio links - Downlink DPCH info common for all RL - Timing indicator - CFN-targetSFN frame offset - Downlink DPCH power control information - DPC mode - CHOICE mode - Power offset $P_{Pilot-DPDCH}$ - DL rate matching restriction information - Spreading factor	A4	 Initialise Not Present 0 (single) FDD 0 Not Present Reference to TS34.108 clause 6.10	

Information Element	Condition	Value/remark	Version
- Fixed or Flexible Position		Parameter Set Reference to TS34.108 clause 6.10	
- TFCI existence		Parameter Set Reference to TS34.108 clause 6.10	
- CHOICE SF		Parameter Set Reference to TS34.108 clause 6.10	
- DPCH compressed mode info		Parameter Set Not Present	
- TX Diversity mode		None	
- SSDT information		Not Present	
- Default DPCH Offset Value		Arbitrary set to value 0..306688 by step of 512	
- MAC-hs reset indicator		Not Present	REL-5
Downlink information for each radio link list - Downlink information for each radio links - CHOICE mode - Primary CPICH info - Primary scrambling code - PDSCH with SHO DCH info - PDSCH code mapping - Serving HS-DSCH radio link indicator - Downlink DPCH info for each RL - Primary CPICH usage for channel estimation - DPCH frame offset - Power offset $P_{Pilot-DPDCH}$ - Secondary CPICH info - DL channelisation code - Secondary scrambling code - Spreading factor - Code number - Scrambling code change - TPC combination index - SSDT Cell Identity - Closed loop timing adjustment mode - SCCPCH information for FACH	A1, A2, A3	FDD Ref. to the Default setting in TS34.108 clause 6.1 (FDD) Not Present Not Present FALSE Primary CPICH may be used Set to value Default DPCH Offset Value (as currently stored in SS) mod 38400 0 Not Present 4 Reference to TS34.108 clause 6.10 Parameter Set 0 No change 0 Not Present Not Present Not Present	REL-5
Downlink information for each radio link list - Downlink information for each radio links - CHOICE mode - Primary CPICH info - Primary scrambling code - PDSCH with SHO DCH info - PDSCH code mapping - Serving HS-DSCH radio link indicator - Downlink DPCH info for each RL - Primary CPICH usage for channel estimation - DPCH frame offset - Power offset $P_{Pilot-DPDCH}$ - Secondary CPICH info - DL channelisation code - Secondary scrambling code - Spreading factor - Code number - Scrambling code change - TPC combination index - SSDT Cell Identity - Closed loop timing adjustment mode - SCCPCH information for FACH	A4	FDD Ref. to the Default setting in TS34.108 clause 6.1 (FDD) Not Present Not Present FALSE Primary CPICH may be used Set to value: Default DPCH Offset Value mod 38400 0 Not Present 4 Reference to TS34.108 clause 6.10 Parameter Set 0 No change 0 Not Present Not Present Not Present	REL-5
- Downlink information for each radio link - Choice mode	A5	FDD	

Information Element	Condition	Value/remark	Version
- Primary CPICH info - Primary scrambling code - PDSCH with SHO DCH info - PDSCH code mapping - Serving HS-DSCH radio link indicator - Downlink DPCH info for each RL - SCCPCH information for FACH		 Ref. to the Default setting in TS34.108 clause 6.1 (FDD) Not Present Not Present FALSE Not present Not Present	 REL-5
- Downlink information for each radio link	A6	Not Present	

Condition	Explanation
A1	This IE need for "Non speech in CS"
A2	This IE need for "Speech in CS"
A3	This IE need for "Packet to CELL_DCH from CELL_DCH in PS"
A4	This IE need for "Packet to CELL_DCH from CELL_FACH in PS"
A5	This IE need for "Packet to CELL_FACH from CELL_DCH in PS"
A6	This IE need for "Packet to CELL_FACH from CELL_FACH in PS"

3GPP TSG-T WG1 Meeting #23
Beijing, China, May 10th-14th, 2004

Tdoc ⌘T1-040752

CR-Form-v7

CHANGE REQUEST

⌘ **34.108** **CR** 323 ⌘ **rev** -- ⌘ Current version: **3.15.0** ⌘

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

Proposed change affects: UICC apps⌘ ☐ ME ☒ Radio Access Network ☐ Core Network ☐

Title:	⌘	Update of generic setup procedures in sections 7.3.4 and 7.3.5.
Source:	⌘	Ericsson
Work item code:	⌘	TEI
Date:	⌘	2004-05-10
Category:	⌘	**F**
Release:	⌘	R99

Use one of the following categories:
F *(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)
Rel-6 (Release 6)

Reason for change:	⌘	1. The generic setup procedure for the Handover case in section 7.3.4 of 34.108 needs to be clarified to also cover the soft handover case. 2. There are no RF test cases in 34.121 which refer to the generic setup procedure in 7.3.5.
Summary of change:	⌘	1. Clarified which configuration applies for soft handover. 2. Marked section 7.3.5 as void.
Consequences if not approved:	⌘	Not generic test procedure for soft handover case.

Clauses affected:	⌘	7.3.4 and 7.3.5

Other specs affected: ⌘	Y	N	
		X	Other core specifications
		X	Test specifications
		X	O&M Specifications

⌘

Other comments: ⌘

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

1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be

downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

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

7.3.4 Test procedure for Handover

7.3.4.1 Initial conditions

System Simulator

- Intra-frequency hard handover and soft handover case:
  - 2 cells, default parameters according to Cell 1 and Cell 2 in clause 6.1.4.
- Inter-frequency hard handover case:
  - 2 cells, default parameters according to Cell 1 and Cell 4 in clause 6.1.4.
- Inter-system handover UTRAN FDD to GSM case:
  - 2 cells, default parameters according to Cell 1 and Cell 9 in clause 6.1.4.

User Equipment

The UE shall be initially operated under the normal RF test conditions if not otherwise stated in the initial conditions for the actual test case.

The Test-USIM shall be inserted.

The UE has a valid TMSI (CS) after the execution of the procedure described in 7.2.2.1

The UE has a valid P-TMSI (PS) after the execution of the procedure described in 7.2.2.2

7.3.4.2 Definition of system information messages

The default system information messages specified in clause 6.1 are used with the following exceptions.

Contents of System information block type 1: RRC

Information Element	Value/remark
- CN domain system information	
- CN domain identity	PS
- CHOICE CN Type	GSM-MAP
- CN domain specific NAS system information	
- GSM-MAP NAS system information	00 00
- 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	00(T3212 is set to infinity) 01
- CN domain specific DRX cycle length coefficient	7
- UE Timers and constants in connected mode	
- T305	Infinity

For the intra-frequency hard handover and soft handover case the default messages for SIB11 and SIB12 as specified for Cell 1 and Cell 2 in clause 6.1.4 are used.

For the inter-frequency hard handover case the default messages for SIB11 and SIB12 as specified for Cell 1 and Cell 4 in clause 6.1.4 are used.

For the inter-system handover from UTRAN FDD to GSM case the default messages for SIB11 and SIB12 as specified for Cell 1 and Cell 9 in clause 6.1.4 are used.

7.3.4.3 Procedure

For UE supporting CS

Step	Direction		Message	Comments
	UE	SS		
1		<--	SYSTEM INFORMATION (BCCH)	Broadcast
2		<--	PAGING TYPE1 (PCCH)	Paging (CS domain, TMSI)
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		<--	ACTIVATE RB TEST MODE	TC
12		-->	ACTIVATE RB TEST MODE COMPLETE	TC
13		<--	RADIO BEARER SETUP	RRC - RAB SETUP using Reference Radio Bearer Configuration - RRC state indicator is set to "CELL_DCH"
14		-->	RADIO BEARER SETUP COMPLETE	RRC
15		<--	RRC CONNECTION RELEASE	RRC
16		-->	RRC CONNECTION RELEASE COMPLETE	RRC

For UE supporting PS only

Step	Direction		Message	Comments
	UE	SS		
1		<--	SYSTEM INFORMATION (BCCH)	Broadcast
2		<--	PAGING TYPE1 (PCCH)	Paging (PS domain, P-TMSI)
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		<--	ACTIVATE RB TEST MODE	TC
12		-->	ACTIVATE RB TEST MODE COMPLETE	TC
13		<--	RADIO BEARER SETUP	RRC - RAB SETUP using Reference Radio Bearer Configuration - RRC state indicator is set to "CELL_DCH"
14		-->	RADIO BEARER SETUP COMPLETE	RRC
15		<--	RRC CONNECTION RELEASE	RRC
16		-->	RRC CONNECTION RELEASE COMPLETE	RRC

7.3.4.4 Specific message contents

The default message contents specified in clause 9.2 are used with the following exceptions.

Contents of RADIO BEARER SETUP message: RRC

Information Element	Value/remark
New C-RNTI	'1010 1010 1010 1010'
RRC State indicator	CELL_DCH

Contents of Attach Accept message: GMM

Information Element	Value/remark
Periodic RA update timer	E0 (timer is deactivated)

7.3.5 Void~~Test procedure for Measurement Performance Requirement~~

~~FFS~~

3GPP TSG-T WG1 Meeting #23
Beijing, China, May 10th-14th, 2004

Tdoc ⌘T1-040753

CR-Form-v7

CHANGE REQUEST

⌘ **34.108** **CR** 324 ⌘ **rev** **-** ⌘ Current version: **4.10.0** ⌘

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

Proposed change affects: UICC apps⌘ ☐ ME ☒ Radio Access Network ☐ Core Network ☐

Title:	⌘	Update of generic setup procedures in sections 7.3.4 and 7.3.5.
Source:	⌘	Ericsson
Work item code:	⌘	TEI
Date:	⌘	2004-05-10
Category:	⌘	**A**
Release:	⌘	Rel-4

Use one of the following categories:
F *(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)*
Rel-6	*(Release 6)*

Reason for change:	⌘	1. The generic setup procedure for the Handover case in section 7.3.4 of 34.108 needs to be clarified to also cover the soft handover case. 2. There are no RF test cases in 34.121 which refer to the generic setup procedure in 7.3.5.
Summary of change:	⌘	1. Clarified which configuration applies for soft handover. 2. Marked section 7.3.5 as void.
Consequences if not approved:	⌘	Not generic test procedure for soft handover case.

Clauses affected:	⌘	7.3.4 and 7.3.5

		Y	N		
Other specs affected:	⌘		X	Other core specifications	⌘
			X	Test specifications	
			X	O&M Specifications	

Other comments:	⌘	

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

1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be

downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

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

7.3.4 Test procedure for Handover

7.3.4.1 Initial conditions

System Simulator

- Intra-frequency hard handover and soft handover case:
  - 2 cells, default parameters according to Cell 1 and Cell 2 in clause 6.1.4.
- Inter-frequency hard handover case:
  - 2 cells, default parameters according to Cell 1 and Cell 4 in clause 6.1.4.
- Inter-system handover UTRAN FDD to GSM case:
  - 2 cells, default parameters according to Cell 1 and Cell 9 in clause 6.1.4.

User Equipment

The UE shall be initially operated under the normal RF test conditions if not otherwise stated in the initial conditions for the actual test case.

The Test-USIM shall be inserted.

The UE has a valid TMSI (CS) after the execution of the procedure described in 7.2.2.1

The UE has a valid P-TMSI (PS) after the execution of the procedure described in 7.2.2.2

7.3.4.2 Definition of system information messages

The default system information messages specified in clause 6.1 are used with the following exceptions.

Contents of System information block type 1: RRC

Information Element	Value/remark
- CN domain system information	
- CN domain identity	PS
- CHOICE CN Type	GSM-MAP
- CN domain specific NAS system information	
- GSM-MAP NAS system information	00 00
- 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	00(T3212 is set to infinity) 01
- CN domain specific DRX cycle length coefficient	7
- UE Timers and constants in connected mode	
- T305	Infinity

For the intra-frequency hard handover and soft handover case the default messages for SIB11 and SIB12 as specified for Cell 1 and Cell 2 in clause 6.1.4 are used.

For the inter-frequency hard handover case the default messages for SIB11 and SIB12 as specified for Cell 1 and Cell 4 in clause 6.1.4 are used.

For the inter-system handover from UTRAN FDD to GSM case the default messages for SIB11 and SIB12 as specified for Cell 1 and Cell 9 in clause 6.1.4 are used.

7.3.4.3 Procedure

For UE supporting CS

Step	Direction		Message	Comments
	UE	SS		
1		<--	SYSTEM INFORMATION (BCCH)	Broadcast
2		<--	PAGING TYPE1 (PCCH)	Paging (CS domain, TMSI)
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		<--	ACTIVATE RB TEST MODE	TC
12		-->	ACTIVATE RB TEST MODE COMPLETE	TC
13		<--	RADIO BEARER SETUP	RRC - RAB SETUP using Reference Radio Bearer Configuration - RRC state indicator is set to "CELL_DCH"
14		-->	RADIO BEARER SETUP COMPLETE	RRC
15		<--	RRC CONNECTION RELEASE	RRC
16		-->	RRC CONNECTION RELEASE COMPLETE	RRC

For UE supporting PS only

Step	Direction		Message	Comments
	UE	SS		
1		<--	SYSTEM INFORMATION (BCCH)	Broadcast
2		<--	PAGING TYPE1 (PCCH)	Paging (PS domain, P-TMSI)
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		<--	ACTIVATE RB TEST MODE	TC
12		-->	ACTIVATE RB TEST MODE COMPLETE	TC
13		<--	RADIO BEARER SETUP	RRC - RAB SETUP using Reference Radio Bearer Configuration - RRC state indicator is set to "CELL_DCH"
14		-->	RADIO BEARER SETUP COMPLETE	RRC
15		<--	RRC CONNECTION RELEASE	RRC
16		-->	RRC CONNECTION RELEASE COMPLETE	RRC

7.3.4.4 Specific message contents

The default message contents specified in clause 9.2 are used with the following exceptions.

Contents of RADIO BEARER SETUP message: RRC

Information Element	Value/remark
New C-RNTI	'1010 1010 1010 1010'
RRC State indicator	CELL_DCH

Contents of Attach Accept message: GMM

Information Element	Value/remark
Periodic RA update timer	E0 (timer is deactivated)

7.3.5 Void~~Test procedure for Measurement Performance Requirement~~

~~FFS~~

3GPP TSG-T WG1 Meeting #23
Beijing, China, May 10th-14th, 2004

Tdoc ⌘T1-040754

CR-Form-v7

CHANGE REQUEST

⌘ **34.108** **CR** 325 ⌘ **rev** **-** ⌘ Current version: **5.0.0** ⌘

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

Proposed change affects: UICC apps⌘ ☐ ME ☒ Radio Access Network ☐ Core Network ☐

Title:	⌘	Update of generic setup procedures in sections 7.3.4 and 7.3.5.
Source:	⌘	Ericsson
Work item code:	⌘	TEI
Date:	⌘	2004-05-10
Category:	⌘	**A**
Release:	⌘	Rel-5

Use one of the following categories:
F *(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)*
Rel-6	*(Release 6)*

Reason for change:	⌘	1. The generic setup procedure for the Handover case in section 7.3.4 of 34.108 needs to be clarified to also cover the soft handover case. 2. There are no RF test cases in 34.121 which refer to the generic setup procedure in 7.3.5.
Summary of change:	⌘	1. Clarified which configuration applies for soft handover. 2. Marked section 7.3.5 as void.
Consequences if not approved:	⌘	Not generic test procedure for soft handover case.

Clauses affected:	⌘	7.3.4 and 7.3.5

		Y	N		
Other specs affected:	⌘		X	Other core specifications	⌘
			X	Test specifications	
			X	O&M Specifications	

Other comments:	⌘	

How to create CRs using this form:
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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://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

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

7.3.4 Test procedure for Handover

7.3.4.1 Initial conditions

System Simulator

- Intra-frequency hard handover and soft handover case:
  - 2 cells, default parameters according to Cell 1 and Cell 2 in clause 6.1.4.
- Inter-frequency hard handover case:
  - 2 cells, default parameters according to Cell 1 and Cell 4 in clause 6.1.4.
- Inter-system handover UTRAN FDD to GSM case:
  - 2 cells, default parameters according to Cell 1 and Cell 9 in clause 6.1.4.

User Equipment

The UE shall be initially operated under the normal RF test conditions if not otherwise stated in the initial conditions for the actual test case.

The Test-USIM shall be inserted.

The UE has a valid TMSI (CS) after the execution of the procedure described in 7.2.2.1

The UE has a valid P-TMSI (PS) after the execution of the procedure described in 7.2.2.2

7.3.4.2 Definition of system information messages

The default system information messages specified in clause 6.1 are used with the following exceptions.

Contents of System information block type 1: RRC

Information Element	Value/remark
- CN domain system information	
- CN domain identity	PS
- CHOICE CN Type	GSM-MAP
- CN domain specific NAS system information	
- GSM-MAP NAS system information	00 00
- 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	00(T3212 is set to infinity) 01
- CN domain specific DRX cycle length coefficient	7
- UE Timers and constants in connected mode	
- T305	Infinity

For the intra-frequency hard handover and soft handover case the default messages for SIB11 and SIB12 as specified for Cell 1 and Cell 2 in clause 6.1.4 are used.

For the inter-frequency hard handover case the default messages for SIB11 and SIB12 as specified for Cell 1 and Cell 4 in clause 6.1.4 are used.

For the inter-system handover from UTRAN FDD to GSM case the default messages for SIB11 and SIB12 as specified for Cell 1 and Cell 9 in clause 6.1.4 are used.

7.3.4.3 Procedure

For UE supporting CS

Step	Direction		Message	Comments
	UE	SS		
1		<--	SYSTEM INFORMATION (BCCH)	Broadcast
2		<--	PAGING TYPE1 (PCCH)	Paging (CS domain, TMSI)
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		<--	ACTIVATE RB TEST MODE	TC
12		-->	ACTIVATE RB TEST MODE COMPLETE	TC
13		<--	RADIO BEARER SETUP	RRC - RAB SETUP using Reference Radio Bearer Configuration - RRC state indicator is set to "CELL_DCH"
14		-->	RADIO BEARER SETUP COMPLETE	RRC
15		<--	RRC CONNECTION RELEASE	RRC
16		-->	RRC CONNECTION RELEASE COMPLETE	RRC

For UE supporting PS only

Step	Direction		Message	Comments
	UE	SS		
1		<--	SYSTEM INFORMATION (BCCH)	Broadcast
2		<--	PAGING TYPE1 (PCCH)	Paging (PS domain, P-TMSI)
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		<--	ACTIVATE RB TEST MODE	TC
12		-->	ACTIVATE RB TEST MODE COMPLETE	TC
13		<--	RADIO BEARER SETUP	RRC - RAB SETUP using Reference Radio Bearer Configuration - RRC state indicator is set to "CELL_DCH"
14		-->	RADIO BEARER SETUP COMPLETE	RRC
15		<--	RRC CONNECTION RELEASE	RRC
16		-->	RRC CONNECTION RELEASE COMPLETE	RRC

7.3.4.4 Specific message contents

The default message contents specified in clause 9.2 are used with the following exceptions.

Contents of RADIO BEARER SETUP message: RRC

Information Element	Value/remark
New C-RNTI	'1010 1010 1010 1010'
RRC State indicator	CELL_DCH

Contents of Attach Accept message: GMM

Information Element	Value/remark
Periodic RA update timer	E0 (timer is deactivated)

7.3.5 Void~~Test procedure for Measurement Performance Requirement~~

~~FFS~~

3GPP TSG-T WG1 Meeting #23
Beijing, China, May 10th-14th, 2004

Tdoc ⌘T1-040931

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CR-Form-v7

CHANGE REQUEST

⌘ **34.108** **CR** 335 ⌘ **rev** **-** ⌘ Current version: **5.0.0** ⌘

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

Proposed change affects: UICC apps⌘ ☐ ME ☒ Radio Access Network ☐ Core Network ☐

Title:	⌘	Changes to establish one version of 34.108 covering all releases
Source:	⌘	Ericsson
Work item code:	⌘	TEI
Date:	⌘	2004-05-02
Category:	⌘	**A**
Release:	⌘	Release 5

Use one of the following categories:
F *(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)*
Rel-6	*(Release 6)*

Reason for change: ⌘ Creation of a single version of 34.108 covering all releases.

Summary of change: ⌘

1. Corrections due to inconsistencies between Rel-5 and R99 versions of 34.108 (for release independent areas).

2. Version columns have been added to the following default messages and Rel-4 and Rel-5 IEs have been tagged accordingly:

   a. ACTIVE SET UPDATE
   b. CELL UPDATE
   c. INITIAL DIRECT TRANSFER
   d. MEASUREMENT REPORT
   e. PHYSICAL CHANNEL RECONFIGURATION
   f. PHYSICAL CHANNEL RECONFIGURATION COMPLETE
   g. RADIO BEARER RECONFIGURATION
   h. RADIO BEARER RECONFIGURATION COMPLETE
   i. RADIO BEARER RELEASE COMPLETE
   j. RADIO BEARER SETUP
   k. RADIO BEARER SETUP COMPLETE
   l. RRC CONNECTION RELEASE
   m. RRC CONNECTION REQUEST
   n. RRC CONNECTION SETUP
   o. TRANSPORT CHANNEL RECONFIGURATION

p. TRANSPORT CHANNEL RECONFIGURATION COMPLETE

Note!
Additional changes to default messages related to HSDPA are introduced by separate CR.

3. Moved Rel-5 reference radio bearer from Annex B to relevant sections in section 6.10.

4. Annex B marked as void.

5. Changed value of IE "DPCCH power offset" from –6 dB to -80dB (i.e. ASN.1 IE value of –40) in following messages:

   - RADIO BEARAR SETUP message AM or UM (merged from T1-040672).
   ~~- RADIO BEARER SETUP message: AM or UM (UE supports CS RAB)~~
   ~~- RRC CONNECTION SETUP message: UM~~

6. Added release indications to reference radio bearers in section 6.10.

Consequences if not approved:	⌘	Not possible to create one version of 34.108.

Clauses affected:	⌘	Section 6 to 9, Annex B

		Y	N		
Other specs affected:	⌘		X	Other core specifications	⌘
			X	Test specifications	
			X	O&M Specifications	

Other comments:	⌘	

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3GPP TSG-T WG1 Meeting #23
Beijing, China, May 10th-14th, 2004

Tdoc ⌘T1-040934

CR-Form-v7

CHANGE REQUEST

⌘ **34.108** **CR** 338 ⌘ **rev** **-** ⌘ Current version: **5.0.0** ⌘

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

Proposed change affects: UICC apps⌘ ☐ ME ☒ Radio Access Network ☐ Core Network ☐

Title:	⌘	Addition of generic test procedure for AS test cases using the test loop
Source:	⌘	Ericsson
Work item code:	⌘	TEI
Date:	⌘	2004-04-28
Category:	⌘	**A**
Release:	⌘	Release 5

Use one of the following categories:
F *(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)
Rel-6 (Release 6)

Reason for change:	⌘	Addition of generic test procedure for AS test cases using UE test loop functionality
Summary of change:	⌘	1. Figure 7.4.1.1 updated to show a. new states "CS-DCCH+DTCH_DCH_TEST_ LOOP" (6-9a), "PS-DCCH+DTCH_DCH_TEST_ LOOP" (6-10a) and "PS-DCCH+DTCH_FACH_TEST_ LOOP" (6-11a); and b. new transitions P4a, P7a and P9a. 2. Table 7.4.1.1 updated to add the new states. 3. New section 7.4.2.5a added to define procedure for transition P7. 4. New section 7.4.2.6a added to define procedure for transition P4a and P9a. Corrections introduced in T1-040934 color coded in blue.
Consequences if not approved:	⌘	Generic test procedures in 34.108 can not be used by AS test cases using UE test loop.

Clauses affected:	⌘	7.4.1, 7.4.2.5a (new) and 7.4.2.6a (new).

Other specs affected: ⌘	Y	N		⌘
		X	Other core specifications	
		X	Test specifications	
		X	O&M Specifications	

Other comments: ⌘	

How to create CRs using this form:

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1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

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

7.4 Common generic procedures for AS testing

7.4.1 UE RRC Test States for common procedures

Registered Idle Mo on CS (State 2

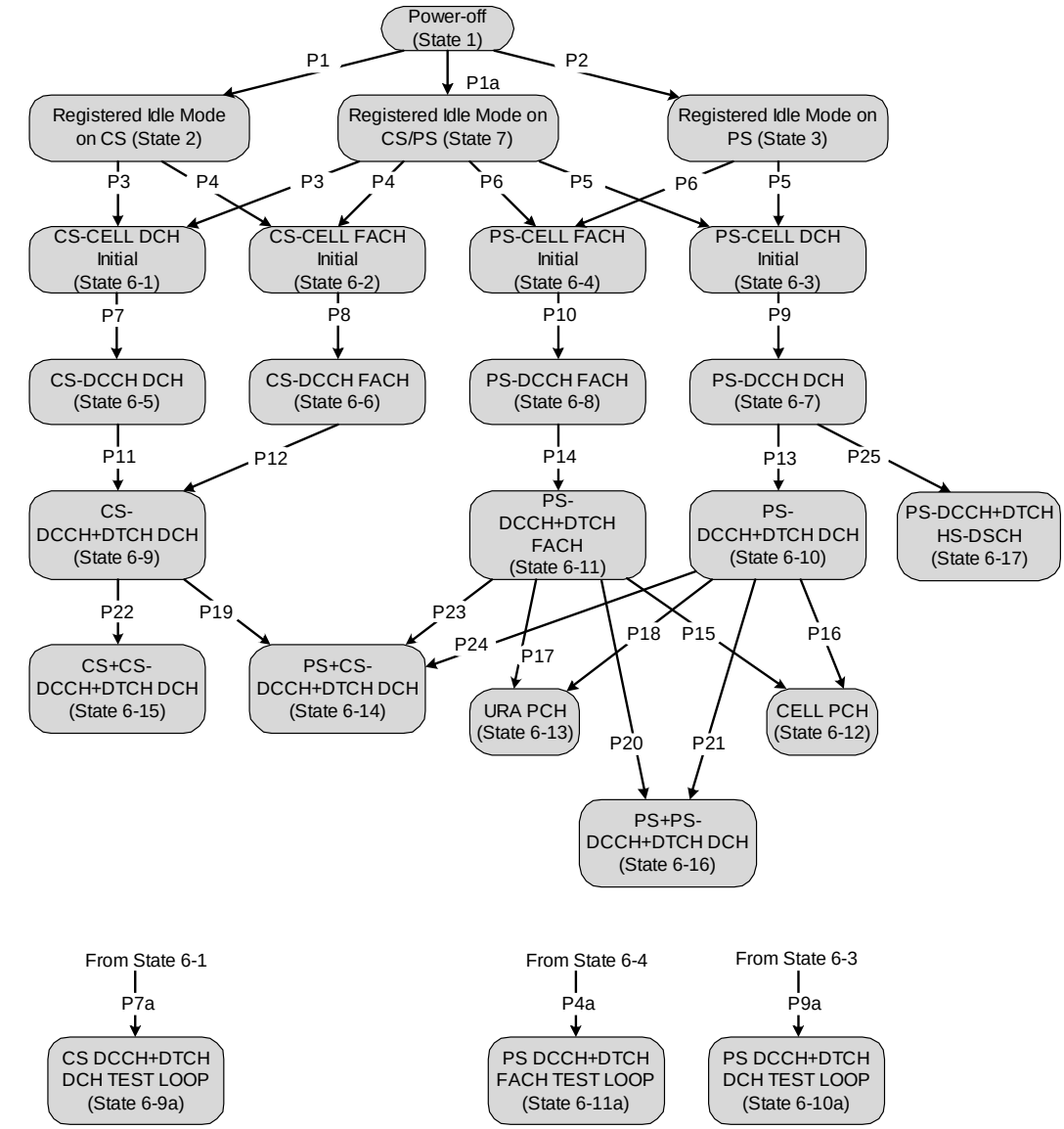

Figure 7.4.1.1: UE RRC test initial states and common procedures

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, the operating states for various protocols in the UE are given in table 7.4.1.1.

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 BGP6-9a	**CS-DCCH+DTCH_DCH_TEST_LOOP**	Connected (CELL_DCH)	Null	As previous	Inactive	As previous
State BGP6-10	**PS-DCCH+DTCH_DCH**	Connected (CELL_DCH)	Null	As previous	Active	As previous
State BGP6-10a	**PS-DCCH+DTCH_DCH_TEST_LOOP**	Connected (CELL_DCH)	Null	As previous	Inactive	As previous
State BGP6-11	**PS-DCCH+DTCH_FACH**	Connected (CELL_FACH)	Null	As previous	Active	As previous
State BGP6-11a	**PS-DCCH+DTCH_FACH_TEST_LOOP**	Connected (CELL_FACH)	Null	As previous	Inactive	As previous
State BGP6-12	**CELL_PCH**	Connected (CELL_PCH)	Null	As previous	Inactive	As previous
State BGP6-13	**URA_PCH**	Connected (URA_PCH)	Null	As previous	Inactive	As previous
State BGP6-14	**PS+CS-DCCH+DTCH_DCH**	Connected (CELL_DCH)	Connected	As previous	Active	As previous
State BGP6-15	**CS+CS-DCCH+DTCH_DCH**	Connected (CELL_DCH)	Connected	As previous	Inactive	As previous
State BGP6-16	**PS+PS-DCCH+DTCH_DCH**	Connected (CELL_DCH)	Null	As previous	Active	As previous
State BGP6-17	**PS-DCCH+DTCH_HS-DSCH**	Connected (CELL_DCH)	Null	As previous	Active	As previous

State 1, state 2, state 3, P1, P2 and P1a are described in TS34.108 clause 7.2. States 6-X (for X=1 to 17) 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 5.2 and 6.1 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
5	-->		PAGING RESPONSE	RR

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 34.108 clause 9 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 5.2 and 6.1 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
4	-->		CM SERVICE REQUEST	MM

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 34.108 clause 9 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 5.2 and 6.1 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
5	-->		SERVICE REQUEST	GMM

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 34.108 clause 9 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 5.2 and 6.1 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
4	-->		SERVICE REQUEST	GMM

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 34.108 clause 9 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 5.2 and 6.1 of TS 34.108. Reference Test Conditions.

Step	Direction		Message	Comments
	UE	SS		
1	<--		AUTHENTICATION REQUEST	MM
2	-->		AUTHENTICATION RESPONSE	MM
3	<--		SECURITY MODE COMMAND	RRC
4	-->		SECURITY MODE COMPLETE	RRC
5	<--		SET UP	CC
6	-->		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 5.2 and 6.1 of TS 34.108. Reference Test Conditions.

Step	Direction		Message	Comments
	UE	SS		
1	<--		AUTHENTICATION REQUEST	MM
2	-->		AUTHENTICATION RESPONSE	MM
3	<--		SECURITY MODE COMMAND	RRC
4	-->		SECURITY MODE COMPLETE	RRC
5	-->		SET UP	CC
6	<--		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 5.2 and 6.1 of TS 34.108. Reference Test Conditions.

Step	Direction		Message	Comments
	UE	SS		
1	<--		AUTHENTICATION AND CIPHERING REQUEST	GMM
2	-->		AUTHENTICATION AND CIPHERING RESPONSE	GMM
3	<--		SECURITY MODE COMMAND	RRC
4	-->		SECURITY MODE COMPLETE	RRC
5	<--		REQUEST PDP CONTEXT ACTIVATION	SM
6	-->		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 5.2 and 6.1 of TS 34.108. Reference Test Conditions.

Step	Direction		Message	Comments
	UE	SS		
1	<--		AUTHENTICATION AND CIPHERING REQUEST	GMM
2	-->		AUTHENTICATION AND CIPHERING RESPONSE	GMM
3	<--		SECURITY MODE COMMAND	RRC
4	-->		SECURITY MODE COMPLETE	RRC
5	-->		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 5.2 and 6.1 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 clause 9 of TS 34.108) 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 5.2 and 6.1 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 clause 9 of TS 34.108) for the message in step 1.

7.4.2.5a Test loop activation and radio access bearer establishment procedure for circuit switched calls (procedure P7a)

7.4.2.5a.1 Initial conditions

System Simulator:

- 1 cell, default parameters.

User Equipment:

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

7.4.2.5a.2 Definition of system information messages

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

7.4.2.5a.3 Procedure

The Call Set-up procedure shall be performed under Ideal radio conditions as defined in clause 5.2 and 6.1 of TS 34.108. Reference Test Conditions.

Step	Direction		Message	Comments
	UE	SS		
1		<--	AUTHENTICATION REQUEST	MM
2		-->	AUTHENTICATION RESPONSE	MM
3		<--	SECURITY MODE COMMAND	RRC
4		-->	SECURITY MODE COMPLETE	RRC
5		<--	ACTIVATE RB TEST MODE (DCCH)	TC
6		-->	ACTIVATE RB TEST MODE COMPLETE (DCCH)	TC
1		<--	RADIO BEARER SETUP	RRC RAB SETUP
2		-->	RADIO BEARER SETUP COMPLETE	RRC
14		<--	CLOSE UE TEST LOOP (DCCH)	TC UE test mode 1 RLC SDU size set as specified for the actual test case.
15		-->	CLOSE UE TEST LOOP COMPLETE (DCCH)	TC

7.4.2.5a.4 Specific message contents

To execute procedure P7a, use the message titled "CS speech" (defined in clause 9 of TS 34.108) for the message in step 1.

7.4.2.6 Radio access bearer establishment procedure for packet switched sessions (procedure P13, P14 and P25)

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 5.2 and 6.1 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 clause 9 of TS 34.108 are used. To execute procedure P13, use the message titled "Packet to CELL_DCH from CELL_DCH in PS". To execute procedure P14, use the message titled "Packet to CELL_FACH from CELL_FACH in PS". To execute procedure P25, use the message titled "Packet to CELL_DCH / HS-DSCH from CELL_DCH 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 5.2 and 6.1 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 clause 9 of TS 34.108 are used. To execute procedure P13, use the message titled "Packet to CELL_DCH from CELL_DCH in PS". To execute procedure P14, use the message titled "Packet to CELL_FACH from CELL_FACH in PS". To execute procedure P25, use the message titled "Packet to CELL_DCH / HS-DSCH from CELL_DCH in PS".

7.4.2.6a Test loop activation and radio access bearer establishment procedure for packet switched sessions (procedure P13a)

7.4.2.6a.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.

7.4.2.6a.2 Definition of system information messages

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

7.4.2.6a.3 Procedure

The Session Set-up procedure shall be performed under Ideal radio conditions as defined in clause 5.2 and 6.1 of TS 34.108. Reference Test Conditions.

Step	Direction		Message	Comments
	UE	SS		
1	<--		AUTHENTICATION AND CIPHERING REQUEST	GMM
2	-->		AUTHENTICATION AND CIPHERING RESPONSE	GMM
3	<--		SECURITY MODE COMMAND	RRC
4	-->		SECURITY MODE COMPLETE	RRC
5	<--		ACTIVATE RB TEST MODE (DCCH)	TC
6	-->		ACTIVATE RB TEST MODE COMPLETE (DCCH)	TC
7	<--		RADIO BEARER SETUP	RRC RAB SETUP
8	-->		RADIO BEARER SETUP COMPLETE	RRC
14	<--		CLOSE UE TEST LOOP (DCCH)	TC UE test mode 1 RLC SDU size set as specified for the actual test case.
15	-->		CLOSE UE TEST LOOP COMPLETE (DCCH)	TC

7.4.2.6a.4 Specific message contents

For step 1, the messages in clause 9 of TS 34.108 are used. To execute procedure P9a, use the message titled "Packet to CELL_DCH from CELL_DCH in PS". To execute procedure 4a, use the message titled "Packet to CELL_FACH from CELL_FACH in PS".

<End of modified section>

CR-Form-v7

CHANGE REQUEST

⌘ **TS34.108** **CR** 330 ⌘ **rev** **-** ⌘ Current version: **5.0.0** ⌘

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

Proposed change affects: UICC apps⌘ ☐ ME ☐ Radio Access Network ☐ Core Network ☐

Title:	⌘	Corrections to Contents of Scheduling Block 1 (FDD)
Source:	⌘	Anritsu
Work item code:	⌘	***Date:*** ⌘ 12/05/2004
Category:	⌘	**F** ***Release:*** ⌘ Rel-5

Use one of the following categories:
- ***F*** *(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)*
Rel-6	*(Release 6)*

Reason for change:	⌘	Area scope of Scheduling block 1 is “cell” , but Value tag is “PLMN Value tag” in Contents of Scheduling Block 1. TS25.331 specified that a value tag is set to “Cell Value tag” , if the Area scope is “cell” in table 8.1.1.
Summary of change:	⌘	Value tag is changed from PLMN Value tag to Cell Value tag
Consequences if not approved:	⌘	25.331 and 34.108 are inconsistent.

Clauses affected:	⌘	6.1.0a.3			
Other specs affected:	⌘	**Y**	**N**		⌘
		☐	☐	Other core specifications	
		☐	☐	Test specifications	
		☐	☐	O&M Specifications	
Other comments:	⌘	This CR applies for Rel-99 and later releases.			

How to create CRs using this form:

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1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

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ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

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

6.1.0a.3 SIB default schedule

Block Type	MIB	SB1	SIB1	SIB2	SIB3	SIB4	SIB5	SIB6	SIB7	SIB11	SIB12	SIB18
SIB_REP	8	16	64	64	64	64	64	64	16	64	64	64
SEG_ COUNT	1	1	1	1	1	1	4	4	1	3	3	1

Frame No / SIB_POS	0	2	4	6	8	10	12	14
Block Type	MIB	SB1	SIB7	SIB6	MIB	SIB6	SIB6	SIB6

Frame No / SIB_POS	16	18	20	22	24	26	28	30
Block Type	MIB	SB1	SIB7/SIB3	SIB1/SIB 2	MIB	SIB12	SIB12	SIB12

Frame No / SIB_POS	32	34	36	38	40	42	44	46
Block Type	MIB	SB1	SIB7/SIB1 8	SIB5	MIB	SIB5	SIB5	SIB5

Frame No / SIB_POS	48	50	52	54	56	58	60	62
Block Type	MIB	SB1	SIB7/SIB4		MIB	SIB11	SIB11	SIB11

The SEG_COUNT in the table specifies the maximum possible transport BCH blocks scheduled for broadcasting. The more contents a SIB has, the more transport BCH blocks are needed for broadcasting. In order to keep SIB repetition period, SIB_REP, unchanged in different test cases, each specific SIB in the individual test cases after the PER encoding shall not exceed the SEG_COUNT scheduled.

If the transport BCH blocks actually required for a SIB is less than the scheduled SEG_COUNT, the no_segment blocks shall be placed at the rest scheduled transport BCH blocks. In addition, the corresponding SEG_COUNT IE value in MIB or in SB1 shall be set to the number of transport BCH blocks actually required.

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

- MIB value tag	1
- Supported PLMN types	
- PLMN type	GSM-MAP
- PLMN identity	
- MCC digit	Set to the same Mobile Country Codes stored in the test USIM card (TS 34.108 clause 8.3.2.2 EF IMSI(IMSI)).
- MNC digit	Set to the same Mobile Network Codesstored in the test USIM card (TS 34.108 clause 8.3.2.2 EF IMSI(IMSI)).
- ANSI-41 Core Network information	Not Present
- References to other system information blocks and scheduling blocks	
- References to other system information blocks	
- Scheduling information	
- CHOICE Value tag	Cell Value Tag
- Cell Value tag	1
- Scheduling	
- SEG_COUNT	1
- SIB_REP	16
- SIB_POS	2
- SIB_POS offset info	Not Present – use default
- SIB and SB type	Scheduling Block 1
- Scheduling information	
- CHOICE Value tag	PLMN Value tag
- PLMN Value tag	1
- SEG_COUNT	1
- SIB_REP	64
- SIB_POS	22
- SIB_POS offset info	Not Present – use default
- SIB and SB type	System Information Type 1
- Scheduling information	
- CHOICE Value tag	Cell Value tag
- Cell Value tag	1
- SEG_COUNT	1
- SIB_REP	64
- SIB_POS	22
- SIB_POS offset info	Not Present – use default
- SIB and SB type	System Information Type 2
- Scheduling information	
- CHOICE Value tag	Cell Value tag
- Cell Value tag	1
- SEG_COUNT	1
- SIB_REP	64
- SIB_POS	20
- SIB_POS offset info	Not Present – use default
- SIB and SB type	System Information Type 3
- Scheduling information	
- CHOICE Value tag	Cell Value tag
- Cell Value tag	1
- SEG_COUNT	1
- SIB_REP	64
- SIB_POS	52
- SIB_POS offset info	Not Present – use default
- SIB and SB type	System Information Type 4
- Scheduling information	
- CHOICE Value tag	Cell Value tag
- Cell Value tag	1
- SEG_COUNT	4
- SIB_REP	64
- SIB_POS	38
- SIB_POS offset info	
- SIB_OFF	4
- SIB_OFF	2
- SIB_OFF	2
- SIB and SB type	System Information Type 5

Contents of Scheduling Block 1 (FDD and 1.28 Mcps TDD)

- References to other system information blocks	
- Scheduling information	
- CHOICE Value tag	Cell Value tag
- Cell Value tag	1
- SEG_COUNT	4
- SIB_REP	64
- SIB_POS	6
- SIB_POS offset info	
- SIB_OFF	4
- SIB_OFF	2
- SIB_OFF	2
- SIB type SIBs only	System Information Type 6
- Scheduling information	
- CHOICE Value tag	Not Present
- SEG_COUNT	1
- SIB_REP	16
- SIB_POS	4
- SIB_POS offset info	Not Present
- SIB type SIBs only	System Information Type 7
- Scheduling information	
- CHOICE Value tag	Cell Value tag
- Cell Value tag	1
- SEG_COUNT	3
- SIB_REP	64
- SIB_POS	58
- SIB_POS offset info	
- SIB_OFF	2
- SIB_OFF	2
- SIB type SIBs only	System Information Type 11
- Scheduling information	
- CHOICE Value tag	Cell Value tag
- Cell Value tag	1
- SEG_COUNT	3
- SIB_REP	64
- SIB_POS	26
- SIB_POS offset info	
- SIB_OFF	2
- SIB_OFF	2
- SIB type SIBs only	System Information Type 12
- Scheduling information	
- CHOICE Value tag	Cell Value tag~~PLMN Value tag~~
Cell Value tag~~- PLMN Value tag~~	1
- SEG_COUNT	1
- SIB_REP	64
- SIB_POS	36
- SIB_POS offset info	Not Present
- SIB type SIBs only	System Information Type 18

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CHANGE REQUEST

⌘ **TS34.108** **CR** 331 ⌘ **rev** **-** ⌘ Current version: **5.0.0** ⌘

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

Proposed change affects: UICC apps⌘ ☐ ME ☐ Radio Access Network ☐ Core Network ☐

Title:	⌘	Corrections to Contents of PHYSICAL CHANNEL RECONFIGURATION message: AM or UM
Source:	⌘	Anritsu
Work item code:	⌘	***Date:*** ⌘ 12/05/2004
Category:	⌘	**F** ***Release:*** ⌘ Rel 5

Use one of the following categories:
- ***F*** *(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)*
Rel-6	*(Release 6)*

Reason for change:	⌘	"Power offset $P_{Pilot-DPDCH}$" is not specified in TS25.331 10.3.6.21 Downlink DPCH info for each RL , 11.3 Information element definitions (ASN.1).
Summary of change:	⌘	Delete "Power offset $P_{Pilot-DPDCH}$ (0)" in Downlink information for each radio links.
Consequences if not approved:	⌘	25.331 and 34.108 are inconsistent.

Clauses affected:	⌘	9.1.1			
Other specs affected:	⌘	**Y**	**N**		
		☐	☐	Other core specifications	⌘
		☐	☐	Test specifications	
		☐	☐	O&M Specifications	
Other comments:	⌘	This CR applies for Rel-99 and later releases.			

How to create CRs using this form:

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

1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

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

9.1 Default Message Contents for Signalling

9.1.1 Default RRC Message Contents (FDD)

This clause contains the default values of common messages, which unless indicated otherwise in specific clauses of TS 34.123-1, shall be transmitted and checked by the system simulator.
In this clause, decimal values are normally used. However, sometimes a hexadecimal value, indicated by an "H", or a binary value, indicated by a "B" is used.
The necessary L3 messages are listed in alphabetic order, with the exception of the SYSTEM INFORMATION messages, where it is the information elements which are listed in alphabetic order (this is because some information elements occur in several SYSTEM INFORMATION types).

Default SYSTEM INFORMATION:

NOTE: SYSTEM INFORMATION BLOCK TYPE 1 (except for PLMN type "GSM-MAP"), SYSTEM INFORMATION BLOCK TYPE 8, SYSTEM INFORMATION BLOCK TYPE 9, SYSTEM INFORMATION BLOCK TYPE 10, SYSTEM INFORMATION BLOCK TYPE 14, SYSTEM INFORMATION BLOCK TYPE 15 and SYSTEM INFORMATION BLOCK TYPE 16 messages are not used.

{Unchanged Sections are snipped here}

Contents of PHYSICAL CHANNEL RECONFIGURATION message: AM or UM

Information Element	Condition	Value/remark	Version
Message Type	A1, A2, A3, A4, A5, A6		
RRC transaction identifier		Arbitrarily selects an integer between 0 and 3	
Integrity check info			
- message authentication code		SS calculates the value of MAC-I for this message and writes to this IE. The first/ leftmost bit of the bit string contains the most significant bit of the MAC-I.	
- RRC message sequence number		SS provides the value of this IE, from its internal counter.	
Integrity protection mode info		Not Present	
Ciphering mode info		Not Present	
Activation time	A1, A2, A3	(256+CFN-(CFN MOD 8 + 8))MOD 256	
Activation time	A4, A5, A6	Not Present	
New U-RNTI		Not Present	
New C-RNTI	A1, A2, A3, A4	Not Present	
New C-RNTI	A5, A6	'1010 1010 1010 1010'	
New DSCH-RNTI	A1, A2, A3, A4, A5, A6	Not Present	
New H-RNTI	A1, A2, A3, A4, A5, A6	Not Present	REL-5
RRC State indicator	A1, A2, A3, A4	CELL_DCH	
RRC State indicator	A5, A6	CELL_FACH	
UTRAN DRX cycle length coefficient	A1, A2, A3, A4, A5, A6	Not Present	
CN information info		Not Present	
URA identity		Not Present	
Downlink counter synchronisation info		Not Present	
Frequency info	A1, A2, A3, A4, A5		
- UARFCN uplink (Nu)		Reference to clause 5.1 Test frequencies	
- UARFCN downlink (Nd)		Reference to clause 5.1 Test frequencies	
Frequency info	A6	Not Present	
Maximum allowed UL TX power		33dBm	
CHOICE *channel requirement*	A5, A6	Not Present	
CHOICE *channel requirement*	A1, A2, A3, A4	Uplink DPCH info	
- Uplink DPCH power control info			
- DPCCH power offset		-6dB	
- PC Preamble		1 frame	
- SRB delay		7 frames	
- 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		Reference to TS34.108 clause 6.10 Parameter Set	
- TFCI existence		Reference to TS34.108 clause 6.10 Parameter Set	
- Number of FBI bit		Reference to TS34.108 clause 6.10 Parameter Set	
- Puncturing Limit		Reference to TS34.108 clause 6.10 Parameter Set	
CHOICE Mode	A1, A2, A3, A4, A5, A6	FDD	
- Downlink PDSCH information		Not Present	
Downlink HS-PDSCH Information	A1, A2, A3, A4, A5, A6	Not Present	REL-5
Downlink information common for all radio links	A1, A2, A3		
- Downlink DPCH info common for all RL			
- Timing indicator		Maintain	
- CFN-targetSFN frame offset		Not Present	
- Downlink DPCH power control information			
- DPC mode		0 (single)	

Information Element	Condition	Value/remark	Version
- CHOICE mode		FDD	
- Power offset $P_{Pilot-DPDCH}$		0	
- DL rate matching restriction information		Not Present	
- Spreading factor		Reference to TS34.108 clause 6.10 Parameter Set	
- Fixed or Flexible Position		Reference to TS34.108 clause 6.10 Parameter Set	
- TFCI existence		Reference to TS34.108 clause 6.10 Parameter Set	
- CHOICE SF		Reference to TS34.108 clause 6.10 Parameter Set	
- DPCH compressed mode info		Not Present	
- TX Diversity mode		None	
- SSDT information		Not Present	
- Default DPCH Offset Value		Not Present	
Downlink information common for all radio links	A4		
- Downlink DPCH info common for all RL			
- Timing indicator		Initialise	
- CFN-targetSFN frame offset		Not Present	
- Downlink DPCH power control information			
- DPC mode		0 (single)	
- CHOICE mode		FDD	
- Power offset $P_{Pilot-DPDCH}$		0	
- DL rate matching restriction information		Not Present	
- Spreading factor		Reference to TS34.108 clause 6.10 Parameter Set	
- Fixed or Flexible Position		Reference to TS34.108 clause 6.10 Parameter Set	
- TFCI existence		Reference to TS34.108 clause 6.10 Parameter Set	
- CHOICE SF		Reference to TS34.108 clause 6.10 Parameter Set	
- DPCH compressed mode info		Not Present	
- TX Diversity mode		None	
- SSDT information		Not Present	
- Default DPCH Offset Value		Arbitrary set to value 0..306688 by step of 512	
Downlink information common for all radio links	A5, A6	Not Present	
Downlink information for each radio links	A1, A2,A3		
- Choice mode		FDD	
- Primary CPICH info			
- Primary scrambling code		Ref. to the Default setting in TS34.108 clause 6.1 (FDD)	
- PDSCH with SHO DCH info		Not Present	
- PDSCH code mapping		Not Present	
- Serving HS-DSCH radio link indicator		FALSE	REL-5
- Downlink DPCH info for each RL			
- CHOICE mode		FDD	
- Primary CPICH usage for channel estimation		Primary CPICH may be used	
- DPCH frame offset		Set to value : Default DPCH Offset Value (as currently stored in SS) mod 38400	
~~- Power offset $P_{Pilot-DPDCH}$~~		~~0~~	
- Secondary CPICH info		Not Present	
- DL channelisation code			
- Secondary scrambling code		5	
- Spreading factor		Reference to TS34.108 clause 6.10 Parameter Set	
- Code number		0	
- Scrambling code change		No change	
- TPC combination index		0	
- SSDT Cell Identity		Not Present	
- Closed loop timing adjustment mode		Not Present	
- SCCPCH information for FACH		Not Present	
Downlink information for each radio links	A4		
- Choice mode		FDD	
- Primary CPICH info			
- Primary scrambling code		Ref. to the Default setting in TS34.108 clause 6.1 (FDD)	
- PDSCH with SHO DCH info		Not Present	
- PDSCH code mapping		Not Present	

Information Element	Condition	Value/remark	Version
- Serving HS-DSCH radio link indicator - Downlink DPCH info for each RL - CHOICE mode - Primary CPICH usage for channel estimation - DPCH frame offset ~~- Power offset $P_{Pilot-DPDCH}$~~ - Secondary CPICH info - DL channelisation code - Secondary scrambling code - Spreading factor - Code number - Scrambling code change - TPC combination index - SSDT Cell Identity - Closed loop timing adjustment mode - SCCPCH information for FACH		FALSE FDD Primary CPICH may be used Set to value : Default DPCH Offset Value mod 38400 ~~0~~ Not Present 5 Reference to TS34.108 clause 6.10 Parameter Set 0 No change 0 Not Present Not Present Not Present	REL-5
- Downlink information for each radio link - Choice mode - Primary CPICH info - Primary scrambling code - PDSCH with SHO DCH info - PDSCH code mapping - Serving HS-DSCH radio link indicator - Downlink DPCH info for each RL - SCCPCH Information for FACH	A5	 FDD Ref. to the Default setting in TS34.108 clause 6.1 (FDD) Not Present Not Present FALSE Not Present Not Present	 REL-5
- Downlink information for each radio link	A6	Not Present	

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CHANGE REQUEST

⌘ **TS34.108** **CR** 332 **⌘rev** **-** ⌘ Current version: **5.0.0** ⌘

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

Proposed change affects: UICC apps⌘ ☐ ME ☐ Radio Access Network ☐ Core Network ☐

Title:	⌘	Corrections to Contents of RRC CONNECTION SETUP message: UM
Source:	⌘	Anritsu
Work item code:	⌘	***Date:*** ⌘ 12/05/2004
Category:	⌘ **F**	***Release:*** ⌘ Rel-5

Use one of the following categories:
- ***F*** *(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)*
Rel-6	*(Release 6)*

Reason for change:	⌘	RLC size index can not be set , because RLC size list is “Configured”.
Summary of change:	⌘	RLC size list is changed from Configured to explicit List.
Consequences if not approved:	⌘	RLC size index can not be set.

Clauses affected:	⌘	9.2.1

Other specs affected: ⌘	Y	N		
			Other core specifications	⌘
			Test specifications	
			O&M Specifications	

Other comments:	⌘	This CR applies for Rel-99 and later releases.

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9.2 Default Message Contents for RF

This clause contains the default values of common messages for RF test. The parameters of the UL/DL reference measurement channel 12.2kbps, the DL reference measurement channel for BTFD, UE test loop mode 1 without Dummy DCCH transmission and UE test loop mode 2 with Dummy DCCH transmission are set to default message contents.

9.2.1 Default Message Contents for RF (FDD)

{Unchanged Sections are snipped here}

Contents of RRC CONNECTION SETUP message: UM

Information Element	Value/remark
Message Type	
Initial UE identity	Select the same identity as in the IE "Initial UE Identity" in received RRC CONNECTION REQUEST" message
RRC transaction identifier	Arbitrarily selects an integer between 0 and 3
Activation time	Not Present(Now)
New U-RNTI	
- SRNC identity	0000 0000 0001B
- S-RNTI	0000 0000 0000 0000 0001B
New C-RNTI	Not Present
RRC State Indicator	CELL_DCH
UTRAN DRX cycle length coefficient	9
Capability update requirement	
- UE radio access FDD capability update requirement	TRUE
- UE radio access TDD capability update requirement	FALSE
- System specific capability update requirement list	GSM
Signalling RB information to setup list	4 SRBs
- Signalling RB information to setup	(UM DCCH for RRC)
- RB identity	Not Present
- CHOICE RLC info type	RLC info
- CHOICE Uplink RLC mode	UM RLC
- Transmission RLC discard	Not Present
- CHOICE Downlink RLC mode	UM RLC
- RB mapping info	
- Information for each multiplexing option	2 RBMuxOptions
- RLC logical channel mapping indicator	Not Present
- Number of RLC logical channels	1
- Uplink transport channel type	DCH
- UL Transport channel identity	5
- Logical channel identity	1
- CHOICE RLC size list	Configured
- MAC logical channel priority	1
- Downlink RLC logical channel info	
- Number of RLC logical channels	1
- Downlink transport channel type	DCH
- DL DCH Transport channel identity	10
- DL DSCH Transport channel identity	Not Present
- Logical channel identity	1
- RLC logical channel mapping indicator	Not Present
- Number of RLC logical channels	1
- Uplink transport channel type	RACH
- UL Transport channel identity	Not Present
- Logical channel identity	1
- CHOICE RLC size list	Explicit List~~Configured~~
- RLC size index	Reference to TS34.108 clause 6 Parameter Set
- MAC logical channel priority	1
- Downlink RLC logical channel info	
- Number of RLC logical channels	1
- Downlink transport channel type	FACH
- DL DCH Transport channel identity	Not Present
- DL DSCH Transport channel identity	Not Present
- Logical channel identity	1
- Signalling RB information to setup	(AM DCCH for RRC)
- RB identity	Not Present
- CHOICE RLC info type	
- RLC info	
- CHOICE Uplink RLC mode	AM RLC
- Transmission RLC discard	
- SDU discard mode	No Discard
- MAX_DAT	15

Information Element	Value/remark
- Transmission window size	128
- Timer_RST	500
- Max_RST	1
- Polling info	
- Timer_poll_prohibit	200
- Timer_poll	200
- Poll_PDU	Not Present
- Poll_SDU	1
- Last transmission PDU poll	TRUE
- Last retransmission PDU poll	TRUE
- Poll_Windows	99
- Timer_poll_periodic	Not Present
- CHOICE Downlink RLC mode	AM RLC
- In-sequence delivery	TRUE
- Receiving window size	128
- Downlink RLC status info	
- Timer_status_prohibit	200
- Timer_EPC	Not Present
- Missing PDU indicator	TRUE
- Timer_STATUS_periodic	Not Present
- RB mapping info	
- Information for each multiplexing option	2 RBMuxOptions
- RLC logical channel mapping indicator	Not Present
- Number of RLC logical channels	1
- Uplink transport channel type	DCH
- UL Transport channel identity	5
- Logical channel identity	2
- CHOICE RLC size list	Configured
- MAC logical channel priority	2
- Downlink RLC logical channel info	
- Number of RLC logical channels	1
- Downlink transport channel type	DCH
- DL DCH Transport channel identity	10
- DL DSCH Transport channel identity	Not Present
- Logical channel identity	2
- RLC logical channel mapping indicator	Not Present
- Number of RLC logical channels	1
- Uplink transport channel type	RACH
- UL Transport channel identity	Not Present
- Logical channel identity	2
- CHOICE RLC size list	Explicit List
- RLC size index	Reference to TS34.108 clause 6 Parameter Set
- MAC logical channel priority	2
- Downlink RLC logical channel info	
- Number of RLC logical channels	1
- Downlink transport channel type	FACH
- DL DCH Transport channel identity	Not Present
- DL DSCH Transport channel identity	Not Present
- Logical channel identity	2
- Signalling RB information to setup	(AM DCCH for NAS_DT High priority)
- RB identity	Not Present
- CHOICE RLC info type	
- RLC info	
- CHOICE Uplink RLC mode	AM RLC
- Transmission RLC discard	
- SDU discard mode	No Discard
- MAX_DAT	15
- Transmission window size	128
- Timer_RST	500
- Max_RST	1
- Polling info	

Information Element	Value/remark
- Timer_poll_prohibit	200
- Timer_poll	200
- Poll_PDU	Not Present
- Poll_SDU	1
- Last transmission PDU poll	TRUE
- Last retransmission PDU poll	TRUE
- Poll_Windows	99
- Timer_poll_periodic	Not Present
- CHOICE Downlink RLC mode	AM RLC
- In-sequence delivery	TRUE
- Receiving window size	128
- Downlink RLC status info	
- Timer_status_prohibit	200
- Timer_EPC	Not Present
- Missing PDU indicator	TRUE
- Timer_STATUS_periodic	Not Present
- RB mapping info	
- Information for each multiplexing option	2 RBMuxOptions
- RLC logical channel mapping indicator	Not Present
- Number of RLC logical channels	1
- Uplink transport channel type	DCH
-UL Transport channel identity	5
- Logical channel identity	3
- CHOICE RLC size list	Configured
- MAC logical channel priority	3
- Downlink RLC logical channel info	
- Number of RLC logical channels	1
- Downlink transport channel type	DCH
- DL DCH Transport channel identity	10
- DL DSCH Transport channel identity	Not Present
- Logical channel identity	3
- RLC logical channel mapping indicator	Not Present
- Number of RLC logical channels	1
- Uplink transport channel type	RACH
- UL Transport channel identity	Not Present
- Logical channel identity	3
- CHOICE RLC size list	Explicit List
- RLC size index	Reference to TS34.108 clause 6 Parameter Set
- MAC logical channel priority	3
- Downlink RLC logical channel info	
- Number of RLC logical channels	1
- Downlink transport channel type	FACH
- DL DCH Transport channel identity	Not Present
- DL DSCH Transport channel identity	Not Present
- Logical channel identity	3
- Signalling RB information to setup	(AM DCCH for NAS_DT Low priority)
- RB identity	Not Present
- CHOICE RLC info type	
- RLC info	
- CHOICE Uplink RLC mode	AM RLC
- Transmission RLC discard	
- SDU discard mode	No Discard
- MAX_DAT	15
- Transmission window size	128
- Timer_RST	500
- Max_RST	1
- Polling info	
- Timer_poll_prohibit	200
- Timer_poll	200
- Poll_PDU	Not Present
- Poll_SDU	1

Information Element	Value/remark
- Last transmission PDU poll	TRUE
- Last retransmission PDU poll	TRUE
- Poll_Windows	99
- Timer_poll_periodic	Not Present
- CHOICE Downlink RLC mode	AM RLC
- In-sequence delivery	TRUE
- Receiving window size	128
- Downlink RLC status info	
- Timer_status_prohibit	200
- Timer_EPC	Not Present
- Missing PDU indicator	TRUE
- Timer_STATUS_periodic	Not Present
- RB mapping info	
- Information for each multiplexing option	2 RBMuxOptions
- RLC logical channel mapping indicator	Not Present
- Number of RLC logical channels	1
- Uplink transport channel type	DCH
- UL Transport channel identity	5
- Logical channel identity	4
- CHOICE RLC size list	Configured
- MAC logical channel priority	4
- Downlink RLC logical channel info	
- Number of RLC logical channels	1
- Downlink transport channel type	DCH
- DL DCH Transport channel identity	10
- DL DSCH Transport channel identity	Not Present
- Logical channel identity	4
- RLC logical channel mapping indicator	Not Present
- Number of RLC logical channels	1
- Uplink transport channel type	RACH
- UL Transport channel identity	Not Present
- Logical channel identity	4
- CHOICE RLC size list	Explicit List
- RLC size index	Reference to TS34.108 clause 6 Parameter Set
- MAC logical channel priority	4
- Downlink RLC logical channel info	
- Number of RLC logical channels	1
- Downlink transport channel type	FACH
- DL DCH Transport channel identity	Not Present
- DL DSCH Transport channel identity	Not Present
- Logical channel identity	4
UL Transport channel information for all transport channels	
- PRACH TFCS	Not Present
- CHOICE Mode	FDD
- TFC subset	Not Present
- UL DCH TFCS	
- CHOICE TFCI signalling	Normal
- TFCI Field 1 information	
- CHOICE TFCS representation	Complete reconfiguration
- TFCS complete reconfiguration information	
- CHOICE CTFC Size	2 bit CTFC
- CTFC information	2 TFCs
- 2bit CTFC	0
- Power offset Information	
- CHOICE Gain Factors	computedGainFactors
- Reference TFC ID	0
- CHOICE mode	FDD
- Power offset Pp-m	Not Present
- 2bit CTFC	1
- Power offset Information	
- CHOICE Gain Factors	signalledGainFactors

Information Element	Value/remark
- CHOICE mode	FDD
- Gain factor ßc	15
- Gain factor ßd	15
- Reference TFC ID	0
- CHOICE mode	FDD
- Power offset Pp-m	Not Present
Added or Reconfigured UL TrCH information list	1
- Added or Reconfigured UL TrCH information	
- Uplink transport channel type	DCH
- UL Transport channel identity	5
- TFS	
- CHOICE Transport channel type	Dedicated transport channels
- Dynamic Transport Format Information	
- RLC size	96 bits
- Number of TBs and TTI List	2
- Transmission Time Interval	Not Present
- Number of Transport blocks	0
- Transmission Time Interval	Not Present
- Number of Transport blocks	1
- CHOICE Logical Channel List	ALL
- Semi-static Transport Format Information	
- Transmission time interval	40
- Type of channel coding	Convolutional
- Coding Rate	1/3
- Rate matching attribute	256
- CRC size	12
DL Transport channel information common for all transport channel	
- SCCPCH TFCS	Not Present
- CHOICE mode	FDD
- CHOICE DL parameters	Same as UL
Added or Reconfigured DL TrCH information list	1
- Added or Reconfigured DL TrCH information	
- Downlink transport channel type	DCH
- DL Transport channel identity	10
- CHOICE DL parameters	SameAasUL
- Uplink transport channel type	DCH
- UL TrCH Identity	5
- DCH quality target	
- BLER Quality value	-2.0
Frequency info	Not Present
Maximum allowed UL TX power	Not Present
CHOICE channel requirement	Uplink DPCH info
- Uplink DPCH power control info	
- DPCCH power offset	-6dB
- PC Preamble	1 frame
- SRB delay	7 frames
- Power Control Algorithm	Algorithm1
- TPC step size	1dB
- CHOICE mode	FDD
- Scrambling code type	Long
- Scrambling code number	0 (0 to 16777215)
- Number of DPDCH	Not Present (1)
- Spreading factor	256
- TFCI existence	TRUE
- Number of FBI bit	Not Present(0)
- Puncturing Limit	1
Downlink information common for all radio links	
- Downlink DPCH info common for all RL	
- Timing Indication	Initialise
- CFN-targetSFN frame offset	Not Present

Information Element	Value/remark
- Downlink DPCH power control information	
- CHOICE mode	FDD
- DPC mode	0 (single)
- CHOICE mode	FDD
- Power offset $P_{Pilot\text{-}DPDCH}$	0
- DL rate matching restriction information	Not Present
- Spreading factor	256
- Fixed or Flexible Position	Fixed
- TFCI existence	FALSE
- CHOICE SF	
- Number of bits for Pilot bits	8
- DPCH compressed mode info	Not Present
- TX Diversity mode	None
- SSDT information	Not Present
- Default DPCH Offset Value	Arbitrary set to value 0..306688 by step of 512
Downlink information for per radio links list	
-Downlink information for each radio links	
- CHOICE mode	FDD
- Primary CPICH info	
- Primary scrambling code	100
- PDSCH with SHO DCH info	Not Present
- PDSCH code mapping	Not Present
- Downlink DPCH info for each RL	
- CHOICE mode	FDD
- Primary CPICH usage for channel estimation	Primary CPICH may be used
- DPCH frame offset	Set to value : Default DPCH Offset Value mod 38400
- Secondary CPICH info	Not Present
- DL channelisation code	
- Secondary scrambling code	1
- Spreading factor	256
- Code number	0
- Scrambling code change	Not Present
- TPC combination index	0
- SSDT Cell Identity	Not Present
- Closed loop timing adjustment mode	Not Present
- SCCPCH information for FACH	Not Present

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CHANGE REQUEST

⌘ **34.108** **CR** 333 ⌘ **rev** **-** ⌘ Current version: **5.0.0** ⌘

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

Proposed change affects: UICC apps⌘ ☐ ME ☒ Radio Access Network ☐ Core Network ☐

Title:	⌘	RADIO BEARER SETUP message (FDD) for Test Loop Mode2.
Source:	⌘	Anritsu
Work item code:	⌘	***Date:*** ⌘ 12/05/2004
Category:	⌘	**F** ***Release:*** ⌘ Rel-5

Use one of the following categories:
F *(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)*
Rel-6	*(Release 6)*

Reason for change:	⌘	The RADIO BEARER SETUP message (FDD) for Test Loop mode 2 is missing.
Summary of change:	⌘	The RADIO BEARER SETUP message (FDD) for Test Loop mode 2 is added.
Consequences if not approved:	⌘	Test Loop mode 2 will not setup.

Clauses affected:	⌘	9.2.1			
Other specs affected:	⌘	**Y**	**N**		
			X	Other core specifications	⌘
			X	Test specifications	
			X	O&M Specifications	
Other comments:	⌘	This CR applies for Rel-99 and later releases.			

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

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

9.2 Default Message Contents for RF

This clause contains the default values of common messages for RF test. The parameters of the UL/DL reference measurement channel 12.2kbps, the DL reference measurement channel for BTFD, UE test loop mode 1 without Dummy DCCH transmission and UE test loop mode 2 with Dummy DCCH transmission are set to default message contents.

9.2.1 Default Message Contents for RF (FDD)

{Unchanged Sections are snipped here}

Contents of RADIO BEARER SETUP message: AM or UM (UE supports CS RAB for Test Loop Mode1)

Information Element	Value/remark
Message Type	
RRC transaction identifier	Arbitrarily selects an integer between 0 and 3
Integrity check info	
- message authentication code	SS calculates the value of MAC-I for this message and writes to this IE. The first/ leftmost bit of the bit string contains the most significant bit of the MAC-I.
- RRC message sequence number	SS provides the value of this IE, from its internal counter.
Integrity protection mode info	Not Present
Ciphering mode info	Not Present
Activation time	(256+CFN-(CFN MOD 8 + 8))MOD 256
New U-RNTI	Not Present
New C-RNTI	Not Present
New DSCH-RNTI	Not Present
RRC State indicator	CELL_DCH
UTRAN DRX cycle length coefficient	Not Present
CN information info	Not Present
URA identity	Not Present
Signalling RB information to setup	Not Present

{Unchanged Sections are snipped here}

Contents of RADIO BEARER SETUP message: AM or UM (UE supports CS RAB for Test Loop Mode 2)

Information Element	Value/remark
Message Type	
RRC transaction identifier	Arbitrarily selects an integer between 0 and 3
Integrity check info	
- message authentication code	SS calculates the value of MAC-I for this message and writes to this IE. The first/ leftmost bit of the bit string contains the most significant bit of the MAC-I.
- RRC message sequence number	SS provides the value of this IE, from its internal counter.
Integrity protection mode info	Not Present
Ciphering mode info	Not Present
Activation time	(256+CFN-(CFN MOD 8 + 8))MOD 256
New U-RNTI	Not Present
New C-RNTI	Not Present
New DSCH-RNTI	Not Present
RRC State indicator	CELL_DCH
UTRAN DRX cycle length coefficient	Not Present
CN information info	Not Present
URA identity	Not Present
Signalling RB information to setup	Not Present
RAB information for setup list	
- RAB information for setup	
- RAB info	
- RAB identity	0000 0001B The first/ leftmost bit of the bit string contains the most significant bit of the RAB identity.
- CN domain identity	CS domain
- NAS Synchronization Indicator	Not Present
- Re-establishment timer	UseT314
- RB information to setup list	
- RB information to setup	
- RB identity	10
- PDCP info	Not Present
- CHOICE RLC info type	RLC info
- CHOICE Uplink RLC mode	TM RLC
- Transmission RLC discard	Not Present
- Segmentation indication	FALSE
- CHOICE Downlink RLC mode	TM RLC
- Segmentation indication	FALSE
- RB mapping info	
- Information for each multiplexing option	
- RLC logical channel mapping indicator	Not Present
- Number of uplink RLC logical channels	1
- Uplink transport channel type	DCH
- UL Transport channel identity	1
- Logical channel identity	Not Present
- CHOICE RLC size list	Configured
- MAC logical channel priority	7
- Downlink RLC logical channel info	
- Number of downlink RLC logical channels	1
- Downlink transport channel type	DCH
- DL DCH Transport channel identity	6
- DL DSCH Transport channel identity	Not Present
- Logical channel identity	Not Present
RB information to be affected list	Not Present
Downlink counter synchronisation info	Not Present
UL Transport channel information for all transport channels	
- PRACH TFCS	Not Present
- CHOICE mode	FDD
- TFC subset	Not Present
- UL DCH TFCS	
- CHOICE TFCI signalling	Normal
- TFCI Field 1 information	
- CHOICE TFCS representation	Complete reconfiguration

Information Element	Value/remark
- TFCS complete reconfigure information	
- CHOICE CTFC Size	2 bit CTFC
- CTFC information	4 TFCs
- 2bit CTFC	0
- Power offset Information	
- CHOICE Gain Factors	Computed Gain Factors
- Reference TFC ID	0
- CHOICE mode	FDD
- Power offset P_{p-m}	Not Present
- 2bit CTFC	2
- Power offset Information	
- CHOICE Gain Factors	Computed Gain Factors
- Reference TFC ID	0
- CHOICE mode	FDD
- Power offset P_{p-m}	Not Present
- 2bit CTFC	1
- Power offset Information	
- CHOICE Gain Factors	Computed Gain Factors
- Reference TFC ID	0
- CHOICE mode	FDD
- Power offset P_{p-m}	Not Present
- 2bit CTFC	3
- Power offset Information	
- CHOICE Gain Factors	Signalled Gain Factors
- CHOICE mode	FDD
- Gain factor ßc	8
- Gain factor ßd	15
- Reference TFC ID	0
- CHOICE mode	FDD
- Power offset P_{p-m}	Not Present
Deleted UL TrCH information list	Not Present
Added or Reconfigured UL TrCH information list	1
- Added or Reconfigured UL TrCH information	
- Uplink transport channel type	DCH
- UL Transport channel identity	1
- TFS	
- CHOICE Transport channel type	Dedicated transport channels
- Dynamic Transport Format Information	
- RLC size	260 bits
- Number of TBs and TTI List	2
- Transmission Time Interval	Not Present
- Number of Transport blocks	0
- Transmission Time Interval	Not Present
- Number of Transport blocks	1
- CHOICE Logical Channel List	ALL
- Semi-static Transport Format Information	
- Transmission time interval	20
- Type of channel coding	Convolutional
- Coding Rate	1/3
- Rate matching attribute	256
- CRC size	0
CHOICE mode	FDD
- CPCH set ID	Not Present
- Added or Reconfigured TrCH information for DRAC list	Not Present
DL Transport channel information common for all transport channel	
- SCCPCH TFCS	Not Present
- CHOICE mode	FDD
- CHOICE DL parameters	Same as UL
Deleted DL TrCH information list	Not Present
Added or Reconfigured DL TrCH information list	1
- Added or Reconfigured DL TrCH information	
- Downlink transport channel type	DCH
- DL Transport channel identity	6
- CHOICE DL parameters	
- CHOICE Transport channel type	Dedicated transport channels

Information Element	Value/remark
- Dynamic Transport Format Information	
- RLC size	244 bits
- Number of TBs and TTI List	2
- Transmission Time Interval	Not Present
- Number of Transport blocks	0
- Transmission Time Interval	Not Present
- Number of Transport blocks	1
- CHOICE Logical Channel List	ALL
- Semi-static Transport Format Information	
- Transmission time interval	20
- Type of channel coding	Convolutional
- Coding Rate	1/3
- Rate matching attribute	256
- CRC size	16
- Uplink transport channel type	DCH
- UL TrCH identity	1
- DCH quality target	
- BLER Quality value	-2.0
Frequency info	Not Present
Maximum allowed UL TX power	33dBm
CHOICE channel requirement	Uplink DPCH info
- Uplink DPCH power control info	
- CHOICE mode	FDD
- DPCCH power offset	-6dB
- PC Preamble	1 frame
- SRB delay	7 frames
- Power Control Algorithm	Algorithm1
- TPC step size	1dB
- CHOICE mode	FDD
- Scrambling code type	Long
- Scrambling code number	0 (0 to 16777215)
- Number of DPDCH	1
- spreading factor	64
- TFCI existence	TRUE
- Number of FBI bit	Not Present(0)
- Puncturing Limit	1
CHOICE Mode	FDD
- Downlink PDSCH information	Not Present
Downlink information common for all radio links	
- Downlink DPCH info common for all RL	
- Timing indicator	Maintain
- CFN-targetSFN frame offset	Not Present
- Downlink DPCH power control information	
- CHOICE mode	FDD
- DPC mode	0 (single)
- CHOICE mode	FDD
- Power offset $P_{Pilot-DPDCH}$	0
- DL rate matching restriction information	Not Present
- Spreading factor	128
- Fixed or Flexible Position	Fixed
- TFCI existence	TRUE
- CHOICE SF	128
- Number of bits for Pilot bits	8
- CHOICE mode	FDD
- DPCH compressed mode info	Not Present
- TX Diversity mode	None
- SSDT information	Not Present
- Default DPCH Offset Value	Not Present
Downlink information for per radio link list	
- Downlink information for each radio link	
- CHOICE mode	FDD
- Primary CPICH info	
- Primary scrambling code	100
- PDSCH with SHO DCH info	Not Present
- PDSCH code mapping	Not Present
- Downlink DPCH info for each RL	
- CHOICE mode	FDD

Information Element	Value/remark
- Primary CPICH usage for channel estimation	Primary CPICH may be used
- DPCH frame offset	Set to value Default DPCH Offset Value (as currently stored in SS) mod 38400
- Secondary CPICH info	Not Present
- DL channelisation code	
- Secondary scrambling code	Not Present
- Spreading factor	128
- Code number	96
- Scrambling code change	No change
- TPC combination index	0
- SSDT Cell Identity	Not Present
- Closed loop timing adjustment mode	Not Present
- SCCPCH information for FACH	Not Present

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CHANGE REQUEST

⌘ **34.108** **CR** 334 ⌘ **rev** **-** ⌘ Current version: **4.a.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: UICC apps⌘ ☐ ME ☒ Radio Access Network ☒ Core Network ☐

Title:	⌘	Corrections to LCR TDD RABs
Source:	⌘	CCSA, Siemens
Work item code:	⌘	LCR TDD
Date:	⌘	07/04/04
Category:	⌘	**F**
Release:	⌘	Rel-4

Use one of the following categories:
F *(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)*
Rel-6 *(Release 6)*

Reason for change: ⌘

1. Test coverage is necessary for the LCR TDD multiple dedicated CCTrCH's capability when simultaneous RT and NRT services are supported.
2. Some combinations on PDSCH, SCCPCH, PUSCH and PRACH shall be aligned with recent changes approved for HCR TDD RABs.
3. TPC and SS bits in S-CCPCH within 'Combinations on SCCPCH' are of useless.
4. Some combinations on SCCPCH shall be aligned with recent changes approved for HCR TDD RABs, but CC shall be used for channel coding of signalling.
5. S-CCPCH RAB configurations alternate configurations need to be defined for deployment scenarios where maximum transmission rate is limited.
6. TFCI bits are not used on PRACH, so the Combinations on PRACH can not send 32 kbps data.
7. Other minor corrections.

Summary of change: ⌘

1. Alternate dedicated 2 CCTrCH configurations are added to existing dedicated combination service RABs specifying separate CCTrCH's for the RT and NRT services.
2. SRBs for DCCH mapped on USCH (or DSCH) are added into the SRB combinations on PDSCH, SCCPCH, PUSCH and PRACH.
3. TPC and SS bits in S-CCPCH within 'Combinations on SCCPCH' are set to

		zero. 4. Align some combinations on SCCPCH with recent changes approved for HCR TDD RABs, and CC is used for channel coding of signalling in order to reduce the complexity. 5. S-CCPCH RABs are defined with alternate reduced TFS/TFCS and corresponding reduced code configurations. 6. Change the Interactive/Background 32 kbps PS RAB to Interactive/Background 12.8 kbps PS RAB and add two RABs case in Combinations on PRACH. 7. Change some errors in the citing, title, and number.
Consequences if not approved:	⌘	1. No test coverage for multiple CCTrCH functionallity. 2. DCCH mapped on USCH (or DSCH) will not be used. 3. TPC and SS bits will not be used by UE, and we can not use the bits to bear data. 4. DTCH mapped to S-CCPCH are limited, and CTCH can not be mapped to S-CCPCH. 5. Inefficient S-CCPCH configuration. 6. PRACH can not be used to send RAB. 7. Some citing, title, and number introduce misreading.

Clauses affected:	⌘	6.11.5			
Other specs affected:	⌘	**Y** / **N** ☐ / ☐ Other core specifications ☐ / ☐ Test specifications ☐ / ☐ O&M Specifications	⌘	25.993 34.123	
Other comments:	⌘				

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2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

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

<Start of modified section>

6.11.5 Reference Radio Bearer configurations used in Radio Bearer testing for 1.28 Mcps TDD

6.11.5.1 RABs and signalling RBs

See clause 6.10.3.1.

6.11.5.2 Combinations of RABs and Signalling RBs

In this document, physical channel parameters for following combinations of RABs and signalling RBs on a CCTrCH are described.

NOTE: It is understood that for speech service the AMR mode may be operated asymmetrically for the uplink and downlink.

Combinations on DPCH

1) Stand-alone UL:1.7 DL:1.7 kbps SRBs for DCCH.

1a) Stand-alone UL:1.7 DL:1.7 kbps SRBs for DCCH (Multiframe)

2) Stand-alone UL:3.4 DL:3.4 kbps SRBs for DCCH.

3) Stand-alone UL:13.6 DL:13.6 kbps SRBs for DCCH.

4) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

4a) Conversational / speech / UL:(12.2, 7.95, 5.9, 4.75) DL:(12.2, 7.95, 5.9, 4.75) kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH

5) Conversational / speech / UL:10.2 DL:10.2 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

5a) Conversational / speech / UL:(10.2, 6.7, 5.9, 4.75) DL:(10.2, 6.7, 5.9, 4.75) kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH

6) Conversational / speech / UL:7.95 DL:7.95 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

7a) Conversational / speech / UL:(7.4, 6.7, 5.9, 4.75) DL:(7.4, 6.7, 5.9, 4.75)kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH

7) Conversational / speech / UL:7.4 DL:7.4 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

8) Conversational / speech / UL:6.7 DL:6.7 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

9) Conversational / speech / UL:5.9 DL:5.9 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

10) Conversational / speech / UL:5.15 DL:5.15 kbps / CS RAB
+ UL:1.7 DL:1.7 kbps SRBs for DCCH.

11) Conversational / speech / UL:4.75 DL:4.75 kbps / CS RAB
+ UL:1.7 DL:1.7 kbps SRBs for DCCH.

12) Conversational / unknown / UL:28.8 DL:28.8 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

13) Conversational / unknown / UL:64 DL:64 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

14) Conversational / unknown / UL:32 DL:32 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

15) Streaming / unknown / UL:14.4/DL:14.4 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

16) Streaming / unknown / UL:28.8/DL:28.8 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

17) Streaming / unknown / UL:57.6/DL:57.6 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

18) Void.

19) Void.

20) Void.

21) Void.

22) Void.

23) Interactive or background / UL:32 DL:8 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

23a) Interactive or background / UL:8 DL:8 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

23b) Interactive or background / UL:16 DL:16 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

23c) Interactive or background / UL:32 DL:32 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

23d) Interactive or background / UL:32 DL:32 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.(20 msTTI)

24) Void.

25) Interactive or background / UL:32 DL: 64 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

26) Interactive or background / UL:64 DL: 64 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

27) Interactive or background / UL:64 DL:128 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

28) Interactive or background / UL:128 DL:128 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

29) Interactive or background / UL:64 DL:144 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

30) Interactive or background / UL:144 DL:144 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

31) Interactive or background / UL:64 DL:256 kbps / PS RAB
+ UL:3.4 DL: 3.4 kbps SRBs for DCCH.

32) Interactive or background / UL:64 DL:384 kbps / PS RAB
+ UL:3.4 DL: 3.4 kbps SRBs for DCCH.

33) Interactive or background / UL:128 DL:384 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

34) Interactive or background / UL:384 DL:384 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

35) Interactive or background / UL:64 DL:2048 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

36) Void.

37) Void.

38) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ Interactive or background / UL:32 DL:8 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

38a) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ Interactive or background / UL:0 DL:0 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

38b) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ Interactive or background / UL:8 DL:8 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

38c) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ Interactive or background / UL:32 DL:32 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

38d) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ Interactive or background / UL:64 DL:64 kbps / PS RAB +

+ Interactive or background / UL:64 DL:64 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

38e) Conversational / speech / UL: (12.2, 7.95, 5.9, 4.75) DL: (12.2, 7.95, 5.9, 4.75) kbps / CS RAB
+ Interactive or background / UL:0 DL:0 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

38f) Conversational / speech / UL: (12.2, 7.95, 5.9, 4.75) DL: (12.2, 7.95, 5.9, 4.75) kbps / CS RAB
+ Interactive or background / UL:8 DL:8 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

38g) Conversational / speech / UL: (12.2, 7.95, 5.9, 4.75) DL: (12.2, 7.95, 5.9, 4.75) kbps / CS RAB
+ Interactive or background / UL:16 DL:16 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

38h) Conversational / speech / UL: (12.2, 7.95, 5.9, 4.75) DL: (12.2, 7.95, 5.9, 4.75) kbps / CS RAB
+ Interactive or background / UL:32 DL:32 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

38i) Conversational / speech / UL: (12.2, 7.95, 5.9, 4.75) DL: (12.2, 7.95, 5.9, 4.75) kbps / CS RAB
+ Interactive or background / UL:64 DL:64 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

38j) Conversational / speech / UL: (12.2, 7.95, 5.9, 4.75) DL: (12.2, 7.95, 5.9, 4.75) kbps / CS RAB
+ Interactive or background / UL:64 DL:128 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

39) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ Interactive or background / UL:32 DL:64 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

40) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ Interactive or background / UL:64 DL:64 kbps / PS RAB
+ UL:3.4 DL: 3.4 kbps SRBs for DCCH.

41) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ Interactive or background / UL:64 DL:128 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

42) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ Interactive or background / UL:64 DL:256 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

43) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ Interactive or background / UL:64 DL:384 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

44) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ Interactive or background / UL:128 DL:2048 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

45) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ Streaming / unknown / UL:57.6 DL:57.6 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

46) Void.

47) Void.

48) Void.49) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ Conversational / unknown / UL:64 DL:64 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

49a) Conversational / speech / UL:(12.2, 7.95, 5.9, 4.75) DL: (12.2, 7.95, 5.9, 4.75) kbps / CS RAB
+ Conversational / unknown / UL:64 DL:64 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

50) Conversational / unknown / UL:64 DL:64 kbps / CS RAB
+ Conversational / unknown / UL:64 DL:64 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

51) Conversational / unknown / UL:64 DL:64 kbps / CS RAB
+ Interactive or background / UL:64 DL:64 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

51a) Conversational / unknown / UL:64 DL:64 kbps / CS RAB
+ Interactive or background / UL:8 DL:8 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

51b) Conversational / unknown / UL:64 DL:64 kbps / CS RAB
+ Interactive or background / UL:16 DL:64 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

52) Conversational / unknown / UL:64 DL:64 kbps / CS RAB
+ Interactive or background / UL:64 DL:128 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

53) Conversational / unknown / UL:64 DL:64 kbps / CS RAB
+ Interactive or background / UL:128 DL:128 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

54) Void.

55) Void.

56) Interactive or background / UL:8 DL:8 kbps / PS RAB
+ Interactive or background / UL:8 DL:8 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

57) Interactive or Background / UL:64 DL:64 kbps / CS RAB
+ Interactive or background / UL:64 DL:64 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

58) Streaming / Unknown / UL:16 DL:64 kbps / CS RAB
+ Interactive or background / UL:8 DL:8 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

59) Reserved for future use

60) Reserved for future use

61) Conversational / Unknown / UL:8 DL:8 kbps / CS RAB
+ Interactive or background / UL:8 DL:8 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

Combinations on PDSCH, SCCPCH, PUSCH and PRACH

1) Interactive or background / UL:64 DL:256 kbps / PS RAB
+ UL: 3.4/16.8 DL: 3.4/33.6 kbps SRBs for DCCH, CCCH and BCCH
+ UL:16.8 DL: 16 kbps SRBs for SHCCH.

2) Interactive or background / UL:64 DL:384 kbps / PS RAB
+ UL: 3.4/16.8 DL: 3.4/33.6 kbps SRBs for DCCH, CCCH and BCCH
+ UL: 16.8 DL: 16 kbps SRBs for SHCCH.

3) Interactive or background / UL:64 DL:2048 kbps / PS RAB
+ UL:3.4/~~3.4~~16.8 DL: 3.4/33.6 kbps SRBs for DCCH, CCCH and BCCH
+ UL: 16.8 DL: 16 kbps SRBs for SHCCH.

Combinations on PDSCH, SCCPCH, DPCH, PUSCH and PRACH

1) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH
+ Interactive or background / UL:64 DL:256 kbps / PS RAB
+ UL:16.8 kbps SRBs for CCCH and SHCCH
+ DL: 33.6 kbps SRBs for CCCH, SHCCH and BCCH.

2) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH
+ Interactive or background / UL:64 DL:384 kbps / PS RAB
+ UL:16.8 kbps SRBs for CCCH and SHCCH
+ DL: 33.6 kbps SRBs for CCCH, SHCCH and BCCH.

3) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH
+ Interactive or background / UL:64 DL:2048 kbps / PS RAB
+ UL:16.8 kbps SRBs for CCCH and SHCCH
+ DL: 33.6 kbps SRBs for CCCH, SHCCH and BCCH.

Combinations on SCCPCH

1) Stand-alone ~~32 kbps~~ SRB for PCCH.

2) Interactive or background / DL:32 kbps / PS RAB
+ SRB for CCCH
+ SRBs for DCCH
+ SRB for BCCH.

2a) Interactive/Background 32 kbps PS RAB
+ Interactive/Background 32 kbps PS RAB
+ SRB for CCCH
+ SRBs for DCCH
+ SRB for BCCH.

2b) SRBs for CCCH
+ SRB for DCCH
+ SRB for BCCH.

3) Interactive or background / DL:32 kbps / PS RAB
+ SRB for PCCH
+ SRB for CCCH
+ SRBs for DCCH
+ SRB for BCCH.

3a) SRB for PCCH
+ SRB for CCCH
+ SRB for DCCH
+ SRB for BCCH.

4) RB for CTCH
+ SRB for CCCH
+ SRB for BCCH.

Combinations on PRACH

1) ~~Interactive or background / UL:32 kbps / PS RAB~~
~~+~~ SRB for CCCH
+ SRBs for DCCH.

2) Interactive/Background 12.8 kbps PS RAB
+ SRB for CCCH
+ SRBs for DCCH.

3) Interactive/Background 12.8 kbps PS RAB
+ Interactive/Background 12.8 kbps PS RAB
+ SRB for CCCH
+ SRBs for DCCH.

6.11.5.3 Example of linkage between RABs and services

See clause 6.10.3.3.

6.11.5.4 Typical radio parameter sets

6.11.5.4.1 Combinations on DPCH

6.11.5.4.1.1 Stand-alone UL:1.7 DL:1.7 kbps SRBs for DCCH

6.11.5.4.1.1.1 Uplink

6.11.5.4.1.1.1.1 Transport channel parameters

6.11.5.4.1.1.1.1.1 Transport channel parameters for UL:1.7 kbps SRBs for DCCH

See clause 6.10.3.4.1.1.1.1.1.

6.11.5.4.1.1.1.1.2 TFCS

See clause 6.10.3.4.1.1.1.1.2.

6.11.5.4.1.1.1.2 Physical channel parameters

DPCH Uplink	Modulation	QPSK
	Codes and time slots / radio frame	SF16 x 1 code x 2 time slots
	Max. Number of data bits / radio frame	160 bits
	TFCI code word / radio frame	8 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	1

6.11.5.4.1.1.2 Downlink

6.11.5.4.1.1.2.1 Transport channel parameters

6.11.5.4.1.1.2.1.1 Transport channel parameters for DL:1.7 kbps SRBs for DCCH

See clause 6.10.3.4.1.1.2.1.1.

6.11.5.4.1.1.2.1.2 TFCS

See clause 6.10.3.4.1.1.2.1.2.

6.11.5.4.1.1.2.2 Physical channel parameters

DPCH Downlink	Modulation	QPSK
	Codes and time slots / radio frame	SF16 x 1 code x 2 time slots
	Max. Number of data bits / radio frame	160 bits
	TFCI code word / radio frame	8 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	1

6.11.5.4.1.1a~~.1~~ Stand-alone UL:1.7 DL:1.7 kbps SRBs for DCCH (multiframe)

6.11.5.4.1.1a.1~~.1~~ Uplink

6.11.5.4.1.1a.1.1~~.1~~ Transport channel parameters

6.11.5.4.1.1a.1.1.1 Transport channel parameters for UL:1.7 kbps SRBs for DCCH

See ~~Clause~~clause 6.10.3.4.1.1a.1.1.1.

6.11.5.4.1.1a.1.1~~.1~~.2 TFCS

See clause 6.10.3.4.1.1a.1.1~~.1~~.2.

6.11.5.4.1.1a.1~~.1~~.2 Physical channel parameters

DPCH Uplink	Modulation	QPSK
	Codes and time slots / radio frame	SF16 x 1 code x 2 time slots
	Max. Number of data bits / radio frame	160 bits
	TFCI code word / radio frame	8 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	0.60
	Note: In case the first TFC in the TFCS is not configured, the TFCI code word will be 4 bit	

6.11.5.4.1.1a~~.1~~.2 Downlink

6.11.5.4.1.1a~~.1~~.2.1 Transport channel parameters

6.11.5.4.1.1a.2.1.1 Transport channel parameters for DL:1.7 kbps SRBs for DCCH

~~see~~See clause 6.10.3.4.1.1a~~.1~~.2.1.1.

6.11.5.4.1.1a~~.1~~.2.1.2 TFCS

~~see~~See clause 6.10.3.4.1.1a~~.1~~.2.1.2.

6.~~10~~11.~~3~~5.4.1.1a~~.1~~.2.2 Physical channel parameters

DPCH Uplink	Modulation	QPSK
	Codes and time slots / radio frame	SF16 x 1 code x 2 time slots
	Max. Number of data bits / radio frame	160 bits
	TFCI code word / radio frame	8 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	0.60
	Note: In case the first TFC in the TFCS is not configured, the TFCI code word will be 4 bit	

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6.11.5.4.1.4 Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.11.5.4.1.4.1 Uplink

6.11.5.4.1.4.1.1 Transport channel parameters

6.11.5.4.1.4.1.1.1 Transport channel parameters for Conversational / speech / UL:12.2 kbps / CS RAB

See clause 6.10.3.4.1.4.1.1.1.

6.11.5.4.1.4.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See clause ~~clause~~ 6.10.3.4.1.2.1.1.1.

6.11.5.4.1.4.1.1.3 TFCS

See clause 6.10.3.4.1.4.1.1.3.

6.11.5.4.1.4.1.2 Physical channel parameters

DPCH Uplink	Modulation	QPSK
	Codes and time slots / radio frame	SF8 x 1 code x 2 time slots
	Max. Number of data bits / radio frame	328 bits
	TFCI code word / radio frame	16 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	0.48

6.11.5.4.1.4.2 Downlink

6.11.5.4.1.4.2.1 Transport channel parameters

6.11.5.4.1.4.2.1.1 Transport channel parameters for Conversational / speech / DL:12.2 kbps / CS RAB

See clause 6.10.3.4.1.4.2.1.1.

6.11.5.4.1.4.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.2.1.1~~.1~~.

6.11.5.4.1.4.2.1.3 TFCS

See clause 6.10.3.4.1.4.2.1.3.

6.11.5.4.1.4.2.2 Physical channel parameters

DPCH Downlink	Modulation	QPSK
	Codes and time slots / radio frame	SF 16 x 2 code x 2 time slots
	Max. Number of data bits / radio frame	328 bits
	TFCI code word / radio frame	16 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	0.48

6.11.5.4.1.4a Conversational / speech / UL: 12.2 7.95 5.9 4.75 DL:12.2 7.95 5.9 4.75 kbps / CS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.11.5.4.1.4a.1 Uplink

6.11.5.4.1.4a.1.1 Transport channel parameters

6.11.5.4.1.4a.1.1.1 Transport channel parameters for Conversational / speech / UL: 12.2 7.95 5.9 4.75 kbps / CS RAB

See clause 6.10.3.4.1.4a.1.1.1.

6.11.5.4.1.4a.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See clause ~~clause~~ 6.10.3.4.1.2.1.1.1.

6.11.5.4.1.4a.1.1.3 TFCS

See clause 6.10.3.4.1.4a.1.1.3.

6.11.5.4.1.4a.1.2 Physical channel parameters

DPCH Uplink	Modulation	QPSK
	Codes and time slots / radio frame	SF8 x 1 code x 2 time slots
	Max. Number of data bits / radio frame	328 bits
	TFCI code word / radio frame	16 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	0.48

6.11.5.4.1.4a.2 Downlink

6.11.5.4.1.4a.2.1 Transport channel parameters

6.11.5.4.1.4a.2.1.1 Transport channel parameters for Conversational / speech / DL: (12.2, 7.95, 5.9, 4.75) kbps / CS RAB

~~see~~See clause 6.10.3.4.1.4a.~~1.~~2.1.1.

6.11.5.4.1.4a.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.2.1.1.

6.11.5.4.1.4a.2.1.~~1~~3 TFCS

~~see~~See clause 6.10.3.4.1.~~1~~4a.1.2.1.~~2~~3.

6.11.5.4.1.4a.2.2 Physical channel parameters

DPCH Downlink	Modulation	QPSK
	Codes and time slots / radio frame	SF 16 x 2 code x 2 time slots
	Max. Number of data bits / radio frame	328 bits
	TFCI code word / radio frame	16 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	0.48
~~DPCH Uplink~~	~~Modulation~~	~~QPSK~~
	~~Codes and time slots / radio frame~~	~~SF16 x 1 code x 2 time slots~~
	~~Max. Number of data bits / radio frame~~	~~164 bits~~
	~~TFCI code word / radio frame~~	~~8 bits~~
	~~TPC / radio frame~~	~~2x 2 bits~~
	~~SS / radio frame~~	~~2x 2 bits~~
	~~Puncturing Limit~~	~~0.48~~
	~~Note: In case the first TFC in the TFCS is not configured, the TFCI code word will be 4 bit~~	

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6.11.5.4.1.7 Conversational / speech / UL:7.4 DL:7.4 kbps / CS RAB+ UL:3.4 DL:3.4 kbps SRBs for DCCH

6.11.5.4.1.7.1 Uplink

6.11.5.4.1.7.1.1 Transport channel parameters

6.11.5.4.1.7.1.1.1 Transport channel parameters for Conversational / speech / UL:7.4 kbps / CS RAB

See clause 6.10.3.4.1.7.1.1.1.

6.11.5.4.1.7.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.1.1.1.

6.11.5.4.1.7.1.1.3 TFCS

See clause 6.10.3.4.1.7.1.1.3.

6.11.5.4.1.7.1.2 Physical channel parameters

DPCH Uplink	Modulation	QPSK
	Codes and time slots/ radio frame	SF 8 x 1 code x 2 time slots
	Max. Number of data bits / radio frame	328 bits
	TFCI code word / radio frame	16 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	0.64

6.11.5.4.1.7.2 Downlink

6.11.5.4.1.7.2.1 Transport channel parameters

6.11.5.4.1.7.2.1.1 Transport channel parameters for Conversational / speech / DL:7.4 kbps / CS RAB

See clause 6.10.3.4.1.7.2.1.1.

6.11.5.4.1.7.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.2.1.1.

6.11.5.4.1.7.2.1.3 TFCS

See clause 6.10.3.4.1.7.2.1.3.

6.11.5.4.1.7.2.2 Physical channel parameters

DPCH Downlink	Modulation	QPSK
	Codes and time slots / radio frame	SF 16 x 2 code x 2 time slots
	Max. Number of data bits / radio frame	328 bits
	TFCI code word / radio frame	16 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	0.64

6.11.5.4.1.7a Conversational / speech / UL:7.4 6.7 5.9 4.75 DL:7.4 6.7 5.9 4.75 / CS RAB+ UL:3.4 DL:3.4 kbps SRBs for DCCH

6.11.5.4.1.7a.1 Uplink

6.11.5.4.1.7a.1.1 Transport channel parameters

6.11.5.4.1.7a.1.1.1 Transport channel parameters for Conversational / speech / UL:7.4 6.7 5.9 4.75 / CS RAB

See clause 6.10.3.4.1.7a.1.1.1.

6.11.5.4.1.7a.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.1.1.1.

6.11.5.4.1.7a.1.1.3 TFCS

See clause 6.10.3.4.1.7a.1.1.3.

6.11.5.4.1.7a.1.2 Physical channel parameters

DPCH Uplink	Modulation	QPSK
	Codes and time slots/ radio frame	SF 8 x 1 code x 2 time slots
	Max. Number of data bits / radio frame	328 bits
	TFCI code word / radio frame	16 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	0.64

6.11.5.4.1.7a.2 Downlink

6.11.5.4.1.7a.2.1 Transport channel parameters

6.11.5.4.1.7a.2.1.1 Transport channel parameters for Conversational / speech / DL:7.4 6.7 5.9 4.75 / CS RAB

See clause 6.10.3.4.1.7a.2.1.1.

6.11.5.4.1.7a.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.2.1.1.

6.11.5.4.1.7a.2.1.3 TFCS

See clause 6.10.3.4.1.7a.2.1.3.

6.11.5.4.1.7a.2.2 Physical channel parameters

DPCH Downlink	Modulation	QPSK
	Codes and time slots / radio frame	SF 16 x 2 code x 2 time slots
	Max. Number of data bits / radio frame	328 bits
	TFCI code word / radio frame	16 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	0.64

6.11.5.4.1.8 Conversational / speech / UL:6.7 DL:6.7 kbps / CS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.11.5.4.1.8.1 Uplink

6.11.5.4.1.8.1.1 Transport channel parameters

6.11.5.4.1.8.1.1.1 Transport channel parameters for Conversational / speech / UL:6.7 kbps / CS RAB

See clause 6.10.3.4.1.8.1.1.1.

6.11.5.4.1.8.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.1.1.1.

6.11.5.4.1.8.1.1.3 TFCS

See clause 6.10.3.4.1.8.1.1.3.

6.11.5.4.1.8.1.2 Physical channel parameters

DPCH Uplink	Modulation	QPSK
	Codes and time slots / radio frame	SF 8 x 1 code x 2 time slots
	Max. Number of data bits / radio frame	328 bits
	TFCI code word / radio frame	16 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	0.68

6.11.5.4.1.8.2 Downlink

6.11.5.4.1.8.2.1 Transport channel parameters

6.11.5.4.1.8.2.1.1 Transport channel parameters for Conversational / speech / DL:6.7 kbps / CS RAB

See clause 6.10.3.4.1.8.2.1.1.

6.11.5.4.1.8.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.2.1.1.

6.11.5.4.1.8.2.1.3 TFCS

See clause 6.10.3.4.1.8.2.1.3.

6.11.5.4.1.8.2.2 Physical channel parameters

DPCH Downlink	Modulation	QPSK
	Codes and time slots / radio frame	SF 16 x 2 code x 2 time slots
	Max. Number of data bits / radio frame	328 bits
	TFCI code word / radio frame	16 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	0.68

6.11.5.4.1.9 Conversational / speech / UL:5.9 DL:5.9 kbps / CS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.11.5.4.1.9.1 Uplink

6.11.5.4.1.9.1.1 Transport channel parameters

6.11.5.4.1.9.1.1.1 Transport channel parameters for Conversational / speech / UL:5.9 kbps / CS RAB

See clause 6.10.3.4.1.9.1.1.1.

6.11.5.4.1.9.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.1.1.1.

6.11.5.4.1.9.1.1.3 TFCS

See clause 6.10.3.4.1.9.1.1.3.

6.11.5.4.1.9.1.2 Physical channel parameters

DPCH Uplink	Modulation	QPSK
	Codes and time slots / radio frame	SF 8 x 1 code x 2 time slots
	Max. Number of data bits / radio frame	328 bits
	TFCI code word / radio frame	16 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	0.72

6.11.5.4.1.9.2 Downlink

6.11.5.4.1.9.2.1 Transport channel parameters

6.11.5.4.1.9.2.1.1 Transport channel parameters for Conversational / speech / DL:5.9 kbps / CS RAB

See clause 6.10.3.4.1.9.2.1.1.

6.11.5.4.1.9.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.2.1.1.

6.11.5.4.1.9.2.1.3 TFCS

See clause 6.10.3.4.1.9.2.1.3.

6.11.5.4.1.9.2.2 Physical channel parameters

DPCH Downlink	Modulation	QPSK
	Codes and time slots / radio frame	SF 16 x 2 code x 2 time slots
	Max. Number of data bits / radio frame	328 bits
	TFCI code word / radio frame	16 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	0.72

<End of modified section>

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6.11.5.4.1.18 ~~void~~Void.

6.11.5.4.1.19 Void.

6.11.5.4.1.20 Void.

6.11.5.4.1.21 Void.

6.11.5.4.1.22 Void.

6.11.5.4.1.23 Interactive or background / UL:32 DL:8 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.11.5.4.1.23.1 Uplink

6.11.5.4.1.23.1.1 Transport channel parameters

6.11.5.4.1.23.1.1.1 Transport channel parameters for Interactive or background / UL:32 kbps / PS RAB

See clause 6.10.3.4.1.23.1.1.1.

6.11.5.4.1.23.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.1.1.1.

6.11.5.4.1.23.1.1.3 TFCS

See clause 6.10.3.4.1.23.1.1.3.

6.11.5.4.1.23.1.2 Physical channel parameters

DPCH Uplink	Modulation	QPSK
	Codes and time slots/ radio frame	SF 2 x 1 code x 2 time slots
	Max. Number of data bits/radio frame	1384 bits
	TFCI code word/ radio frame	16 bits
	TPC / radio frame	2 * 2 bits
	SS / radio frame	2 * 2 bits
	Puncturing Limit	1.0 (alt 0.92)

6.11.5.4.1.23.2 Downlink

6.11.5.4.1.23.2.1 Transport channel parameters

6.11.5.4.1.23.2.1.1 Transport channel parameters for Interactive or background / DL:8 kbps / PS RAB

See clause 6.10.3.4.1.23.2.1.1.

6.11.5.4.1.23.2.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.2.1.1.

6.11.5.4.1.23.2.1.3 TFCS

See clause 6.10.3.4.1.23.2.1.3.

6.11.5.4.1.23.2.2 Physical channel parameters

DPCH Downlink	Modulation	QPSK
	Codes and time slots/ radio frame	SF 16 x 2 codes x 2 time slots
	Max. Number of data bits/radio frame	336 bits
	TFCI code word/ radio frame	8 bits
	TPC/ radio frame	2*2 bits
	SS/ radio frame	2*2 bits
	Puncturing Limit	0.76

6.11.5.4.1.23a Interactive or background / UL:8 DL:8 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.11.5.4.1.23a.1 Uplink

6.11.5.4.1.23a.1.1 Transport channel parameters

6.11.5.4.1.23a.1.1.1 Transport channel parameters for Interactive or background / UL:8kbps / PS RAB

See clause 6.10.3.4.1.23a.1.1.1.

6.11.5.4.1.23a.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.1.1.1.

6.11.5.4.1.23a.1.1.3 TFCS

See clause 6.10.3.4.1.23a.1.1.3.

6.11.5.4.1.23a.1.2 Physical channel parameters

DPCH Uplink	Modulation	QPSK
	Codes and time slots / radio frame	SF 8 x 1 code x 2 time slots
	Max. Number of data bits / radio frame	328 bits
	TFCI code word / radio frame	16 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	~~0.68 alt (XXX) 0.680.76~~0.72 (alt ~~0.72~~0.68)

6.11.5.4.1.23a.2 Downlink

See clause 6.~~10~~11.~~3~~5.4.1.23.2.

6.11.5.4.1.23b Interactive or background / UL:16 DL:16 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.11.5.4.1.23b.1 Uplink

6.11.5.4.1.23b.1.1 Transport channel parameters

6.11.5.4.1.23b.1.1.1 Transport channel parameters for Interactive or background / UL:16 kbps / PS RAB

See clause 6.10.3.4.1.23b.1.1.1.

6.11.5.4.1.23b.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.1.1.1.

6.11.5.4.1.23b.1.1.3 TFCS

See clause 6.10.3.4.1.23b.1.1.3.

6.11.5.4.1.23b.1.2 Physical channel parameters

DPCH Uplink	Modulation	QPSK
	Codes and time slots / radio frame	SF4 x 1 code x 2 time slots
	Max. Number of data bits / radio frame	688 bits
	TFCI code word / radio frame	16bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	0.92 alt (0.84)

6.11.5.4.1.23b.2 Downlink

6.11.5.4.1.23b.2.1 Transport channel parameters

6.11.5.4.1.23b.2.1.1 Transport channel parameters for Interactive or background / DL:16 kbps / PS RAB

See clause 6.10.3.4.1.23b.2.1.1.

6.11.5.4.1.23b.2.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.2.1.1.

6.11.5.4.1.23b.2.1.3 TFCS

See clause 6.10.3.4.1.23b.2.1.3.

6.11.5.4.1.23b.2.2 Physical channel parameters

DPCH Downlink	Modulation	QPSK
	Codes and time slots/ radio frame	SF16 x 3 code x 2 time slots
	Max. Number of data bits / radio	512 bits
	TFCI code word / radio frame	16 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	0.68

6.11.5.4.1.23c Interactive or background / UL:32 DL32 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.11.5.4.1.23c.1 Uplink

6.11.5.4.1.23c.1.1 Transport channel parameters

6.11.5.4.1.23c.1.1.1 Transport channel parameters for Interactive or background / UL:32 kbps / PS RAB

See clause 6.10.3.4.1.23c.1.1.1.

6.11.5.4.1.23c.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.1.1.1.

6.11.5.4.1.23c.1.1.3 TFCS

See clause 6.10.3.4.1.23c.1.1.3.

6.11.5.4.1.23c.1.2 Physical channel parameters

DPCH Uplink	Modulation	QPSK
	Codes and time slots/ radio frame	SF 2 x 1 code x 2 time slots
	Max. Number of data bits/radio frame	1384 bits
	TFCI code word/ radio frame	16 bits
	TPC / radio frame	2 * 2 bits
	SS / radio frame	2 * 2 bits
	Puncturing Limit	1.0 alt (0.92)

6.11.5.4.1.23c.2 Downlink

6.11.5.4.1.23c.2.1 Transport channel parameters

6.11.5.4.1.23c.2.1.1 Transport channel parameters for Interactive or background / DL:32 kbps / PS RAB

See clause 6.10.3.4.1.23c.2.1.1.

6.11.5.4.1.23c.2.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.2.1.1.

6.11.5.4.1.23c.2.1.3 TFCS

See clause 6.10.3.4.1.23c.2.1.3.

6.11.5.4.1.23c.2.2 Physical channel parameters

DPCH Downlink	Modulation	QPSK
	Codes and time slots / radio frame	SF16 x 8 code x 2 time slots
	Max. Number of data bits/radio frame	1384 bits
	TFCI code word / radio frame	16 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	1.0

6.11.5.4.1.23d Interactive or background / UL:32 DL32 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.11.5.4.1.23d.1 Uplink

6.11.5.4.1.23d.1.1 Transport channel parameters

6.11.5.4.1.23d.1.1.1 Transport channel parameters for Interactive or background / UL:32 kbps / PS RAB

See clause 6.10.3.4.1.23d.1.1.1.

6.11.5.4.1.23d.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.1.1.1.

6.11.5.4.1.23d.1.1.3 TFCS

See clause 6.10.3.4.1.23d.1.1.3.

6.11.5.4.1.23d.1.2 Physical channel parameters

DPCH Uplink	Modulation	QPSK
	Codes and time slots/ radio frame	SF 2 x 1 code x 2 time slots
	Max. Number of data bits/radio frame	1384 bits
	TFCI code word/ radio frame	16 bits
	TPC / radio frame	2 * 2 bits
	SS / radio frame	2 * 2 bits
	Puncturing Limit	1.0 alt(0.92)

6.11.5.4.1.23d.2 Downlink

6.11.5.4.1.23d.2.1 Transport channel parameters

6.11.5.4.1.23d.2.1.1 Transport channel parameters for Interactive or background / DL:32 kbps / PS RAB

See clause 6.10.3.4.1.23d.2.1.1.

6.11.5.4.1.23d.2.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.2.1.1.

6.11.5.4.1.23d.2.1.3 TFCS

See clause 6.10.3.4.1.23d.2.1.3.

6.11.5.4.1.23d.2.2 Physical channel parameters

DPCH Downlink	Modulation	QPSK
	Codes and time slots / radio frame	SF16 x 8 code x 2 time slots
	Max. Number of data bits/radio frame	1384 bits
	TFCI code word / radio frame	16 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	1

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6.11.5.4.1.33 Interactive or background / UL:128 DL:384 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.11.5.4.1.33.1 Uplink

See clause 6.11.5.4.1.28.1.

6.11.5.4.1.33.2 Downlink

See clause 6.11.5.4.1.32.2.

6.11.5.4.1.34 Interactive or background / UL:384 DL:384 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.11.5.4.1.34.1 Uplink

6.11.5.4.1.34.1.1 Transport channel parameters

6.11.5.4.1.34.1.1.1 Transport channel parameters for Interactive or background / UL:384 kbps / PS RAB

See clause 6.10.3.4.1.34.1.1.1.

6.11.5.4.1.34.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.1.1.1.

6.11.5.4.1.34.1.1.3 TFCS

See clause 6.10.3.4.1.34.1.1.3.

6.11.5.4.1.34.1.2 Physical channel parameters

DPCH Uplink	Modulation	QPSK	8PSK
	Codes and time slots/ radio frame	SF 1 x 1 code x 6 time slots	SF 1 x 1 code x 4 time slots
	Max. Number of data bits/radio frame	8424 bits	8412 bits
	TFCI code word / radio frame	16 bits	24 bits
	TPC / radio frame	2 * 2 bits	2 * 3 bits
	SS / radio frame	2 * 2 bits	2 * 3 bits
	Puncturing Limit	0.64	0.64

6.11.5.4.1.34.2 Downlink

See clause 6.11.5.4.1.32.2.

6.11.5.4.1.35 Interactive or background / UL:64 DL:2048 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.11.5.4.1.35.1 Uplink

See clause 6.11.5.4.1.26.1.

6.11.5.4.1.35.2 Downlink

6.11.5.4.1.35.2.1 Transport channel parameters

6.11.5.4.1.35.2.1.1 Transport channel parameters for Interactive or background / DL:2048 kbps / PS RAB

Higher Layer	RAB/Signalling RB		**RAB**
RLC	Logical channel type		DTCH
	RLC mode		AM
	Payload sizes, bit		1704
	Max data rate, bps		2048000
	RLC header, bit		16
MAC	MAC header, bit		0
	MAC multiplexing		N/A
Layer 1	TrCH type		DCH
	TB sizes, bit		1720
	TFS	TF0, bits	0x1720
		TF1, bits	1x1720
		TF2, bits	2x1720
		TF3, bits	4x1720
		TF4, bits	8 x1720
		TF5, bits	12x1720
		TF6, bits	N/A (alt. 16x1720)
		TF7, bits	N/A (alt. 20x1720)
		TF8, bits	N/A (alt. 24x1720)
	TTI, ms		10(alt. 20)
	Coding type		No coding
	CRC, bit		24
	Max number of bits/TTI after channel coding		20928 (alt. 41856)
	Max number of bits/radio frame before rate matching		20928 (alt. 20928)
	RM attribute		130-170

6.11.5.4.1.35.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.2.1.1.

6.11.5.4.1.35.2.1.3 TFCS

TFCS size	12 (alt.18)
TFCS	(2048 kbps RAB, DCCH)= (TF0, TF0), (TF1, TF0), (TF2, TF0), (TF3, TF0), (TF4, TF0), (TF5, TF0), (TF0, TF1), (TF1, TF1), (TF2, TF1), (TF3, TF1), (TF4, TF1), (TF5, TF1), (alt. (TF0, TF0), (TF1, TF0), (TF2, TF0), (TF3, TF0), (TF4, TF0), (TF5, TF0), (TF6, TF0), (TF7, TF0), (TF8, TF0), (TF0, TF1), (TF1, TF1), (TF2, TF1), (TF3, TF1), (TF4, TF1), (TF5, TF1), (TF6, TF1), (TF7, TF1), (TF8, TF1))

6.11.5.4.1.35.2.2 Physical channel parameters

DPCH Downlink	Modulation	8PSK
	Codes and time slots/ radio frame	SF1 x 1 code x 10 time slots
	Max. Number of data bits/radio frame	21084 bits
	TFCI code word/ radio frame	24 bits
	TPC/ radio frame	2*3 bits
	SS/ radio frame	2*3 bits
	Puncturing Limit	1

6.11.5.4.1.36 Void.

6.11.5.4.1.37 Void.

6.11.5.4.1.38 Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ Interactive or background / UL:32 DL:8 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH

6.11.5.4.1.38.1 Uplink

6.11.5.4.1.38.1.1 Transport channel parameters

6.11.5.4.1.38.1.1.1 Transport channel parameters for Conversational / speech / UL:12.2 kbps / CS RAB

See clause 6.10.3.4.1.4.1.1.1.

6.11.5.4.1.38.1.1.2 Transport channel parameters for Interactive or background / UL:32 kbps / PS RAB

See clause 6.10.3.4.1.23.1.1.1.

6.11.5.4.1.38.1.1.3 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.1.1.1.

6.11.5.4.1.38.1.1.4 TFCS

See clause 6.10.3.4.1.38.1.1.4.

6.11.5.4.1.38.1.2 Physical channel parameters

DPCH Uplink	Modulation	QPSK
	Codes and time slots/ radio frame	SF 2 x 1 code x 2 time slots
	Max. Number of data bits/radio frame	1384 bits
	TFCI code word / radio frame	16 bits
	TPC / radio frame	2 * 2 bits
	SS / radio frame	2 * 2 bits
	Puncturing Limit	0.72 (alt 0.68)

6.11.5.4.1.38.2 Downlink

6.11.5.4.1.38.2.1 Transport channel parameters

6.11.5.4.1.38.2.1.1 Transport channel parameters for Conversational / speech / DL:12.2 kbps / CS RAB

See clause 6.10.3.4.1.4.2.1.1.

6.11.5.4.1.38.2.1.2 Transport channel parameters for Interactive or background / DL:8 kbps / PS RAB

See clause 6.10.3.4.1.23.2.1.1.

6.11.5.4.1.38.2.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.2.1.1.

6.11.5.4.1.38.2.1.4 TFCS

See clause 6.10.3.4.1.38.2.1.4.

6.11.5.4.1.38.2.2 Physical channel parameters

DPCH Downlink	Modulation	QPSK
	Codes and time slots/ radio frame	SF16 x 3 codes x 2 time slots
	Max. Number of data bits/radio frame	504 bits
	TFCI code word/ radio frame	16 bits
	TPC/ radio frame	2*2 bits
	SS/ radio frame	2*2 bits
	Puncturing Limit	0.44

6.11.5.4.1.38a Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ Interactive or background / UL:0 DL:0 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH

6.11.5.4.1.38a.1 Uplink

6.11.5.4.1.38a.1.1 Transport channel parameters

6.11.5.4.1.38a.1.1.1 Transport channel parameters for Conversational / speech / UL:12.2 kbps / CS RAB

See clause 6.10.3.4.1.4.1.1.1.

6.11.5.4.1.38a.1.1.2 Transport channel parameters for Interactive or background / UL:0 kbps / PS RAB

See clause 6.10.3.4.1.38a.1.1.2.

6.11.5.4.1.38a.1.1.3 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.1.1.1.

6.11.5.4.1.38a.1.1.4 TFCS

See clause 6.10.3.4.1.38a.1.1.4.

6.11.5.4.1.38a.1.2 Physical channel parameters

DPCH Uplink	Modulation	QPSK
	Codes and time slots / radio frame	SF8 x 1 code x 2 time slots
	Max. Number of data bits / radio frame	328 bits
	TFCI code word / radio frame	16 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	0.48

6.11.5.4.1.38a.2 Downlink

6.11.5.4.1.38a.2.1 Transport channel parameters

6.11.5.4.1.38a.2.1.1 Transport channel parameters for Conversational / speech / DL:12.2 kbps / CS RAB

See clause 6.10.3.4.1.4.2.1.1.

6.11.5.4.1.38a.2.1.2 Transport channel parameters for Interactive or background / DL:0 kbps / PS RAB

See clause 6.10.3.4.1.38a.2.1.2.

6.11.5.4.1.38a.2.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.2.1.1.

6.11.5.4.1.38a.2.1.4 TFCS

See clause 6.10.3.4.1.38a.2.1.4.

6.11.5.4.1.38a.2.2 Physical channel parameters

DPCH Downlink	Modulation	QPSK
	Codes and time slots / radio frame	SF 16 x 2 code x 2 time slots
	Max. Number of data bits / radio frame	328 bits
	TFCI code word / radio frame	16 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	0.48

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6.11.5.4.1.38f Conversational / speech / UL: 12.2 7.95 5.9 4.75 DL:12.2 7.95 5.9 4.75 kbps / CS RAB
+ Interactive or background / UL:8 DL:8 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH

6.11.5.4.1.38f.1 Uplink

6.11.5.4.1.38f.1.1 Transport channel parameters

6.11.5.4.1.38f.1.1.1 Transport channel parameters for Conversational / speech / UL: 12.2 7.95 5.9 4.75 / CS RAB

See clause 6.10.3.4.1.4a.1.1.1.

6.11.5.4.1.38f.1.1.2 Transport channel parameters for Interactive or background / UL:8 kbps / PS RAB

See clause 6.10.3.4.1.23a.1.1.1.

6.11.5.4.1.38f.1.1.3 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.1.1.1.

6.11.5.4.1.38f.1.1.4 TFCS

See clause 6.10.3.4.1.38f.1.1.4.

6.11.5.4.1.38f.1.2 Physical channel parameters

DPCH Uplink	Modulation	QPSK
	Codes and time slots/ frame	SF4 x 1 code x 2 time slots
	Max. Number of data bits / radio frame	680 bits
	TFCI code word / radio frame	16 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	0.64 (alt 0.60)

6.11.5.4.1.38f.2 Downlink

6.11.5.4.1.38f.2.1 Transport channel parameters

6.11.5.4.1.38f.2.1.1 Transport channel parameters for Conversational / speech / DL:12.2 7.95 5.9 4.75 / CS RAB

See clause 6.10.3.4.1.4a.2.1.1.

6.11.5.4.1.38f.2.1.2 Transport channel parameters for Interactive or background / DL:8 kbps / PS RAB

See clause 6.10.3.4.1.23.2.1.1.

6.11.5.4.1.38f.2.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.2.1.1.

6.11.5.4.1.38f.2.1.4 TFCS

See clause 6.10.3.4.1.38f.2.1.4.

6.11.5.4.1.38f.2.2 Physical channel parameters

DPCH Downlink	Modulation	QPSK
	Codes and time slots/ radio frame	SF16 x 4 code x 2 time slots
	Max. Number of data bits / radio frame	680 bits
	TFCI code word / radio frame	16 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	0.64

6.11.5.4.1.38g Conversational / speech / UL: 12.2 7.95 5.9 4.75 DL:12.2 7.95 5.9 4.75 kbps / CS RAB
+ Interactive or background / UL:16 DL:16 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH

6.11.5.4.1.38g.1 Uplink

6.11.5.4.1.38g.1.1 Transport channel parameters

6.11.5.4.1.38g.1.1.1 Transport channel parameters for Conversational / speech / UL: 12.2 7.95 5.9 4.75 / CS RAB

See clause 6.10.3.4.1.4a.1.1.1.

6.11.5.4.1.38g.1.1.2 Transport channel parameters for Interactive or background / UL:16 kbps / PS RAB

See clause 6.10.3.4.1.23b.1.1.1.

6.11.5.4.1.38g.1.1.3 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.1.1.1.

6.11.5.4.1.38g.1.1.4 TFCS

See clause 6.10.3.4.1.38g.1.1.4.

6.11.5.4.1.38g.1.2 Physical channel parameters

DPCH Uplink	Modulation	QPSK
	Codes and time slots/ radio frame	SF2 x 1 code x 2 time slots
	Max. Number of data bits / radio frame	1384 bits
	TFCI code word / radio frame	16 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	1.0 (alt 0.96)
Note: There are 32 bit and 16 bit TFCIs for the two cases.		

6.11.5.4.1.38g.2 Downlink

6.11.5.4.1.38g.2.1 Transport channel parameters

6.11.5.4.1.38g.2.1.1 Transport channel parameters for Conversational / speech / DL:12.2 7.95 5.9 4.75 / CS RAB

See clause 6.10.3.4.1.4a.2.1.1.

6.11.5.4.1.38g.2.1.2 Transport channel parameters for Interactive or background / DL:16 kbps / PS RAB

See clause 6.10.3.4.1.23b.2.1.1.

6.11.5.4.1.38g.2.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.2.1.1.

6.11.5.4.1.38g.2.1.4 TFCS

See clause 6.10.3.4.1.38g.2.1.4.

6.11.5.4.1.38g.2.2 Physical channel parameters

DPCH Downlink	Modulation	QPSK
	Codes and time slots / radio frame	SF16 x 8 code x 2 time slots
	Max. Number of data bits / radio frame	1384 bits
	TFCI code word / radio frame	16 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	1.0

6.11.5.4.1.38h Conversational / speech / UL: 12.2 7.95 5.9 4.75 DL:12.2 7.95 5.9 4.75 kbps / CS RAB
+ Interactive or background / UL:32 DL:32 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH

6.11.5.4.1.38h.1 Uplink

6.11.5.4.1.38h.1.1 Transport channel parameters

6.11.5.4.1.38h.1.1.1 Transport channel parameters for Conversational / speech / UL: 12.2 7.95 5.9 4.75 / CS RAB

See clause 6.10.3.4.1.4a.1.1.1.

6.11.5.4.1.38h.1.1.2 Transport channel parameters for Interactive or background / UL:32 kbps / PS RAB

See clause 6.10.3.4.1.23d.1.1.1~~2~~.

6.11.5.4.1.38h.1.1.3 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.1.1.1.

6.11.5.4.1.38h.1.1.4 TFCS

See clause 6.10.3.4.1.38h.1.1.4.

6.11.5.4.1.38h.1.2 Physical channel parameters

DPCH Uplink	Modulation	QPSK
	Codes and time slots / radio frame	SF2 x 1 code x 2 time slots
	Max. Number of data bits/radio frame	1384 bits
	TFCI code word / radio frame	16 bits
	TPC / radio frame	2x 2 bits
	SS/ radio frame	2x 2 bits
	Puncturing Limit	0.72 (alt 0.64)

6.11.5.4.1.38h.2 Downlink

6.11.5.4.1.38h.2.1 Transport channel parameters

6.11.5.4.1.38h.2.1.1 Transport channel parameters for Conversational / speech / DL:12.2 7.95 5.9 4.75 / CS RAB

See clause 6.10.3.4.1.4a.2.1.1.

6.11.5.4.1.38h.2.1.2 Transport channel parameters for Interactive or background / DL:32 kbps / PS RAB

See clause 6.10.3.4.1.23d.2.1.1.

6.11.5.4.1.38h.2.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.2.1.1.

6.11.5.4.1.38h.2.1.4 TFCS

See clause 6.10.3.4.1.38h.2.1.4.

6.11.5.4.1.38h.2.2 Physical channel parameters

DPCH Downlink	Modulation	QPSK
	Codes and time slots / radio frame	SF16 x 8 code x 2 time slots
	Max. Number of data bits / radio frame	1384 bits
	TFCI code word / radio frame	16 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	0.72

6.11.5.4.1.38i Conversational / speech / UL: 12.2 7.95 5.9 4.75 DL:12.2 7.95 5.9 4.75 kbps / CS RAB
+ Interactive or background / UL:64 DL:64 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH

6.11.5.4.1.38i.1 Uplink

6.11.5.4.1.38i.1.1 Transport channel parameters

6.11.5.4.1.38i.1.1.1 Transport channel parameters for Conversational / speech / UL: 12.2 7.95 5.9 4.75 / CS RAB

See clause 6.10.3.4.1.4a.1.1.1.

6.11.5.4.1.38i.1.1.2 Transport channel parameters for Interactive or background / UL:64 kbps / PS RAB

See clause 6.10.3.4.1.26.1.1.1.

6.11.5.4.1.38i.1.1.3 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.1.1.1.

6.11.5.4.1.38i.1.1.4 TFCS

See clause 6.10.3.4.1.38i.1.1.4.

6.11.5.4.1.38i.1.2 Physical channel parameters

DPCH Uplink	Modulation	QPSK	8PSK
	Codes and time slots/ radio frame	(SF1 x 1 code x 2 time slots) + (SF2 x 1 code x 2 time slots)	SF1 x 1code x 2 time slots
	Max. Number of data bits/radio frame	4200 bits	4188 bits
	TFCI code word/ radio frame	16 bits	24 bits
	TPC/ radio frame	2*2 bits	2* 3bits
	SS/ radio frame	2*2 bits	2* 3bits
	Puncturing Limit	1	1

6.11.5.4.1.38i.2 Downlink

6.11.5.4.1.38i.2.1 Transport channel parameters

6.11.5.4.1.38i.2.1.1 Transport channel parameters for Conversational / speech / DL:12.2 7.95 5.9 4.75 / CS RAB

See clause 6.10.3.4.1.4a.2.1.1.

6.11.5.4.1.38i.2.1.2 Transport channel parameters for Interactive or background / DL:64 kbps / PS RAB

See clause 6.10.3.4.1.25.2.1.1.

6.11.5.4.1.38i.2.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.2.1.1.

6.11.5.4.1.38i.2.1.4 TFCS

See clause 6.10.3.4.1.38i.2.1.4.

6.11.5.4.1.38i.2.2 Physical channel parameters

DPCH Downlink	Modulation	QPSK
	Codes and time slots/ radio frame	SF 16 x 9 codes x 4 time slots
	Max. Number of data bits/radio frame	3144 bits
	TFCI code word/ radio frame	16 bits
	TPC / radio frame	2 * 2 bits
	SS / radio frame	2 * 2 bits
	Puncturing Limit	1

6.11.5.4.1.38j Conversational / speech / UL: 12.2 7.95 5.9 4.75 DL:12.2 7.95 5.9 4.75 kbps / CS RAB
+ Interactive or background / UL:64 DL:128 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH

6.11.5.4.1.38j.1 Uplink

~~see~~See ~~clause~~ clause 6.11.5.4.1.38i~~.~~.1.

6.11.5.4.1.38j.2 Downlink

6.11.5.4.1.38j.2.1 Transport channel parameters

6.11.5.4.1.38j.2.1.1 Transport channel parameters for Conversational / speech / DL:12.2 7.95 5.9 4.75 / CS RAB

See clause 6.10.3.4.1.4a.2.1.1.

6.11.5.4.1.38j.2.1.2 Transport channel parameters for Interactive or background / DL:128 kbps / PS RAB

See clause 6.10.3.4.1.27.2.1.1.

6.11.5.4.1.38j.2.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.2.1.1.

6.11.5.4.1.38j.2.1.4 TFCS

See clause 6.10.3.4.1.38j.2.1.4.

6.11.5.4.1.38j.2.2 Physical channel parameters

DPCH Downlink	Modulation	QPSK
	Codes and time slots/ radio frame	SF 16 x 9 codes x 4 time slots
	Max. Number of data bits/radio frame	3144 bits
	TFCI code word/ radio frame	16 bits
	TPC / radio frame	2 * 2 bits
	SS / radio frame	2 * 2 bits
	Puncturing Limit	0.60

6.11.5.4.1.39 Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB + Interactive or background / UL:32 DL:64 kbps / PS RAB+ UL:3.4 DL: 3.4 kbps SRBs for DCCH

6.11.5.4.1.39.1 Uplink

See clause 6.11.5.4.1.38.1.

6.11.5.4.1.39.2 Downlink

6.11.5.4.1.39.2.1 Transport channel parameters

6.11.5.4.1.39.2.1.1 Transport channel parameters for Conversational / speech / DL:12.2 kbps / CS RAB

See clause 6.10.3.4.1.4.2.1.1.

6.11.5.4.1.39.2.1.2 Transport channel parameters for Interactive or background / DL:64 kbps / PS RAB

See clause 6.10.3.4.1.25.2.1.1.

6.11.5.4.1.39.2.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.2.1.1.

6.11.5.4.1.39.2.1.4 TFCS

See clause 6.10.3.4.1.39.2.1.4.

6.11.5.4.1.39.2.2 Physical channel parameters

DPCH Downlink	Modulation	QPSK
	Codes and time slots/ radio frame	SF 16 x 10 codes x 2 time slots
	Max. Number of data bits/radio frame	1736 bits
	TFCI code word / radio frame	16 bits
	TPC / radio frame	2 * 2 bits
	SS / radio frame	2 * 2 bits
	Puncturing Limit	0.56

6.11.5.4.1.40 Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ Interactive or background / UL:64 DL:64 kbps / PS RAB
+ UL:3.4 DL: 3.4 kbps SRBs for DCCH

6.11.5.4.1.40.1 Uplink

6.11.5.4.1.40.1.1 Transport channel parameters

See clause 6.10.3.4.1.40.1.1.

~~6.11.5.4.1.40.1.1 Transport channel parameters for Conversational / speech / UL:12.2 kbps / CS RAB~~

~~See clause 6.10.3.4.1.4.1.1.1.~~

~~6.11.5.4.1.40.1.2 Transport channel parameters for Interactive or background / UL:64 kbps / PS RAB~~

~~See clause 6.10.3.4.1.26.1.1.1.~~

~~6.11.5.4.1.40.1.1.3 Transport channel parameters for UL:3.4 kbps SRBs for DCCH~~

~~See clause 6.10.3.4.1.2.1.1.1.~~

~~6.11.5.4.1.40.1.1.4 TFCS~~

~~See clause 6.10.3.4.1.40.1.1.4.~~

6.11.5.4.1.40.1.2 Physical channel parameters

6.11.5.4.1.40.1.2.1 Physical channel parameters (one CCTrCH case)

DPCH Uplink	Modulation	QPSK
	Codes and time slots/ radio frame	SF1 x 1 code x 2 time slots
	Max. Number of data bits/radio frame	2792 bits
	TFCI code word/ radio frame	16 bits
	TPC/ radio frame	2*2 bits
	SS/ radio frame	2*2 bits
	Puncturing Limit	0.92 (alt. 0.84)

6.11.5.4.1.40.1.2.2 Physical channel parameters (two CCTrCH case)

6.11.5.4.1.40.1.2.2.1 Physical channel parameters (conversational + SRB)

See clause 6.11.5.4.1.4.1.2.

6.11.5.4.1.40.1.2.2.2 Physical channel parameters (Interactive or background)

DPCH Uplink	Modulation	QPSK
	Codes and time slots/ radio frame	SF2 x 1 code x 2 time slots
	Max. Number of data bits/radio frame	1384 bits
	TFCI code word/ radio frame	16 bits
	TPC/ radio frame	2*2 bits
	SS/ radio frame	2*2 bits
	Puncturing Limit	0.64 (alt. 0.56)

6.11.5.4.1.40.2 Downlink

6.11.5.4.1.40.2.1 Transport channel parameters

See clause 6.10.3.4.1.40.2.1.

6.11.5.4.1.40.2.2 Physical channel parameters

6.11.5.4.1.40.2.2.1 Physical channel parameters (one CCTrCH)

See Clause 6.11.5.4.1.39.2.2.

6.11.5.4.1.40.2.2.2 Physical channel parameters (two CCTrCHs)

6.11.5.4.1.40.2.2.2.1 Physical channel parameters (conversational + SRB)

See clause 6.11.5.4.1.4.2.2.

6.11.5.4.1.40.2.2.2.2 Physical channel parameters (Interactive or background)

DPCH Downlink	Modulation	QPSK
	Codes and time slots/ radio frame	SF16 x 8 codes x 2 time slots
	Max. Number of data bits/radio frame	1384 bits
	TFCI code word/ radio frame	16 bits
	TPC/ radio frame	2*2 bits
	SS/ radio frame	2*2 bits
	Puncturing Limit	0.64

~~See clause 6.11.5.4.1.39.2.~~

6.11.5.4.1.41 Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ Interactive or background / UL:64 DL:128 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH

6.11.5.4.1.41.1 Uplink

See clause 6.11.5.4.1.40.1.

6.11.5.4.1.41.2 Downlink

6.11.5.4.1.41.2.1 Transport channel parameters

See clause 6.10.3.4.1.41.2.1.

~~6.11.5.4.1.41.2.1.1 Transport channel parameters for Conversational / speech / DL:12.2 kbps / CS RAB~~

~~See clause 6.10.3.4.1.4.2.1.1.~~

~~6.11.5.4.1.41.2.1.2 Transport channel parameters for Interactive or background / DL:128 kbps / PS RAB~~

~~See clause 6.10.3.4.1.27.2.1.1.~~

~~6.11.5.4.1.41.2.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCH~~

~~See clause 6.10.3.4.1.2.2.1.1.~~

~~6.11.5.4.1.41.2.1.4 TFCS~~

~~See clause 6.10.3.4.1.41.2.1.4.~~

6.11.5.4.1.41.2.2 ~~6.11.5.4.1.41.2.2~~ Physical channel parameters

6.11.5.4.1.41.2.2.1 Physical channel parameters (one CCTrCH case)

DPCH Downlink	Modulation	QPSK	8PSK
	Codes and time slots/ radio frame	SF 16 x 9 codes x 4 time slots	SF 16 x 12 codes x 2 time slots
	Max. Number of data bits/radio frame	3144 bits	3132 bits
	TFCI code word / radio frame	16 bits	24 bits
	TPC / radio frame	2 * 2 bits	2 x 3 bits
	SS / radio frame	2 * 2 bits	2 x 3 bits
	Puncturing Limit	0.60	0.60

6.11.5.4.1.41.2.2.2 Physical channel parameters (two CCTrCHs)

6.11.5.4.1.41.2.2.2.1 Physical channel parameters (conversational + SRB)

See clause 6.11.5.4.1.4.2.2.

6.11.5.4.1.41.2.2.2.2 Physical channel parameters (Interactive or background)

DPCH Downlink	Modulation	QPSK	8PSK
	Codes and time slots/ radio frame	SF 1 x 1 code x 2 time slots	SF 16 x 11 codes x 2 time slots
	Max. Number of data bits/radio frame	2792 bits	2868 bits
	TFCI code word / radio frame	16 bits	24 bits
	TPC / radio frame	2 * 2 bits	2 x 3 bits
	SS / radio frame	2 * 2 bits	2 x 3 bits
	Puncturing Limit	0.64	0.64

6.11.5.4.1.42 Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ Interactive or background / UL:64 DL:256 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH

6.11.5.4.1.42.1 Uplink

6.11.5.4.1.42.1.1 Transport channel parameters

See Clause 6.10.3.4.1.42.1.1.

6.11.5.4.1.42.1.2 Physical channel parameters

See Clause 6.10.3.4.1.40.1.2.1.

~~See clause 6.11.5.4.1.40.1.~~

6.11.5.4.1.42.2 Downlink

6.11.5.4.1.42.2.1 Transport channel parameters

6.11.5.4.1.42.2.1.1 Transport channel parameters for Conversational / speech / DL:12.2 kbps / CS RAB

See clause 6.10.3.4.1.4.2.1.1.

6.11.5.4.1.42.2.1.2 Transport channel parameters for Interactive or background / DL:256 kbps / PS RAB

See clause 6.10.3.4.1.31.2.1.1.

6.11.5.4.1.42.2.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.2.1.1.

6.11.5.4.1.42.2.1.4 TFCS

See clause 6.10.3.4.1.42.2.1.4.

6.11.5.4.1.42.2.2 Physical channel parameters

DPCH Downlink	Modulation	QPSK	8PSK
	Codes and time slots/ radio frame	SF1 x 1code x 6 time slots	SF1 x 1 code x 4 time slots
	Max. Number of data bits/radio frame	8408 bits	8388 bits
	TFCI code word/ radio frame	32 bits	48 bits
	TPC/ radio frame	2*2 bits	2*3 bits
	SS/ radio frame	2*2 bits	2*3 bits
	Puncturing Limit	0.80	0.80

6.11.5.4.1.43 Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ Interactive or background / UL:64 DL:384 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH

6.11.5.4.1.43.1 Uplink

See clause 6.11.5.4.1.40.1.

6.11.5.4.1.43.2 Downlink

6.11.5.4.1.43.2.1 Transport channel parameters

See clause 6.10.3.4.1.43.2.1.

~~6.11.5.4.1.43.2.1.1 Transport channel parameters for Conversational / speech / DL:12.2 kbps / CS RAB~~

~~See clause 6.10.3.4.1.4.2.1.1.~~

~~6.11.5.4.1.43.2.1.2 Transport channel parameters for Interactive or background / DL:384 kbps / PS RAB~~

~~See clause 6.10.3.4.1.32.2.1.1.~~

~~6.11.5.4.1.43.2.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCH~~

~~See clause 6.10.3.4.1.2.2.1.1.~~

~~6.11.5.4.1.43.2.1.4 TFCS~~

~~See clause 6.10.3.4.1.43.2.1.4.~~

6.11.5.4.1.43.2.2 Physical channel parameters

6.11.5.4.1.43.2.2.1 Physical channel parameters (one CCTrCH)

DPCH Downlink	Modulation	QPSK	8PSK
	Codes and time slots/ radio frame	SF 1 x 1 code x 6 time slots	SF 1 x 1 code x 4 time slots
	Max. Number of data bits/radio frame	8408 bits	8388 bits
	TFCI code word / radio frame	32 bits	48 bits
	TPC / radio frame	2 * 2 bits	2 x 3 bits
	SS / radio frame	2 * 2 bits	2 x 3 bits
	Puncturing Limit	0.60	0.60

6.11.5.4.1.43.2.2.2 Physical channel parameters (two CCTrCHs)

6.11.5.4.1.43.2.2.2.1 Physical channel parameters (conversational + SRB)

See clause 6.11.5.4.1.4.2.2.

6.11.5.4.1.43.2.2.2.2 Physical channel parameters (Interactive or background)

DPCH Downlink	Modulation	QPSK	8PSK
	Codes and time slots/ radio frame	(SF 1 x 1 code x 4 time slots) + (SF 16 x 10 codes x 2 time slots)	SF 1 x 1 code x 4 time slots
	Max. Number of data bits/radio frame	7368 bits	8412 bits
	TFCI code word / radio frame	16 bits	24 bits
	TPC / radio frame	2 * 2 bits	2 x 3 bits
	SS / radio frame	2 * 2 bits	2 x 3 bits
	Puncturing Limit	0.56	0.64

<End of modified section>

<Start of next modified section>

6.11.5.4.1.50 Conversational / unknown / UL:64 DL:64 kbps / CS RAB
+ Conversational / unknown / UL:64 DL:64 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH

6.11.5.4.1.50.1 Uplink

6.11.5.4.1.50.1.1 Transport channel parameters

6.11.5.4.1.50.1.1.1 Transport channel parameters for Conversational / unknown / UL:64 kbps / CS RAB

See clause 6.10.3.5.4.1.13.1.1.1.

6.11.5.4.1.50.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.1.1.1.

6.11.5.4.1.50.1.1.3 TFCS

See clause 6.10.3.4.1.50.1.1.3.

6.11.5.4.1.50.1.2 Physical channel parameters

DPCH Uplink	Modulation	QPSK
	Codes and time slots/ radio frame	SF 1 x 1 code x 2 time slots
	Max. Number of data bits/radio frame	2792 bits
	TFCI code word / radio frame	16 bits
	TPC / radio frame	2 * 2 bits
	SS / radio frame	2 * 2 bits
	Puncturing Limit	0.52

6.11.5.4.1.50.2 Downlink

6.11.5.4.1.50.2.1 Transport channel parameters

6.11.5.4.1.50.2.1.1 Transport channel parameters for Conversational / unknown / DL:64 kbps / CS RAB

See clause 6.10.3.4.1.13.2.1.1.

6.11.5.4.1.50.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.2.1.1.

6.11.5.4.1.50.2.1.3 TFCS

See clause 6.10.3.4.1.50.2.1.3.

6.11.5.4.1.50.2.2 Physical channel parameters

DPCH Downlink	Modulation	QPSK
	Codes and time slots/ radio frame	SF 16 x 15 codes x 2 time slots
	Max. Number of data bits/radio frame	2616 bits
	TFCI code word/ radio frame	16 bits
	TPC/ radio frame	2*2 bits
	SS/ radio frame	2*2 bits
	Puncturing Limit	0.48

6.11.5.4.1.51 Conversational / unknown / UL:64 DL:64 kbps / CS RAB
+ Interactive or background / UL:64 DL:64 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH

6.11.5.4.1.51.1 Uplink

6.11.5.4.1.51.1.1 Transport channel parameters

6.11.5.4.1.51.1.1.1 Transport channel parameters for Conversational / unknown / UL:64 kbps / CS RAB

See clause 6.10.3.4.1.13.1.1.1.

6.11.5.4.1.51.1.1.2 Transport channel parameters for Interactive or background / UL:64 kbps / PS RAB

See clause 6.10.3.4.1.26.1.1.1.

6.11.5.4.1.51.1.1.3 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.1.1.1.

6.11.5.4.1.51.1.1.4 TFCS

See clause 6.10.3.4.1.51.1.1.4.

6.11.5.4.1.51.1.2 Physical channel parameters

DPCH Uplink	Modulation	QPSK
	Codes and time slots/ radio frame	SF 1 x 1 code x 2 time slots
	Max. Number of data bits/radio frame	2792 bits
	TFCI code word / radio frame	16 bits
	TPC / radio frame	2 * 2 bits
	SS / radio frame	2 * 2 bits
	Puncturing Limit	0.52 (alt. 0.48)

6.11.5.4.1.51.2 Downlink

6.11.5.4.1.51.2.1 Transport channel parameters

6.11.5.4.1.51.2.1.1 Transport channel parameters for Conversational / unknown / DL:64 kbps / CS RAB

See clause 6.10.3.4.1.13.2.1.1.

6.11.5.4.1.51.2.1.2 Transport channel parameters for Interactive or background / DL:64 kbps / PS RAB

See clause 6.10.3.4.1.25.2.1.1.

6.11.5.4.1.51.2.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.2.1.1.

6.11.5.4.1.51.2.1.4 TFCS

See clause 6.10.3.4.1.51.2.1.4.

6.11.5.4.1.51.2.2 Physical channel parameters

DPCH Downlink	Modulation	QPSK
	Codes and time slots/ radio frame	SF1 x 1 code x 2 time slots
	Max. Number of data bits/radio frame	2792 bits
	TFCI code word/ radio frame	16 bits
	TPC/ radio frame	2*2 bits
	SS/ radio frame	2*2 bits
	Puncturing Limit	0.52

6.11.5.4.1.51a Conversational / unknown / UL:64 DL:64 kbps / CS RAB
+ Interactive or background / UL:8 DL:8 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH

6.11.5.4.1.51a.1 Uplink

6.11.5.4.1.51a.1.1 Transport channel parameters

6.11.5.4.1.51a.1.1.1 Transport channel parameters for Conversational / unknown / UL:64 kbps / CS RAB

See clause 6.10.3.4.1.13.1.1.1.

6.11.5.4.1.51a.1.1.2 Transport channel parameters for Interactive or background / UL:8 kbps / PS RAB

See clause 6.10.3.4.1.23a.1.1.1.

6.11.5.4.1.51a.1.1.3 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.1.1.1.

6.11.5.4.1.51a.1.1.4 TFCS

See clause 6.10.3.4.1.51a.1.1.4.

6.11.5.4.1.51a.1.2 Physical channel parameters

DPCH Uplink		Physical 1	Physical 2
	Modulation	QPSK	QPSK
	Codes and time slots/ radio frame	SF2 x 1 code x 2 time slots	SF1 x 1 code x 2 time slots
	Max. Number of data bits/radio frame	1384 bits	2792 bits
	TFCI code word/ radio frame	16 bits	16 bits
	TPC / radio frame	2 * 2 bits	2x 2 bits
	SS / radio frame	2 * 2 bits	2x 2 bits
	Puncturing Limit	0.40	0.84

6.11.5.4.1.51a.2 Downlink

6.11.5.4.1.51a.2.1 Transport channel parameters

6.11.5.4.1.51a.2.1.1 Transport channel parameters for Conversational / unknown / DL:64 kbps / CS RAB

See clause 6.10.3.4.1.13.2.1.1.

6.11.5.4.1.51a.2.1.2 Transport channel parameters for Interactive or background / DL:8 kbps / PS RAB

See clause 6.10.3.4.1.23.2.1.1.

6.11.5.4.1.51a.2.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.2.1.1.

6.11.5.4.1.51a.2.1.4 TFCS

See clause 6.10.3.4.1.51.2.1.4.

6.11.5.4.1.51a.2.2 Physical channel parameters

DPCH Downlink	Modulation	QPSK
	Codes and time slots/ radio frame	SF1 x 1 code x 2 time slots
	Max. Number of data bits/radio frame	2792 bits
	TFCI code word/ radio frame	16 bits
	TPC/ radio frame	2*2 bits
	SS/ radio frame	2*2 bits
	Puncturing Limit	0.84

6.11.5.4.1.51b Conversational / unknown / UL:64 DL:64 kbps / CS RAB
+ Interactive or background / UL:16 DL:64 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH

6.11.5.4.1.51b.1 Uplink

6.11.5.4.1.51b.1.1 Transport channel parameters

6.11.5.4.1.51b.1.1.1 Transport channel parameters for Conversational / unknown / UL:64 kbps / CS RAB

See clause 6.10.3.4.1.13.1.1.1.

6.11.5.4.1.51b.1.1.2 Transport channel parameters for Interactive or background / UL:16 kbps / PS RAB

See clause 6.10.3.4.1.23b.1.1.1.

6.11.5.4.1.51b.1.1.3 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.1.1.1.

6.11.5.4.1.51b.1.1.4 TFCS

See clause 6.10.3.4.1.51b.1.1.4.

6.11.5.4.1.51b.1.2 Physical channel parameters

DPCH Uplink		Physical 1	Physical 2
	Modulation	QPSK	QPSK
	Codes and time slots/ radio frame	SF2 x 1 code x 2 time slots	SF1 x 1 code x 2 time slots
	Max. Number of data bits/radio frame	1384 bits	2792 bits
	TFCI code word/ radio frame	16 bits	16 bits
	TPC / radio frame	2 * 2 bits	2x 2 bits
	SS / radio frame	2 * 2 bits	2x 2 bits
	Puncturing Limit	0.40	0.76

6.11.5.4.1.51b.2 Downlink

~~see~~See clause 6.11.5.4.1.51.2~~. Downlink~~

6.11.5.4.1.52 Conversational / unknown / UL:64 DL:64 kbps / CS RAB
+ Interactive or background / UL:64 DL:128 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH

6.11.5.4.1.52.1 Uplink

See clause 6.11.5.4.1.51.1.

6.11.5.4.1.52.2 Downlink

6.11.5.4.1.52.2.1 Transport channel parameters

6.11.5.4.1.52.2.1.1 Transport channel parameters for Conversational / unknown / DL:64 kbps / CS RAB

See clause 6.10.3.4.1.13.2.1.1.

6.11.5.4.1.52.2.1.2 Transport channel parameters for Interactive or background / DL:128 kbps / PS RAB

See clause 6.10.3.4.1.27.2.1.1.

6.11.5.4.1.52.2.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.2.1.1.

6.11.5.4.1.52.2.1.4 TFCS

See clause 6.10.3.4.1.52.2.1.4.

6.11.5.4.1.52.2.2 Physical channel parameters

DPCH Downlink	Modulation	QPSK
	Codes and time slots/ radio frame	SF 16 x 12 codes x 4 time slots
	Max. Number of data bits/radio frame	4200 bits
	TFCI code word / radio frame	16 bits
	TPC / radio frame	2 * 2 bits
	SS / radio frame	2 * 2 bits
	Puncturing Limit	0.52

6.11.5.4.1.53 Conversational / unknown / UL:64 DL:64 kbps / CS RAB
+ Interactive or background / UL:128 DL:128 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH

6.11.5.4.1.53.1 Uplink

6.11.5.4.1.53.1.1 Transport channel parameters

6.11.5.4.1.53.1.1.1 Transport channel parameters for Conversational / unknown / UL:64 kbps / CS RAB

See clause 6.10.3.4.1.13.1.1.1.

6.11.5.4.1.53.1.1.2 Transport channel parameters for Interactive or background / UL:128 kbps / PS RAB

See clause 6.10.3.4.1.28.1.1.1.

6.11.5.4.1.53.1.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.1.1.1.

6.11.5.4.1.53.1.1.4 TFCS

See clause 6.10.3.4.1.53.1.1.4.

6.11.5.4.1.53.1.2 Physical channel parameters

DPCH Uplink	Modulation	QPSK	8PSK
	Codes and time slots/ radio frame	SF1 x 1 code x 4 time slots	SF1 x 1code x 2 time slots
	Max. Number of data bits/radio frame	5608 bits	4188 bits
	TFCI code word/ radio frame	16 bits	24 bits
	TPC/ radio frame	2*2 bits	2*3 bits
	SS/ radio frame	2*2 bits	2*3 bits
	Puncturing Limit	0.72 (alt 0.68)	0.52 (alt 0.48)

6.11.5.4.1.53.2 Downlink

See clause 6.11.5.4.1.52.2.

6.11.5.4.1.54

Void.

6.11.5.4.1.55

Void.

6.11.5.4.1.56 Interactive or background / UL:8 DL:8 kbps / PS RAB + Interactive or background / UL:8 DL:8 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.11.5.4.1.56.1 Uplink

6.11.5.4.1.56.1.1 Transport channel parameters

6.11.5.4.1.56.1.1.1 Transport channel parameters for Interactive or background / UL:8 kbps / PS RAB + UL:8 kbps / PS RAB

~~see~~See clause 6.10.3.4.1.56.1.1.1.

6.11.5.4.1.56.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.1.1.1.

6.11.5.4.1.56.1.1.3 TFCS

See clause 6.10.3.4.1.56.1.1.3.

6.11.5.4.1.56.1.2~~.1~~ Physical channel parameters

DPCH Uplink	Modulation	QPSK
	Codes and time slots / radio frame	SF4 x 1 code x 2 time slots
	Max. Number of data bits / radio frame	680 bits
	TFCI code word / radio frame	16 bits
	TPC / radio frame	2x 2 bits
	SS/ radio frame	2x 2 bits
	Puncturing Limit	0.84 (alt 0.76)

6.11.5.4.1.56.2 Downlink

6.11.5.4.1.56.2.1 Transport channel parameters

6.11.5.4.1.56.2.1.1 Transport channel parameters for Interactive or background / DL:8 kbps / PS RAB + DL:8 kbps / PS RAB

~~see~~See clause 6.10.3.4.1.56.2.1.1.

6.11.5.4.1.56.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.2.1.1.

6.11.5.4.1.56.2.1.3 TFCS

See clause 6.10.3.4.1.56.2.1.3.

6.11.5.4.1.56.2.2 Physical channel parameters

DPCH Downlink	Modulation	QPSK
	Codes and time slots/ radio frame	SF16 x 4 code x 2 time slots
	Max. Number of data bits / radio frame	680 bits
	TFCI code word / radio frame	16 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	0.84

6.11.5.4.1.57 Interactive or background / UL:64 DL:64 kbps / PS RAB + Interactive or background / UL:64 DL:64 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.11.5.4.1.57.1 Uplink

6.11.5.4.1.57.1.1 Transport channel parameters

6.11.5.4.1.57.1.1.1 Transport channel parameters for Interactive or background / UL:64 kbps / PS RAB + UL:64 kbps / PS RAB

See clause 6.10.3.4.1.38d.1.1.2.

6.11.5.4.1.57.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.1.1.1.

6.11.5.4.1.57.1.1.3 TFCS

See clause 6.11.5.4.1.57.1.1.3.

6.11.5.4.1.57.1.2 Physical channel parameters

DPCH Uplink		Physical 1
	Modulation	QPSK
	Codes and time slots/ radio frame	SF1 x 1 code x 2 time slots
	Max. Number of data bits/radio frame	2792 bits
	TFCI code word/ radio frame	16 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	0.52 (alt. 0.44)

6.11.5.4.1.57.2 Downlink

6.11.5.4.1.57.2.1 Transport channel parameters

6.11.5.4.1.57.2.1.1 Transport channel parameters for Interactive or background / DL:64 kbps / PS RAB + DL:64 kbps / PS RAB

~~see~~See clause 6.10.3.4.1.57.2.1.1.

6.11.5.4.1.57.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.2.1.1.

6.11.5.4.1.57.2.1.3 TFCS

See clause 6.10.3.4.1.57.2.1.3.

6.11.5.4.1.57.2.2 Physical channel parameters

DPCH Downlink	Modulation	QPSK
	Codes and time slots/ radio frame	SF1 x 1 code x 2 time slots
	Max. Number of data bits/radio frame	2792 bits
	TFCI code word/ radio frame	16 bits
	TPC/ radio frame	2*2 bits
	SS/ radio frame	2*2 bits
	Puncturing Limit	0.52

6.11.5.4.1.58 Streaming / unknown / UL:16 DL:64 kbps / PS RAB + Interactive or background / UL:8 DL:8 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.11.5.4.1.58.1 Uplink

6.11.5.4.1.58.1.1 Transport channel parameters

6.11.5.4.1.58.1.1.1 Transport channel parameters for Streaming / unknown / UL:16 kbps / PS RAB

See ~~Clause~~clause 6.10.3.4.1.58.1.1.1.

6.11.5.4.1.58.1.1.2 Transport channel parameters for Interactive or background / UL:8 kbps / PS RAB

See clause 6.10.3.4.1.23a.1.1.1.

6.11.5.4.1.58.1.1.3 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.1.1.1.

6.10.3.4.1.58.1.1.4 TFCS

See clause 6.10.3.4.1.58.1.1.4.

6.11.5.1.58.1.2 Physical channel parameters

DPCH Uplink	Modulation	QPSK
	Codes and time slots/ frame	SF4 x 1 code x 2 time slots
	Max. Number of data bits / radio frame	680 bits
	TFCI code word / radio frame	16 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	0.60 (alt 0.56)

6.11.5.4.1.58.2 Downlink

6.11.5.4.1.58.2.1 Transport channel parameters

6.11.5.4.1.58.2.1.1 Transport channel parameters for Streaming / unknown / DL:64 kbps / PS RAB

~~see~~See ~~Clause~~clause 6.10.3.4.1.58.2.1.1.

6.10.3.4.1.58.2.1.2 Transport channel parameters for Interactive or background / DL:8 kbps / PS RAB

See clause 6.10.3.4.1.23.2.1.1.

6.11.5.4.1.58.2.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.2.1.1.

6.11.5.4.1.58.2.1.4 TFCS

See ~~Clause~~clause 6.10.3.4.1.58.2.1.4.

6.11.5.4.1.58.2.~~3~~2 Physical channel parameters

DPCH Downlink	Modulation	QPSK
	Codes and time slots / radio frame	SF16 x 8 code x 2 time slots
	Max. Number of data bits / radio frame	1384 bits
	TFCI code word / radio frame	16 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	0.44

6.11.5.4.1.59 Reserved for future use

6.11.5.4.1.60 Reserved for future use

6.11.5.4.1.61 Conversational / unknown / UL:8 DL:8 kbps / PS RAB + Interactive or Background / UL:8 DL:8 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.11.5.4.1.61.1 Uplink

6.11.5.4.1.61.1.1 Transport channel parameters

6.11.5.4.1.61.1.1.1 Transport channel parameters for Conversational / unknown / UL:8 kbps / PS RAB

~~see~~See ~~Clause~~clause 6.10.3.4.1.61.1.1.1.

6.10.3.4.1.61.1.1.2 Transport channel parameters for Interactive or Background / UL:8 kbps / PS RAB

See clause 6.10.3.4.1.23a.1.1.1.

6.11.5.4.1.61.1.1.3 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.1.1.1.

6.11.5.4.1.61.1.1.4 TFCS

See ~~Clause~~clause 6.10.3.4.1.61.1.1.4.

6.11.5.4.1.61.2 Physical channel parameters

DPCH Uplink	Modulation	QPSK
	Codes and time slots / radio frame	SF 4 x 1 code x 2 time slots
	Max. Number of data bits / radio frame	680 bits
	TFCI code word / radio frame	16 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	0.84 (alt 0.80)

6.11.5.4.1.61.2 Downlink

6.11.5.4.1.61.2.1 Transport channel parameters

6.11.5.4.1.61.2.1.1 Transport channel parameters for Conversational / unknown / DL:8 kbps / PS RAB

See clause ~~–~~6.10.3.4.1.61.2.1.1.

6.11.5.4.1.61.2.1.2 Transport channel parameters for Interactive or Background / DL:8 kbps / PS RAB

See clause 6.10.3.4.1.23.2.1.1.

6.11.5.4.1.61.2.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.2.1.1.

6.11.5.4.1.61.2.1.4 TFCS

See ~~Clause~~clause 6.10.3.4.1.61.2.1.4.

6.11.5.4.1.61.2.2 Physical channel parameters

DPCH Downlink	Modulation	QPSK
	Codes and time slots / radio frame	SF 16 x 4 code x 2 time slots
	Max. Number of data bits / radio frame	680 bits
	TFCI code word / radio frame	16 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	0.84

6.11.5.4.2 Combinations on PDSCH, SCCPCH, PUSCH and PRACH

6.11.5.4.2.1 Interactive or background / UL: 64 DL: 256 kbps / PS RAB
+ UL: 3.4/16.8 DL: 3.4/33.6 kbps SRBs for DCCH, CCCH and BCCH
+ UL: 16.8 DL: 16 kbps SRBs for SHCCH

6.11.5.4.2.1.1 Uplink

6.11.5.4.2.1.1.1 Transport channel parameters

6.11.5.4.2.1.1.1.1 Transport channel parameters for Interactive or background / UL: 64 kbps / PS RAB and UL SRB for SHCCH mapped on USCH

See clause 6.10.3.4.2.1.1.1.1.

6.11.5.4.2.1.1.1.2 Transport channel parameters for UL: 3.4 Kbps SRBs for DCCH mapped on USCH

See clause 6.10.3.4.2.1.1.1.2.

6.11.5.4.2.1.1.1.~~2~~3 TFCS for USCH

See clause ~~6.10.3.4.3.1.1.1.5.~~ 6.10.3.4.2.1.1.1.3.

6.11.5.4.2.1.1.1.~~3~~4 Transport channel parameters for SRB for CCCH and UL SRBs for DCCH and UL SRB for SHCCH mapped on RACH

See clause ~~6.10.3.4.2.1.1.1.6.~~ 6.10.3.4.2.1.1.1.4.

6.11.5.4.2.1.1.2 Physical channel parameters

6.11.5.4.2.1.1.2.1 Physical channel parameters for PUSCH

PUSCH	Modulation	QPSK
	Codes and time slots/ radio frame	SF 1 x 1 code x 2 time slots
	Max. Number of data bits/radio frame	2792 bits
	TFCI code word / radio frame	16 bits
	TPC / radio frame	2 * 2 bits
	SS / radio frame	2 * 2 bits
	Puncturing Limit	~~1~~0.88

6.11.5.4.2.1.1.2.2 Physical channel parameter for PRACH.

See clause 6.11.5.4.5.1.2.

6.11.5.4.2.1.2 Downlink

6.11.5.4.2.1.2.1 Transport channel parameters

6.11.5.4.2.1.2.1.1 Transport channel parameters for Interactive or background / DL: 256 kbps / PS RAB and DL SRB for SHCCH mapped on DSCH

See clause 6.10.3.4.2.1.2.1.1.

6.11.5.4.2.1.2.1.2 Transport channel parameters for DL: 3.4 Kbps SRBs for DCCH mapped on DSCH

See clause 6.10.3.4.2.1.2.1.2.

6.11.5.4.2.1.2.1.~~2~~3 TFCS for DSCH

See clause ~~6.10.3.4.3.1.2.1.5.~~ 6.10.3.4.2.1.2.1.3.

6.11.5.4.2.1.2.1.~~3~~4 Transport channel parameters for DL SRBs for DCCH and SRB for CCCH and SRB for BCCH and DL SRB for SHCCH mapped on FACH

6.11.5.4.2.1.2.1.4.1 FACH transport channel configuration without DTCH

Higher layer	RAB/signalling RB	**SRB#0**	**SRB#1**	**SRB#2**	**SRB#3**	**SRB#4**	**SRB#5**	**SRB#6**
	User of Radio Bearer	RRC	RRC	RRC	NAS_DT High prio	NAS_DT Low prio	RRC	RRC
RLC	Logical channel type	CCCH	DCCH	DCCH	DCCH	DCCH	SHCCH	BCCH
	RLC mode	UM	UM	AM	AM	AM	UM	TM
	Payload sizes, bit	160	136 or 120*	128	128	128	160	168

	Max data rate, bps		32000 (alt. 480001600 0)	27200 or 24000 (alt. 408001360 0 or 360001200 0)	25600 (alt. 384001280 0)	25600 (alt. 384001280 0)	25600 (alt. 384001280 0)	32000 (alt. 480001600 0)	33600 (alt. 504001600 0)
	RLC header, bit		8	8	16	16	16	8	0
MAC	MAC header, bit		3	27 or 43	27	27	27	3	3
	MAC multiplexing		7 logical channel multiplexing						
Layer 1	TrCH type		FACH						
	TB sizes, bit		171	171	171	171	171	171	171
	TFS	TF0, bits	0x171						
		TF1, bits	1x171						
		TF2, bits	2x171						
		TF3, bits	3x171(alt. N/A)						
		TF4, bits	4x171(alt. N/A)						
		TF5, bits	~~N/A (alt. 5x171)~~						
		TF6, bits	~~N/A (alt. 6x171)~~						
	TTI, ms		20						
	Coding type		CC ½						
	CRC, bit		16						
	Max number of bits/TTI after channel coding		1528 (alt. 2292764)	1528 (alt. 2292764)	1528 (alt. 2292764)	1528 (alt. 2292764)	1528 (alt. 2292764)	1528 (alt. 2292764)	1528 (alt. 2292764)

* MAC header size and RLC payload size depend on use of U-RNTI or C-RNTI.

6.11.5.4.2.1.2.1.4.2 FACH transport channel configuration with DTCH

Higher layer	RAB/signalling RB		**RAB**	**SRB#0**	**SRB#1**	**SRB#2**	**SRB#3**	**SRB#4**	**SRB#5**	**SRB#6**
	User of Radio Bearer		Interactive/ Background RAB	RRC	RRC	RRC	NAS_DT High prio	NAS_DT Low prio	RRC	RRC
RLC	Logical channel type		DTCH	CCCH	DCCH	DCCH	DCCH	DCCH	SHCCH	BCCH
	RLC mode		AM	UM	UM	AM	AM	AM	UM	TM
	Payload sizes, bit		320	160	136 or 120 (note)	128	128	128	160	168
	Max data rate, bps		32000 (alt. 16000)	32000 (alt. 16000)	27200 or 24000 (alt. 13600 or 12000)	25600 (alt. 12800)	25600 (alt. 12800)	25600 (alt. 12800)	32000 (alt. 16000)	33600 (alt. 16800)
	AMD/UMD/TrD PDU header, bit		16	8	8	16	16	16	8	0
MAC	MAC header, bit		27	3	27 or 43	27	27	27	3	3
	MAC multiplexing		8 logical channel multiplexing							
Layer 1	TrCH type		FACH							
	TB sizes, bit		171, 363							
	TFS	TF0, bits	0x171							
		TF1, bits	1x171							
		TF2, bits	2x171							
		TF3, bits	1x363							
		TF4, bits	3x171 (alt N/A)							
		TF5, bits	4x171 (alt. N/A)							
		TF6, bits	2x363 (alt. N/A)							

TTI, ms	20
Coding type	CC ½
CRC, bit	16
Max number of bits/TTI after channel coding	1532(alt. 766)

* MAC header size and RLC payload size depend on use of U-RNTI or C-RNTI.

6.11.5.4.2.1.2.1.45 TFCS for FACH

~~TFCS size~~	~~5 (alt. 7)~~
~~TFCS~~	~~FACH = (TF0), (TF1), (TF2,) (TF3), (TF4) (alt. FACH = TF0, TF1, TF2, TF3, TF4, TF5, TF6)~~

See clause 6.10.3.4.2.1.2.1.5.

6.11.5.4.2.1.2.2 Physical channel parameters

6.11.5.4.2.1.2.2.1 Physical channel parameters for PDSCH

PDSCH	Modulation	QPSK	8PSK
	Codes and time slots/ radio frame	SF16 x 11 codes x 6 time slots	SF1 x 1 code x 4 time slots
	Max. Number of data bits/radio frame	5784 bits	6511 bits
	TFCI code word/ radio frame	16 bits	24 bits
	TPC/ radio frame	2*2 bits	2*3 bits
	SS/ radio frame	2*2 bits	2*3 bits
	Puncturing Limit	0.60	0.68

6.11.5.4.2.1.2.2.2 Physical channel parameters for SCCPCH

6.11.3.4.2.1.2.2.2.1 Physical channel parameters for SCCPCH without DTCH

S-CCPCH	Modulation	QPSK
	Codes and time slots/ radio frame	SF16 x 5 codes x 2 time slots(alt. SF16 x 2 codes x 2 time slot)~~(alt. SF16 x 5 codes x 1 time slot)~~
	Max. Number of data bits/radio frame	~~856~~ 864 bits(alt. ~~424~~344 bits)
	TFCI code word/ radio frame	16 bits(alt. 8 bits)
	TPC/ radio frame	~~2*2~~0 bits
	SS/ radio frame	~~2*2~~0 bits
	Puncturing Limit	~~0.72~~1(alt. 0.88)

6.11.3.4.2.1.2.2.2.2 Physical channel parameters for SCCPCH with DTCH

S-CCPCH	Modulation	QPSK
	Codes and time slots/ radio frame	SF16 x 5 codes x 2 time slots (alt. SF16 x 2 codes x 2 time slot)~~(alt. SF16 x 5 codes x 1 time slot)~~
	Max. Number of data bits/radio frame	8645~~6~~ bits (alt. ~~416~~336 bits)
	TFCI code word/ radio frame	16 bits
	TPC/ radio frame	~~2*2~~0 bits
	SS/ radio frame	~~2*2~~0 bits
	Puncturing Limit	1(alt. 0.84)

6.11.5.4.2.2 Interactive or background / UL: 64 DL: 384 kbps / PS RAB
+ UL: 3.4/16.8 DL: 3.4/33.6 kbps SRBs for DCCH, CCCH and BCCH
+ UL: 16.8 DL: 16 kbps SRBs for SHCCH

6.11.5.4.2.2.1 Uplink

See clause 6.11.5.4.2.1.1.

6.11.5.4.2.2.2 Downlink

6.11.5.4.2.2.2.1 Transport channel parameters

6.11.5.4.2.2.2.1.1 Transport channel parameters for Interactive or background / DL: 384 kbps / PS RAB and DL SRB for SHCCH mapped on DSCH

See clause 6.10.3.4.2.2.2.1.1.

6.11.5.4.2.2.2.1.2 Transport channel parameters for DL: 3.4 Kbps SRBs for DCCH mapped on DSCH

See clause 6.10.3.4.2.1.2.1.2.

6.11.5.4.2.2.2.1.~~2~~3 TFCS for DSCH

See clause ~~6.10.3.4.3.2.2.1.5.~~ 6.10.3.4.2.2.2.1.3.

6.11.5.4.2.2.2.1.~~3~~4 Transport channel parameters for DL SRBs for DCCH and SRB for CCCH and SRB for BCCH and DL SRB for SHCCH mapped on FACH

See clause 6.11.5.4.2.1.2.1.~~3~~4.

6.11.5.4.2.2.2.1.~~4~~5 TFCS for FACH

See clause 6.11.5.4.2.1.2.1.~~4~~5.

6.11.5.4.2.2.2.2 Physical channel parameters

6.11.5.4.2.2.2.2.1 Physical channel parameters for PDSCH

PDSCH	Modulation	QPSK
	Codes and time slots/ radio frame	SF 1 x 1 code x 6 time slots
	Max. Number of data bits/radio frame	8424 bits
	TFCI code word / radio frame	16 bits
	TPC / radio frame	2 * 2 bits
	SS / radio frame	2 * 2 bits
	Puncturing Limit	0.60

6.11.5.4.2.2.2.2.2 Physical channel parameters for SCCPCH

~~SCCPCH~~	~~Modulation~~	~~QPSK~~
	~~Codes and time slots/ radio frame~~	~~SF 16 x 5 codes x 2 time slots~~
	~~Max. Number of data bits/radio frame~~	~~856 bits~~
	~~TFCI code word / radio frame~~	~~16 bits~~
	~~TPC / radio frame~~	~~2 * 2 bits~~
	~~SS / radio frame~~	~~2 * 2 bits~~
	~~Puncturing Limit~~	~~0.72~~

See clause 6.11.5.4.2.1.2.2.2.

6.11.5.4.2.3 Interactive or background / UL: 64 DL: 2048 kbps / PS RAB
+ UL: 3.4/16.8 DL: 3.4/33.6 kbps SRBs for DCCH, CCCH and BCCH
+ UL: 16.8 DL: 16 kbps SRBs for SHCCH

6.11.5.4.2.3.1 Uplink

See clause 6.11.5.4.2.1.1.

6.11.5.4.2.3.2 Downlink

6.11.5.4.2.3.2.1 Transport channel parameters

6.11.5.4.2.3.2.1.1 Transport channel parameters for Interactive or background / DL: 2048 kbps / PS RAB and DL SRB for SHCCH mapped on DSCH

Higher Layer	RAB/Signalling RB		**RAB**	**SRB#5**
RLC	Logical channel type		DTCH	SHCCH
	RLC mode		AM	UM
	Payload sizes, bit		1704	160
	Max data rate, bps		2048000	16000
	RLC header, bit		16	8
MAC	MAC header, bit		0	0
	MAC multiplexing		N/A	N/A
Layer 1	TrCH type		DSCH	DSCH
	TB sizes, bit		1720	168
	TFS	TF0, bits	0x1720	0x168
		TF1, bits	1x1720	1x168
		TF2, bits	2x1720	N/A
		TF3, bits	4x1720	N/A
		TF4, bits	8x1720	N/A
		TF5, bits	12x1720	N/A
		TF6, bits	N/A (alt. 16x1720)	N/A
		TF7, bits	N/A (alt. 20x1720)	N/A
		TF8, bits	N/A (alt. 24x1720)	N/A
	TTI, ms		10 (alt. 20)	10
	Coding type		No Coding	CC ½
	CRC, bit		24	16
	Max number of bits/TTI after channel coding		20928 (alt. 41856)	384
	Downlink: Max number of bits/radio frame before rate matching		20928 (alt. 20928)	384
	RM attribute		135-175	180-220

6.11.5.4.2.3.2.1.2 Transport channel parameters for DL: 3.4 Kbps SRBs for DCCH mapped on DSCH

See clause 6.10.3.4.2.1.2.1.2.

6.11.5.4.2.3.2.1.~~2~~3 TFCS for DSCH

~~TFCS size~~	~~11 (alt.17)~~
~~TFCS~~	~~(2048 kbps RAB, SHCCH)=~~ ~~(TF0, TF0), (TF1, TF0), (TF2, TF0), (TF3, TF0), (TF4, TF0), (TF5, TF0),~~ ~~(TF0, TF1), (TF1, TF1), (TF2, TF1), (TF3, TF1), (TF4, TF1),~~ ~~(alt. (TF0, TF0), (TF1, TF0), (TF2, TF0), (TF3, TF0), (TF4, TF0), (TF5, TF0), (TF6, TF0), (TF7, TF0), (TF8, TF0),~~ ~~(TF0, TF1), (TF1, TF1), (TF2, TF1), (TF3, TF1), (TF4, TF1), (TF5, TF1), (TF6, TF1), (TF7, TF1))~~

TFCS size	2~~1~~2 (alt.~~4~~3~~1~~4)
TFCS	(2048 kbps RAB, SHCCH, SRBs for DCCH)= (TF0, TF0, TF0), (TF1, TF0, TF0), (TF2, TF0, TF0), (TF3, TF0, TF0), (TF4, TF0, TF0), (TF5, TF0, TF0), (TF0, TF1, TF0), (TF1, TF1, TF0), (TF2, TF1, TF0), (TF3, TF1, TF0), (TF4, TF1, TF0), (TF0, TF0, TF1), (TF1, TF0, TF1), (TF2, TF0, TF1), (TF3, TF0, TF1), (TF4, TF0, TF1), (TF5, TF0, TF1), (TF0, TF1, TF1), (TF1, TF1, TF1), (TF2, TF1, TF1), (TF3, TF1, TF1), (TF4, TF1, TF1), (alt. (TF0, TF0, TF0), (TF1, TF0, TF0), (TF2, TF0, TF0), (TF3, TF0, TF0), (TF4, TF0, TF0), (TF5, TF0, TF0), (TF6, TF0, TF0), (TF7, TF0, TF0), (TF8, TF0, TF0), (TF0, TF1, TF0), (TF1, TF1, TF0), (TF2, TF1, TF0), (TF3, TF1, TF0), (TF4, TF1, TF0), (TF5, TF1, TF0), (TF6, TF1, TF0), (TF7, TF1, TF0), (TF0, TF0, TF1), (TF1, TF0, TF1), (TF2, TF0, TF1), (TF3, TF0, TF1), (TF4, TF0, TF1), (TF5, TF0, TF1), (TF6, TF0, TF1), (TF7, TF0, TF1), (TF8, TF0, TF1), (TF0, TF1, TF1), (TF1, TF1, TF1), (TF2, TF1, TF1), (TF3, TF1, TF1), (TF4, TF1, TF1), (TF5, TF1, TF1), (TF6, TF1, TF1), (TF7, TF1, TF1)~~,~~)

For better understanding of the TFCS please note that the following combinations are not included in the table above: (TF5, TF1, TF0), (TF5, TF1, TF1), (TF8, TF1, TF0), (TF8, TF1, TF1)

6.11.5.4.2.3.2.1.~~3~~4 Transport channel parameters for DL SRBs for DCCH and SRB for CCCH and SRB for BCCH and DL SRB for SHCCH mapped on FACH

See clause 6.11.5.4.2.1.2.1.~~3~~4.

6.11.5.4.2.3.2.1.~~4~~5 TFCS for FACH

See clause 6.11.5.4.2.1.2.1.~~4~~5.

6.11.5.4.2.3.2.2 Physical channel parameters

6.11.5.4.2.3.2.2.1 Physical channel parameters for PDSCH

PDSCH	Modulation	8PSK
	Codes and time slots/ radio frame	SF1 x 1 code x 10 time slots
	Max. Number of data bits/radio frame	21084 bits
	TFCI code word/ radio frame	24 bits
	TPC/ radio frame	2*3 bits
	SS/ radio frame	2*3 bits
	Puncturing Limit	1

6.11.5.4.2.3.2.2.2 Physical channel parameters for S-CCPCH

S-CCPCH	Modulation	QPSK
	Codes and time slots/ radio frame	SF16 x 5 codes x 2 time slots
	Max. Number of data bits/radio frame	856 bits
	TFCI code word/ radio frame	16 bits
	TPC/ radio frame	2*2 bits
	SS/ radio frame	2*2 bits
	Puncturing Limit	0.72

See clause 6.11.5.4.2.1.2.2.2.

<End of modified section>

<Start of next modified section>

6.11.5.4.4 Combinations on SCCPCH

6.11.5.4.4.1 Stand-alone signalling RB for PCCH

6.11.5.4.4.1.1 Transport channel parameters

6.11.5.4.4.1.1.1 Transport channel parameter of SRB for PCCH

Higher layer	RAB/signalling RB		**SRB**
	User of Radio Bearer		RRC
RLC	Logical channel type		PCCH
	RLC mode		TM
	Payload sizes, bit		240 (alt. 80)
	Max data rate, bps		24000 (alt. 8000)
	RLC header, bit		0
MAC	MAC header, bit		0
	MAC multiplexing		N/A
Layer 1	TrCH type		PCH
	TB sizes, bit		240 (alt. 80)
	TFS	TF0, bits	0x240 (alt. 0x80)
		TF1, bits	1x240 (alt. 1x80)
		TF2, bits	2x240 (alt. 2x80)
	TTI, ms		20
	Coding type		CC 1/2
	CRC, bit		16
	Max number of bits/TTI before rate matching		1056 (alt. 400)
	RM attribute		210-250

See clause 6.10.3.4.4.1.1.1.

6.11.5.4.4.1.1.2 TFCS

~~TFCS size~~	~~3~~
~~TFCS~~	~~SRBs for PCCH = TF0, TF1,TF2~~

See clause 6.10.3.4.4.1.1.2.

6.11.5.4.4.1.2 Physical channel parameters

S-CCPCH	Modulation	QPSK
	Codes and time slots/ radio frame	SF16 x 2 codes x 2 time slots (alt. SF16 x 1 codes x 2 time slots)
	Max. Number of data bits/radio frame	344 bits (alt. 168 bits)
	TFCI code word/ radio frame	8 bits
	TPC/ radio frame	0 bits
	SS/ radio frame	0 bits
	Puncturing Limit	1 (alt. 0.84~~0.64~~)
Note: alt. Puncturing Limit applies when alt. payload sizes and alt. codes and time slots / radio frame are both configured.		

6.11.5.4.4.2 Interactive/Background 32 kbps PS RAB + SRBs for CCCH + SRB for DCCH + SRB for BCCH

6.11.5.4.4.2.1 Transport channel parameters

6.11.5.4.4.2.1.1 Transport channel parameters for Interactive/Background 32 kbps PS RAB

~~Higher layer~~	~~RAB/signalling RB~~		~~RAB~~
	~~User of Radio Bearer~~		~~Interactive/ Background RAB~~
~~RLC~~	~~Logical channel type~~		~~DTCH~~
	~~RLC mode~~		~~AM~~
	~~Payload sizes, bit~~		~~320~~
	~~Max data rate, bps~~		~~32000~~
	~~RLC header, bit~~		~~16~~
~~MAC~~	~~MAC header, bit~~		~~27~~
	~~MAC multiplexing~~		~~N/A~~
~~Layer 1~~	~~TrCH type~~		~~FACH~~
	~~TB sizes, bit~~		~~363~~
	~~TFS~~	~~TF0, bits~~	~~0 x363~~
		~~TF1, bits~~	~~1x363~~
		~~TF2, bits~~	~~2x363~~
	~~TTI, ms~~		~~20~~
	~~Coding type~~		~~TC~~
	~~CRC, bit~~		~~16~~
	~~Max number of bits/TTI before rate matching~~		~~2286~~
	~~RM attribute~~		~~110-150~~

See clause 6.10.3.4.4.2.1.1.

6.11.5.4.4.2.1.2 Transport channel parameters of SRBs for CCCH, SRB for DCCH, and SRB for BCCH

Higher layer	RAB/signalling RB		SRB#~~1~~0	SRB#~~2~~1	SRB#~~3~~2	SRB#~~4~~3	SRB#~~5~~4	SRB#~~6~~5
	User of Radio Bearer		RRC	RRC	RRC	NAS_DT High prio	NAS_DT Low prio	RRC
RLC	Logical channel type		CCCH	DCCH	DCCH	DCCH	DCCH	BCCH
	RLC mode		UM	UM	AM	AM	AM	TM
	Payload sizes, bit		160	136 or 120	128	128	128	168
	Max data rate, bps		32000 (alt. ~~48000~~16000)	27200 or 2400 (alt. ~~40800~~ 24000 or ~~36000~~12000)	25600 (alt. ~~38400~~12800)	25600 (alt. ~~38400~~12800)	25600 (alt. ~~38400~~12800)	33600 (alt. ~~50400~~16800)
	RLC header, bit		8	8	16	16	16	0
MAC	MAC header, bit		3	27 or 43	27	27	27	3
	MAC multiplexing		6 logical channel multiplexing					
Layer 1	TrCH type		FACH					
	TB sizes, bit		171					
	TFS	TF0, bits	0x171					
		TF1, bits	1x171					
		TF2, bits	2x171					
		TF3, bits	3x171 (alt. N/A)					
		TF4, bits ~~TF5, bits~~ ~~TF6, bits~~	4x171 (alt. N/A) ~~N/A (alt. 5x171)~~ ~~N/A (alt. 6x171)~~					
	TTI, ms		20					
	Coding type		CC ½					
	CRC, bit		16					
	Max number of bits/TTI before rate matching		~~1528~~ 1528 (alt. ~~2292~~764)					
	Max number of bits/radio frame before rate matching		764 (alt. 382)					
	RM attribute		200-240					

* MAC header size and RLC payload size depend on use of U-RNTI or C-RNTI.

6.11.5.4.4.2.1.3 TFCS

~~TFCS size~~	~~15 (alt. 21)~~
~~TFCS~~	~~(32kbps RAB, SRBs for CCCH/DCCH/BCCH) =~~ ~~(TF0, TF0), (TF0, TF1), (TF0, TF2),(TF0, TF3),), (TF0, TF4), (TF1, TF0), (TF1, TF1), (TF1, TF2), (TF1, TF3), (TF1, TF4), (TF2, TF0), (TF2, TF1), (TF2, TF2), (TF2, TF3), (TF2, TF4),~~ ~~(alt. (TF0, TF0), (TF0, TF1), (TF0, TF2), (TF0, TF3), (TF0, TF4), (TF0, TF5), (TF0, TF6),~~ ~~(TF1, TF0), (TF1, TF1), (TF1, TF2), (TF1, TF3), (TF1, TF4), (TF1, TF5), (TF1, TF6),~~ ~~(TF2, TF0), (TF2, TF1), (TF2, TF2), (TF2, TF3), (TF2, TF4), (TF2, TF5), (TF2, TF6))~~

See clause 6.10.3.4.4.2.1.3.

6.11.5.4.4.2.2 Physical channel parameters

SCCPCH	Modulation	QPSK
	Codes and time slots/ radio frame	SF 16 x 9 codes x 2 time slots (alt. SF16 x 4 codes x 2 time slots)
	Max. Number of data bits/radio frame	~~1560~~ 1568 bits (alt. 688 bits)
	TFCI code word / radio frame	16 bits
	TPC / radio frame	0~~2 * 2~~ bits
	SS / radio frame	~~2 * 2~~0 bits
	Puncturing Limit	~~0.40~~0.52 (alt. 0.48)
Note: alt. Puncturing Limit applies when alt. TFCS and alt. codes and time slots / radio frame are both configured.		

6.11.5.4.4.2a Interactive/Background 32 kbps PS RAB + Interactive/Background 32 kbps PS RAB + SRBs for CCCH + SRB for DCCH + SRB for BCCH

6.11.5.4.4.2a.1 Transport channel parameters

6.11.5.4.4.2a.1.1 Transport channel parameters for Interactive/Background 32 kbps PS RAB + Interactive/Background 32 kbps PS RAB

See clause 6.10.3.4.2a.1.1.

6.11.5.4.4.2a.1.2 Transport channel parameters of SRBs for CCCH, SRB for DCCH, and SRB for BCCH

See clause 6.11.5.4.4.2.1.2.

6.11.5.4.4.2a.1.3 TFCS

See clause 6.10.3.4.4.2a.1.3.

6.11.5.4.4.2a.2 Physical channel parameters

See clause 6.11.5.4.4.2.2.

6.11.5.4.4.2b SRBs for CCCH + SRB for DCCH + SRB for BCCH

6.11.5.4.4.2b.1 Transport channel parameters

6.11.5.4.4.2b.1.1 Transport channel parameters of SRBs for CCCH, SRB for DCCH, and SRB for BCCH

See clause 6.11.5.4.4.2.1.2.

6.11.5.4.4.2b.1.2 TFCS

See clause 6.10.3.4.4.2b.1.2.

6.10.3.4.4.2b.2 Physical channel parameters

SCCPCH	Modulation	QPSK
	Codes and time slots/ radio frame	SF 16 x 4 codes x 2 time slots (alt. SF16 x 2 codes x 2 time slots)
	Max. Number of data bits/radio frame	688 bits (alt. 344 bits)
	TFCI code word / radio frame	16 bits (alt. 8 bits)
	TPC / radio frame	0 bits
	SS / radio frame	0 bits
	Puncturing Limit	0.88
Note: alt. Puncturing Limit applies when alt. TFCS and alt. codes and time slots / radio frame are both configured.		

6.11.5.4.4.3 Interactive/Background 32 kbps RAB + SRB for PCCH + SRB for CCCH + SRB for DCCH + SRB for BCCH

6.11.5.4.4.3.1 Transport channel parameters

6.11.5.4.4.3.1.1 Transport channel parameters of SRB for Interactive/Background 32 kbps RAB

See clause 6.~~11~~10.~~5~~3.4.4.2.1.1.

6.11.5.4.4.3.1.2 Transport channel parameters of SRB for PCCH

See clause 6.~~11~~10.~~5~~3.4.4.1.1.1.

6.11.5.4.4.3.1.3 Transport channel parameters of SRBs for CCCH, SRB for DCCH, and SRB for BCCH

See clause 6.11.5.4.4.2.1.2.

6.11.5.4.4.3.1.4 TFCS

~~TFCS size~~	~~45 (alt. 63)~~
~~TFCS~~	~~(32 kbps RAB, SRB for PCCH, SRBs for CCCH/ DCCH/ BCCH) =~~ ~~(TF0, TF0, TF0), (TF0, TF0, TF1), (TF0, TF0, TF2), (TF0, TF0, TF3), (TF0, TF0, TF4),(TF0, TF1, TF0), (TF0, TF1, TF1), (TF0, TF1, TF2), (TF0, TF1, TF3), (TF0, TF1, TF4),(TF0, TF2, TF0), (TF0, TF2, TF1), (TF0, TF2, TF2), (TF0, TF2, TF3), (TF0, TF2, TF4),(TF1, TF0, TF0), (TF1, TF0, TF1), (TF1, TF0, TF2), (TF1, TF0, TF3), (TF1, TF0, TF4),(TF1, TF1, TF0), (TF1, TF1, TF1), (TF1, TF1, TF2), (TF1, TF1, TF3), (TF1, TF1, TF4),(TF1, TF2, TF0), (TF1, TF2, TF1), (TF1, TF2, TF2), (TF1, TF2, TF3), (TF1, TF2, TF4),(TF2, TF0, TF0), (TF2, TF0, TF1), (TF2, TF0, TF2), (TF2, TF0, TF3), (TF2, TF0, TF4),(TF2, TF1, TF0), (TF2, TF1, TF1), (TF2, TF1, TF2), (TF2, TF1, TF3), (TF2, TF1, TF4),(TF2, TF2, TF0), (TF2, TF2, TF1), (TF2, TF2, TF2), (TF2, TF2, TF3), (TF2, TF2, TF4)~~ ~~(alt. (TF0, TF0, TF0), (TF0, TF0, TF1), (TF0, TF0, TF2), (TF0, TF0, TF3), (TF0, TF0, TF4), (TF0, TF0, TF5), (TF0, TF0, TF6),(TF0, TF1, TF0), (TF0, TF1, TF1), (TF0, TF1, TF2), (TF0, TF1, TF3), (TF0, TF1, TF4), (TF0, TF1, TF5), (TF0, TF1, TF6),(TF0, TF2, TF0), (TF0, TF2, TF1), (TF0, TF2, TF2), (TF0, TF2, TF3), (TF0, TF2, TF4), (TF0, TF2, TF5), (TF0, TF2, TF6), (TF1, TF0, TF0), (TF1, TF0, TF1), (TF1, TF0, TF2), (TF1, TF0, TF3), (TF1, TF0, TF4), (TF1, TF0, TF5), (TF1, TF0, TF6),(TF1, TF1, TF0), (TF1, TF1, TF1), (TF1, TF1, TF2), (TF1, TF1, TF3), (TF1, TF1, TF4), (TF1, TF1, TF5), (TF1, TF1, TF6),(TF1, TF2, TF0), (TF1, TF2, TF1), (TF1, TF2, TF2), (TF1, TF2, TF3), (TF1, TF2, TF4), (TF1, TF2, TF5), (TF1, TF2, TF6),(TF2, TF0, TF0), (TF2, TF0, TF1), (TF2, TF0, TF2), (TF2, TF0, TF3), (TF2, TF0, TF4), (TF2, TF0, TF5), (TF2, TF0, TF6),(TF2, TF1, TF0), (TF2, TF1, TF1), (TF2, TF1, TF2), (TF2, TF1, TF3), (TF2, TF1, TF4), (TF2, TF1, TF5), (TF2, TF1, TF6),(TF2, TF2, TF0), (TF2, TF2, TF1), (TF2, TF2, TF2), (TF2, TF2, TF3), (TF2, TF2, TF4), (TF2, TF2, TF5) (TF2, TF2, TF6))~~

See clause 6.10.3.4.4.3.1.4.

6.11.5.4.4.3.2 Physical channel parameters

S-CCPCH	Modulation	QPSK
	Codes and time slots/ radio frame	SF16 x 10 codes x 2 time slots (alt. SF16 x 6 codes x 2 time slots)
	Max. Number of data bits/radio frame	~~1728~~ 1744 bits (alt. 1040 bits)
	TFCI code word/ radio frame	~~32~~ 16 bits
	TPC/ radio frame	0 bits
	SS/ radio frame	0 bits
	Puncturing Limit	~~0.64~~0.48 (alt. 0.52)
Note: alt. Puncturing Limit applies when alt. TFCS and alt. codes and time slots / radio frame are both configured.		

6.11.5.4.4.3a SRB for PCCH + SRB for CCCH + SRB for DCCH + SRB for BCCH

6.11.5.4.4.3a.1 Transport channel parameters

6.11.5.4.4.3a.1.1 Transport channel parameters of SRB for PCCH

See clause 6.10.3.4.4.1.1.1.

6.11.5.4.4.3a.1.2 Transport channel parameters of SRBs for CCCH, SRB for DCCH, and SRB for BCCH

See clause 6.11.5.4.4.2.1.2.

6.11.5.4.4.3a.1.3 TFCS

See clause 6.10.3.4.4.3a.1.3.

6.11.5.4.4.3a.2 Physical channel parameters

SCCPCH	Modulation	QPSK
	Codes and time slots/ radio frame	SF 16 x 4 codes x 2 time slots (alt. SF16 x 2 codes x 2 time slots)
	Max. Number of data bits/radio frame	688 bits (alt. 336 bits)
	TFCI code word / radio frame	16 bits
	TPC / radio frame	0 bits
	SS / radio frame	0 bits
	Puncturing Limit	0.60 (alt. 0.52)
Note: Alt. applies when alts for SRB for PCCH and SRBs for CCCH/ DCCH/ BCCH are both configured.		

6.11.5.4.4.4 RB for CTCH + SRB for CCCH + SRB for BCCH

6.11.5.4.4.4.1 Transport channel parameters

6.11.5.4.4.4.1.1 Transport channel parameters of RB for CTCH

See clause 6.10.3.4.4.4.1.1.

6.11.5.4.4.4.1.2 Transport channel parameters of SRB for CCCH and SRB for BCCH

Higher layer	RAB/signalling RB		SRB#0	SRB#5
	User of Radio Bearer		RRC	RRC
RLC	Logical channel type		CCCH	BCCH
	RLC mode		UM	TM
	Payload sizes, bit		160	168
	Max data rate, bps		16000	16800
	AMD/UMD/TrD PDU header, bit		8	0
MAC	MAC header, bit		3	3
	MAC multiplexing		2 logical channel multiplexing	
Layer 1	TrCH type		FACH	
	TB sizes, bit		171	
	TFS	TF0, bits	0x171	
		TF1, bits	1x171	
		TF2, bits	2x171	
	TTI, ms		20	
	Coding type		CC 1/3	
	CRC, bit		16	
	Max number of bits/TTI before rate matching		1146	
	Max number of bits/radio frame before rate matching		573	
	RM attribute		200-240	

6.11.5.4.4.4.1.3 TFCS

See clause 6.10.3.4.4.4.1.3.

6.11.5.4.4.4.2 Physical channel parameters

SCCPCH	Modulation	QPSK
	Codes and time slots/ radio frame	SF 16 x 4 codes x 2 time slots
	Max. Number of data bits/radio frame	688 bits
	TFCI code word / radio frame	16 bits
	TPC / radio frame	0 bits
	SS / radio frame	0 bits
	Puncturing Limit	0.52

6.11.5.4.5 Combinations on PRACH

6.11.5.4.5.1 SRB for CCCH + SRBs for DCCH

6.11.5.4.5.1.1 Transport channel parameters

6.11.5.4.5.1.1.1 Transport channel parameter for SRB for CCCH, SRBs for DCCH

~~Higher layer~~	~~RAB/signalling RB~~	~~SRB#1~~	~~SRB#2~~	~~SRB#3~~	~~SRB#4~~	~~SRB#5~~
	~~User of Radio Bearer~~	~~RRC~~	~~RRC~~	~~RRC~~	~~NAS_DT High prio~~	~~NAS_DT Low prio~~
~~RLC~~	~~Logical channel type~~	~~CCCH~~	~~DCCH~~	~~DCCH~~	~~DCCH~~	~~DCCH~~
	~~RLC mode~~	~~TM~~	~~UM~~	~~AM~~	~~AM~~	~~AM~~
	~~Payload sizes, bit~~	~~168~~	~~136~~	~~128~~	~~128~~	~~128~~

	Max data rate, bps	16800	13600	12800	12800	12800
	RLC header, bit	0	8	16	16	16
MAC	MAC header, bit	2	26	26	26	26
	MAC multiplexing	5 logical channel multiplexing				
Layer 1	TrCH type	RACH				
	TB sizes, bit	170	170	170	170	170
	TFS TF0, bits	1x170				
	TTI, ms	10				
	Coding type	CC ½				
	CRC, bit	16				
	Max number of bits/TTI after channel coding	388	388	388	388	388
	Max number of bits/Radio frame before rate matching	388	388	388	388	388

See clause 6.10.3.4.5.1.1.1.

6.11.5.4.5.1.1.2 TFCS

See clause 6.10.3.4.5.1.1.2.

6.11.5.4.5.1.2 Physical channel parameters

PRACH	Modulation	QPSK
	Codes and time slots/ radio frame	SF 8 x 1 code x 2 time slots
	Max. Number of data bits/radio frame	352 bits
	TPC / radio frame	0 bits
	SS / radio frame	0 bits
	Puncturing Limit	0.88

6.11.5.4.5.2 Interactive/Background 32 12.8 kbps PS RAB + SRB for CCCH + SRBs for DCCH

6.11.5.4.5.2.1 Transport channel parameters

6.11.5.4.5.2.1.1 Transport channel parameters for Interactive or background / / UL:32 12.8 kbps / PS RAB + SRB for CCCH + SRBs for DCCH

Higher layer	RAB/signalling RB		**RAB**
	User of Radio Bearer		Interactive/ Background RAB
RLC	Logical channel type		DTCH
	RLC mode		AM
	Payload sizes, bit		320
	Max data rate, bps		32000
	AMD/UMD/TrD PDU header, bit		16
MAC	MAC header, bit		24
	MAC multiplexing		
Layer 1	TrCH type		RACH
	TB sizes, bit		360
	TFS	TF0, bits	1x360

~~TTI, ms~~	~~10~~
~~Coding type~~	~~CC ½~~
~~CRC, bit~~	~~16~~
~~Max number of bits/TTI after channel coding~~	~~768~~
~~Max number of bits/ Radio frame before rate matching~~	~~768~~

Higher layer	RAB/signalling RB	**RAB**	**SRB#0**	**SRB#1**	**SRB#2**	**SRB#3**	**SRB#4**
	User of Radio Bearer	Interactive/ Background RAB	RRC	RRC	RRC	NAS_DT High priority	NAS_DT Low priority
RLC	Logical channel type	DTCH	CCCH	DCCH	DCCH	DCCH	DCCH
	RLC mode	AM	TM	UM	AM	AM	AM
	Payload sizes, bit	128	168	136	128	128	128
	Max data rate, bps	12800	16800	13600	12800	12800	12800
	AMD/UMD/TrD PDU header, bit	16	0	8	16	16	16
MAC	MAC header, bit	26	2	26	26	26	26
	MAC multiplexing	6 logical channel multiplexing					
Layer 1	TrCH type	RACH					
	TB sizes, bit	170					
	TFS TF0, bits	1x170					
	TTI, ms	10					
	Coding type	CC 1/2					
	CRC, bit	16					
	Max number of bits/TTI after channel coding	388					
	Max number of bits/ Radio frame before rate matching	388					

~~6.11.5.4.5.2.1.2 Transport channel parameters for SRB for CCCH + SRBs for DCCH~~

~~See the Chapter 6.11.5.4.5.1.1.1.~~

6.11.5.4.5.2.1.~~3~~2 TFCS

TFCS size	~~2~~1
TFCS	12.8 kbps PS RAB + SRB for CCCH + SRBs for DCCH~~32 kbps + SRBs for CCCH/ DCCH~~ = (TF0)~~, TF1~~

6.11.5.4.5.2.2 Physical channel parameters

~~PRACH~~	~~Modulation~~	~~QPSK~~
	~~Codes and time slots/ radio frame~~	~~SF 4 x 1 code x 2 time slots~~
	~~Max. Number of data bits/radio frame~~	~~704 bits~~
	~~TPC / radio frame~~	~~0 bits~~
	~~SS / radio frame~~	~~0 bits~~
	~~Puncturing Limit~~	~~0.88~~

See clause 6.11.5.4.5.1.2.

6.11.5.4.5.3 Interactive/Background 12.8 kbps PS RAB + Interactive/Background 12.8 kbps PS RAB + SRB for CCCH + SRB for DCCH

6.11.5.4.5.3.1 Transport channel parameters

6.11.5.4.5.3.1.1 Transport channel parameters for Interactive or background / 12.8 kbps / PS RAB + Interactive or background / 12.8 kbps / PS RAB + SRB for CCCH + SRBs for DCCH

Higher layer	RAB/signalling RB User of Radio Bearer	**RAB** Interactive/ Background RAB	**RAB** Interactive/ Background RAB	**SRB#0** RRC	**SRB#1** RRC	**SRB#2** RRC	**SRB#3** NAS_DT High prio	**SRB#4** NAS_DT Low prio
RLC	Logical channel type	DTCH	DTCH	CCCH	DCCH	DCCH	DCCH	DCCH
	RLC mode	AM	AM	TM	UM	AM	AM	AM
	Payload sizes, bit	128	128	168	136	128	128	128
	Max data rate, bps	12800	12800	16800	13600	12800	12800	12800
	AMD/UMD/TrD PDU header, bit	16	16	0	8	16	16	16
MAC	MAC header, bit	26	26	2	26	26	26	26
	MAC multiplexing	7 logical channel multiplexing						
Layer 1	TrCH type	RACH						
	TB sizes, bit	170						
	TFS TF0, bits	1x170						
	TTI, ms	10						
	Coding type	CC ½						
	CRC, bit	16						
	Max number of bits/TTI after channel coding	388						
	Max number of bits/ Radio frame before rate matching	388						

6.11.5.4.5.3.1.2 TFCS

TFCS size	1
TFCS	12.8 kbps PS RAB + 12.8 kbps PS RAB + SRB for CCCH + SRBs for DCCH = (TF0)

6.11.5.4.5.3.2 Physical channel parameters

See clause 6.11.5.4.5.1.2.

~~For physical channel parameters for SRB for CCCH + SRBs for DCCH see clause 6.11.5.4.5.1.2.~~

<End of modified section>

3GPP TSG-T1 Meeting #23
Beijing, China, 10th – 14th May 2004

T1 ⌘040935

CR-Form-v7

CHANGE REQUEST

⌘ **34.108** **CR** 339 ⌘ **rev** **-** ⌘ Current version: **5.0.0** ⌘

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

Proposed change affects: UICC apps⌘ [ ] ME [X] Radio Access Network [X] Core Network [ ]

Title:	⌘	Corrections to LCR TDD RABs
Source:	⌘	CCSA, Siemens
Work item code:	⌘	LCR TDD
Date:	⌘	07/04/04
Category:	⌘	**F**
Release:	⌘	Rel-5

Use one of the following categories:
F *(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)*
Rel-6 *(Release 6)*

Reason for change: ⌘

1. Test coverage is necessary for the LCR TDD multiple dedicated CCTrCH's capability when simultaneous RT and NRT services are supported.
2. Some combinations on PDSCH, SCCPCH, PUSCH and PRACH shall be aligned with recent changes approved for HCR TDD RABs.
3. TPC and SS bits in S-CCPCH within 'Combinations on SCCPCH' are of useless.
4. Some combinations on SCCPCH shall be aligned with recent changes approved for HCR TDD RABs, but CC shall be used for channel coding of signalling.
5. S-CCPCH RAB configurations alternate configurations need to be defined for deployment scenarios where maximum transmission rate is limited.
6. TFCI bits are not used on PRACH, so the Combinations on PRACH can not send 32 kbps data.
7. Other minor corrections.

Summary of change: ⌘

1. Alternate dedicated 2 CCTrCH configurations are added to existing dedicated combination service RABs specifying separate CCTrCH's for the RT and NRT services.
2. SRBs for DCCH mapped on USCH (or DSCH) are added into the SRB combinations on PDSCH, SCCPCH, PUSCH and PRACH.
3. TPC and SS bits in S-CCPCH within 'Combinations on SCCPCH' are set to

		zero. 4. Align some combinations on SCCPCH with recent changes approved for HCR TDD RABs, and CC is used for channel coding of signalling in order to reduce the complexity. 5. S-CCPCH RABs are defined with alternate reduced TFS/TFCS and corresponding reduced code configurations. 6. Change the Interactive/Background 32 kbps PS RAB to Interactive/Background 12.8 kbps PS RAB and add two RABs case in Combinations on PRACH. 7. Change some errors in the citing, title, and number.
Consequences if not approved:	⌘	1. No test coverage for multiple CCTrCH functionallity. 2. DCCH mapped on USCH (or DSCH) will not be used. 3. TPC and SS bits will not be used by UE, and we can not use the bits to bear data. 4. DTCH mapped to S-CCPCH are limited, and CTCH can not be mapped to S-CCPCH. 5. Inefficient S-CCPCH configuration. 6. PRACH can not be used to send RAB. 7. Some citing, title, and number introduce misreading.

Clauses affected:	⌘	6.11.5			
Other specs affected:	⌘	**Y** / **N** ☐ / ☐ Other core specifications ☐ / ☐ Test specifications ☐ / ☐ O&M Specifications	⌘	25.993 34.123	
Other comments:	⌘				

How to create CRs using this form:

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

1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

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

<Start of modified section>

6.11.5 Reference Radio Bearer configurations used in Radio Bearer testing for 1.28 Mcps TDD

6.11.5.1 RABs and signalling RBs

See clause 6.10.3.1.

6.11.5.2 Combinations of RABs and Signalling RBs

In this document, physical channel parameters for following combinations of RABs and signalling RBs on a CCTrCH are described.

NOTE: It is understood that for speech service the AMR mode may be operated asymmetrically for the uplink and downlink.

Combinations on DPCH

1) Stand-alone UL:1.7 DL:1.7 kbps SRBs for DCCH.

1a) Stand-alone UL:1.7 DL:1.7 kbps SRBs for DCCH (Multiframe)

2) Stand-alone UL:3.4 DL:3.4 kbps SRBs for DCCH.

3) Stand-alone UL:13.6 DL:13.6 kbps SRBs for DCCH.

4) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

4a) Conversational / speech / UL:(12.2, 7.95, 5.9, 4.75) DL:(12.2, 7.95, 5.9, 4.75) kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH

5) Conversational / speech / UL:10.2 DL:10.2 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

5a) Conversational / speech / UL:(10.2, 6.7, 5.9, 4.75) DL:(10.2, 6.7, 5.9, 4.75) kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH

6) Conversational / speech / UL:7.95 DL:7.95 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

7a) Conversational / speech / UL:(7.4, 6.7, 5.9, 4.75) DL:(7.4, 6.7, 5.9, 4.75)kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH

7) Conversational / speech / UL:7.4 DL:7.4 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

8) Conversational / speech / UL:6.7 DL:6.7 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

9) Conversational / speech / UL:5.9 DL:5.9 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

10) Conversational / speech / UL:5.15 DL:5.15 kbps / CS RAB
+ UL:1.7 DL:1.7 kbps SRBs for DCCH.

11) Conversational / speech / UL:4.75 DL:4.75 kbps / CS RAB
+ UL:1.7 DL:1.7 kbps SRBs for DCCH.

12) Conversational / unknown / UL:28.8 DL:28.8 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

13) Conversational / unknown / UL:64 DL:64 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

14) Conversational / unknown / UL:32 DL:32 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

15) Streaming / unknown / UL:14.4/DL:14.4 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

16) Streaming / unknown / UL:28.8/DL:28.8 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

17) Streaming / unknown / UL:57.6/DL:57.6 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

18) Void.

19) Void.

20) Void.

21) Void.

22) Void.

23) Interactive or background / UL:32 DL:8 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

23a) Interactive or background / UL:8 DL:8 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

23b) Interactive or background / UL:16 DL:16 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

23c) Interactive or background / UL:32 DL:32 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

23d) Interactive or background / UL:32 DL:32 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.(20 msTTI)

24) Void.

25) Interactive or background / UL:32 DL: 64 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

26) Interactive or background / UL:64 DL: 64 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

27) Interactive or background / UL:64 DL:128 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

28) Interactive or background / UL:128 DL:128 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

29) Interactive or background / UL:64 DL:144 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

30) Interactive or background / UL:144 DL:144 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

31) Interactive or background / UL:64 DL:256 kbps / PS RAB
+ UL:3.4 DL: 3.4 kbps SRBs for DCCH.

32) Interactive or background / UL:64 DL:384 kbps / PS RAB
+ UL:3.4 DL: 3.4 kbps SRBs for DCCH.

33) Interactive or background / UL:128 DL:384 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

34) Interactive or background / UL:384 DL:384 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

35) Interactive or background / UL:64 DL:2048 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

36) Void.

37) Void.

38) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ Interactive or background / UL:32 DL:8 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

38a) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ Interactive or background / UL:0 DL:0 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

38b) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ Interactive or background / UL:8 DL:8 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

38c) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ Interactive or background / UL:32 DL:32 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

38d) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ Interactive or background / UL:64 DL:64 kbps / PS RAB +

+ Interactive or background / UL:64 DL:64 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

38e) Conversational / speech / UL: (12.2, 7.95, 5.9, 4.75) DL: (12.2, 7.95, 5.9, 4.75) kbps / CS RAB
+ Interactive or background / UL:0 DL:0 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

38f) Conversational / speech / UL: (12.2, 7.95, 5.9, 4.75) DL: (12.2, 7.95, 5.9, 4.75) kbps / CS RAB
+ Interactive or background / UL:8 DL:8 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

38g) Conversational / speech / UL: (12.2, 7.95, 5.9, 4.75) DL: (12.2, 7.95, 5.9, 4.75) kbps / CS RAB
+ Interactive or background / UL:16 DL:16 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

38h) Conversational / speech / UL: (12.2, 7.95, 5.9, 4.75) DL: (12.2, 7.95, 5.9, 4.75) kbps / CS RAB
+ Interactive or background / UL:32 DL:32 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

38i) Conversational / speech / UL: (12.2, 7.95, 5.9, 4.75) DL: (12.2, 7.95, 5.9, 4.75) kbps / CS RAB
+ Interactive or background / UL:64 DL:64 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

38j) Conversational / speech / UL: (12.2, 7.95, 5.9, 4.75) DL: (12.2, 7.95, 5.9, 4.75) kbps / CS RAB
+ Interactive or background / UL:64 DL:128 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

39) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ Interactive or background / UL:32 DL:64 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

40) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ Interactive or background / UL:64 DL:64 kbps / PS RAB
+ UL:3.4 DL: 3.4 kbps SRBs for DCCH.

41) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ Interactive or background / UL:64 DL:128 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

42) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ Interactive or background / UL:64 DL:256 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

43) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ Interactive or background / UL:64 DL:384 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

44) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ Interactive or background / UL:128 DL:2048 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

45) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ Streaming / unknown / UL:57.6 DL:57.6 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

46) Void.

47) Void.

48) Void.49) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ Conversational / unknown / UL:64 DL:64 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

49a) Conversational / speech / UL:(12.2, 7.95, 5.9, 4.75) DL: (12.2, 7.95, 5.9, 4.75) kbps / CS RAB
+ Conversational / unknown / UL:64 DL:64 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

50) Conversational / unknown / UL:64 DL:64 kbps / CS RAB
+ Conversational / unknown / UL:64 DL:64 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

51) Conversational / unknown / UL:64 DL:64 kbps / CS RAB
+ Interactive or background / UL:64 DL:64 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

51a) Conversational / unknown / UL:64 DL:64 kbps / CS RAB
+ Interactive or background / UL:8 DL:8 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

51b) Conversational / unknown / UL:64 DL:64 kbps / CS RAB
+ Interactive or background / UL:16 DL:64 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

52) Conversational / unknown / UL:64 DL:64 kbps / CS RAB
+ Interactive or background / UL:64 DL:128 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

53) Conversational / unknown / UL:64 DL:64 kbps / CS RAB
+ Interactive or background / UL:128 DL:128 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

54) Void.

55) Void.

56) Interactive or background / UL:8 DL:8 kbps / PS RAB
+ Interactive or background / UL:8 DL:8 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

57) Interactive or Background / UL:64 DL:64 kbps / CS RAB
+ Interactive or background / UL:64 DL:64 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

58) Streaming / Unknown / UL:16 DL:64 kbps / CS RAB
+ Interactive or background / UL:8 DL:8 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

59) Reserved for future use

60) Reserved for future use

61) Conversational / Unknown / UL:8 DL:8 kbps / CS RAB
+ Interactive or background / UL:8 DL:8 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

Combinations on PDSCH, SCCPCH, PUSCH and PRACH

1) Interactive or background / UL:64 DL:256 kbps / PS RAB
+ UL: 3.4/16.8 DL: 3.4/33.6 kbps SRBs for DCCH, CCCH and BCCH
+ UL:16.8 DL: 16 kbps SRBs for SHCCH.

2) Interactive or background / UL:64 DL:384 kbps / PS RAB
+ UL: 3.4/16.8 DL: 3.4/33.6 kbps SRBs for DCCH, CCCH and BCCH
+ UL: 16.8 DL: 16 kbps SRBs for SHCCH.

3) Interactive or background / UL:64 DL:2048 kbps / PS RAB
+ UL:3.4/~~3.4~~16.8 DL: 3.4/33.6 kbps SRBs for DCCH, CCCH and BCCH
+ UL: 16.8 DL: 16 kbps SRBs for SHCCH.

Combinations on PDSCH, SCCPCH, DPCH, PUSCH and PRACH

1) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH
+ Interactive or background / UL:64 DL:256 kbps / PS RAB
+ UL:16.8 kbps SRBs for CCCH and SHCCH
+ DL: 33.6 kbps SRBs for CCCH, SHCCH and BCCH.

2) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH
+ Interactive or background / UL:64 DL:384 kbps / PS RAB
+ UL:16.8 kbps SRBs for CCCH and SHCCH
+ DL: 33.6 kbps SRBs for CCCH, SHCCH and BCCH.

3) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH
+ Interactive or background / UL:64 DL:2048 kbps / PS RAB
+ UL:16.8 kbps SRBs for CCCH and SHCCH
+ DL: 33.6 kbps SRBs for CCCH, SHCCH and BCCH.

Combinations on SCCPCH

1) Stand-alone ~~32 kbps~~ SRB for PCCH.

2) Interactive or background / DL:32 kbps / PS RAB
+ SRB for CCCH
+ SRBs for DCCH
+ SRB for BCCH.

2a) Interactive/Background 32 kbps PS RAB
+ Interactive/Background 32 kbps PS RAB
+ SRB for CCCH
+ SRBs for DCCH
+ SRB for BCCH.

2b) SRBs for CCCH
+ SRB for DCCH
+ SRB for BCCH.

3) Interactive or background / DL:32 kbps / PS RAB
+ SRB for PCCH
+ SRB for CCCH
+ SRBs for DCCH
+ SRB for BCCH.

3a) SRB for PCCH
+ SRB for CCCH
+ SRB for DCCH
+ SRB for BCCH.

4) RB for CTCH
+ SRB for CCCH
+ SRB for BCCH.

Combinations on PRACH

1) ~~Interactive or background / UL:32 kbps / PS RAB~~
~~+~~ SRB for CCCH
+ SRBs for DCCH.

2) Interactive/Background 12.8 kbps PS RAB
+ SRB for CCCH
+ SRBs for DCCH.

3) Interactive/Background 12.8 kbps PS RAB
+ Interactive/Background 12.8 kbps PS RAB
+ SRB for CCCH
+ SRBs for DCCH.

6.11.5.3 Example of linkage between RABs and services

See clause 6.10.3.3.

6.11.5.4 Typical radio parameter sets

6.11.5.4.1 Combinations on DPCH

6.11.5.4.1.1 Stand-alone UL:1.7 DL:1.7 kbps SRBs for DCCH

6.11.5.4.1.1.1 Uplink

6.11.5.4.1.1.1.1 Transport channel parameters

6.11.5.4.1.1.1.1.1 Transport channel parameters for UL:1.7 kbps SRBs for DCCH

See clause 6.10.3.4.1.1.1.1.1.

6.11.5.4.1.1.1.1.2 TFCS

See clause 6.10.3.4.1.1.1.1.2.

6.11.5.4.1.1.1.2 Physical channel parameters

DPCH Uplink	Modulation	QPSK
	Codes and time slots / radio frame	SF16 x 1 code x 2 time slots
	Max. Number of data bits / radio frame	160 bits
	TFCI code word / radio frame	8 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	1

6.11.5.4.1.1.2 Downlink

6.11.5.4.1.1.2.1 Transport channel parameters

6.11.5.4.1.1.2.1.1 Transport channel parameters for DL:1.7 kbps SRBs for DCCH

See clause 6.10.3.4.1.1.2.1.1.

6.11.5.4.1.1.2.1.2 TFCS

See clause 6.10.3.4.1.1.2.1.2.

6.11.5.4.1.1.2.2 Physical channel parameters

DPCH Downlink	Modulation	QPSK
	Codes and time slots / radio frame	SF16 x 1 code x 2 time slots
	Max. Number of data bits / radio frame	160 bits
	TFCI code word / radio frame	8 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	1

6.11.5.4.1.1a~~.1~~ Stand-alone UL:1.7 DL:1.7 kbps SRBs for DCCH (multiframe)

6.11.5.4.1.1a.1~~.1~~ Uplink

6.11.5.4.1.1a.1.1~~.1~~ Transport channel parameters

6.11.5.4.1.1a.1.1.1 Transport channel parameters for UL:1.7 kbps SRBs for DCCH

See ~~Clause~~clause 6.10.3.4.1.1a.1.1.1.

6.11.5.4.1.1a.1.1~~.1~~.2 TFCS

See clause 6.10.3.4.1.1a.1.1~~.1~~.2.

6.11.5.4.1.1a.1~~.1~~.2 Physical channel parameters

DPCH Uplink	Modulation	QPSK
	Codes and time slots / radio frame	SF16 x 1 code x 2 time slots
	Max. Number of data bits / radio frame	160 bits
	TFCI code word / radio frame	8 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	0.60
	Note: In case the first TFC in the TFCS is not configured, the TFCI code word will be 4 bit	

6.11.5.4.1.1a~~.1~~.2 Downlink

6.11.5.4.1.1a~~.1~~.2.1 Transport channel parameters

6.11.5.4.1.1a.2.1.1 Transport channel parameters for DL:1.7 kbps SRBs for DCCH

~~see~~See clause 6.10.3.4.1.1a~~.1~~.2.1.1.

6.11.5.4.1.1a~~.1~~.2.1.2 TFCS

~~see~~See clause 6.10.3.4.1.1a~~.1~~.2.1.2.

6.~~10~~11.~~3~~5.4.1.1a~~.1~~.2.2 Physical channel parameters

DPCH Uplink	Modulation	QPSK
	Codes and time slots / radio frame	SF16 x 1 code x 2 time slots
	Max. Number of data bits / radio frame	160 bits
	TFCI code word / radio frame	8 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	0.60
	Note: In case the first TFC in the TFCS is not configured, the TFCI code word will be 4 bit	

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6.11.5.4.1.4 Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.11.5.4.1.4.1 Uplink

6.11.5.4.1.4.1.1 Transport channel parameters

6.11.5.4.1.4.1.1.1 Transport channel parameters for Conversational / speech / UL:12.2 kbps / CS RAB

See clause 6.10.3.4.1.4.1.1.1.

6.11.5.4.1.4.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See clause ~~clause~~ 6.10.3.4.1.2.1.1.1.

6.11.5.4.1.4.1.1.3 TFCS

See clause 6.10.3.4.1.4.1.1.3.

6.11.5.4.1.4.1.2 Physical channel parameters

DPCH Uplink	Modulation	QPSK
	Codes and time slots / radio frame	SF8 x 1 code x 2 time slots
	Max. Number of data bits / radio frame	328 bits
	TFCI code word / radio frame	16 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	0.48

6.11.5.4.1.4.2 Downlink

6.11.5.4.1.4.2.1 Transport channel parameters

6.11.5.4.1.4.2.1.1 Transport channel parameters for Conversational / speech / DL:12.2 kbps / CS RAB

See clause 6.10.3.4.1.4.2.1.1.

6.11.5.4.1.4.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.2.1.1~~.1~~.

6.11.5.4.1.4.2.1.3 TFCS

See clause 6.10.3.4.1.4.2.1.3.

6.11.5.4.1.4.2.2 Physical channel parameters

DPCH Downlink	Modulation	QPSK
	Codes and time slots / radio frame	SF 16 x 2 code x 2 time slots
	Max. Number of data bits / radio frame	328 bits
	TFCI code word / radio frame	16 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	0.48

6.11.5.4.1.4a Conversational / speech / UL: 12.2 7.95 5.9 4.75 DL:12.2 7.95 5.9 4.75 kbps / CS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.11.5.4.1.4a.1 Uplink

6.11.5.4.1.4a.1.1 Transport channel parameters

6.11.5.4.1.4a.1.1.1 Transport channel parameters for Conversational / speech / UL: 12.2 7.95 5.9 4.75 kbps / CS RAB

See clause 6.10.3.4.1.4a.1.1.1.

6.11.5.4.1.4a.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See clause ~~clause~~ 6.10.3.4.1.2.1.1.1.

6.11.5.4.1.4a.1.1.3 TFCS

See clause 6.10.3.4.1.4a.1.1.3.

6.11.5.4.1.4a.1.2 Physical channel parameters

DPCH Uplink	Modulation	QPSK
	Codes and time slots / radio frame	SF8 x 1 code x 2 time slots
	Max. Number of data bits / radio frame	328 bits
	TFCI code word / radio frame	16 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	0.48

6.11.5.4.1.4a.2 Downlink

6.11.5.4.1.4a.2.1 Transport channel parameters

6.11.5.4.1.4a.2.1.1 Transport channel parameters for Conversational / speech / DL: (12.2, 7.95, 5.9, 4.75) kbps / CS RAB

~~see~~See clause 6.10.3.4.1.4a.~~1.~~2.1.1.

6.11.5.4.1.4a.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.2.1.1.

6.11.5.4.1.4a.2.1.~~1~~3 TFCS

~~see~~See clause 6.10.3.4.1.~~1~~4a.1.2.1.~~2~~3.

6.11.5.4.1.4a.2.2 Physical channel parameters

DPCH Downlink	Modulation	QPSK
	Codes and time slots / radio frame	SF 16 x 2 code x 2 time slots
	Max. Number of data bits / radio frame	328 bits
	TFCI code word / radio frame	16 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	0.48
~~DPCH Uplink~~	~~Modulation~~	~~QPSK~~
	~~Codes and time slots / radio frame~~	~~SF16 x 1 code x 2 time slots~~
	~~Max. Number of data bits / radio frame~~	~~164 bits~~
	~~TFCI code word / radio frame~~	~~8 bits~~
	~~TPC / radio frame~~	~~2x 2 bits~~
	~~SS / radio frame~~	~~2x 2 bits~~
	~~Puncturing Limit~~	~~0.48~~
	~~Note: In case the first TFC in the TFCS is not configured, the TFCI code word will be 4 bit~~	

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6.11.5.4.1.7 Conversational / speech / UL:7.4 DL:7.4 kbps / CS RAB+ UL:3.4 DL:3.4 kbps SRBs for DCCH

6.11.5.4.1.7.1 Uplink

6.11.5.4.1.7.1.1 Transport channel parameters

6.11.5.4.1.7.1.1.1 Transport channel parameters for Conversational / speech / UL:7.4 kbps / CS RAB

See clause 6.10.3.4.1.7.1.1.1.

6.11.5.4.1.7.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.1.1.1.

6.11.5.4.1.7.1.1.3 TFCS

See clause 6.10.3.4.1.7.1.1.3.

6.11.5.4.1.7.1.2 Physical channel parameters

DPCH Uplink	Modulation	QPSK
	Codes and time slots/ radio frame	SF 8 x 1 code x 2 time slots
	Max. Number of data bits / radio frame	328 bits
	TFCI code word / radio frame	16 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	0.64

6.11.5.4.1.7.2 Downlink

6.11.5.4.1.7.2.1 Transport channel parameters

6.11.5.4.1.7.2.1.1 Transport channel parameters for Conversational / speech / DL:7.4 kbps / CS RAB

See clause 6.10.3.4.1.7.2.1.1.

6.11.5.4.1.7.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.2.1.1.

6.11.5.4.1.7.2.1.3 TFCS

See clause 6.10.3.4.1.7.2.1.3.

6.11.5.4.1.7.2.2 Physical channel parameters

DPCH Downlink	Modulation	QPSK
	Codes and time slots / radio frame	SF 16 x 2 code x 2 time slots
	Max. Number of data bits / radio frame	328 bits
	TFCI code word / radio frame	16 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	0.64

6.11.5.4.1.7a Conversational / speech / UL:7.4 6.7 5.9 4.75 DL:7.4 6.7 5.9 4.75 / CS RAB+ UL:3.4 DL:3.4 kbps SRBs for DCCH

6.11.5.4.1.7a.1 Uplink

6.11.5.4.1.7a.1.1 Transport channel parameters

6.11.5.4.1.7a.1.1.1 Transport channel parameters for Conversational / speech / UL:7.4 6.7 5.9 4.75 / CS RAB

See clause 6.10.3.4.1.7a.1.1.1.

6.11.5.4.1.7a.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.1.1.1.

6.11.5.4.1.7a.1.1.3 TFCS

See clause 6.10.3.4.1.7a.1.1.3.

6.11.5.4.1.7a.1.2 Physical channel parameters

DPCH Uplink	Modulation	QPSK
	Codes and time slots/ radio frame	SF 8 x 1 code x 2 time slots
	Max. Number of data bits / radio frame	328 bits
	TFCI code word / radio frame	16 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	0.64

6.11.5.4.1.7a.2 Downlink

6.11.5.4.1.7a.2.1 Transport channel parameters

6.11.5.4.1.7a.2.1.1 Transport channel parameters for Conversational / speech / DL:7.4 6.7 5.9 4.75 / CS RAB

See clause 6.10.3.4.1.7a.2.1.1.

6.11.5.4.1.7a.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.2.1.1.

6.11.5.4.1.7a.2.1.3 TFCS

See clause 6.10.3.4.1.7a.2.1.3.

6.11.5.4.1.7a.2.2 Physical channel parameters

DPCH Downlink	Modulation	QPSK
	Codes and time slots / radio frame	SF 16 x 2 code x 2 time slots
	Max. Number of data bits / radio frame	328 bits
	TFCI code word / radio frame	16 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	0.64

6.11.5.4.1.8 Conversational / speech / UL:6.7 DL:6.7 kbps / CS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.11.5.4.1.8.1 Uplink

6.11.5.4.1.8.1.1 Transport channel parameters

6.11.5.4.1.8.1.1.1 Transport channel parameters for Conversational / speech / UL:6.7 kbps / CS RAB

See clause 6.10.3.4.1.8.1.1.1.

6.11.5.4.1.8.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.1.1.1.

6.11.5.4.1.8.1.1.3 TFCS

See clause 6.10.3.4.1.8.1.1.3.

6.11.5.4.1.8.1.2 Physical channel parameters

DPCH Uplink	Modulation	QPSK
	Codes and time slots / radio frame	SF 8 x 1 code x 2 time slots
	Max. Number of data bits / radio frame	328 bits
	TFCI code word / radio frame	16 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	0.68

6.11.5.4.1.8.2 Downlink

6.11.5.4.1.8.2.1 Transport channel parameters

6.11.5.4.1.8.2.1.1 Transport channel parameters for Conversational / speech / DL:6.7 kbps / CS RAB

See clause 6.10.3.4.1.8.2.1.1.

6.11.5.4.1.8.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.2.1.1.

6.11.5.4.1.8.2.1.3 TFCS

See clause 6.10.3.4.1.8.2.1.3.

6.11.5.4.1.8.2.2 Physical channel parameters

DPCH Downlink	Modulation	QPSK
	Codes and time slots / radio frame	SF 16 x 2 code x 2 time slots
	Max. Number of data bits / radio frame	328 bits
	TFCI code word / radio frame	16 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	0.68

6.11.5.4.1.9 Conversational / speech / UL:5.9 DL:5.9 kbps / CS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.11.5.4.1.9.1 Uplink

6.11.5.4.1.9.1.1 Transport channel parameters

6.11.5.4.1.9.1.1.1 Transport channel parameters for Conversational / speech / UL:5.9 kbps / CS RAB

See clause 6.10.3.4.1.9.1.1.1.

6.11.5.4.1.9.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.1.1.1.

6.11.5.4.1.9.1.1.3 TFCS

See clause 6.10.3.4.1.9.1.1.3.

6.11.5.4.1.9.1.2 Physical channel parameters

DPCH Uplink	Modulation	QPSK
	Codes and time slots / radio frame	SF 8 x 1 code x 2 time slots
	Max. Number of data bits / radio frame	328 bits
	TFCI code word / radio frame	16 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	0.72

6.11.5.4.1.9.2 Downlink

6.11.5.4.1.9.2.1 Transport channel parameters

6.11.5.4.1.9.2.1.1 Transport channel parameters for Conversational / speech / DL:5.9 kbps / CS RAB

See clause 6.10.3.4.1.9.2.1.1.

6.11.5.4.1.9.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.2.1.1.

6.11.5.4.1.9.2.1.3 TFCS

See clause 6.10.3.4.1.9.2.1.3.

6.11.5.4.1.9.2.2 Physical channel parameters

DPCH Downlink	Modulation	QPSK
	Codes and time slots / radio frame	SF 16 x 2 code x 2 time slots
	Max. Number of data bits / radio frame	328 bits
	TFCI code word / radio frame	16 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	0.72

<End of modified section>

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6.11.5.4.1.18 ~~void~~Void.

6.11.5.4.1.19 Void.

6.11.5.4.1.20 Void.

6.11.5.4.1.21 Void.

6.11.5.4.1.22 Void.

6.11.5.4.1.23 Interactive or background / UL:32 DL:8 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.11.5.4.1.23.1 Uplink

6.11.5.4.1.23.1.1 Transport channel parameters

6.11.5.4.1.23.1.1.1 Transport channel parameters for Interactive or background / UL:32 kbps / PS RAB

See clause 6.10.3.4.1.23.1.1.1.

6.11.5.4.1.23.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.1.1.1.

6.11.5.4.1.23.1.1.3 TFCS

See clause 6.10.3.4.1.23.1.1.3.

6.11.5.4.1.23.1.2 Physical channel parameters

DPCH Uplink	Modulation	QPSK
	Codes and time slots/ radio frame	SF 2 x 1 code x 2 time slots
	Max. Number of data bits/radio frame	1384 bits
	TFCI code word/ radio frame	16 bits
	TPC / radio frame	2 * 2 bits
	SS / radio frame	2 * 2 bits
	Puncturing Limit	1.0 (alt 0.92)

6.11.5.4.1.23.2 Downlink

6.11.5.4.1.23.2.1 Transport channel parameters

6.11.5.4.1.23.2.1.1 Transport channel parameters for Interactive or background / DL:8 kbps / PS RAB

See clause 6.10.3.4.1.23.2.1.1.

6.11.5.4.1.23.2.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.2.1.1.

6.11.5.4.1.23.2.1.3 TFCS

See clause 6.10.3.4.1.23.2.1.3.

6.11.5.4.1.23.2.2 Physical channel parameters

DPCH Downlink	Modulation	QPSK
	Codes and time slots/ radio frame	SF 16 x 2 codes x 2 time slots
	Max. Number of data bits/radio frame	336 bits
	TFCI code word/ radio frame	8 bits
	TPC/ radio frame	2*2 bits
	SS/ radio frame	2*2 bits
	Puncturing Limit	0.76

6.11.5.4.1.23a Interactive or background / UL:8 DL:8 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.11.5.4.1.23a.1 Uplink

6.11.5.4.1.23a.1.1 Transport channel parameters

6.11.5.4.1.23a.1.1.1 Transport channel parameters for Interactive or background / UL:8kbps / PS RAB

See clause 6.10.3.4.1.23a.1.1.1.

6.11.5.4.1.23a.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.1.1.1.

6.11.5.4.1.23a.1.1.3 TFCS

See clause 6.10.3.4.1.23a.1.1.3.

6.11.5.4.1.23a.1.2 Physical channel parameters

DPCH Uplink	Modulation	QPSK
	Codes and time slots / radio frame	SF 8 x 1 code x 2 time slots
	Max. Number of data bits / radio frame	328 bits
	TFCI code word / radio frame	16 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	~~0.68 alt (XXX) 0.680.76~~0.72 (alt ~~0.72~~0.68)

6.11.5.4.1.23a.2 Downlink

See clause 6.~~10~~11.~~3~~5.4.1.23.2.

6.11.5.4.1.23b Interactive or background / UL:16 DL:16 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.11.5.4.1.23b.1 Uplink

6.11.5.4.1.23b.1.1 Transport channel parameters

6.11.5.4.1.23b.1.1.1 Transport channel parameters for Interactive or background / UL:16 kbps / PS RAB

See clause 6.10.3.4.1.23b.1.1.1.

6.11.5.4.1.23b.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.1.1.1.

6.11.5.4.1.23b.1.1.3 TFCS

See clause 6.10.3.4.1.23b.1.1.3.

6.11.5.4.1.23b.1.2 Physical channel parameters

DPCH Uplink	Modulation	QPSK
	Codes and time slots / radio frame	SF4 x 1 code x 2 time slots
	Max. Number of data bits / radio frame	688 bits
	TFCI code word / radio frame	16bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	0.92 alt (0.84)

6.11.5.4.1.23b.2 Downlink

6.11.5.4.1.23b.2.1 Transport channel parameters

6.11.5.4.1.23b.2.1.1 Transport channel parameters for Interactive or background / DL:16 kbps / PS RAB

See clause 6.10.3.4.1.23b.2.1.1.

6.11.5.4.1.23b.2.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.2.1.1.

6.11.5.4.1.23b.2.1.3 TFCS

See clause 6.10.3.4.1.23b.2.1.3.

6.11.5.4.1.23b.2.2 Physical channel parameters

DPCH Downlink	Modulation	QPSK
	Codes and time slots/ radio frame	SF16 x 3 code x 2 time slots
	Max. Number of data bits / radio	512 bits
	TFCI code word / radio frame	16 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	0.68

6.11.5.4.1.23c Interactive or background / UL:32 DL32 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.11.5.4.1.23c.1 Uplink

6.11.5.4.1.23c.1.1 Transport channel parameters

6.11.5.4.1.23c.1.1.1 Transport channel parameters for Interactive or background / UL:32 kbps / PS RAB

See clause 6.10.3.4.1.23c.1.1.1.

6.11.5.4.1.23c.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.1.1.1.

6.11.5.4.1.23c.1.1.3 TFCS

See clause 6.10.3.4.1.23c.1.1.3.

6.11.5.4.1.23c.1.2 Physical channel parameters

DPCH Uplink	Modulation	QPSK
	Codes and time slots/ radio frame	SF 2 x 1 code x 2 time slots
	Max. Number of data bits/radio frame	1384 bits
	TFCI code word/ radio frame	16 bits
	TPC / radio frame	2 * 2 bits
	SS / radio frame	2 * 2 bits
	Puncturing Limit	1.0 alt (0.92)

6.11.5.4.1.23c.2 Downlink

6.11.5.4.1.23c.2.1 Transport channel parameters

6.11.5.4.1.23c.2.1.1 Transport channel parameters for Interactive or background / DL:32 kbps / PS RAB

See clause 6.10.3.4.1.23c.2.1.1.

6.11.5.4.1.23c.2.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.2.1.1.

6.11.5.4.1.23c.2.1.3 TFCS

See clause 6.10.3.4.1.23c.2.1.3.

6.11.5.4.1.23c.2.2 Physical channel parameters

DPCH Downlink	Modulation	QPSK
	Codes and time slots / radio frame	SF16 x 8 code x 2 time slots
	Max. Number of data bits/radio frame	1384 bits
	TFCI code word / radio frame	16 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	1.0

6.11.5.4.1.23d Interactive or background / UL:32 DL32 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.11.5.4.1.23d.1 Uplink

6.11.5.4.1.23d.1.1 Transport channel parameters

6.11.5.4.1.23d.1.1.1 Transport channel parameters for Interactive or background / UL:32 kbps / PS RAB

See clause 6.10.3.4.1.23d.1.1.1.

6.11.5.4.1.23d.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.1.1.1.

6.11.5.4.1.23d.1.1.3 TFCS

See clause 6.10.3.4.1.23d.1.1.3.

6.11.5.4.1.23d.1.2 Physical channel parameters

DPCH Uplink	Modulation	QPSK
	Codes and time slots/ radio frame	SF 2 x 1 code x 2 time slots
	Max. Number of data bits/radio frame	1384 bits
	TFCI code word/ radio frame	16 bits
	TPC / radio frame	2 * 2 bits
	SS / radio frame	2 * 2 bits
	Puncturing Limit	1.0 alt(0.92)

6.11.5.4.1.23d.2 Downlink

6.11.5.4.1.23d.2.1 Transport channel parameters

6.11.5.4.1.23d.2.1.1 Transport channel parameters for Interactive or background / DL:32 kbps / PS RAB

See clause 6.10.3.4.1.23d.2.1.1.

6.11.5.4.1.23d.2.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.2.1.1.

6.11.5.4.1.23d.2.1.3 TFCS

See clause 6.10.3.4.1.23d.2.1.3.

6.11.5.4.1.23d.2.2 Physical channel parameters

DPCH Downlink	Modulation	QPSK
	Codes and time slots / radio frame	SF16 x 8 code x 2 time slots
	Max. Number of data bits/radio frame	1384 bits
	TFCI code word / radio frame	16 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	1

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6.11.5.4.1.33 Interactive or background / UL:128 DL:384 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.11.5.4.1.33.1 Uplink

See clause 6.11.5.4.1.28.1.

6.11.5.4.1.33.2 Downlink

See clause 6.11.5.4.1.32.2.

6.11.5.4.1.34 Interactive or background / UL:384 DL:384 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.11.5.4.1.34.1 Uplink

6.11.5.4.1.34.1.1 Transport channel parameters

6.11.5.4.1.34.1.1.1 Transport channel parameters for Interactive or background / UL:384 kbps / PS RAB

See clause 6.10.3.4.1.34.1.1.1.

6.11.5.4.1.34.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.1.1.1.

6.11.5.4.1.34.1.1.3 TFCS

See clause 6.10.3.4.1.34.1.1.3.

6.11.5.4.1.34.1.2 Physical channel parameters

DPCH Uplink	Modulation	QPSK	8PSK
	Codes and time slots/ radio frame	SF 1 x 1 code x 6 time slots	SF 1 x 1 code x 4 time slots
	Max. Number of data bits/radio frame	8424 bits	8412 bits
	TFCI code word / radio frame	16 bits	24 bits
	TPC / radio frame	2 * 2 bits	2 * 3 bits
	SS / radio frame	2 * 2 bits	2 * 3 bits
	Puncturing Limit	0.64	0.64

6.11.5.4.1.34.2 Downlink

See clause 6.11.5.4.1.32.2.

6.11.5.4.1.35 Interactive or background / UL:64 DL:2048 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.11.5.4.1.35.1 Uplink

See clause 6.11.5.4.1.26.1.

6.11.5.4.1.35.2 Downlink

6.11.5.4.1.35.2.1 Transport channel parameters

6.11.5.4.1.35.2.1.1 Transport channel parameters for Interactive or background / DL:2048 kbps / PS RAB

Higher Layer	RAB/Signalling RB		**RAB**
RLC	Logical channel type		DTCH
	RLC mode		AM
	Payload sizes, bit		1704
	Max data rate, bps		2048000
	RLC header, bit		16
MAC	MAC header, bit		0
	MAC multiplexing		N/A
Layer 1	TrCH type		DCH
	TB sizes, bit		1720
	TFS	TF0, bits	0x1720
		TF1, bits	1x1720
		TF2, bits	2x1720
		TF3, bits	4x1720
		TF4, bits	8 x1720
		TF5, bits	12x1720
		TF6, bits	N/A (alt. 16x1720)
		TF7, bits	N/A (alt. 20x1720)
		TF8, bits	N/A (alt. 24x1720)
	TTI, ms		10(alt. 20)
	Coding type		No coding
	CRC, bit		24
	Max number of bits/TTI after channel coding		20928 (alt. 41856)
	Max number of bits/radio frame before rate matching		20928 (alt. 20928)
	RM attribute		130-170

6.11.5.4.1.35.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.2.1.1.

6.11.5.4.1.35.2.1.3 TFCS

TFCS size	12 (alt.18)
TFCS	(2048 kbps RAB, DCCH)= (TF0, TF0), (TF1, TF0), (TF2, TF0), (TF3, TF0), (TF4, TF0), (TF5, TF0), (TF0, TF1), (TF1, TF1), (TF2, TF1), (TF3, TF1), (TF4, TF1), (TF5, TF1), (alt. (TF0, TF0), (TF1, TF0), (TF2, TF0), (TF3, TF0), (TF4, TF0), (TF5, TF0), (TF6, TF0), (TF7, TF0), (TF8, TF0), (TF0, TF1), (TF1, TF1), (TF2, TF1), (TF3, TF1), (TF4, TF1), (TF5, TF1), (TF6, TF1), (TF7, TF1), (TF8, TF1))

6.11.5.4.1.35.2.2 Physical channel parameters

DPCH Downlink	Modulation	8PSK
	Codes and time slots/ radio frame	SF1 x 1 code x 10 time slots
	Max. Number of data bits/radio frame	21084 bits
	TFCI code word/ radio frame	24 bits
	TPC/ radio frame	2*3 bits
	SS/ radio frame	2*3 bits
	Puncturing Limit	1

6.11.5.4.1.36 Void.

6.11.5.4.1.37 Void.

6.11.5.4.1.38 Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ Interactive or background / UL:32 DL:8 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH

6.11.5.4.1.38.1 Uplink

6.11.5.4.1.38.1.1 Transport channel parameters

6.11.5.4.1.38.1.1.1 Transport channel parameters for Conversational / speech / UL:12.2 kbps / CS RAB

See clause 6.10.3.4.1.4.1.1.1.

6.11.5.4.1.38.1.1.2 Transport channel parameters for Interactive or background / UL:32 kbps / PS RAB

See clause 6.10.3.4.1.23.1.1.1.

6.11.5.4.1.38.1.1.3 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.1.1.1.

6.11.5.4.1.38.1.1.4 TFCS

See clause 6.10.3.4.1.38.1.1.4.

6.11.5.4.1.38.1.2 Physical channel parameters

DPCH Uplink	Modulation	QPSK
	Codes and time slots/ radio frame	SF 2 x 1 code x 2 time slots
	Max. Number of data bits/radio frame	1384 bits
	TFCI code word / radio frame	16 bits
	TPC / radio frame	2 * 2 bits
	SS / radio frame	2 * 2 bits
	Puncturing Limit	0.72 (alt 0.68)

6.11.5.4.1.38.2 Downlink

6.11.5.4.1.38.2.1 Transport channel parameters

6.11.5.4.1.38.2.1.1 Transport channel parameters for Conversational / speech / DL:12.2 kbps / CS RAB

See clause 6.10.3.4.1.4.2.1.1.

6.11.5.4.1.38.2.1.2 Transport channel parameters for Interactive or background / DL:8 kbps / PS RAB

See clause 6.10.3.4.1.23.2.1.1.

6.11.5.4.1.38.2.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.2.1.1.

6.11.5.4.1.38.2.1.4 TFCS

See clause 6.10.3.4.1.38.2.1.4.

6.11.5.4.1.38.2.2 Physical channel parameters

DPCH Downlink	Modulation	QPSK
	Codes and time slots/ radio frame	SF16 x 3 codes x 2 time slots
	Max. Number of data bits/radio frame	504 bits
	TFCI code word/ radio frame	16 bits
	TPC/ radio frame	2*2 bits
	SS/ radio frame	2*2 bits
	Puncturing Limit	0.44

6.11.5.4.1.38a Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ Interactive or background / UL:0 DL:0 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH

6.11.5.4.1.38a.1 Uplink

6.11.5.4.1.38a.1.1 Transport channel parameters

6.11.5.4.1.38a.1.1.1 Transport channel parameters for Conversational / speech / UL:12.2 kbps / CS RAB

See clause 6.10.3.4.1.4.1.1.1.

6.11.5.4.1.38a.1.1.2 Transport channel parameters for Interactive or background / UL:0 kbps / PS RAB

See clause 6.10.3.4.1.38a.1.1.2.

6.11.5.4.1.38a.1.1.3 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.1.1.1.

6.11.5.4.1.38a.1.1.4 TFCS

See clause 6.10.3.4.1.38a.1.1.4.

6.11.5.4.1.38a.1.2 Physical channel parameters

DPCH Uplink	Modulation	QPSK
	Codes and time slots / radio frame	SF8 x 1 code x 2 time slots
	Max. Number of data bits / radio frame	328 bits
	TFCI code word / radio frame	16 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	0.48

6.11.5.4.1.38a.2 Downlink

6.11.5.4.1.38a.2.1 Transport channel parameters

6.11.5.4.1.38a.2.1.1 Transport channel parameters for Conversational / speech / DL:12.2 kbps / CS RAB

See clause 6.10.3.4.1.4.2.1.1.

6.11.5.4.1.38a.2.1.2 Transport channel parameters for Interactive or background / DL:0 kbps / PS RAB

See clause 6.10.3.4.1.38a.2.1.2.

6.11.5.4.1.38a.2.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.2.1.1.

6.11.5.4.1.38a.2.1.4 TFCS

See clause 6.10.3.4.1.38a.2.1.4.

6.11.5.4.1.38a.2.2 Physical channel parameters

DPCH Downlink	Modulation	QPSK
	Codes and time slots / radio frame	SF 16 x 2 code x 2 time slots
	Max. Number of data bits / radio frame	328 bits
	TFCI code word / radio frame	16 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	0.48

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6.11.5.4.1.38f Conversational / speech / UL: 12.2 7.95 5.9 4.75 DL:12.2 7.95 5.9 4.75 kbps / CS RAB
+ Interactive or background / UL:8 DL:8 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH

6.11.5.4.1.38f.1 Uplink

6.11.5.4.1.38f.1.1 Transport channel parameters

6.11.5.4.1.38f.1.1.1 Transport channel parameters for Conversational / speech / UL: 12.2 7.95 5.9 4.75 / CS RAB

See clause 6.10.3.4.1.4a.1.1.1.

6.11.5.4.1.38f.1.1.2 Transport channel parameters for Interactive or background / UL:8 kbps / PS RAB

See clause 6.10.3.4.1.23a.1.1.1.

6.11.5.4.1.38f.1.1.3 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.1.1.1.

6.11.5.4.1.38f.1.1.4 TFCS

See clause 6.10.3.4.1.38f.1.1.4.

6.11.5.4.1.38f.1.2 Physical channel parameters

DPCH Uplink	Modulation	QPSK
	Codes and time slots/ frame	SF4 x 1 code x 2 time slots
	Max. Number of data bits / radio frame	680 bits
	TFCI code word / radio frame	16 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	0.64 (alt 0.60)

6.11.5.4.1.38f.2 Downlink

6.11.5.4.1.38f.2.1 Transport channel parameters

6.11.5.4.1.38f.2.1.1 Transport channel parameters for Conversational / speech / DL:12.2 7.95 5.9 4.75 / CS RAB

See clause 6.10.3.4.1.4a.2.1.1.

6.11.5.4.1.38f.2.1.2 Transport channel parameters for Interactive or background / DL:8 kbps / PS RAB

See clause 6.10.3.4.1.23.2.1.1.

6.11.5.4.1.38f.2.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.2.1.1.

6.11.5.4.1.38f.2.1.4 TFCS

See clause 6.10.3.4.1.38f.2.1.4.

6.11.5.4.1.38f.2.2 Physical channel parameters

DPCH Downlink	Modulation	QPSK
	Codes and time slots/ radio frame	SF16 x 4 code x 2 time slots
	Max. Number of data bits / radio frame	680 bits
	TFCI code word / radio frame	16 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	0.64

6.11.5.4.1.38g Conversational / speech / UL: 12.2 7.95 5.9 4.75 DL:12.2 7.95 5.9 4.75 kbps / CS RAB
+ Interactive or background / UL:16 DL:16 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH

6.11.5.4.1.38g.1 Uplink

6.11.5.4.1.38g.1.1 Transport channel parameters

6.11.5.4.1.38g.1.1.1 Transport channel parameters for Conversational / speech / UL: 12.2 7.95 5.9 4.75 / CS RAB

See clause 6.10.3.4.1.4a.1.1.1.

6.11.5.4.1.38g.1.1.2 Transport channel parameters for Interactive or background / UL:16 kbps / PS RAB

See clause 6.10.3.4.1.23b.1.1.1.

6.11.5.4.1.38g.1.1.3 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.1.1.1.

6.11.5.4.1.38g.1.1.4 TFCS

See clause 6.10.3.4.1.38g.1.1.4.

6.11.5.4.1.38g.1.2 Physical channel parameters

DPCH Uplink	Modulation	QPSK
	Codes and time slots/ radio frame	SF2 x 1 code x 2 time slots
	Max. Number of data bits / radio frame	1384 bits
	TFCI code word / radio frame	16 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	1.0 (alt 0.96)
Note: There are 32 bit and 16 bit TFCIs for the two cases.		

6.11.5.4.1.38g.2 Downlink

6.11.5.4.1.38g.2.1 Transport channel parameters

6.11.5.4.1.38g.2.1.1 Transport channel parameters for Conversational / speech / DL:12.2 7.95 5.9 4.75 / CS RAB

See clause 6.10.3.4.1.4a.2.1.1.

6.11.5.4.1.38g.2.1.2 Transport channel parameters for Interactive or background / DL:16 kbps / PS RAB

See clause 6.10.3.4.1.23b.2.1.1.

6.11.5.4.1.38g.2.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.2.1.1.

6.11.5.4.1.38g.2.1.4 TFCS

See clause 6.10.3.4.1.38g.2.1.4.

6.11.5.4.1.38g.2.2 Physical channel parameters

DPCH Downlink	Modulation	QPSK
	Codes and time slots / radio frame	SF16 x 8 code x 2 time slots
	Max. Number of data bits / radio frame	1384 bits
	TFCI code word / radio frame	16 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	1.0

6.11.5.4.1.38h Conversational / speech / UL: 12.2 7.95 5.9 4.75 DL:12.2 7.95 5.9 4.75 kbps / CS RAB
+ Interactive or background / UL:32 DL:32 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH

6.11.5.4.1.38h.1 Uplink

6.11.5.4.1.38h.1.1 Transport channel parameters

6.11.5.4.1.38h.1.1.1 Transport channel parameters for Conversational / speech / UL: 12.2 7.95 5.9 4.75 / CS RAB

See clause 6.10.3.4.1.4a.1.1.1.

6.11.5.4.1.38h.1.1.2 Transport channel parameters for Interactive or background / UL:32 kbps / PS RAB

See clause 6.10.3.4.1.23d.1.1.1~~2~~.

6.11.5.4.1.38h.1.1.3 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.1.1.1.

6.11.5.4.1.38h.1.1.4 TFCS

See clause 6.10.3.4.1.38h.1.1.4.

6.11.5.4.1.38h.1.2 Physical channel parameters

DPCH Uplink	Modulation	QPSK
	Codes and time slots / radio frame	SF2 x 1 code x 2 time slots
	Max. Number of data bits/radio frame	1384 bits
	TFCI code word / radio frame	16 bits
	TPC / radio frame	2x 2 bits
	SS/ radio frame	2x 2 bits
	Puncturing Limit	0.72 (alt 0.64)

6.11.5.4.1.38h.2 Downlink

6.11.5.4.1.38h.2.1 Transport channel parameters

6.11.5.4.1.38h.2.1.1 Transport channel parameters for Conversational / speech / DL:12.2 7.95 5.9 4.75 / CS RAB

See clause 6.10.3.4.1.4a.2.1.1.

6.11.5.4.1.38h.2.1.2 Transport channel parameters for Interactive or background / DL:32 kbps / PS RAB

See clause 6.10.3.4.1.23d.2.1.1.

6.11.5.4.1.38h.2.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.2.1.1.

6.11.5.4.1.38h.2.1.4 TFCS

See clause 6.10.3.4.1.38h.2.1.4.

6.11.5.4.1.38h.2.2 Physical channel parameters

DPCH Downlink	Modulation	QPSK
	Codes and time slots / radio frame	SF16 x 8 code x 2 time slots
	Max. Number of data bits / radio frame	1384 bits
	TFCI code word / radio frame	16 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	0.72

6.11.5.4.1.38i Conversational / speech / UL: 12.2 7.95 5.9 4.75 DL:12.2 7.95 5.9 4.75 kbps / CS RAB
+ Interactive or background / UL:64 DL:64 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH

6.11.5.4.1.38i.1 Uplink

6.11.5.4.1.38i.1.1 Transport channel parameters

6.11.5.4.1.38i.1.1.1 Transport channel parameters for Conversational / speech / UL: 12.2 7.95 5.9 4.75 / CS RAB

See clause 6.10.3.4.1.4a.1.1.1.

6.11.5.4.1.38i.1.1.2 Transport channel parameters for Interactive or background / UL:64 kbps / PS RAB

See clause 6.10.3.4.1.26.1.1.1.

6.11.5.4.1.38i.1.1.3 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.1.1.1.

6.11.5.4.1.38i.1.1.4 TFCS

See clause 6.10.3.4.1.38i.1.1.4.

6.11.5.4.1.38i.1.2 Physical channel parameters

DPCH Uplink	Modulation	QPSK	8PSK
	Codes and time slots/ radio frame	(SF1 x 1 code x 2 time slots) + (SF2 x 1 code x 2 time slots)	SF1 x 1code x 2 time slots
	Max. Number of data bits/radio frame	4200 bits	4188 bits
	TFCI code word/ radio frame	16 bits	24 bits
	TPC/ radio frame	2*2 bits	2* 3bits
	SS/ radio frame	2*2 bits	2* 3bits
	Puncturing Limit	1	1

6.11.5.4.1.38i.2 Downlink

6.11.5.4.1.38i.2.1 Transport channel parameters

6.11.5.4.1.38i.2.1.1 Transport channel parameters for Conversational / speech / DL:12.2 7.95 5.9 4.75 / CS RAB

See clause 6.10.3.4.1.4a.2.1.1.

6.11.5.4.1.38i.2.1.2 Transport channel parameters for Interactive or background / DL:64 kbps / PS RAB

See clause 6.10.3.4.1.25.2.1.1.

6.11.5.4.1.38i.2.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.2.1.1.

6.11.5.4.1.38i.2.1.4 TFCS

See clause 6.10.3.4.1.38i.2.1.4.

6.11.5.4.1.38i.2.2 Physical channel parameters

DPCH Downlink	Modulation	QPSK
	Codes and time slots/ radio frame	SF 16 x 9 codes x 4 time slots
	Max. Number of data bits/radio frame	3144 bits
	TFCI code word/ radio frame	16 bits
	TPC / radio frame	2 * 2 bits
	SS / radio frame	2 * 2 bits
	Puncturing Limit	1

6.11.5.4.1.38j Conversational / speech / UL: 12.2 7.95 5.9 4.75 DL:12.2 7.95 5.9 4.75 kbps / CS RAB
+ Interactive or background / UL:64 DL:128 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH

6.11.5.4.1.38j.1 Uplink

~~see~~See ~~clause~~ clause 6.11.5.4.1.38i~~.~~.1.

6.11.5.4.1.38j.2 Downlink

6.11.5.4.1.38j.2.1 Transport channel parameters

6.11.5.4.1.38j.2.1.1 Transport channel parameters for Conversational / speech / DL:12.2 7.95 5.9 4.75 / CS RAB

See clause 6.10.3.4.1.4a.2.1.1.

6.11.5.4.1.38j.2.1.2 Transport channel parameters for Interactive or background / DL:128 kbps / PS RAB

See clause 6.10.3.4.1.27.2.1.1.

6.11.5.4.1.38j.2.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.2.1.1.

6.11.5.4.1.38j.2.1.4 TFCS

See clause 6.10.3.4.1.38j.2.1.4.

6.11.5.4.1.38j.2.2 Physical channel parameters

DPCH Downlink	Modulation	QPSK
	Codes and time slots/ radio frame	SF 16 x 9 codes x 4 time slots
	Max. Number of data bits/radio frame	3144 bits
	TFCI code word/ radio frame	16 bits
	TPC / radio frame	2 * 2 bits
	SS / radio frame	2 * 2 bits
	Puncturing Limit	0.60

6.11.5.4.1.39 Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB + Interactive or background / UL:32 DL:64 kbps / PS RAB+ UL:3.4 DL: 3.4 kbps SRBs for DCCH

6.11.5.4.1.39.1 Uplink

See clause 6.11.5.4.1.38.1.

6.11.5.4.1.39.2 Downlink

6.11.5.4.1.39.2.1 Transport channel parameters

6.11.5.4.1.39.2.1.1 Transport channel parameters for Conversational / speech / DL:12.2 kbps / CS RAB

See clause 6.10.3.4.1.4.2.1.1.

6.11.5.4.1.39.2.1.2 Transport channel parameters for Interactive or background / DL:64 kbps / PS RAB

See clause 6.10.3.4.1.25.2.1.1.

6.11.5.4.1.39.2.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.2.1.1.

6.11.5.4.1.39.2.1.4 TFCS

See clause 6.10.3.4.1.39.2.1.4.

6.11.5.4.1.39.2.2 Physical channel parameters

DPCH Downlink	Modulation	QPSK
	Codes and time slots/ radio frame	SF 16 x 10 codes x 2 time slots
	Max. Number of data bits/radio frame	1736 bits
	TFCI code word / radio frame	16 bits
	TPC / radio frame	2 * 2 bits
	SS / radio frame	2 * 2 bits
	Puncturing Limit	0.56

6.11.5.4.1.40 Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ Interactive or background / UL:64 DL:64 kbps / PS RAB
+ UL:3.4 DL: 3.4 kbps SRBs for DCCH

6.11.5.4.1.40.1 Uplink

6.11.5.4.1.40.1.1 Transport channel parameters

See clause 6.10.3.4.1.40.1.1.

~~6.11.5.4.1.40.1.1 Transport channel parameters for Conversational / speech / UL:12.2 kbps / CS RAB~~

~~See clause 6.10.3.4.1.4.1.1.1.~~

~~6.11.5.4.1.40.1.2 Transport channel parameters for Interactive or background / UL:64 kbps / PS RAB~~

~~See clause 6.10.3.4.1.26.1.1.1.~~

~~6.11.5.4.1.40.1.1.3 Transport channel parameters for UL:3.4 kbps SRBs for DCCH~~

~~See clause 6.10.3.4.1.2.1.1.1.~~

~~6.11.5.4.1.40.1.1.4 TFCS~~

~~See clause 6.10.3.4.1.40.1.1.4.~~

6.11.5.4.1.40.1.2 Physical channel parameters

6.11.5.4.1.40.1.2.1 Physical channel parameters (one CCTrCH case)

DPCH Uplink	Modulation	QPSK
	Codes and time slots/ radio frame	SF1 x 1 code x 2 time slots
	Max. Number of data bits/radio frame	2792 bits
	TFCI code word/ radio frame	16 bits
	TPC/ radio frame	2*2 bits
	SS/ radio frame	2*2 bits
	Puncturing Limit	0.92 (alt. 0.84)

6.11.5.4.1.40.1.2.2 Physical channel parameters (two CCTrCH case)

6.11.5.4.1.40.1.2.2.1 Physical channel parameters (conversational + SRB)

See clause 6.11.5.4.1.4.1.2.

6.11.5.4.1.40.1.2.2.2 Physical channel parameters (Interactive or background)

DPCH Uplink	Modulation	QPSK
	Codes and time slots/ radio frame	SF2 x 1 code x 2 time slots
	Max. Number of data bits/radio frame	1384 bits
	TFCI code word/ radio frame	16 bits
	TPC/ radio frame	2*2 bits
	SS/ radio frame	2*2 bits
	Puncturing Limit	0.64 (alt. 0.56)

6.11.5.4.1.40.2 Downlink

6.11.5.4.1.40.2.1 Transport channel parameters

See clause 6.10.3.4.1.40.2.1.

6.11.5.4.1.40.2.2 Physical channel parameters

6.11.5.4.1.40.2.2.1 Physical channel parameters (one CCTrCH)

See Clause 6.11.5.4.1.39.2.2.

6.11.5.4.1.40.2.2.2 Physical channel parameters (two CCTrCHs)

6.11.5.4.1.40.2.2.2.1 Physical channel parameters (conversational + SRB)

See clause 6.11.5.4.1.4.2.2.

6.11.5.4.1.40.2.2.2.2 Physical channel parameters (Interactive or background)

DPCH Downlink	Modulation	QPSK
	Codes and time slots/ radio frame	SF16 x 8 codes x 2 time slots
	Max. Number of data bits/radio frame	1384 bits
	TFCI code word/ radio frame	16 bits
	TPC/ radio frame	2*2 bits
	SS/ radio frame	2*2 bits
	Puncturing Limit	0.64

~~See clause 6.11.5.4.1.39.2.~~

6.11.5.4.1.41 Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ Interactive or background / UL:64 DL:128 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH

6.11.5.4.1.41.1 Uplink

See clause 6.11.5.4.1.40.1.

6.11.5.4.1.41.2 Downlink

6.11.5.4.1.41.2.1 Transport channel parameters

See clause 6.10.3.4.1.41.2.1.

~~6.11.5.4.1.41.2.1.1 Transport channel parameters for Conversational / speech / DL:12.2 kbps / CS RAB~~

~~See clause 6.10.3.4.1.4.2.1.1.~~

~~6.11.5.4.1.41.2.1.2 Transport channel parameters for Interactive or background / DL:128 kbps / PS RAB~~

~~See clause 6.10.3.4.1.27.2.1.1.~~

~~6.11.5.4.1.41.2.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCH~~

~~See clause 6.10.3.4.1.2.2.1.1.~~

~~6.11.5.4.1.41.2.1.4 TFCS~~

~~See clause 6.10.3.4.1.41.2.1.4.~~

6.11.5.4.1.41.2.2 ~~6.11.5.4.1.41.2.2~~ Physical channel parameters

6.11.5.4.1.41.2.2.1 Physical channel parameters (one CCTrCH case)

DPCH Downlink	Modulation	QPSK	8PSK
	Codes and time slots/ radio frame	SF 16 x 9 codes x 4 time slots	SF 16 x 12 codes x 2 time slots
	Max. Number of data bits/radio frame	3144 bits	3132 bits
	TFCI code word / radio frame	16 bits	24 bits
	TPC / radio frame	2 * 2 bits	2 x 3 bits
	SS / radio frame	2 * 2 bits	2 x 3 bits
	Puncturing Limit	0.60	0.60

6.11.5.4.1.41.2.2.2 Physical channel parameters (two CCTrCHs)

6.11.5.4.1.41.2.2.2.1 Physical channel parameters (conversational + SRB)

See clause 6.11.5.4.1.4.2.2.

6.11.5.4.1.41.2.2.2.2 Physical channel parameters (Interactive or background)

DPCH Downlink	Modulation	QPSK	8PSK
	Codes and time slots/ radio frame	SF 1 x 1 code x 2 time slots	SF 16 x 11 codes x 2 time slots
	Max. Number of data bits/radio frame	2792 bits	2868 bits
	TFCI code word / radio frame	16 bits	24 bits
	TPC / radio frame	2 * 2 bits	2 x 3 bits
	SS / radio frame	2 * 2 bits	2 x 3 bits
	Puncturing Limit	0.64	0.64

6.11.5.4.1.42 Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ Interactive or background / UL:64 DL:256 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH

6.11.5.4.1.42.1 Uplink

6.11.5.4.1.42.1.1 Transport channel parameters

See Clause 6.10.3.4.1.42.1.1.

6.11.5.4.1.42.1.2 Physical channel parameters

See Clause 6.10.3.4.1.40.1.2.1.

~~See clause 6.11.5.4.1.40.1.~~

6.11.5.4.1.42.2 Downlink

6.11.5.4.1.42.2.1 Transport channel parameters

6.11.5.4.1.42.2.1.1 Transport channel parameters for Conversational / speech / DL:12.2 kbps / CS RAB

See clause 6.10.3.4.1.4.2.1.1.

6.11.5.4.1.42.2.1.2 Transport channel parameters for Interactive or background / DL:256 kbps / PS RAB

See clause 6.10.3.4.1.31.2.1.1.

6.11.5.4.1.42.2.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.2.1.1.

6.11.5.4.1.42.2.1.4 TFCS

See clause 6.10.3.4.1.42.2.1.4.

6.11.5.4.1.42.2.2 Physical channel parameters

DPCH Downlink	Modulation	QPSK	8PSK
	Codes and time slots/ radio frame	SF1 x 1code x 6 time slots	SF1 x 1 code x 4 time slots
	Max. Number of data bits/radio frame	8408 bits	8388 bits
	TFCI code word/ radio frame	32 bits	48 bits
	TPC/ radio frame	2*2 bits	2*3 bits
	SS/ radio frame	2*2 bits	2*3 bits
	Puncturing Limit	0.80	0.80

6.11.5.4.1.43 Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ Interactive or background / UL:64 DL:384 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH

6.11.5.4.1.43.1 Uplink

See clause 6.11.5.4.1.40.1.

6.11.5.4.1.43.2 Downlink

6.11.5.4.1.43.2.1 Transport channel parameters

See clause 6.10.3.4.1.43.2.1.

~~6.11.5.4.1.43.2.1.1 Transport channel parameters for Conversational / speech / DL:12.2 kbps / CS RAB~~

~~See clause 6.10.3.4.1.4.2.1.1.~~

~~6.11.5.4.1.43.2.1.2 Transport channel parameters for Interactive or background / DL:384 kbps / PS RAB~~

~~See clause 6.10.3.4.1.32.2.1.1.~~

~~6.11.5.4.1.43.2.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCH~~

~~See clause 6.10.3.4.1.2.2.1.1.~~

~~6.11.5.4.1.43.2.1.4 TFCS~~

~~See clause 6.10.3.4.1.43.2.1.4.~~

6.11.5.4.1.43.2.2 Physical channel parameters

6.11.5.4.1.43.2.2.1 Physical channel parameters (one CCTrCH)

DPCH Downlink	Modulation	QPSK	8PSK
	Codes and time slots/ radio frame	SF 1 x 1 code x 6 time slots	SF 1 x 1 code x 4 time slots
	Max. Number of data bits/radio frame	8408 bits	8388 bits
	TFCI code word / radio frame	32 bits	48 bits
	TPC / radio frame	2 * 2 bits	2 x 3 bits
	SS / radio frame	2 * 2 bits	2 x 3 bits
	Puncturing Limit	0.60	0.60

6.11.5.4.1.43.2.2.2 Physical channel parameters (two CCTrCHs)

6.11.5.4.1.43.2.2.2.1 Physical channel parameters (conversational + SRB)

See clause 6.11.5.4.1.4.2.2.

6.11.5.4.1.43.2.2.2.2 Physical channel parameters (Interactive or background)

DPCH Downlink	Modulation	QPSK	8PSK
	Codes and time slots/ radio frame	(SF 1 x 1 code x 4 time slots) + (SF 16 x 10 codes x 2 time slots)	SF 1 x 1 code x 4 time slots
	Max. Number of data bits/radio frame	7368 bits	8412 bits
	TFCI code word / radio frame	16 bits	24 bits
	TPC / radio frame	2 * 2 bits	2 x 3 bits
	SS / radio frame	2 * 2 bits	2 x 3 bits
	Puncturing Limit	0.56	0.64

<End of modified section>

<Start of next modified section>

6.11.5.4.1.50 Conversational / unknown / UL:64 DL:64 kbps / CS RAB
+ Conversational / unknown / UL:64 DL:64 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH

6.11.5.4.1.50.1 Uplink

6.11.5.4.1.50.1.1 Transport channel parameters

6.11.5.4.1.50.1.1.1 Transport channel parameters for Conversational / unknown / UL:64 kbps / CS RAB

See clause 6.10.3.5.4.1.13.1.1.1.

6.11.5.4.1.50.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.1.1.1.

6.11.5.4.1.50.1.1.3 TFCS

See clause 6.10.3.4.1.50.1.1.3.

6.11.5.4.1.50.1.2 Physical channel parameters

DPCH Uplink	Modulation	QPSK
	Codes and time slots/ radio frame	SF 1 x 1 code x 2 time slots
	Max. Number of data bits/radio frame	2792 bits
	TFCI code word / radio frame	16 bits
	TPC / radio frame	2 * 2 bits
	SS / radio frame	2 * 2 bits
	Puncturing Limit	0.52

6.11.5.4.1.50.2 Downlink

6.11.5.4.1.50.2.1 Transport channel parameters

6.11.5.4.1.50.2.1.1 Transport channel parameters for Conversational / unknown / DL:64 kbps / CS RAB

See clause 6.10.3.4.1.13.2.1.1.

6.11.5.4.1.50.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.2.1.1.

6.11.5.4.1.50.2.1.3 TFCS

See clause 6.10.3.4.1.50.2.1.3.

6.11.5.4.1.50.2.2 Physical channel parameters

DPCH Downlink	Modulation	QPSK
	Codes and time slots/ radio frame	SF 16 x 15 codes x 2 time slots
	Max. Number of data bits/radio frame	2616 bits
	TFCI code word/ radio frame	16 bits
	TPC/ radio frame	2*2 bits
	SS/ radio frame	2*2 bits
	Puncturing Limit	0.48

6.11.5.4.1.51 Conversational / unknown / UL:64 DL:64 kbps / CS RAB
+ Interactive or background / UL:64 DL:64 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH

6.11.5.4.1.51.1 Uplink

6.11.5.4.1.51.1.1 Transport channel parameters

6.11.5.4.1.51.1.1.1 Transport channel parameters for Conversational / unknown / UL:64 kbps / CS RAB

See clause 6.10.3.4.1.13.1.1.1.

6.11.5.4.1.51.1.1.2 Transport channel parameters for Interactive or background / UL:64 kbps / PS RAB

See clause 6.10.3.4.1.26.1.1.1.

6.11.5.4.1.51.1.1.3 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.1.1.1.

6.11.5.4.1.51.1.1.4 TFCS

See clause 6.10.3.4.1.51.1.1.4.

6.11.5.4.1.51.1.2 Physical channel parameters

DPCH Uplink	Modulation	QPSK
	Codes and time slots/ radio frame	SF 1 x 1 code x 2 time slots
	Max. Number of data bits/radio frame	2792 bits
	TFCI code word / radio frame	16 bits
	TPC / radio frame	2 * 2 bits
	SS / radio frame	2 * 2 bits
	Puncturing Limit	0.52 (alt. 0.48)

6.11.5.4.1.51.2 Downlink

6.11.5.4.1.51.2.1 Transport channel parameters

6.11.5.4.1.51.2.1.1 Transport channel parameters for Conversational / unknown / DL:64 kbps / CS RAB

See clause 6.10.3.4.1.13.2.1.1.

6.11.5.4.1.51.2.1.2 Transport channel parameters for Interactive or background / DL:64 kbps / PS RAB

See clause 6.10.3.4.1.25.2.1.1.

6.11.5.4.1.51.2.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.2.1.1.

6.11.5.4.1.51.2.1.4 TFCS

See clause 6.10.3.4.1.51.2.1.4.

6.11.5.4.1.51.2.2 Physical channel parameters

DPCH Downlink	Modulation	QPSK
	Codes and time slots/ radio frame	SF1 x 1 code x 2 time slots
	Max. Number of data bits/radio frame	2792 bits
	TFCI code word/ radio frame	16 bits
	TPC/ radio frame	2*2 bits
	SS/ radio frame	2*2 bits
	Puncturing Limit	0.52

6.11.5.4.1.51a Conversational / unknown / UL:64 DL:64 kbps / CS RAB
+ Interactive or background / UL:8 DL:8 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH

6.11.5.4.1.51a.1 Uplink

6.11.5.4.1.51a.1.1 Transport channel parameters

6.11.5.4.1.51a.1.1.1 Transport channel parameters for Conversational / unknown / UL:64 kbps / CS RAB

See clause 6.10.3.4.1.13.1.1.1.

6.11.5.4.1.51a.1.1.2 Transport channel parameters for Interactive or background / UL:8 kbps / PS RAB

See clause 6.10.3.4.1.23a.1.1.1.

6.11.5.4.1.51a.1.1.3 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.1.1.1.

6.11.5.4.1.51a.1.1.4 TFCS

See clause 6.10.3.4.1.51a.1.1.4.

6.11.5.4.1.51a.1.2 Physical channel parameters

DPCH Uplink		Physical 1	Physical 2
	Modulation	QPSK	QPSK
	Codes and time slots/ radio frame	SF2 x 1 code x 2 time slots	SF1 x 1 code x 2 time slots
	Max. Number of data bits/radio frame	1384 bits	2792 bits
	TFCI code word/ radio frame	16 bits	16 bits
	TPC / radio frame	2 * 2 bits	2x 2 bits
	SS / radio frame	2 * 2 bits	2x 2 bits
	Puncturing Limit	0.40	0.84

6.11.5.4.1.51a.2 Downlink

6.11.5.4.1.51a.2.1 Transport channel parameters

6.11.5.4.1.51a.2.1.1 Transport channel parameters for Conversational / unknown / DL:64 kbps / CS RAB

See clause 6.10.3.4.1.13.2.1.1.

6.11.5.4.1.51a.2.1.2 Transport channel parameters for Interactive or background / DL:8 kbps / PS RAB

See clause 6.10.3.4.1.23.2.1.1.

6.11.5.4.1.51a.2.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.2.1.1.

6.11.5.4.1.51a.2.1.4 TFCS

See clause 6.10.3.4.1.51.2.1.4.

6.11.5.4.1.51a.2.2 Physical channel parameters

DPCH Downlink	Modulation	QPSK
	Codes and time slots/ radio frame	SF1 x 1 code x 2 time slots
	Max. Number of data bits/radio frame	2792 bits
	TFCI code word/ radio frame	16 bits
	TPC/ radio frame	2*2 bits
	SS/ radio frame	2*2 bits
	Puncturing Limit	0.84

6.11.5.4.1.51b Conversational / unknown / UL:64 DL:64 kbps / CS RAB
+ Interactive or background / UL:16 DL:64 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH

6.11.5.4.1.51b.1 Uplink

6.11.5.4.1.51b.1.1 Transport channel parameters

6.11.5.4.1.51b.1.1.1 Transport channel parameters for Conversational / unknown / UL:64 kbps / CS RAB

See clause 6.10.3.4.1.13.1.1.1.

6.11.5.4.1.51b.1.1.2 Transport channel parameters for Interactive or background / UL:16 kbps / PS RAB

See clause 6.10.3.4.1.23b.1.1.1.

6.11.5.4.1.51b.1.1.3 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.1.1.1.

6.11.5.4.1.51b.1.1.4 TFCS

See clause 6.10.3.4.1.51b.1.1.4.

6.11.5.4.1.51b.1.2 Physical channel parameters

DPCH Uplink		Physical 1	Physical 2
	Modulation	QPSK	QPSK
	Codes and time slots/ radio frame	SF2 x 1 code x 2 time slots	SF1 x 1 code x 2 time slots
	Max. Number of data bits/radio frame	1384 bits	2792 bits
	TFCI code word/ radio frame	16 bits	16 bits
	TPC / radio frame	2 * 2 bits	2x 2 bits
	SS / radio frame	2 * 2 bits	2x 2 bits
	Puncturing Limit	0.40	0.76

6.11.5.4.1.51b.2 Downlink

~~see~~See clause 6.11.5.4.1.51.2~~. Downlink~~

6.11.5.4.1.52 Conversational / unknown / UL:64 DL:64 kbps / CS RAB
+ Interactive or background / UL:64 DL:128 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH

6.11.5.4.1.52.1 Uplink

See clause 6.11.5.4.1.51.1.

6.11.5.4.1.52.2 Downlink

6.11.5.4.1.52.2.1 Transport channel parameters

6.11.5.4.1.52.2.1.1 Transport channel parameters for Conversational / unknown / DL:64 kbps / CS RAB

See clause 6.10.3.4.1.13.2.1.1.

6.11.5.4.1.52.2.1.2 Transport channel parameters for Interactive or background / DL:128 kbps / PS RAB

See clause 6.10.3.4.1.27.2.1.1.

6.11.5.4.1.52.2.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.2.1.1.

6.11.5.4.1.52.2.1.4 TFCS

See clause 6.10.3.4.1.52.2.1.4.

6.11.5.4.1.52.2.2 Physical channel parameters

DPCH Downlink	Modulation	QPSK
	Codes and time slots/ radio frame	SF 16 x 12 codes x 4 time slots
	Max. Number of data bits/radio frame	4200 bits
	TFCI code word / radio frame	16 bits
	TPC / radio frame	2 * 2 bits
	SS / radio frame	2 * 2 bits
	Puncturing Limit	0.52

6.11.5.4.1.53 Conversational / unknown / UL:64 DL:64 kbps / CS RAB
+ Interactive or background / UL:128 DL:128 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH

6.11.5.4.1.53.1 Uplink

6.11.5.4.1.53.1.1 Transport channel parameters

6.11.5.4.1.53.1.1.1 Transport channel parameters for Conversational / unknown / UL:64 kbps / CS RAB

See clause 6.10.3.4.1.13.1.1.1.

6.11.5.4.1.53.1.1.2 Transport channel parameters for Interactive or background / UL:128 kbps / PS RAB

See clause 6.10.3.4.1.28.1.1.1.

6.11.5.4.1.53.1.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.1.1.1.

6.11.5.4.1.53.1.1.4 TFCS

See clause 6.10.3.4.1.53.1.1.4.

6.11.5.4.1.53.1.2 Physical channel parameters

DPCH Uplink	Modulation	QPSK	8PSK
	Codes and time slots/ radio frame	SF1 x 1 code x 4 time slots	SF1 x 1code x 2 time slots
	Max. Number of data bits/radio frame	5608 bits	4188 bits
	TFCI code word/ radio frame	16 bits	24 bits
	TPC/ radio frame	2*2 bits	2*3 bits
	SS/ radio frame	2*2 bits	2*3 bits
	Puncturing Limit	0.72 (alt 0.68)	0.52 (alt 0.48)

6.11.5.4.1.53.2 Downlink

See clause 6.11.5.4.1.52.2.

6.11.5.4.1.54

Void.

6.11.5.4.1.55

Void.

6.11.5.4.1.56 Interactive or background / UL:8 DL:8 kbps / PS RAB + Interactive or background / UL:8 DL:8 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.11.5.4.1.56.1 Uplink

6.11.5.4.1.56.1.1 Transport channel parameters

6.11.5.4.1.56.1.1.1 Transport channel parameters for Interactive or background / UL:8 kbps / PS RAB + UL:8 kbps / PS RAB

~~see~~See clause 6.10.3.4.1.56.1.1.1.

6.11.5.4.1.56.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.1.1.1.

6.11.5.4.1.56.1.1.3 TFCS

See clause 6.10.3.4.1.56.1.1.3.

6.11.5.4.1.56.1.2~~.1~~ Physical channel parameters

DPCH Uplink	Modulation	QPSK
	Codes and time slots / radio frame	SF4 x 1 code x 2 time slots
	Max. Number of data bits / radio frame	680 bits
	TFCI code word / radio frame	16 bits
	TPC / radio frame	2x 2 bits
	SS/ radio frame	2x 2 bits
	Puncturing Limit	0.84 (alt 0.76)

6.11.5.4.1.56.2 Downlink

6.11.5.4.1.56.2.1 Transport channel parameters

6.11.5.4.1.56.2.1.1 Transport channel parameters for Interactive or background / DL:8 kbps / PS RAB + DL:8 kbps / PS RAB

~~see~~See clause 6.10.3.4.1.56.2.1.1.

6.11.5.4.1.56.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.2.1.1.

6.11.5.4.1.56.2.1.3 TFCS

See clause 6.10.3.4.1.56.2.1.3.

6.11.5.4.1.56.2.2 Physical channel parameters

DPCH Downlink	Modulation	QPSK
	Codes and time slots/ radio frame	SF16 x 4 code x 2 time slots
	Max. Number of data bits / radio frame	680 bits
	TFCI code word / radio frame	16 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	0.84

6.11.5.4.1.57 Interactive or background / UL:64 DL:64 kbps / PS RAB + Interactive or background / UL:64 DL:64 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.11.5.4.1.57.1 Uplink

6.11.5.4.1.57.1.1 Transport channel parameters

6.11.5.4.1.57.1.1.1 Transport channel parameters for Interactive or background / UL:64 kbps / PS RAB + UL:64 kbps / PS RAB

See clause 6.10.3.4.1.38d.1.1.2.

6.11.5.4.1.57.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.1.1.1.

6.11.5.4.1.57.1.1.3 TFCS

See clause 6.11.5.4.1.57.1.1.3.

6.11.5.4.1.57.1.2 Physical channel parameters

DPCH Uplink		Physical 1
	Modulation	QPSK
	Codes and time slots/ radio frame	SF1 x 1 code x 2 time slots
	Max. Number of data bits/radio frame	2792 bits
	TFCI code word/ radio frame	16 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	0.52 (alt. 0.44)

6.11.5.4.1.57.2 Downlink

6.11.5.4.1.57.2.1 Transport channel parameters

6.11.5.4.1.57.2.1.1 Transport channel parameters for Interactive or background / DL:64 kbps / PS RAB + DL:64 kbps / PS RAB

~~see~~See clause 6.10.3.4.1.57.2.1.1.

6.11.5.4.1.57.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.2.1.1.

6.11.5.4.1.57.2.1.3 TFCS

See clause 6.10.3.4.1.57.2.1.3.

6.11.5.4.1.57.2.2 Physical channel parameters

DPCH Downlink	Modulation	QPSK
	Codes and time slots/ radio frame	SF1 x 1 code x 2 time slots
	Max. Number of data bits/radio frame	2792 bits
	TFCI code word/ radio frame	16 bits
	TPC/ radio frame	2*2 bits
	SS/ radio frame	2*2 bits
	Puncturing Limit	0.52

6.11.5.4.1.58 Streaming / unknown / UL:16 DL:64 kbps / PS RAB + Interactive or background / UL:8 DL:8 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.11.5.4.1.58.1 Uplink

6.11.5.4.1.58.1.1 Transport channel parameters

6.11.5.4.1.58.1.1.1 Transport channel parameters for Streaming / unknown / UL:16 kbps / PS RAB

See ~~Clause~~clause 6.10.3.4.1.58.1.1.1.

6.11.5.4.1.58.1.1.2 Transport channel parameters for Interactive or background / UL:8 kbps / PS RAB

See clause 6.10.3.4.1.23a.1.1.1.

6.11.5.4.1.58.1.1.3 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.1.1.1.

6.10.3.4.1.58.1.1.4 TFCS

See clause 6.10.3.4.1.58.1.1.4.

6.11.5.1.58.1.2 Physical channel parameters

DPCH Uplink	Modulation	QPSK
	Codes and time slots/ frame	SF4 x 1 code x 2 time slots
	Max. Number of data bits / radio frame	680 bits
	TFCI code word / radio frame	16 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	0.60 (alt 0.56)

6.11.5.4.1.58.2 Downlink

6.11.5.4.1.58.2.1 Transport channel parameters

6.11.5.4.1.58.2.1.1 Transport channel parameters for Streaming / unknown / DL:64 kbps / PS RAB

~~see~~See ~~Clause~~clause 6.10.3.4.1.58.2.1.1.

6.10.3.4.1.58.2.1.2 Transport channel parameters for Interactive or background / DL:8 kbps / PS RAB

See clause 6.10.3.4.1.23.2.1.1.

6.11.5.4.1.58.2.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.2.1.1.

6.11.5.4.1.58.2.1.4 TFCS

See ~~Clause~~clause 6.10.3.4.1.58.2.1.4.

6.11.5.4.1.58.2.~~3~~2 Physical channel parameters

DPCH Downlink	Modulation	QPSK
	Codes and time slots / radio frame	SF16 x 8 code x 2 time slots
	Max. Number of data bits / radio frame	1384 bits
	TFCI code word / radio frame	16 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	0.44

6.11.5.4.1.59 Reserved for future use

6.11.5.4.1.60 Reserved for future use

6.11.5.4.1.61 Conversational / unknown / UL:8 DL:8 kbps / PS RAB + Interactive or Background / UL:8 DL:8 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.11.5.4.1.61.1 Uplink

6.11.5.4.1.61.1.1 Transport channel parameters

6.11.5.4.1.61.1.1.1 Transport channel parameters for Conversational / unknown / UL:8 kbps / PS RAB

~~see~~See ~~Clause~~clause 6.10.3.4.1.61.1.1.1.

6.10.3.4.1.61.1.1.2 Transport channel parameters for Interactive or Background / UL:8 kbps / PS RAB

See clause 6.10.3.4.1.23a.1.1.1.

6.11.5.4.1.61.1.1.3 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.1.1.1.

6.11.5.4.1.61.1.1.4 TFCS

See ~~Clause~~clause 6.10.3.4.1.61.1.1.4.

6.11.5.4.1.61.2 Physical channel parameters

DPCH Uplink	Modulation	QPSK
	Codes and time slots / radio frame	SF 4 x 1 code x 2 time slots
	Max. Number of data bits / radio frame	680 bits
	TFCI code word / radio frame	16 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	0.84 (alt 0.80)

6.11.5.4.1.61.2 Downlink

6.11.5.4.1.61.2.1 Transport channel parameters

6.11.5.4.1.61.2.1.1 Transport channel parameters for Conversational / unknown / DL:8 kbps / PS RAB

See clause ~~–~~6.10.3.4.1.61.2.1.1.

6.11.5.4.1.61.2.1.2 Transport channel parameters for Interactive or Background / DL:8 kbps / PS RAB

See clause 6.10.3.4.1.23.2.1.1.

6.11.5.4.1.61.2.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.2.1.1.

6.11.5.4.1.61.2.1.4 TFCS

See ~~Clause~~clause 6.10.3.4.1.61.2.1.4.

6.11.5.4.1.61.2.2 Physical channel parameters

DPCH Downlink	Modulation	QPSK
	Codes and time slots / radio frame	SF 16 x 4 code x 2 time slots
	Max. Number of data bits / radio frame	680 bits
	TFCI code word / radio frame	16 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	0.84

6.11.5.4.2 Combinations on PDSCH, SCCPCH, PUSCH and PRACH

6.11.5.4.2.1 Interactive or background / UL: 64 DL: 256 kbps / PS RAB
+ UL: 3.4/16.8 DL: 3.4/33.6 kbps SRBs for DCCH, CCCH and BCCH
+ UL: 16.8 DL: 16 kbps SRBs for SHCCH

6.11.5.4.2.1.1 Uplink

6.11.5.4.2.1.1.1 Transport channel parameters

6.11.5.4.2.1.1.1.1 Transport channel parameters for Interactive or background / UL: 64 kbps / PS RAB and UL SRB for SHCCH mapped on USCH

See clause 6.10.3.4.2.1.1.1.1.

6.11.5.4.2.1.1.1.2 Transport channel parameters for UL: 3.4 Kbps SRBs for DCCH mapped on USCH

See clause 6.10.3.4.2.1.1.1.2.

6.11.5.4.2.1.1.1.~~2~~3 TFCS for USCH

See clause ~~6.10.3.4.3.1.1.1.5.~~ 6.10.3.4.2.1.1.1.3.

6.11.5.4.2.1.1.1.~~3~~4 Transport channel parameters for SRB for CCCH and UL SRBs for DCCH and UL SRB for SHCCH mapped on RACH

See clause ~~6.10.3.4.2.1.1.1.6.~~ 6.10.3.4.2.1.1.1.4.

6.11.5.4.2.1.1.2 Physical channel parameters

6.11.5.4.2.1.1.2.1 Physical channel parameters for PUSCH

PUSCH	Modulation	QPSK
	Codes and time slots/ radio frame	SF 1 x 1 code x 2 time slots
	Max. Number of data bits/radio frame	2792 bits
	TFCI code word / radio frame	16 bits
	TPC / radio frame	2 * 2 bits
	SS / radio frame	2 * 2 bits
	Puncturing Limit	~~1~~0.88

6.11.5.4.2.1.1.2.2 Physical channel parameter for PRACH.

See clause 6.11.5.4.5.1.2.

6.11.5.4.2.1.2 Downlink

6.11.5.4.2.1.2.1 Transport channel parameters

6.11.5.4.2.1.2.1.1 Transport channel parameters for Interactive or background / DL: 256 kbps / PS RAB and DL SRB for SHCCH mapped on DSCH

See clause 6.10.3.4.2.1.2.1.1.

6.11.5.4.2.1.2.1.2 Transport channel parameters for DL: 3.4 Kbps SRBs for DCCH mapped on DSCH

See clause 6.10.3.4.2.1.2.1.2.

6.11.5.4.2.1.2.1.~~2~~3 TFCS for DSCH

See clause ~~6.10.3.4.3.1.2.1.5.~~ 6.10.3.4.2.1.2.1.3.

6.11.5.4.2.1.2.1.~~3~~4 Transport channel parameters for DL SRBs for DCCH and SRB for CCCH and SRB for BCCH and DL SRB for SHCCH mapped on FACH

6.11.5.4.2.1.2.1.4.1 FACH transport channel configuration without DTCH

Higher layer	RAB/signalling RB	**SRB#0**	**SRB#1**	**SRB#2**	**SRB#3**	**SRB#4**	**SRB#5**	**SRB#6**
	User of Radio Bearer	RRC	RRC	RRC	NAS_DT High prio	NAS_DT Low prio	RRC	RRC
RLC	Logical channel type	CCCH	DCCH	DCCH	DCCH	DCCH	SHCCH	BCCH
	RLC mode	UM	UM	AM	AM	AM	UM	TM
	Payload sizes, bit	160	136 or 120*	128	128	128	160	168

	Max data rate, bps		32000 (alt. ~~48000~~16000)	27200 or 24000 (alt. ~~40800~~13600 or ~~36000~~12000)	25600 (alt. ~~38400~~12800)	25600 (alt. ~~38400~~12800)	25600 (alt. ~~38400~~12800)	32000 (alt. ~~48000~~16000)	33600 (alt. ~~50400~~16000)
	RLC header, bit		8	8	16	16	16	8	0
MAC	MAC header, bit		3	27 or 43	27	27	27	3	3
	MAC multiplexing		7 logical channel multiplexing						
Layer 1	TrCH type		FACH						
	TB sizes, bit		171	171	171	171	171	171	171
	TFS	TF0, bits	0x171						
		TF1, bits	1x171						
		TF2, bits	2x171						
		TF3, bits	3x171(alt. N/A)						
		TF4, bits	4x171(alt. N/A)						
		TF5, bits	~~N/A (alt. 5x171)~~						
		TF6, bits	~~N/A (alt. 6x171)~~						
	TTI, ms		20						
	Coding type		CC ½						
	CRC, bit		16						
	Max number of bits/TTI after channel coding		1528 (alt. ~~2292~~764)	1528 (alt. ~~2292~~764)	1528 (alt. ~~2292~~764)	1528 (alt. ~~2292~~764)	1528 (alt. ~~2292~~764)	1528 (alt. ~~2292~~764)	1528 (alt. ~~2292~~764)

* MAC header size and RLC payload size depend on use of U-RNTI or C-RNTI.

6.11.5.4.2.1.2.1.4.2 FACH transport channel configuration with DTCH

Higher layer	RAB/signalling RB		**RAB**	**SRB#0**	**SRB#1**	**SRB#2**	**SRB#3**	**SRB#4**	**SRB#5**	**SRB#6**
	User of Radio Bearer		Interactive/ Background RAB	RRC	RRC	RRC	NAS_DT High prio	NAS_DT Low prio	RRC	RRC
RLC	Logical channel type		DTCH	CCCH	DCCH	DCCH	DCCH	DCCH	SHCCH	BCCH
	RLC mode		AM	UM	UM	AM	AM	AM	UM	TM
	Payload sizes, bit		320	160	136 or 120 (note)	128	128	128	160	168
	Max data rate, bps		32000 (alt. 16000)	32000 (alt. 16000)	27200 or 24000 (alt. 13600 or 12000)	25600 (alt. 12800)	25600 (alt. 12800)	25600 (alt. 12800)	32000 (alt. 16000)	33600 (alt. 16800)
	AMD/UMD/TrD PDU header, bit		16	8	8	16	16	16	8	0
MAC	MAC header, bit		27	3	27 or 43	27	27	27	3	3
	MAC multiplexing		8 logical channel multiplexing							
Layer 1	TrCH type		FACH							
	TB sizes, bit		171, 363							
	TFS	TF0, bits	0x171							
		TF1, bits	1x171							
		TF2, bits	2x171							
		TF3, bits	1x363							
		TF4, bits	3x171 (alt N/A)							
		TF5, bits	4x171 (alt. N/A)							
		TF6, bits	2x363 (alt. N/A)							

TTI, ms	20
Coding type	CC ½
CRC, bit	16
Max number of bits/TTI after channel coding	1532(alt. 766)

* MAC header size and RLC payload size depend on use of U-RNTI or C-RNTI.

6.11.5.4.2.1.2.1.45 TFCS for FACH

~~TFCS size~~	~~5 (alt. 7)~~
~~TFCS~~	~~FACH = (TF0), (TF1), (TF2,) (TF3), (TF4) (alt. FACH = TF0, TF1, TF2, TF3, TF4, TF5, TF6)~~

See clause 6.10.3.4.2.1.2.1.5.

6.11.5.4.2.1.2.2 Physical channel parameters

6.11.5.4.2.1.2.2.1 Physical channel parameters for PDSCH

PDSCH	Modulation	QPSK	8PSK
	Codes and time slots/ radio frame	SF16 x 11 codes x 6 time slots	SF1 x 1 code x 4 time slots
	Max. Number of data bits/radio frame	5784 bits	6511 bits
	TFCI code word/ radio frame	16 bits	24 bits
	TPC/ radio frame	2*2 bits	2*3 bits
	SS/ radio frame	2*2 bits	2*3 bits
	Puncturing Limit	0.60	0.68

6.11.5.4.2.1.2.2.2 Physical channel parameters for SCCPCH

6.11.3.4.2.1.2.2.2.1 Physical channel parameters for SCCPCH without DTCH

S-CCPCH	Modulation	QPSK
	Codes and time slots/ radio frame	SF16 x 5 codes x 2 time slots(alt. SF16 x 2 codes x 2 time slot)~~(alt. SF16 x 5 codes x 1 time slot)~~
	Max. Number of data bits/radio frame	~~856~~ 864 bits(alt. ~~424~~344 bits)
	TFCI code word/ radio frame	16 bits(alt. 8 bits)
	TPC/ radio frame	~~2*2~~0 bits
	SS/ radio frame	~~2*2~~0 bits
	Puncturing Limit	~~0.72~~1(alt. 0.88)

6.11.3.4.2.1.2.2.2.2 Physical channel parameters for SCCPCH with DTCH

S-CCPCH	Modulation	QPSK
	Codes and time slots/ radio frame	SF16 x 5 codes x 2 time slots (alt. SF16 x 2 codes x 2 time slot)~~(alt. SF16 x 5 codes x 1 time slot)~~
	Max. Number of data bits/radio frame	8645~~6~~ bits (alt. ~~416~~336 bits)
	TFCI code word/ radio frame	16 bits
	TPC/ radio frame	~~2*2~~0 bits
	SS/ radio frame	~~2*2~~0 bits
	Puncturing Limit	1(alt. 0.84)

6.11.5.4.2.2 Interactive or background / UL: 64 DL: 384 kbps / PS RAB
+ UL: 3.4/16.8 DL: 3.4/33.6 kbps SRBs for DCCH, CCCH and BCCH
+ UL: 16.8 DL: 16 kbps SRBs for SHCCH

6.11.5.4.2.2.1 Uplink

See clause 6.11.5.4.2.1.1.

6.11.5.4.2.2.2 Downlink

6.11.5.4.2.2.2.1 Transport channel parameters

6.11.5.4.2.2.2.1.1 Transport channel parameters for Interactive or background / DL: 384 kbps / PS RAB and DL SRB for SHCCH mapped on DSCH

See clause 6.10.3.4.2.2.2.1.1.

6.11.5.4.2.2.2.1.2 Transport channel parameters for DL: 3.4 Kbps SRBs for DCCH mapped on DSCH

See clause 6.10.3.4.2.1.2.1.2.

6.11.5.4.2.2.2.1.~~2~~3 TFCS for DSCH

See clause ~~6.10.3.4.3.2.2.1.5.~~ 6.10.3.4.2.2.2.1.3.

6.11.5.4.2.2.2.1.~~3~~4 Transport channel parameters for DL SRBs for DCCH and SRB for CCCH and SRB for BCCH and DL SRB for SHCCH mapped on FACH

See clause 6.11.5.4.2.1.2.1.~~3~~4.

6.11.5.4.2.2.2.1.~~4~~5 TFCS for FACH

See clause 6.11.5.4.2.1.2.1.~~4~~5.

6.11.5.4.2.2.2.2 Physical channel parameters

6.11.5.4.2.2.2.2.1 Physical channel parameters for PDSCH

PDSCH	Modulation	QPSK
	Codes and time slots/ radio frame	SF 1 x 1 code x 6 time slots
	Max. Number of data bits/radio frame	8424 bits
	TFCI code word / radio frame	16 bits
	TPC / radio frame	2 * 2 bits
	SS / radio frame	2 * 2 bits
	Puncturing Limit	0.60

6.11.5.4.2.2.2.2.2 Physical channel parameters for SCCPCH

~~SCCPCH~~	~~Modulation~~	~~QPSK~~
	~~Codes and time slots/ radio frame~~	~~SF 16 x 5 codes x 2 time slots~~
	~~Max. Number of data bits/radio frame~~	~~856 bits~~
	~~TFCI code word / radio frame~~	~~16 bits~~
	~~TPC / radio frame~~	~~2 * 2 bits~~
	~~SS / radio frame~~	~~2 * 2 bits~~
	~~Puncturing Limit~~	~~0.72~~

See clause 6.11.5.4.2.1.2.2.2.

6.11.5.4.2.3 Interactive or background / UL: 64 DL: 2048 kbps / PS RAB
+ UL: 3.4/16.8 DL: 3.4/33.6 kbps SRBs for DCCH, CCCH and BCCH
+ UL: 16.8 DL: 16 kbps SRBs for SHCCH

6.11.5.4.2.3.1 Uplink

See clause 6.11.5.4.2.1.1.

6.11.5.4.2.3.2 Downlink

6.11.5.4.2.3.2.1 Transport channel parameters

6.11.5.4.2.3.2.1.1 Transport channel parameters for Interactive or background / DL: 2048 kbps / PS RAB and DL SRB for SHCCH mapped on DSCH

Higher Layer	RAB/Signalling RB		**RAB**	**SRB#5**
RLC	Logical channel type		DTCH	SHCCH
	RLC mode		AM	UM
	Payload sizes, bit		1704	160
	Max data rate, bps		2048000	16000
	RLC header, bit		16	8
MAC	MAC header, bit		0	0
	MAC multiplexing		N/A	N/A
Layer 1	TrCH type		DSCH	DSCH
	TB sizes, bit		1720	168
	TFS	TF0, bits	0x1720	0x168
		TF1, bits	1x1720	1x168
		TF2, bits	2x1720	N/A
		TF3, bits	4x1720	N/A
		TF4, bits	8x1720	N/A
		TF5, bits	12x1720	N/A
		TF6, bits	N/A (alt. 16x1720)	N/A
		TF7, bits	N/A (alt. 20x1720)	N/A
		TF8, bits	N/A (alt. 24x1720)	N/A
	TTI, ms		10 (alt. 20)	10
	Coding type		No Coding	CC ½
	CRC, bit		24	16
	Max number of bits/TTI after channel coding		20928 (alt. 41856)	384
	Downlink: Max number of bits/radio frame before rate matching		20928 (alt. 20928)	384
	RM attribute		135-175	180-220

6.11.5.4.2.3.2.1.2 Transport channel parameters for DL: 3.4 Kbps SRBs for DCCH mapped on DSCH

See clause 6.10.3.4.2.1.2.1.2.

6.11.5.4.2.3.2.1.~~2~~3 TFCS for DSCH

~~TFCS size~~	~~11 (alt.17)~~
~~TFCS~~	~~(2048 kbps RAB, SHCCH)=~~ ~~(TF0, TF0), (TF1, TF0), (TF2, TF0), (TF3, TF0), (TF4, TF0), (TF5, TF0),~~ ~~(TF0, TF1), (TF1, TF1), (TF2, TF1), (TF3, TF1), (TF4, TF1),~~ ~~(alt. (TF0, TF0), (TF1, TF0), (TF2, TF0), (TF3, TF0), (TF4, TF0), (TF5, TF0), (TF6, TF0), (TF7, TF0), (TF8, TF0),~~ ~~(TF0, TF1), (TF1, TF1), (TF2, TF1), (TF3, TF1), (TF4, TF1), (TF5, TF1), (TF6, TF1), (TF7, TF1))~~

TFCS size	2~~1~~2 (alt.~~4~~3~~1~~4)
TFCS	(2048 kbps RAB, SHCCH, SRBs for DCCH)= (TF0, TF0, TF0), (TF1, TF0, TF0), (TF2, TF0, TF0), (TF3, TF0, TF0), (TF4, TF0, TF0), (TF5, TF0, TF0), (TF0, TF1, TF0), (TF1, TF1, TF0), (TF2, TF1, TF0), (TF3, TF1, TF0), (TF4, TF1, TF0), (TF0, TF0, TF1), (TF1, TF0, TF1), (TF2, TF0, TF1), (TF3, TF0, TF1), (TF4, TF0, TF1), (TF5, TF0, TF1), (TF0, TF1, TF1), (TF1, TF1, TF1), (TF2, TF1, TF1), (TF3, TF1, TF1), (TF4, TF1, TF1), (alt. (TF0, TF0, TF0), (TF1, TF0, TF0), (TF2, TF0, TF0), (TF3, TF0, TF0), (TF4, TF0, TF0), (TF5, TF0, TF0), (TF6, TF0, TF0), (TF7, TF0, TF0), (TF8, TF0, TF0), (TF0, TF1, TF0), (TF1, TF1, TF0), (TF2, TF1, TF0), (TF3, TF1, TF0), (TF4, TF1, TF0), (TF5, TF1, TF0), (TF6, TF1, TF0), (TF7, TF1, TF0), (TF0, TF0, TF1), (TF1, TF0, TF1), (TF2, TF0, TF1), (TF3, TF0, TF1), (TF4, TF0, TF1), (TF5, TF0, TF1), (TF6, TF0, TF1), (TF7, TF0, TF1), (TF8, TF0, TF1), (TF0, TF1, TF1), (TF1, TF1, TF1), (TF2, TF1, TF1), (TF3, TF1, TF1), (TF4, TF1, TF1), (TF5, TF1, TF1), (TF6, TF1, TF1), (TF7, TF1, TF1)~~)~~)

For better understanding of the TFCS please note that the following combinations are not included in the table above: (TF5, TF1, TF0), (TF5, TF1, TF1), (TF8, TF1, TF0), (TF8, TF1, TF1)

6.11.5.4.2.3.2.1.~~3~~4 Transport channel parameters for DL SRBs for DCCH and SRB for CCCH and SRB for BCCH and DL SRB for SHCCH mapped on FACH

See clause 6.11.5.4.2.1.2.1.~~3~~4.

6.11.5.4.2.3.2.1.~~4~~5 TFCS for FACH

See clause 6.11.5.4.2.1.2.1.~~4~~5.

6.11.5.4.2.3.2.2 Physical channel parameters

6.11.5.4.2.3.2.2.1 Physical channel parameters for PDSCH

PDSCH	Modulation	8PSK
	Codes and time slots/ radio frame	SF1 x 1 code x 10 time slots
	Max. Number of data bits/radio frame	21084 bits
	TFCI code word/ radio frame	24 bits
	TPC/ radio frame	2*3 bits
	SS/ radio frame	2*3 bits
	Puncturing Limit	1

6.11.5.4.2.3.2.2.2 Physical channel parameters for S-CCPCH

~~S-CCPCH~~	~~Modulation~~	~~QPSK~~
	~~Codes and time slots/ radio frame~~	~~SF16 x 5 codes x 2 time slots~~
	~~Max. Number of data bits/radio frame~~	~~856 bits~~
	~~TFCI code word/ radio frame~~	~~16 bits~~
	~~TPC/ radio frame~~	~~2*2 bits~~
	~~SS/ radio frame~~	~~2*2 bits~~
	~~Puncturing Limit~~	~~0.72~~

See clause 6.11.5.4.2.1.2.2.2.

<End of modified section>

<Start of next modified section>

6.11.5.4.4 Combinations on SCCPCH

6.11.5.4.4.1 Stand-alone signalling RB for PCCH

6.11.5.4.4.1.1 Transport channel parameters

6.11.5.4.4.1.1.1 Transport channel parameter of SRB for PCCH

~~Higher layer~~	~~RAB/signalling RB~~		~~**SRB**~~
	~~User of Radio Bearer~~		~~RRC~~
~~RLC~~	~~Logical channel type~~		~~PCCH~~
	~~RLC mode~~		~~TM~~
	~~Payload sizes, bit~~		~~240 (alt. 80)~~
	~~Max data rate, bps~~		~~24000 (alt. 8000)~~
	~~RLC header, bit~~		~~0~~
~~MAC~~	~~MAC header, bit~~		~~0~~
	~~MAC multiplexing~~		~~N/A~~
~~Layer 1~~	~~TrCH type~~		~~PCH~~
	~~TB sizes, bit~~		~~240 (alt. 80)~~
	~~TFS~~	~~TF0, bits~~	~~0x240 (alt. 0x80)~~
		~~TF1, bits~~	~~1x240 (alt. 1x80)~~
		~~TF2, bits~~	~~2x240 (alt. 2x80)~~
	~~TTI, ms~~		~~20~~
	~~Coding type~~		~~CC 1/2~~
	~~CRC, bit~~		~~16~~
	~~Max number of bits/TTI before rate matching~~		~~1056 (alt. 400)~~
	~~RM attribute~~		~~210-250~~

See clause 6.10.3.4.4.1.1.1.

6.11.5.4.4.1.1.2 TFCS

~~TFCS size~~	~~3~~
~~TFCS~~	~~SRBs for PCCH = TF0, TF1,TF2~~

See clause 6.10.3.4.4.1.1.2.

6.11.5.4.4.1.2 Physical channel parameters

S-CCPCH	Modulation	QPSK
	Codes and time slots/ radio frame	SF16 x 2 codes x 2 time slots (alt. SF16 x 1 codes x 2 time slots)
	Max. Number of data bits/radio frame	344 bits (alt. 168 bits)
	TFCI code word/ radio frame	8 bits
	TPC/ radio frame	0 bits
	SS/ radio frame	0 bits
	Puncturing Limit	1 (alt. 0.84~~0.64~~)
Note: alt. Puncturing Limit applies when alt. payload sizes and alt. codes and time slots / radio frame are both configured.		

6.11.5.4.4.2 Interactive/Background 32 kbps PS RAB + SRBs for CCCH + SRB for DCCH + SRB for BCCH

6.11.5.4.4.2.1 Transport channel parameters

6.11.5.4.4.2.1.1 Transport channel parameters for Interactive/Background 32 kbps PS RAB

~~Higher layer~~	~~RAB/signalling RB~~		~~RAB~~
	~~User of Radio Bearer~~		~~Interactive/ Background RAB~~
~~RLC~~	~~Logical channel type~~		~~DTCH~~
	~~RLC mode~~		~~AM~~
	~~Payload sizes, bit~~		~~320~~
	~~Max data rate, bps~~		~~32000~~
	~~RLC header, bit~~		~~16~~
~~MAC~~	~~MAC header, bit~~		~~27~~
	~~MAC multiplexing~~		~~N/A~~
~~Layer 1~~	~~TrCH type~~		~~FACH~~
	~~TB sizes, bit~~		~~363~~
	~~TFS~~	~~TF0, bits~~	~~0 x363~~
		~~TF1, bits~~	~~1x363~~
		~~TF2, bits~~	~~2x363~~
	~~TTI, ms~~		~~20~~
	~~Coding type~~		~~TC~~
	~~CRC, bit~~		~~16~~
	~~Max number of bits/TTI before rate matching~~		~~2286~~
	~~RM attribute~~		~~110-150~~

See clause 6.10.3.4.4.2.1.1.

6.11.5.4.4.2.1.2 Transport channel parameters of SRBs for CCCH, SRB for DCCH, and SRB for BCCH

Higher layer	RAB/signalling RB		SRB#~~1~~0	SRB#~~2~~1	SRB#~~3~~2	SRB#~~4~~3	SRB#~~5~~4	SRB#~~6~~5
	User of Radio Bearer		RRC	RRC	RRC	NAS_DT High prio	NAS_DT Low prio	RRC
RLC	Logical channel type		CCCH	DCCH	DCCH	DCCH	DCCH	BCCH
	RLC mode		UM	UM	AM	AM	AM	TM
	Payload sizes, bit		160	136 or 120	128	128	128	168
	Max data rate, bps		32000 (alt. ~~48000~~16000)	27200 or 2400 (alt. ~~40800~~ 24000 or ~~36000~~12000)	25600 (alt. ~~38400~~12800)	25600 (alt. ~~38400~~12800)	25600 (alt. ~~38400~~12800)	33600 (alt. ~~50400~~16800)
	RLC header, bit		8	8	16	16	16	0
MAC	MAC header, bit		3	27 or 43	27	27	27	3
	MAC multiplexing		6 logical channel multiplexing					
Layer 1	TrCH type		FACH					
	TB sizes, bit		171					
	TFS	TF0, bits	0x171					
		TF1, bits	1x171					
		TF2, bits	2x171					
		TF3, bits	3x171 (alt. N/A)					
		TF4, bits ~~TF5, bits~~ ~~TF6, bits~~	4x171 (alt. N/A) ~~N/A (alt. 5x171)~~ ~~N/A (alt. 6x171)~~					
	TTI, ms		20					
	Coding type		CC ½					
	CRC, bit		16					
	Max number of bits/TTI before rate matching		~~1528~~ 1528 (alt. ~~2292~~764)					
	Max number of bits/radio frame before rate matching		764 (alt. 382)					
	RM attribute		200-240					

* MAC header size and RLC payload size depend on use of U-RNTI or C-RNTI.

6.11.5.4.4.2.1.3 TFCS

~~TFCS size~~	~~15 (alt. 21)~~
~~TFCS~~	~~(32kbps RAB, SRBs for CCCH/DCCH/BCCH) =~~ ~~(TF0, TF0), (TF0, TF1), (TF0, TF2),(TF0, TF3),), (TF0, TF4), (TF1, TF0), (TF1, TF1), (TF1, TF2), (TF1, TF3), (TF1, TF4), (TF2, TF0), (TF2, TF1), (TF2, TF2), (TF2, TF3), (TF2, TF4),~~ ~~(alt. (TF0, TF0), (TF0, TF1), (TF0, TF2), (TF0, TF3), (TF0, TF4), (TF0, TF5), (TF0, TF6),~~ ~~(TF1, TF0), (TF1, TF1), (TF1, TF2), (TF1, TF3), (TF1, TF4), (TF1, TF5), (TF1, TF6),~~ ~~(TF2, TF0), (TF2, TF1), (TF2, TF2), (TF2, TF3), (TF2, TF4), (TF2, TF5), (TF2, TF6))~~

See clause 6.10.3.4.4.2.1.3.

6.11.5.4.4.2.2 Physical channel parameters

SCCPCH	Modulation	QPSK
	Codes and time slots/ radio frame	SF 16 x 9 codes x 2 time slots (alt. SF16 x 4 codes x 2 time slots)
	Max. Number of data bits/radio frame	~~1560~~ 1568 bits (alt. 688 bits)
	TFCI code word / radio frame	16 bits
	TPC / radio frame	0~~2 * 2~~ bits
	SS / radio frame	~~2 * 2~~0 bits
	Puncturing Limit	~~0.40~~0.52 (alt. 0.48)
Note: alt. Puncturing Limit applies when alt. TFCS and alt. codes and time slots / radio frame are both configured.		

6.11.5.4.4.2a Interactive/Background 32 kbps PS RAB + Interactive/Background 32 kbps PS RAB + SRBs for CCCH + SRB for DCCH + SRB for BCCH

6.11.5.4.4.2a.1 Transport channel parameters

6.11.5.4.4.2a.1.1 Transport channel parameters for Interactive/Background 32 kbps PS RAB + Interactive/Background 32 kbps PS RAB

See clause 6.10.3.4.2a.1.1.

6.11.5.4.4.2a.1.2 Transport channel parameters of SRBs for CCCH, SRB for DCCH, and SRB for BCCH

See clause 6.11.5.4.4.2.1.2.

6.11.5.4.4.2a.1.3 TFCS

See clause 6.10.3.4.4.2a.1.3.

6.11.5.4.4.2a.2 Physical channel parameters

See clause 6.11.5.4.4.2.2.

6.11.5.4.4.2b SRBs for CCCH + SRB for DCCH + SRB for BCCH

6.11.5.4.4.2b.1 Transport channel parameters

6.11.5.4.4.2b.1.1 Transport channel parameters of SRBs for CCCH, SRB for DCCH, and SRB for BCCH

See clause 6.11.5.4.4.2.1.2.

6.11.5.4.4.2b.1.2 TFCS

See clause 6.10.3.4.4.2b.1.2.

6.10.3.4.4.2b.2 Physical channel parameters

SCCPCH	Modulation	QPSK
	Codes and time slots/ radio frame	SF 16 x 4 codes x 2 time slots (alt. SF16 x 2 codes x 2 time slots)
	Max. Number of data bits/radio frame	688 bits (alt. 344 bits)
	TFCI code word / radio frame	16 bits (alt. 8 bits)
	TPC / radio frame	0 bits
	SS / radio frame	0 bits
	Puncturing Limit	0.88
Note: alt. Puncturing Limit applies when alt. TFCS and alt. codes and time slots / radio frame are both configured.		

6.11.5.4.4.3 Interactive/Background 32 kbps RAB + SRB for PCCH + SRB for CCCH + SRB for DCCH + SRB for BCCH

6.11.5.4.4.3.1 Transport channel parameters

6.11.5.4.4.3.1.1 Transport channel parameters of SRB for Interactive/Background 32 kbps RAB

See clause 6.~~11~~10.~~5~~3.4.4.2.1.1.

6.11.5.4.4.3.1.2 Transport channel parameters of SRB for PCCH

See clause 6.~~11~~10.~~5~~3.4.4.1.1.1.

6.11.5.4.4.3.1.3 Transport channel parameters of SRBs for CCCH, SRB for DCCH, and SRB for BCCH

See clause 6.11.5.4.4.2.1.2.

6.11.5.4.4.3.1.4 TFCS

~~TFCS size~~	~~45 (alt. 63)~~
~~TFCS~~	~~(32 kbps RAB, SRB for PCCH, SRBs for CCCH/ DCCH/ BCCH) =~~ ~~(TF0, TF0, TF0), (TF0, TF0, TF1), (TF0, TF0, TF2), (TF0, TF0, TF3), (TF0, TF0, TF4),(TF0, TF1, TF0), (TF0, TF1, TF1), (TF0, TF1, TF2), (TF0, TF1, TF3), (TF0, TF1, TF4),(TF0, TF2, TF0), (TF0, TF2, TF1), (TF0, TF2, TF2), (TF0, TF2, TF3), (TF0, TF2, TF4),(TF1, TF0, TF0), (TF1, TF0, TF1), (TF1, TF0, TF2), (TF1, TF0, TF3), (TF1, TF0, TF4),(TF1, TF1, TF0), (TF1, TF1, TF1), (TF1, TF1, TF2), (TF1, TF1, TF3), (TF1, TF1, TF4),(TF1, TF2, TF0), (TF1, TF2, TF1), (TF1, TF2, TF2), (TF1, TF2, TF3), (TF1, TF2, TF4),(TF2, TF0, TF0), (TF2, TF0, TF1), (TF2, TF0, TF2), (TF2, TF0, TF3), (TF2, TF0, TF4),(TF2, TF1, TF0), (TF2, TF1, TF1), (TF2, TF1, TF2), (TF2, TF1, TF3), (TF2, TF1, TF4),(TF2, TF2, TF0), (TF2, TF2, TF1), (TF2, TF2, TF2), (TF2, TF2, TF3), (TF2, TF2, TF4)~~ ~~(alt. (TF0, TF0, TF0), (TF0, TF0, TF1), (TF0, TF0, TF2), (TF0, TF0, TF3), (TF0, TF0, TF4), (TF0, TF0, TF5), (TF0, TF0, TF6),(TF0, TF1, TF0), (TF0, TF1, TF1), (TF0, TF1, TF2), (TF0, TF1, TF3), (TF0, TF1, TF4), (TF0, TF1, TF5), (TF0, TF1, TF6),(TF0, TF2, TF0), (TF0, TF2, TF1), (TF0, TF2, TF2), (TF0, TF2, TF3), (TF0, TF2, TF4), (TF0, TF2, TF5), (TF0, TF2, TF6), (TF1, TF0, TF0), (TF1, TF0, TF1), (TF1, TF0, TF2), (TF1, TF0, TF3), (TF1, TF0, TF4), (TF1, TF0, TF5), (TF1, TF0, TF6),(TF1, TF1, TF0), (TF1, TF1, TF1), (TF1, TF1, TF2), (TF1, TF1, TF3), (TF1, TF1, TF4), (TF1, TF1, TF5), (TF1, TF1, TF6),(TF1, TF2, TF0), (TF1, TF2, TF1), (TF1, TF2, TF2), (TF1, TF2, TF3), (TF1, TF2, TF4), (TF1, TF2, TF5), (TF1, TF2, TF6),(TF2, TF0, TF0), (TF2, TF0, TF1), (TF2, TF0, TF2), (TF2, TF0, TF3), (TF2, TF0, TF4), (TF2, TF0, TF5), (TF2, TF0, TF6),(TF2, TF1, TF0), (TF2, TF1, TF1), (TF2, TF1, TF2), (TF2, TF1, TF3), (TF2, TF1, TF4), (TF2, TF1, TF5), (TF2, TF1, TF6),(TF2, TF2, TF0), (TF2, TF2, TF1), (TF2, TF2, TF2), (TF2, TF2, TF3), (TF2, TF2, TF4), (TF2, TF2, TF5) (TF2, TF2, TF6))~~

See clause 6.10.3.4.4.3.1.4.

6.11.5.4.4.3.2 Physical channel parameters

S-CCPCH	Modulation	QPSK
	Codes and time slots/ radio frame	SF16 x 10 codes x 2 time slots (alt. SF16 x 6 codes x 2 time slots)
	Max. Number of data bits/radio frame	~~1728~~ 1744 bits (alt. 1040 bits)
	TFCI code word/ radio frame	~~32~~ 16 bits
	TPC/ radio frame	0 bits
	SS/ radio frame	0 bits
	Puncturing Limit	~~0.64~~0.48 (alt. 0.52)
Note: alt. Puncturing Limit applies when alt. TFCS and alt. codes and time slots / radio frame are both configured.		

6.11.5.4.4.3a SRB for PCCH + SRB for CCCH + SRB for DCCH + SRB for BCCH

6.11.5.4.4.3a.1 Transport channel parameters

6.11.5.4.4.3a.1.1 Transport channel parameters of SRB for PCCH

See clause 6.10.3.4.4.1.1.1.

6.11.5.4.4.3a.1.2 Transport channel parameters of SRBs for CCCH, SRB for DCCH, and SRB for BCCH

See clause 6.11.5.4.4.2.1.2.

6.11.5.4.4.3a.1.3 TFCS

See clause 6.10.3.4.4.3a.1.3.

6.11.5.4.4.3a.2 Physical channel parameters

SCCPCH	Modulation	QPSK
	Codes and time slots/ radio frame	SF 16 x 4 codes x 2 time slots (alt. SF16 x 2 codes x 2 time slots)
	Max. Number of data bits/radio frame	688 bits (alt. 336 bits)
	TFCI code word / radio frame	16 bits
	TPC / radio frame	0 bits
	SS / radio frame	0 bits
	Puncturing Limit	0.60 (alt. 0.52)
Note: Alt. applies when alts for SRB for PCCH and SRBs for CCCH/ DCCH/ BCCH are both configured.		

6.11.5.4.4.4 RB for CTCH + SRB for CCCH + SRB for BCCH

6.11.5.4.4.4.1 Transport channel parameters

6.11.5.4.4.4.1.1 Transport channel parameters of RB for CTCH

See clause 6.10.3.4.4.4.1.1.

6.11.5.4.4.4.1.2 Transport channel parameters of SRB for CCCH and SRB for BCCH

Higher layer	RAB/signalling RB		SRB#0	SRB#5
	User of Radio Bearer		RRC	RRC
RLC	Logical channel type		CCCH	BCCH
	RLC mode		UM	TM
	Payload sizes, bit		160	168
	Max data rate, bps		16000	16800
	AMD/UMD/TrD PDU header, bit		8	0
MAC	MAC header, bit		3	3
	MAC multiplexing		2 logical channel multiplexing	
Layer 1	TrCH type		FACH	
	TB sizes, bit		171	
	TFS	TF0, bits	0x171	
		TF1, bits	1x171	
		TF2, bits	2x171	
	TTI, ms		20	
	Coding type		CC 1/3	
	CRC, bit		16	
	Max number of bits/TTI before rate matching		1146	
	Max number of bits/radio frame before rate matching		573	
	RM attribute		200-240	

6.11.5.4.4.4.1.3 TFCS

See clause 6.10.3.4.4.4.1.3.

6.11.5.4.4.4.2 Physical channel parameters

SCCPCH	Modulation	QPSK
	Codes and time slots/ radio frame	SF 16 x 4 codes x 2 time slots
	Max. Number of data bits/radio frame	688 bits
	TFCI code word / radio frame	16 bits
	TPC / radio frame	0 bits
	SS / radio frame	0 bits
	Puncturing Limit	0.52

6.11.5.4.5 Combinations on PRACH

6.11.5.4.5.1 SRB for CCCH + SRBs for DCCH

6.11.5.4.5.1.1 Transport channel parameters

6.11.5.4.5.1.1.1 Transport channel parameter for SRB for CCCH, SRBs for DCCH

~~Higher layer~~	~~RAB/signalling RB~~	~~SRB#1~~	~~SRB#2~~	~~SRB#3~~	~~SRB#4~~	~~SRB#5~~
	~~User of Radio Bearer~~	~~RRC~~	~~RRC~~	~~RRC~~	~~NAS_DT High prio~~	~~NAS_DT Low prio~~
~~RLC~~	~~Logical channel type~~	~~CCCH~~	~~DCCH~~	~~DCCH~~	~~DCCH~~	~~DCCH~~
	~~RLC mode~~	~~TM~~	~~UM~~	~~AM~~	~~AM~~	~~AM~~
	~~Payload sizes, bit~~	~~168~~	~~136~~	~~128~~	~~128~~	~~128~~

	Max data rate, bps	16800	13600	12800	12800	12800
	RLC header, bit	0	8	16	16	16
MAC	MAC header, bit	2	26	26	26	26
	MAC multiplexing	5 logical channel multiplexing				
Layer 1	TrCH type	RACH				
	TB sizes, bit	170	170	170	170	170
	TFS TF0, bits	1x170				
	TTI, ms	10				
	Coding type	CC ½				
	CRC, bit	16				
	Max number of bits/TTI after channel coding	388	388	388	388	388
	Max number of bits/Radio frame before rate matching	388	388	388	388	388

See clause 6.10.3.4.5.1.1.1.

6.11.5.4.5.1.1.2 TFCS

See clause 6.10.3.4.5.1.1.2.

6.11.5.4.5.1.2 Physical channel parameters

PRACH	Modulation	QPSK
	Codes and time slots/ radio frame	SF 8 x 1 code x 2 time slots
	Max. Number of data bits/radio frame	352 bits
	TPC / radio frame	0 bits
	SS / radio frame	0 bits
	Puncturing Limit	0.88

6.11.5.4.5.2 Interactive/Background 32 12.8 kbps PS RAB + SRB for CCCH + SRBs for DCCH

6.11.5.4.5.2.1 Transport channel parameters

6.11.5.4.5.2.1.1 Transport channel parameters for Interactive or background / / UL:32 12.8 kbps / PS RAB + SRB for CCCH + SRBs for DCCH

Higher layer	RAB/signalling RB		**RAB**
	User of Radio Bearer		Interactive/ Background RAB
RLC	Logical channel type		DTCH
	RLC mode		AM
	Payload sizes, bit		320
	Max data rate, bps		32000
	AMD/UMD/TrD PDU header, bit		16
MAC	MAC header, bit		24
	MAC multiplexing		
Layer 1	TrCH type		RACH
	TB sizes, bit		360
	TFS	TF0, bits	1x360

~~TTI, ms~~	~~10~~
~~Coding type~~	~~CC ½~~
~~CRC, bit~~	~~16~~
~~Max number of bits/TTI after channel coding~~	~~768~~
~~Max number of bits/ Radio frame before rate matching~~	~~768~~

Higher layer	RAB/signalling RB	**RAB**	**SRB#0**	**SRB#1**	**SRB#2**	**SRB#3**	**SRB#4**
	User of Radio Bearer	Interactive/ Background RAB	RRC	RRC	RRC	NAS_DT High priority	NAS_DT Low priority
RLC	Logical channel type	DTCH	CCCH	DCCH	DCCH	DCCH	DCCH
	RLC mode	AM	TM	UM	AM	AM	AM
	Payload sizes, bit	128	168	136	128	128	128
	Max data rate, bps	12800	16800	13600	12800	12800	12800
	AMD/UMD/TrD PDU header, bit	16	0	8	16	16	16
MAC	MAC header, bit	26	2	26	26	26	26
	MAC multiplexing	6 logical channel multiplexing					
Layer 1	TrCH type	RACH					
	TB sizes, bit	170					
	TFS TF0, bits	1x170					
	TTI, ms	10					
	Coding type	CC 1/2					
	CRC, bit	16					
	Max number of bits/TTI after channel coding	388					
	Max number of bits/ Radio frame before rate matching	388					

~~6.11.5.4.5.2.1.2 Transport channel parameters for SRB for CCCH + SRBs for DCCH~~

~~See the Chapter 6.11.5.4.5.1.1.1.~~

6.11.5.4.5.2.1.~~3~~2 TFCS

TFCS size	~~2~~1
TFCS	12.8 kbps PS RAB + SRB for CCCH + SRBs for DCCH~~32 kbps + SRBs for CCCH/ DCCH~~ = (TF0)~~, TF1~~

6.11.5.4.5.2.2 Physical channel parameters

~~PRACH~~	~~Modulation~~	~~QPSK~~
	~~Codes and time slots/ radio frame~~	~~SF 4 x 1 code x 2 time slots~~
	~~Max. Number of data bits/radio frame~~	~~704 bits~~
	~~TPC / radio frame~~	~~0 bits~~
	~~SS / radio frame~~	~~0 bits~~
	~~Puncturing Limit~~	~~0.88~~

See clause 6.11.5.4.5.1.2.

6.11.5.4.5.3 Interactive/Background 12.8 kbps PS RAB + Interactive/Background 12.8 kbps PS RAB + SRB for CCCH + SRB for DCCH

6.11.5.4.5.3.1 Transport channel parameters

6.11.5.4.5.3.1.1 Transport channel parameters for Interactive or background / 12.8 kbps / PS RAB + Interactive or background / 12.8 kbps / PS RAB + SRB for CCCH + SRBs for DCCH

Higher layer	RAB/signalling RB User of Radio Bearer	**RAB** Interactive/ Background RAB	**RAB** Interactive/ Background RAB	**SRB#0** RRC	**SRB#1** RRC	**SRB#2** RRC	**SRB#3** NAS_DT High prio	**SRB#4** NAS_DT Low prio
RLC	Logical channel type	DTCH	DTCH	CCCH	DCCH	DCCH	DCCH	DCCH
	RLC mode	AM	AM	TM	UM	AM	AM	AM
	Payload sizes, bit	128	128	168	136	128	128	128
	Max data rate, bps	12800	12800	16800	13600	12800	12800	12800
	AMD/UMD/TrD PDU header, bit	16	16	0	8	16	16	16
MAC	MAC header, bit	26	26	2	26	26	26	26
	MAC multiplexing	7 logical channel multiplexing						
Layer 1	TrCH type	RACH						
	TB sizes, bit	170						
	TFS TF0, bits	1x170						
	TTI, ms	10						
	Coding type	CC ½						
	CRC, bit	16						
	Max number of bits/TTI after channel coding	388						
	Max number of bits/ Radio frame before rate matching	388						

6.11.5.4.5.3.1.2 TFCS

TFCS size	1
TFCS	12.8 kbps PS RAB + 12.8 kbps PS RAB + SRB for CCCH + SRBs for DCCH = (TF0)

6.11.5.4.5.3.2 Physical channel parameters

See clause 6.11.5.4.5.1.2.

~~For physical channel parameters for SRB for CCCH + SRBs for DCCH see clause 6.11.5.4.5.1.2.~~

<End of modified section>