

Source: T1
Title: CR's to TS 34.108 v3.4.0 for approval
Agenda item: 5.1.3
Document for: Approval

This document contains 16 CRs to TS 34.108 v3.4.0. These CRs have been agreed by T1 and are put forward to TSG T for approval.

CRs related to maintenance of R99:

Spec	CR	Rev	Release	Subject	Cat	Version Current	Version -New	Doc-2nd-Level	Workitem
34.108	048		R99	Correction to reference	F	3.4.0	3.5.0	T1-010275	
34.108	049		R99	Editorial modification for References	D	3.4.0	3.5.0	T1-010276	
34.108	050		R99	Some corrections in clause 5	F	3.4.0	3.5.0	T1-010277	
34.108	051		R99	Update to Scope Statement	F	3.4.0	3.5.0	T1-010278	
34.108	052		R99	Clause 6.10 Definition of RB configurations, TDD parameters	F	3.4.0	3.5.0	T1-010279	
34.108	053		R99	Updates to clause 6.1, clause 7.4 and clause 9	F	3.4.0	3.5.0	T1-010280	
34.108	054		R99	Clause 6.1: Default radio conditions for Signalling tests	F	3.4.0	3.5.0	T1-010281	
34.108	055		R99	Correction of Radio Bearer Configurations for FDD Mode	F	3.4.0	3.5.0	T1-010282	
34.108	056		R99	Correction of Radio Bearer Configurations for TDD Mode	F	3.4.0	3.5.0	T1-010283	
34.108	057		R99	Changes to Signalling Radio Bearer (SRB) numbering	F	3.4.0	3.5.0	T1-010284	
34.108	058		R99	Missing bearers in tables 6.10.2.1.1 and 6.10.3.1.1	F	3.4.0	3.5.0	T1-010285	
34.108	059		R99	Correction of system information block 5	F	3.4.0	3.5.0	T1-010286	
34.108	063		R99	Clause 6.11 RBs for RLC and PDCP testing	B	3.4.0	3.5.0	T1-010290	

CRs for the creation of Rel-4:

Spec	CR	Rev	Release	Subject	Cat	Version Current	Version -New	Doc-2nd-Level	Workitem
34.108	060		Rel-4	Introducing of 1.28 Mcps TDD Mode in clauses 4, 5 and 6	B	3.4.0	4.0.0	T1-010287	LCRTDD-L23
34.108	061		Rel-4	Introduction of System Information Blocks for 1.28 Mcps TDD Mode	B	3.4.0	4.0.0	T1-010288	LCRTDD-L23
34.108	062		Rel-4	Introduction of typical radio parameters for 1.28 McpsTDD	B	3.4.0	4.0.0	T1-010289	LCRTDD-L23

CR-Form-v4

CHANGE REQUEST

⌘ **34.108 CR 048** ⌘ ev **-** ⌘ Current version: **3.4.0** ⌘

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

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

Title:	⌘ Correction to reference number in 34.108 Table 6.10.2.3.1				
Source:	⌘ Nokia				
Work item code:	⌘	Date:	⌘	2001-07-10	
Category:	⌘ F	Release:	⌘	R99	
	Use <u>one</u> of the following categories:		Use <u>one</u> of the following releases:		
	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 .		2 (GSM Phase 2)	R96 (Release 1996)	R97 (Release 1997)
			R98 (Release 1998)	R99 (Release 1999)	REL-4 (Release 4)
			REL-5 (Release 5)		

Reason for change:	⌘ The reference document in 34.108 Table 6.10.2.3.1: Example of linkage between RABs and services is incorrect. Table refers to document [16] 3GPP TS 26.110: "Codec for Circuit Switched Multimedia Telephony Service; General Description" when the correct reference is [15] 3GPP TS 23.107: "QoS concept and Architecture".
Summary of change:	⌘ Reference document in 34.108 Table 6.10.2.3.1 corrected.
Consequences if not approved:	⌘ Incorrect reference in 34.108 Table 6.10.2.3.1 will cause unnecessary confusion.

Clauses affected:	⌘ 6.10.2.3
Other specs affected:	⌘ <input type="checkbox"/> Other core specifications ⌘ <input type="checkbox"/>
	<input type="checkbox"/> Test specifications
	<input type="checkbox"/> 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.
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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.

<Start of modified section>

6.10.2.3 Example of linkage between RABs and services

RABs, which are included in this document, can provide the services as shown in Table 6.10.1.1. Furthermore, the required BER for each RAB, which is assumed in this 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 [4615]	Services
Traffic class [4615]	SSD [4615]	Max. rate, kbps	CS/PS		
Conversational	Speech	UL:4.75-12.2 DL:4.75-12.2	CS	5×10^{-4} , 1×10^{-3} , 5×10^{-3}	AMR speech
Conversational	Unknown	UL:64 DL:64	CS	1×10^{-4} or 1×10^{-6}	UDI 1B, 64k 3G-324M [4615]
Conversational	Unknown	UL:32 DL:32	CS	1×10^{-4} or 1×10^{-6}	32k 3G-324M [4615]
Conversational	Unknown	UL:28.8 DL:28.8	CS	1×10^{-3}	Transparent modem
Streaming	Unknown	UL:14.4 DL:14.4	CS	1×10^{-3}	FAX ^[6]
Streaming	Unknown	UL:28.8 DL:28.8	CS	1×10^{-3}	FAX [18] PIAFS 32 kbps
Streaming	Unknown	UL:57.6 DL:57.6	CS	1×10^{-3}	Modem [18], FTM [17] PIAFS 64 kbps
Streaming	Unknown	UL:64-128 or DL:64-384	CS	1×10^{-3} or 1×10^{-4}	Streaming video, uni-directional
Interactive or Background	N/A	UL:32-384 DL:8-2048	PS	1×10^{-3} or 1×10^{-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>

CR-Form-v4								
CHANGE REQUEST								
⌘	34.108 CR 049	⌘	ev	-	⌘	Current version:	3.4.0	⌘

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

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

Title:	⌘	Editorial modification for References (34.108 clause 2)	
Source:	⌘	NTTDoCoMo	
Work item code:	⌘	Date:	⌘
Category:	⌘	Release:	⌘
	D		R99
	<i>Use one of the following categories:</i>		<i>Use one of the following releases:</i>
	F (correction)	2 (GSM Phase 2)	
	A (corresponds to a correction in an earlier release)	R96 (Release 1996)	
	B (addition of feature),	R97 (Release 1997)	
	C (functional modification of feature)	R98 (Release 1998)	
	D (editorial modification)	R99 (Release 1999)	
	Detailed explanations of the above categories can be found in 3GPP TR 21.900 .		REL-4 (Release 4)
			REL-5 (Release 5)

Reason for change:	⌘	Reference specification informations are wrong	
Summary of change:	⌘	Specification's names and numbers were changed.	
Consequences if not approved:	⌘		

Clauses affected:	⌘	2	
Other specs affected:	⌘	<input type="checkbox"/> Other core specifications	⌘
		<input type="checkbox"/> Test specifications	
		<input type="checkbox"/> O&M Specifications	
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.

2 References

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.
- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.

- [1] 3GPP TS 34.123-1: "[User Equipment \(UE\)](#)~~Mobile Station (MS)~~ 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)".
- [6] 3GPP TS 34.109: "Terminal Logical Test Interface; Special conformance testing functions".
- [8] 3GPP TS 25.214: "Physical layer procedures (FDD)".
- [7] 3GPP TS 25.301 "[Radio Interface Protocol Architecture](#)"~~Services Provided by the physical layer~~
- [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)".
- [12] 3GPP TS 25.102: "[UTRA \(UE\) TDD; Radio](#) Transmission and Reception (TDD)".
- [13] 3GPP TS 25.211: "Physical Channels and mapping of Transport Channels onto Physical channels (FDD)".
- [14] 3GPP TS 25.212: "Multiplexing and Channel Coding (FDD)".
- [15] 3GPP TS 23.107: "QoS concept and Architecture".
- [16] 3GPP TS 26.110: "Codec for Circuit Switched Multimedia Telephony Service; General Description".
- [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".
- [27] 3GPP TS 25.224: "Physical layer procedures (TDD)".
- [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)".

3GPP TSG-T1 Meeting #12
Pusan, Korea, 6th – 7th September 2001

T1-010277

3GPP TSG-T1/SIG SWG Meeting #18
Munich, Germany, 31 July-2 August, 2001

Tdoc TSG T1S-010174

CR-Form-v3

CHANGE REQUEST

⌘ **34.108 CR 050** ⌘ rev **-** ⌘ Current version: **3.4.0** ⌘

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

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

Title:	⌘ Some corrections in clause 5		
Source:	⌘ Siemens AG		
Work item code:	⌘	Date:	⌘ 31.July.2001
Category:	⌘ F	Release:	⌘ R99
Use <u>one</u> of the following categories: F (essential correction) A (corresponds to a correction in an earlier release) B (Addition of feature), C (Functional modification of feature) D (Editorial modification) Detailed explanations of the above categories can be found in 3GPP TR 21.900.		Use <u>one</u> of the following releases: 2 (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) REL-4 (Release 4) REL-5 (Release 5)	

Reason for change:	⌘ Some corrections and references are updated in clause 5.
Summary of change:	⌘ 5.1.1 UARFCN is added for FDD mode in DL 5.1.2 Correction of High Range in Band 2 for TDD mode. 5.2 References for Radio conditions in TDD mode are corrected.
Consequences if not approved:	⌘

Clauses affected:	⌘ 5.1.1, 5.1.2, 5.2		
Other specs affected:	⌘ <input type="checkbox"/> Other core specifications	⌘	
	<input type="checkbox"/> Test specifications		
	<input type="checkbox"/> O&M Specifications		
Other comments:	⌘		

<Start of modified section>

5.1.1 FDD Mode Test frequencies

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

5.1.1.1 Standard FDD reference test frequencies

Test Frequency ID	UARFCN	Frequency of Uplink	UARFCN	Frequency of Downlink
Low Range	9613	1922.6 MHz	10563	2112.6 MHz
Mid Range	9750	1950.0 MHz	10700	2140.0 MHz
High Range	9887	1977.4 MHz	10837	2167.4 MHz

5.1.1.2 FDD reference test frequencies for ITU region 2

Test Frequency ID	UARFCN	Frequency of Uplink	UARFCN	Frequency of Downlink
Low Range	9263	1852.6 MHz	9663	1932.6 MHz
Mid Range	9400	1880 MHz	9800	1960 MHz
High Range	9537	1907.4 MHz	9937	1987.4 MHz

5.1.2 TDD Mode Test frequencies

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

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

5.1.2.1 Standard TDD reference test frequencies

Test Frequency ID	Band 1		Band 2	
	UARFCN	Frequency (UL and DL)	UARFCN	Frequency (UL and DL)
Low Range	9513	1902.6 MHz	10063	2012.6 MHz
Mid Range	9550	1910 MHz	10087	2017.4 MHz
High Range	9587	1917.4 MHz	10112 7	2022 3 .4 MHz

5.1.2.2 TDD reference test frequencies for ITU Region 2

a)

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

b)

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

5.2 Radio conditions

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

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

5.2.1 Normal Propagation Condition

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

5.2.2 Static Propagation Condition

See [2] Annex-D for FDD.

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

~~and [5] Annex-D for TDD.~~

5.2.3 Multi-Path Fading Propagation Conditions

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

5.2.4 Moving Propagation Conditions

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

5.2.5 Birth-Death propagation conditions

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

5.3 Standard test signals

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

5.4 Signal levels

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

5.4.1 Downlink Signal Levels

<FFS>

5.4.2 Uplink Signal Levels

<FFS>

<End of modified section>

CR-Form-v3

CHANGE REQUEST

⌘ **34.108** CR 051 ⌘ rev **-** ⌘ Current version: **3.4.0** ⌘

For [HELP](#) on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.

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

Title:	⌘ Update to Scope Statement in 34.108		
Source:	⌘ Anite Telecoms Ltd		
Work item code:	⌘	Date:	⌘ 18/07/01
Category:	⌘ F	Release:	⌘ R99
	Use <u>one</u> of the following categories: F (essential correction) A (corresponds to a correction in an earlier release) B (Addition of feature), C (Functional modification of feature) D (Editorial modification) Detailed explanations of the above categories can be found in 3GPP TR 21.900.		Use <u>one</u> of the following releases: 2 (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) REL-4 (Release 4) REL-5 (Release 5)

Reason for change:	⌘ The term “reference Radio Bearer configurations” found in the current Scope statement (Clause 1) of 34.108-3.4.0 was used to categorise the reference radio bearers defined under sub-clause 6.10 and these are essentially for interoperability testing. Following the various discussions that have taken place during recent T1/SIG meetings (especially T1/SIG#16 - Singapore) sub-clause 6.10 has been renamed as “Reference Radio Bearer configurations used in Radio Bearer interoperability testing” and a new sub-clause 6.11 “Common Radio Bearer configurations for other test purposes” has been added. The original formulation of the scope statement needs therefore to be updated to reflect such changes.
Summary of change:	⌘ Currently (34.108-3.4.0) the Scope Statement reads as follows: “The present document contains definitions of reference conditions and test signals, default parameters, reference Radio Bearer configurations, common requirements for test equipment and generic set-up procedures for use in UE conformance tests.” It is proposed to changed it as follows: “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.”
Consequences if	⌘ The scope statement will be misleading which might give the wrong impression

not approved: about the Radio Bearers that will be tested.

Clauses affected:	⌘	1		
Other specs affected:	⌘	<input type="checkbox"/> Other core specifications	⌘	
		<input type="checkbox"/> Test specifications		
		<input type="checkbox"/> O&M Specifications		
Other comments:	⌘	Minor Change but important for the sake of clarity		

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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~~The present document contains definitions of reference conditions and test signals, default parameters, reference Radio Bearer configurations, common requirements for test equipment and generic set-up procedures for use in UE conformance tests.~~

CR-Form-v4

CHANGE REQUEST

⌘ **34.108** CR 052 ⌘ ev **-** ⌘ Current version: **3.4.0** ⌘

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

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

Title:	⌘ CR for 6.10(34.108) "Reference Radio Bearer configurations" TDD parameters		
Source:	⌘ NTT DoCoMo		
Work item code:	⌘	Date:	⌘
Category:	⌘ F	Release:	⌘ R99
Use <u>one</u> 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 <u>one</u> of the following releases: 2 (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) REL-4 (Release 4) REL-5 (Release 5)	

Reason for change:	⌘ Correction for the current version.
Summary of change:	⌘ 1) RLC header → AMD/UMD PDU headers 2) TTI parameter was changed (6.10.3.4.4.1.1.1 Transport channel parameter of SRB for PCCH)
Consequences if not approved:	⌘ Test parameters don't satisfy the core specification and real environment.

Clauses affected:	⌘ 6.10.3		
Other specs affected:	<input type="checkbox"/> Other core specifications <input type="checkbox"/> Test specifications <input type="checkbox"/> O&M Specifications	⌘	
Other comments:	⌘		

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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

6.10.3 RAB and signalling RB for TDD

6.10.3.1 RABs and signalling RBs

In the following sections, 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 6.10.3.1.1: Prioritised RABs.

#	Traffic class ^[3]	SSD ^[3]	Max. rate, kbps	CS/PS
1	Conversational	Speech	UL:12.2 DL:12.2	CS
2	Conversational	Speech	UL:10.2 DL:10.2	CS
3	Conversational	Speech	UL:7.95 DL:7.95	CS
4	Conversational	Speech	UL:7.4 DL:7.4	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
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	Streaming	Unknown	UL:0 DL:64	CS
16	Streaming	Unknown	UL:64 DL:0	CS
17	Streaming	Unknown	UL:0 DL:128	CS
18	Streaming	Unknown	UL:128 DL:0	CS
19	Streaming	Unknown	UL:0 DL:384	CS
20	Interactive or Background	N/A	UL:32 DL:8	PS
21	Interactive or Background	N/A	UL:64 DL:8	PS
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	Interactive or Background	N/A	UL:384 DL:2048	PS
32	Interactive or Background	N/A	UL:64 DL:256	PS

Table 6.10.3.1.2: 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
9	UL:16.8	SHCCH	PRACH
10	UL:16.8	SHCCH	PRACH or PUSCH
11	DL:16	SHCCH	SCCPCH
12	DL:16	SHCCH	SCCPCH or PDSCH

6.10.3.2 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
- 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
- 5) Conversational / speech / UL:10.2 DL:10.2 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
- 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) Streaming / unknown / UL:0 DL:64 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH
- 19) Streaming / unknown / UL:64 DL:0 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH
- 20) Streaming / unknown / UL:0 DL:128 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH
- 21) Streaming / unknown / UL:128 DL:0 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH
- 22) Streaming / unknown / UL:0 DL:384 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH
- 23) Interactive or background / UL:32 DL:8 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH
- 24) Interactive or background / UL:64 DL:8 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH
- 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) Interactive or background / UL:128 DL:2048 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH
- 37) Interactive or background / UL:384 DL:2048 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH
- 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
- 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) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ Streaming / unknown / UL:0 DL:64 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH
- 47) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ Streaming / unknown / UL:0 DL:128 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH
- 48) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ Streaming / unknown / UL:0 DL:384 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH
- 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
- 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

- 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) Interactive or /background / UL:64 kbps DL:128 kbps / PS RAB
 - + Streaming / unknown / UL:0 DL:64 kbps / CS RAB
 - + UL:3.4 DL:3.4 kbps SRBs for DCCH
- 55) Interactive or /background / UL:64 kbps DL:128 kbps / PS RAB
 - + Streaming / unknown / UL:0 DL:128 kbps / CS 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: 16.8 DL: 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: 16.8 DL: 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 DL: 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
 - + Interactive or background / UL:64 DL:256 kbps / PS RAB
 - + UL:16.8 DL: 33.6 kbps SRBs for DCCH, CCCH and BCCH
 - + UL: 16.8 DL: 16 kbps SRBs for SHCCH
- 2) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
 - + Interactive or background / UL:64 DL:384 kbps / PS RAB
 - + UL:16.8 DL: 33.6 kbps SRBs for DCCH, CCCH and BCCH
 - + UL: 16.8 DL: 16 kbps SRBs for SHCCH
- 3) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
 - + Interactive or background / UL:64 DL:2048 kbps / PS RAB
 - + UL:16.8 DL: 33.6 kbps SRBs for DCCH, CCCH and BCCH
 - + UL: 16.8 DL: 16 kbps SRBs for SHCCH

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

Combinations on PRACH

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

6.10.3.3 Example of linkage between RABs and services

RABs, which are included in this document, can provide the services as shown in Table 6.10.1.1: Traffic classes. Furthermore, the required BER for each RAB, which is assumed in this document, is shown in Table 6.10.3.3.1.

Table 6.10.3.3.1: Example of linkage between RABs and services

Traffic class ^[3]	RAB			Residual BER ^[3]	Services
	SSD ^[3]	Max. rate, kbps	CS/PS		
Conversational	Speech	UL:4.75-12.2 DL:4.75-12.2	CS	5×10^{-4} , 1×10^{-3} , 5×10^{-3}	AMR speech
Conversational	Unknown	UL:64 DL:64	CS	1×10^{-4} or 1×10^{-6}	UDI 1B, 64k 3G-324M ^[4]
Conversational	Unknown	UL:32 DL:32	CS	1×10^{-4} or 1×10^{-6}	32k 3G-324M ^[4]
Conversational	Unknown	UL:28.8 DL:28.8	CS	1×10^{-3}	Transparent modem
Streaming	Unknown	UL:14.4 DL:14.4	CS	1×10^{-3}	FAX ^[6]
Streaming	Unknown	UL:28.8 DL:28.8	CS	1×10^{-3}	FAX ^[6]
Streaming	Unknown	UL:57.6 DL:57.6	CS	1×10^{-3}	PIAFS 32 kbps Modem ^[6] , FTM ^[5] , PIAFS 64 kbps
Streaming	Unknown	UL:64-128 or DL:64-384	CS	1×10^{-3} or 1×10^{-4}	Streaming video, uni-directional
Interactive or Background	N/A	UL:32-384 DL:8-2048	PS	1×10^{-3} or 1×10^{-4}	Packet

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

Note: CBS can be provided via the signalling RB (CTCH) on SCCPCH

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

6.10.3.4 Typical radio parameter sets

6.10.3.4.1 Combinations on DPCH

6.10.3.4.1.1 Stand-alone UL:1.7 DL:1.7 kbps SRBs for DCCH

6.10.3.4.1.1.1 Uplink

6.10.3.4.1.1.1.1 Transport channel parameters

6.10.3.4.1.1.1.1.1 Transport channel parameters for UL:1.7 kbps SRBs for DCCH

Higher layer	RAB/signalling RB	SRB#1	SRB#2	SRB#3	SRB#4
	User of Radio Bearer	RRC	RRC	NAS_DT High prio	NAS_DT Low prio
RLC	Logical channel type	DCCH	DCCH	DCCH	DCCH
	RLC mode	UM	AM	AM	AM
	Payload sizes, bit	136	128	128	128
	Max data rate, bps	1700	1600	1600	1600
	RLC header, bit AMD/UMD PDU header, bit	8	16	16	16
MAC	MAC header, bit	4	4	4	4
	MAC multiplexing	4 logical channel multiplexing			
Layer 1	TrCH type	DCH			
	TB sizes, bit	148			
	TFS	TF0, bits	0x148		
		TF1, bits	1x148		
	TTI, ms	80			
	Coding type	CC 1/3			
	CRC, bit	16			
	Max number of bits/TTI before rate matching	516			
	Uplink; Max number of bits/radio frame before rate matching	65			

6.10.3.4.1.1.1.1.2 TFCS

TFCS size	2
TFCS	SRBs for DCCH = TF0, TF1

6.10.3.4.1.1.1.2 Physical channel parameters

DPCH Uplink	Midamble	512 chips
	Codes and time slots	SF16 x 1 code x 1 time slot
	Max. Number of data bits/radio frame	238
	TFCI code word	4 bit
	TPC	2 bit
	Puncturing Limit	1

6.10.3.4.1.1.2 Downlink

6.10.3.4.1.1.2.1 Transport channel parameters

6.10.3.4.1.1.2.1.1 Transport channel parameters for DL:1.7 kbps SRBs for DCCH

Higher layer	RAB/signalling RB	SRB#1	SRB#2	SRB#3	SRB#4
	User of Radio Bearer	RRC	RRC	NAS_DT High prio	NAS_DT Low prio
RLC	Logical channel type	DCCH	DCCH	DCCH	DCCH
	RLC mode	UM	AM	AM	AM
	Payload sizes, bit	136	128	128	128
	Max data rate, bps	1700	1600	1600	1600
	RLC header, bit AMD/UMD PDU header, bit	8	16	16	16
MAC	MAC header, bit	4	4	4	4
	MAC multiplexing	4 logical channel multiplexing			
Layer 1	TrCH type	DCH			
	TB sizes, bit	148			
	TFS	TF0, bits	0 x148		
		TF1, bits	1x148		
	TTI, ms	80			
	Coding type	CC 1/3			
	CRC, bit	16			
	Max number of bits/TTI before rate matching	516			

6.10.3.4.1.1.2.1.2 TFCS

TFCS size	2
TFCS	SRBs for DCCH = TF0, TF1

6.10.3.4.1.1.2.2 Physical channel parameters

DPCH Downlink	Midamble	512 chips
	Codes and time slots	SF16 x 1 code x 1 time slot
	Max. Number of data bits/radio frame	240 bits
	TFCI code word	4 bits
	Puncturing limit	1

6.10.3.4.1.2 Stand-alone UL:3.4 DL:3.4 kbps SRBs for DCCH

6.10.3.4.1.2.1 Uplink

6.10.3.4.1.2.1.1 Transport channel parameters

6.10.3.4.1.2.1.1.1 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

Higher layer	RAB/signalling RB	SRB#1	SRB#2	SRB#3	SRB#4
	User of Radio Bearer	RRC	RRC	NAS_DT High prio	NAS_DT Low prio
RLC	Logical channel type	DCCH	DCCH	DCCH	DCCH
	RLC mode	UM	AM	AM	AM
	Payload sizes, bit	136	128	128	128
	Max data rate, bps	3400	3200	3200	3200
	RLC header, bit AMD/UMD PDU header, bit	8	16	16	16
MAC	MAC header, bit	4	4	4	4
	MAC multiplexing	4 logical channel multiplexing			
Layer 1	TrCH type	DCH			
	TB sizes, bit	148			
	TFS	TF0, bits	0x148		
		TF1, bits	1x148		
	TTI, ms	40			
	Coding type	CC 1/3			
	CRC, bit	16			
	Max number of bits/TTI before rate matching	516			
	Uplink: Max number of bits/radio frame before rate matching	129			
	RM attribute	155-165			

6.10.3.4.1.2.1.1.2 TFCS

TFCS size	2
TFCS	SRBs for DCCH = TF0, TF1

6.10.3.4.1.2.1.2 Physical channel parameters

DPCH Uplink	Midamble	512 chips
	Codes and time slots	SF16 x 1 code x 1 time slot
	Max. Number of data bits/radio frame	238 bits
	TFCI code word	4 bits
	TPC	2 bit
	Puncturing Limit	1

6.10.3.4.1.2.2 Downlink

6.10.3.4.1.2.2.1 Transport channel parameters

6.10.3.4.1.2.2.1.1 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

Higher layer	RAB/signalling RB	SRB#1	SRB#2	SRB#3	SRB#4
	User of Radio Bearer	RRC	RRC	NAS_DT High prio	NAS_DT Low prio
RLC	Logical channel type	DCCH	DCCH	DCCH	DCCH
	RLC mode	UM	AM	AM	AM
	Payload sizes, bit	136	128	128	128
	Max data rate, bps	3400	3200	3200	3200
	RLC header, bit AMD/UMD PDU header, bit	8	16	16	16
MAC	MAC header, bit	4	4	4	4
	MAC multiplexing	4 logical channel multiplexing			
Layer 1	TrCH type	DCH			
	TB sizes, bit	148			
	TFS	TF0, bits	0x148		
		TF1, bits	1x148		
	TTI, ms	40			
	Coding type	CC 1/3			
	CRC, bit	16			
	Max number of bits/TTI before rate matching	516			
RM attribute	155-165				

6.10.3.4.1.2.2.1.2 TFCS

TFCS size	2
TFCS	SRBs for DCCH = TF0, TF1

6.10.3.4.1.2.2.2 Physical channel parameters

DPCH Downlink	Midamble	512 chips
	Codes and time slots	SF16 x 1 code x 1 time slot
	Max. Number of data bits/radio frame	240
	TFCI code word	4 bits
	Puncturing limit	1

6.10.3.4.1.3 Stand-alone UL:13.6 DL:13.6 kbps SRBs for DCCH

6.10.3.4.1.3.1 Uplink

6.10.3.4.1.3.1.1 Transport channel parameters

6.10.3.4.1.3.1.1.1 Transport channel parameters for UL:13.6 kbps SRBs for DCCH

Higher layer	RAB/signalling RB	SRB#1	SRB#2	SRB#3	SRB#4
	User of Radio Bearer	RRC	RRC	NAS_DT High prio	NAS_DT Low prio
RLC	Logical channel type	DCCH	DCCH	DCCH	DCCH
	RLC mode	UM	AM	AM	AM
	Payload sizes, bit	136	128	128	128
	Max data rate, bps	13600	12800	12800	12800
	RLC header, bit AMD/UMD PDU header, bit	8	16	16	16
MAC	MAC header, bit	4	4	4	4
	MAC multiplexing	4 logical channel multiplexing			
Layer 1	TrCH type	DCH			
	TB sizes, bit	148			
	TFS	TF0, bits	0x148		

	TF1, bits	1x148
TTI, ms		10
Coding type		CC 1/3
CRC, bit		16
Max number of bits/TTI before rate matching		516
Uplink; Max number of bits/radio frame before rate matching		516

6.10.3.4.1.3.1.1.2 TFCS

TFCS size	2
TFCS	SRBs for DCCH = TF0, TF1

6.10.3.4.1.3.1.2 Physical channel parameters

DPCH Uplink	Midamble	512 cips
	Codes and time slots	SF8 x 1 code x 1 time slot
	Max. Number of data bits/radio frame	476 bits
	TFCI code word	4 bits
	TPC	2 bits
	Puncturing Limit	0.92

6.10.3.4.1.3.2 Downlink

6.10.3.4.1.3.2.1 Transport channel parameters

6.10.3.4.1.3.2.1.1 Transport channel parameters for DL:13.6 kbps SRBs for DCCH

Higher layer	RAB/signalling RB	SRB#1	SRB#2	SRB#3	SRB#4
	User of Radio Bearer	RRC	RRC	NAS_DT High_prio	NAS_DT Low_prio
RLC	Logical channel type	DCCH	DCCH	DCCH	DCCH
	RLC mode	UM	AM	AM	AM
	Payload sizes, bit	136	128	128	128
	Max data rate, bps	13600	12800	12800	12800
	RLC header, bit AMD/UMD PDU header, bit	8	16	16	16
MAC	MAC header, bit	4	4	4	4
	MAC multiplexing	4 logical channel multiplexing			
Layer 1	TrCH type	DCH			
	TB sizes, bit	148			
	TFS	TF0, bits	0x148		
		TF1, bits	1x148		
	TTI, ms	10			
	Coding type	CC 1/3			
	CRC, bit	16			
	Max number of bits/TTI before rate matching	516			

6.10.3.4.1.3.2.1.2 TFCS

TFCS size	2
TFCS	SRBs for DCCH = TF0, TF1

6.10.3.4.1.3.2.2 Physical channel parameters

DPCH Downlink	Midamble	512 chips
	Codes and time slots	SF16 x 2 codes x 1 time slot
	Max. Number of data bits/radio frame	484 bits
	TFCl code word	4 bits
	Puncturing limit	0.92

6.10.3.4.1.4 Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.10.3.4.1.4.1 Uplink

6.10.3.4.1.4.1.1 Transport channel parameters

6.10.3.4.1.4.1.1.1 Transport channel parameters for Conversational / speech / UL:12.2 kbps / CS RAB

Higher Layer	RAB/Signalling RB	RAB subflow #1	RAB subflow #2	RAB subflow #3	
RLC	Logical channel type	DTCH			
	RLC mode	TM	TM	TM	
	Payload sizes, bit	39, 81 (alt. 0, 39, 81)	103	60	
	Max data rate, bps	12200			
	RLC header, bit TrD PDU header, bit	0			
MAC	MAC header, bit	0			
	MAC multiplexing	N/A			
Layer 1	TrCH type	DCH	DCH	DCH	
	TB sizes, bit	39, 81 (alt. 0, 39, 81)	103	60	
	TFS	TF0, bits	0x81(alt. 1x0 ^{*1})	0x103	0x60
		TF1, bits	1x39	1x103	1x60
		TF2, bits	1x81	N/A	N/A
	TTI, ms	20	20	20	
	Coding type	CC 1/3	CC 1/3	CC 1/2	
	CRC, bit	12	N/A	N/A	
	Max number of bits/TTI after channel coding	303	333	136	
	Uplink: Max number of bits/radio frame before rate matching	152	167	68	
RM attribute	180-220	170-210	215-256		

*1: In case of using this alternative, CRC parity bits are to be attached to RAB subflow#1 any time since number of TrBlks are 1 even if there is no data on RAB subflow#1 (see clause 4.2.1.1 in TS25.212.).

6.10.3.4.1.4.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.1.1.

6.10.3.4.1.4.1.1.3 TFCS

TFCS size	6
TFCS	(RAB subflow#1, RAB subflow#2, RAB subflow#3,DCCH)=(TF0, TF0, TF0, TF0), (TF1, TF0, TF0, TF0), (TF2, TF1, TF1, TF0), (TF0, TF0, TF0, TF1), (TF1, TF0, TF0, TF1), (TF2, TF1, TF1, TF1)

6.10.3.4.1.4.1.2 Physical channel parameters

DPCH Uplink	Midamble	512 chips
	Codes and time slots	SF8 x 1 code x 1 time slot
	Max. Number of data bits/radio frame	452 bits
	TFCI code word	16 bits
	TPC	2 bit
	Puncturing Limit	0.88

6.10.3.4.1.4.2 Downlink

6.10.3.4.1.4.2.1 Transport channel parameters

6.10.3.4.1.4.2.1.1 Transport channel parameters for Conversational / speech / DL:12.2 kbps / CS RAB

Higher Layer	RAB/Signalling RB	RAB subflow #1	RAB subflow #2	RAB subflow #3	
RLC	Logical channel type	DTCH			
	RLC mode	TM	TM	TM	
	Payload sizes, bit	0, 39, 81	103	60	
	Max data rate, bps	12200			
	RLC header, bit TrD PDU header, bit	0			
MAC	MAC header, bit	0			
	MAC multiplexing	N/A			
Layer 1	TrCH type	DCH	DCH	DCH	
	TB sizes, bit	0	103	60	
		39			
		81			
	TFS*1	TF0, bits	1x0*2	0x103	0x60
		TF1, bits	1x39	1x103	1x60
		TF2, bits	1x81	N/A	N/A
	TTI, ms	20	20	20	
	Coding type	CC 1/3	CC 1/3	CC 1/2	
CRC, bit	12	N/A	N/A		
Max number of bits/TTI after channel coding	303	333	136		
RM attribute	180-220	170-210	215-256		

*1: The TrCH corresponding to RAB subflow #1 should be used as the guiding TrCH, (see section 4.3 in TS25.212).

*2: CRC parity bits are to be attached to RAB subflow#1 any time since number of TrBlks are 1 even if there is no data on RAB subflow#1 (see clause 4.2.1.1 in TS25.212.).

6.10.3.4.1.4.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.2.1.1

6.10.3.4.1.4.2.1.3 TFCS

TFCS size	6
TFCS	(RAB subflow#1, RAB subflow#2, RAB subflow#3,DCCH)=(TF0, TF0, TF0, TF0), (TF1, TF0, TF0, TF0), (TF2, TF1, TF1, TF0), (TF0, TF0, TF0, TF1), (TF1, TF0, TF0, TF1), (TF2, TF1, TF1, TF1)

6.10.3.4.1.4.2.2 Physical channel parameters

DPCH Downlink	Midamble	512 chips
	Codes and time slots	SF16 x 2 codes x 1 time slot
	Max. Number of data bits/radio frame	472 bits
	TFCI code word	16 bits
	Puncturing limit	0.92

6.10.3.4.1.5 Conversational / speech / UL:10.2 DL:10.2 kbps / CS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.10.3.4.1.5.1 Uplink

6.10.3.4.1.5.1.1 Transport channel parameters

6.10.3.4.1.5.1.1.1 Transport channel parameters for Conversational / speech / UL:10.2 kbps / CS RAB

Higher Layer	RAB/Signalling RB	RAB subflow #1	RAB subflow #2	RAB subflow #3	
RLC	Logical channel type	DTCH			
	RLC mode	TM	TM	TM	
	Payload sizes, bit	39, 65 (alt. 0, 39, 65)	99	40	
	Max data rate, bps	10200			
	RLC header, bit TrD PDU header, bit	0			
MAC	MAC header, bit	0			
	MAC multiplexing	N/A			
Layer 1	TrCH type	DCH	DCH	DCH	
	TB sizes, bit	39, 65 (alt. 0, 39, 65)	99	40	
	TFS	TF0, bits	0x65 (alt. 1x0 ^{*1})	0x99	0x40
		TF1, bits	1x39	1x99	1x40
		TF2, bits	1x65	N/A	N/A
	TTI, ms	20	20	20	
	Coding type	CC 1/3	CC 1/3	CC 1/2	
	CRC, bit	12	N/A	N/A	
	Max number of bits/TTI after channel coding	255	321	96	
	Uplink: Max number of bits/radio frame before rate matching	128	161	48	
RM attribute	180-220	170-210	215-256		

*1: In case of using this alternative, CRC parity bits are to be attached to RAB subflow#1 any time since number of TrBlks are 1 even if there is no data on RAB subflow#1 (see clause 4.2.1.1 in TS25.212.).

6.10.3.4.1.5.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.1.1.1

6.10.3.4.1.5.1.1.3 TFCS

TFCS size	6
TFCS	(RAB subflow#1, RAB subflow#2, RAB subflow#3, DCCH)= (TF0, TF0, TF0, TF0), (TF1, TF0, TF0, TF0), (TF2, TF1, TF1, TF0), (TF0, TF0, TF0, TF1), (TF1, TF0, TF0, TF1), (TF2, TF1, TF1, TF1)

6.10.3.4.1.5.1.2 Physical channel parameters

DPCH Uplink	Midamble	512 chips
	Codes and time slots	SF16 x 1 code x 1 time slot
	Max. Number of data bits/radio frame	226 bits
	TFCI code word	16 bits
	TPC	2 bit
	Puncturing Limit	0.48

6.10.3.4.1.5.2 Downlink

6.10.3.4.1.5.2.1 Transport channel parameters

6.10.3.4.1.5.2.1.1 Transport channel parameters for Conversational / speech / DL:10.2 kbps / CS RAB

Higher Layer	RAB/Signalling RB	RAB subflow #1	RAB subflow #2	RAB subflow #3	
RLC	Logical channel type	DTCH			
	RLC mode	TM	TM	TM	
	Payload sizes, bit	0, 39, 65	99	40	
	Max data rate, bps	10200			
	RLC header, bit TrD PDU header, bit	0			
MAC	MAC header, bit	0			
	MAC multiplexing	N/A			
Layer 1	TrCH type	DCH	DCH	DCH	
	TB sizes, bit	0	99	40	
		39			
		65			
	TFS	TF0, bits	1x0*2	0x99	0x40
		TF1, bits	1x39	1x99	1x40
		TF2, bits	1x65	N/A	N/A
	TTI, ms	20	20	20	
	Coding type	CC 1/3	CC 1/3	CC 1/2	
	CRC, bit	12	N/A	N/A	
Max number of bits/TTI after channel coding	255	321	96		
RM attribute	180-220	170-210	215-256		

*1: The TrCH corresponding to RAB subflow #1 should be used as the guiding TrCH, (see section 4.3 in TS25.212).

*2: CRC parity bits are to be attached to RAB subflow#1 any time since number of TrBlks are 1 even if there is no data on RAB subflow#1 (see clause 4.2.1.1 in TS25.212.).

6.10.3.4.1.5.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.2.1.1

6.10.3.4.1.5.2.1.3 TFCS

TFCS size	6
TFCS	(RAB subflow#1, RAB subflow#2, RAB subflow#3, DCCH)= (TF0, TF0, TF0, TF0), (TF1, TF0, TF0, TF0), (TF2, TF1, TF1, TF0), (TF0, TF0, TF0, TF1), (TF1, TF0, TF0, TF1), (TF2, TF1, TF1, TF1)

6.10.3.4.1.5.2.2 Physical channel parameters

DPCH Downlink	Midamble	512 chips
	Codes and time slots	SF16 x 1 code x 1 time slot
	Max. Number of data bits/radio frame	228 bits
	TFCI code word	16 bits
	Puncturing limit	0,48

6.10.3.4.1.6 Conversational / speech / UL:7.95 DL:7.95 kbps / CS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.10.3.4.1.6.1 Uplink

6.10.3.4.1.6.1.1 Transport channel parameters

6.10.3.4.1.6.1.1.1 Transport channel parameters for Conversational / speech / UL:7.95 kbps / CS RAB

Higher Layer	RAB/Signalling RB	RAB subflow #1	RAB subflow #2	
RLC	Logical channel type	DTCH		
	RLC mode	TM	TM	
	Payload sizes, bit	39, 75 (alt. 0, 39, 75)	84	
	Max data rate, bps	7950		
	RLC header, bit	0		
MAC	MAC header, bit	0		
	MAC multiplexing	N/A		
Layer 1	TrCH type	DCH	DCH	
	TB sizes, bit	39, 75 (alt. 0, 39, 75)	84	
	TFS	TF0, bits	0x75 (alt. 1x0* ¹)	0x84
		TF1, bits	1x39	1x84
		TF2, bits	1x75	N/A
	TTI, ms	20	20	
	Coding type	CC 1/3	CC 1/3	
	CRC, bit	12	N/A	
	Max number of bits/TTI after channel coding	285	276	
	Uplink: Max number of bits/radio frame before rate matching	143	138	
RM attribute	180-220	170-210		

*1: In case of using this alternative, CRC parity bits are to be attached to RAB subflow#1 any time since number of TrBlks are 1 even if there is no data on RAB subflow#1 (see clauses 4.2.1.1 in TS25.212.).

6.10.3.4.1.6.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.1.1.1

6.10.3.4.1.6.1.1.3 TFCS

TFCS size	6
TFCS	(RAB subflow#1, RAB subflow#2, DCCH)= (TF0, TF0, TF0), (TF1, TF0, TF0), (TF2, TF1, TF0), (TF0, TF0, TF1), (TF1, TF0, TF1), (TF2, TF1, TF1)

6.10.3.4.1.6.1.2 Physical channel parameters

DPCH Uplink	Midamble	512 chips
	Codes and time slots	SF16 x 1 code x 1 time slot
	Max. Number of data bits/radio frame	226 bits
	TFCI code word	16 bits
	TPC	2 bits
	Puncturing Limit	0.52

6.10.3.4.1.6.2 Downlink

6.10.3.4.1.6.2.1 Transport channel parameters

6.10.3.4.1.6.2.1.1 Transport channel parameters for Conversational / speech / DL:7.95 kbps / CS RAB

Higher Layer	RAB/Signalling RB	RAB subflow #1	RAB subflow #2	
RLC	Logical channel type	DTCH		
	RLC mode	TM	TM	
	Payload sizes, bit	0, 39, 75	84	
	Max data rate, bps	7950		
	RLC header, bit TrD PDU header, bit	0		
MAC	MAC header, bit	0		
	MAC multiplexing	N/A		
Layer 1	TrCH type	DCH	DCH	
	TB sizes, bit	0, 39, 75	84	
	TFS*1	TF0, bits	1x0*2	0x84
		TF1, bits	1x39	1x84
		TF2, bits	1x75	N/A
	TTI, ms	20	20	
	Coding type	CC 1/3	CC 1/3	
	CRC, bit	12	N/A	
Max number of bits/TTI after channel coding	285	276		
RM attribute	180-220	170-210		

*1: The TrCH corresponding to RAB subflow #1 should be used as the guiding TrCH, (see section 4.3 in TS25.212).

*2: CRC parity bits are to be attached to RAB subflow#1 any time since number of TrBlks are 1 even if there is no data on RAB subflow#1 (see clause 4.2.1.1 in TS25.212.).

6.10.3.4.1.6.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.2.1.1

6.10.3.4.1.6.2.1.3 TFCS

TFCS size	6
TFCS	(RAB subflow#1, RAB subflow#2, DCCH)= (TF0, TF0, TF0), (TF1, TF0, TF0), (TF2, TF1, TF0), (TF0, TF0, TF1), (TF1, TF0, TF1), (TF2, TF1, TF1)

6.10.3.4.1.6.2.2 Physical channel parameters

DPCH Downlink	Midamble	512 chips
	Codes and time slots	SF16 x 1 code x 1 time slot
	Max. Number of data bits/radio frame	228 bits
	TFCI code word	16 bits
	Puncturing limit	0,56

6.10.3.4.1.7 Conversational / speech / UL:7.4 DL:7.4 kbps / CS RAB+ UL:3.4 DL:3.4 kbps SRBs for DCCH

6.10.3.4.1.7.1 Uplink

6.10.3.4.1.7.1.1 Transport channel parameters

6.10.3.4.1.7.1.1.1 Transport channel parameters for Conversational / speech / UL:7.4 kbps / CS RAB

Higher Layer	RAB/Signalling RB	RAB subflow #1	RAB subflow #2	
RLC	Logical channel type	DTCH		
	RLC mode	TM	TM	
	Payload sizes, bit	39, 61 (alt. 0, 39, 61)	87	
	Max data rate, bps	7400		
	RLC header, bit TrD PDU header, bit	0		
MAC	MAC header, bit	0		
	MAC multiplexing	N/A		
Layer 1	TrCH type	DCH	DCH	
	TB sizes, bit	39, 61 (alt. 0, 39, 61)	87	
	TFS	TF0, bits	0x61 (alt. 1x0 ^{*1})	0x87
		TF1, bits	1x39	1x87
		TF2, bits	1x61	N/A
	TTI, ms	20	20	
	Coding type	CC 1/3	CC 1/3	
	CRC, bit	12	N/A	
	Max number of bits/TTI after channel coding	243	285	
	Uplink: Max number of bits/radio frame before rate matching	122	143	
RM attribute	180-220	170-210		

*1: CRC parity bits are to be attached to RAB subflow#1 any time since number of TrBlks are 1 even if there is no data on RAB subflow#1 (see clause 4.2.1.1 in TS25.212.).

6.10.3.4.1.7.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.1.1.1

6.10.3.4.1.7.1.1.3 TFCS

TFCS size	6
TFCS	(RAB subflow#1, RAB subflow#2, DCCH)= (TF0, TF0, TF0), (TF1, TF0, TF0), (TF2, TF1, TF0), (TF0, TF0, TF1), (TF1, TF0, TF1), (TF2, TF1, TF1)

6.10.3.4.1.7.1.2 Physical channel parameters

DPCH Uplink	Midamble	512 chips
	Codes and time slots	SF16 x 1 code x 1 time slot
	Max. Number of data bits/radio frame	226 bits
	TFCl code word	16 bits
	TPC	2 bits
	Puncturing Limit	0.56

6.10.3.4.1.7.2 Downlink

6.10.3.4.1.7.2.1 Transport channel parameters

6.10.3.4.1.7.2.1.1 Transport channel parameters for Conversational / speech / DL:7.4 kbps / CS RAB

Higher Layer	RAB/Signalling RB	RAB subflow #1	RAB subflow #2	
RLC	Logical channel type	DTCH		
	RLC mode	TM	TM	
	Payload sizes, bit	0, 39, 61	87	
	Max data rate, bps	7400		
	RLC header, bit TrD PDU header, bit	0		
MAC	MAC header, bit	0		
	MAC multiplexing	N/A		
Layer 1	TrCH type	DCH	DCH	
	TB sizes, bit	0, 39, 61	87	
	TFS*1	TF0, bits	1x0*2	0x87
		TF1, bits	1x39	1x87
		TF2, bits	1x61	N/A
	TTI, ms	20	20	
	Coding type	CC 1/3	CC 1/3	
	CRC, bit	12	N/A	
	Max number of bits/TTI after channel coding	243	285	
RM attribute	180-220	170-210		

*1: The TrCH corresponding to RAB subflow #1 should be used as the guiding TrCH, (see section 4.3 in TS25.212).

*2: CRC parity bits are to be attached to RAB subflow#1 any time since number of TrBlks are 1 even if there is no data on RAB #1 (see clause 4.2.1.1 in TS25.212.).

6.10.3.4.1.7.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.2.1.1

6.10.3.4.1.7.2.1.3 TFCS

TFCS size	6
TFCS	(RAB subflow#1, RAB subflow#2, DCCH)= (TF0, TF0, TF0), (TF1, TF0, TF0), (TF2, TF1, TF0), (TF0, TF0, TF1), (TF1, TF0, TF1), (TF2, TF1, TF1)

6.10.3.4.1.7.2.2 Physical channel parameters

DPCH Downlink	Midamble	512 chips
	Codes and time slots	SF16 x 1 code x 1 time slot
	Max. Number of data bits/radio frame	228 bits
	TFCl code word	16 bits
	Puncturing limit	0,56

6.10.3.4.1.8 Conversational / speech / UL:6.7 DL:6.7 kbps / CS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.10.3.4.1.8.1 Uplink

6.10.3.4.1.8.1.1 Transport channel parameters

6.10.3.4.1.8.1.1.1 Transport channel parameters for Conversational / speech / UL:6.7 kbps / CS RAB

Higher Layer	RAB/Signalling RB	RAB subflow #1	RAB subflow #2	
RLC	Logical channel type	DTCH		
	RLC mode	TM	TM	
	Payload sizes, bit	39, 58 (alt. 0, 39, 58)	76	
	Max data rate, bps	6700		
	RLC header, bit TrD PDU header, bit	0		
MAC	MAC header, bit	0		
	MAC multiplexing	N/A		
Layer 1	TrCH type	DCH	DCH	
	TB sizes, bit	39, 58 (alt. 0, 39, 58)	76	
	TFS	TF0, bits	0x58 (alt. 1x0 ^{*1})	0x76
		TF1, bits	1x39	1x76
		TF2, bits	1x58	N/A
	TTI, ms	20	20	
	Coding type	CC 1/3	CC 1/3	
	CRC, bit	12	N/A	
	Max number of bits/TTI after channel coding	234	252	
	Uplink: Max number of bits/radio frame before rate matching	117	126	
RM attribute	180-220	170-210		

*1: In case of using this alternative, CRC parity bits are to be attached to RAB subflow#1 any time since number of TrBlks are 1 even if there is no data on RAB subflow#1 (see clause 4.2.1.1 in TS25.212.).

6.10.3.4.1.8.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.1.1.1

6.10.3.4.8.1.1.3 TFCS

TFCS size	6
TFCS	(RAB subflow#1, RAB subflow#2, DCCH)= (TF0, TF0, TF0), (TF1, TF0, TF0), (TF2, TF1, TF0), (TF0, TF0, TF1), (TF1, TF0, TF1), (TF2, TF1, TF1)

6.10.3.4.1.8.1.2 Physical channel parameters

DPCH Uplink	Midamble	512 chips
	Codes and time slots	SF16 x 1 code x 1 time slot
	Max. Number of data bits/radio frame	226 bits
	TFCI code word	16 bits
	TPC	2 bits
	Puncturing Limit	0.60

6.10.3.4.1.8.2 Downlink

6.10.3.4.1.8.2.1 Transport channel parameters

6.10.3.4.1.8.2.1.1 Transport channel parameters for Conversational / speech / DL:6.7 kbps / CS RAB

Higher Layer	RAB/Signalling RB	RAB subflow #1	RAB subflow #2	
RLC	Logical channel type	DTCH		
	RLC mode	TM	TM	
	Payload sizes, bit	0, 39, 58	76	
	Max data rate, bps	6700		
	RLC header, bit TrD PDU header, bit	0		
MAC	MAC header, bit	0		
	MAC multiplexing	N/A		
Layer 1	TrCH type	DCH	DCH	
	TB sizes, bit	0	76	
		39		
		58		
	TFS*1	TF0, bits	1x0*2	0x76
		TF1, bits	1x39	1x76
		TF2, bits	1x58	N/A
	TTI, ms	20	20	
	Coding type	CC 1/3	CC 1/3	
	CRC, bit	12	N/A	
Max number of bits/TTI after channel coding	234	252		
RM attribute	180-220	170-210		

*1: The TrCH corresponding to RAB subflow #1 should be used as the guiding TrCH, (see section 4.3 in TS25.212).

*2: CRC parity bits are to be attached to RAB subflow#1 any time since number of TrBlks are 1 even if there is no data on RAB subflow#1 (see clause 4.2.1.1 in TS25.212.).

6.10.3.4.1.8.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.2.1.1

6.10.3.4.1.8.2.1.3 TFCS

TFCS size	6
TFCS	(RAB subflow#1, RAB subflow#2, DCCH)= (TF0, TF0, TF0), (TF1, TF0, TF0), (TF2, TF1, TF0), (TF0, TF0, TF1), (TF1, TF0, TF1), (TF2, TF1, TF1)

6.10.3.4.1.8.2.2 Physical channel parameters

DPCH Downlink	Midamble	512 chips
	Codes and time slots	SF16 x 1 code x 1 time slot
	Max. Number of data bits/radio frame	228 bits
	TFCI code word	16 bits
	Puncturing limit	0,6

6.10.3.4.1.9 Conversational / speech / UL:5.9 DL:5.9 kbps / CS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.10.3.4.1.9.1 Uplink

6.10.3.4.1.9.1.1 Transport channel parameters

6.10.3.4.1.9.1.1.1 Transport channel parameters for Conversational / speech / UL:5.9 kbps / CS RAB

Higher Layer	RAB/Signalling RB	RAB subflow #1	RAB subflow #2	
RLC	Logical channel type	DTCH		
	RLC mode	TM	TM	
	Payload sizes, bit	39, 55 (alt. 0, 39, 55)	63	
	Max data rate, bps	5900		
	RLC header, bit TrD PDU header, bit	0		
MAC	MAC header, bit	0		
	MAC multiplexing	N/A		
Layer 1	TrCH type	DCH	DCH	
	TB sizes, bit	39, 55 (alt. 0, 39, 55)	63	
	TFS	TF0, bits	0x55 (alt. 1x0 ^{*1})	0x63
		TF1, bits	1x39	1x63
		TF2, bits	1x55	N/A
	TTI, ms	20	20	
	Coding type	CC 1/3	CC 1/3	
	CRC, bit	12	N/A	
	Max number of bits/TTI after channel coding	225	213	
	Uplink: Max number of bits/radio frame before rate matching	113	107	
RM attribute	180-220	170-210		

*1: In case of using this alternative, CRC parity bits are to be attached to RAB subflow#1 any time since number of TrBlks are 1 even if there is no data on RAB subflow#1 (see clause 4.2.1.1 in TS25.212.).

6.10.3.4.1.9.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.1.1.1

6.10.3.4.1.9.1.1.3 TFCS

TFCS size	6
TFCS	(RAB subflow#1, RAB subflow#2, DCCH)= (TF0, TF0, TF0), (TF1, TF0, TF0), (TF2, TF1, TF0), (TF0, TF0, TF1), (TF1, TF0, TF1), (TF2, TF1, TF1)

6.10.3.4.1.9.1.2 Physical channel parameters

DPCH Uplink	Midamble	512 chips
	Codes and time slots	SF16 x 1 code x 1 time slot
	Max. Number of data bits/radio frame	226 bits
	TFCI code word	16 bits
	TPC	2 bits
	Puncturing Limit	0.64

6.10.3.4.1.9.2 Downlink

6.10.3.4.1.9.2.1 Transport channel parameters

6.10.3.4.1.9.2.1.1 Transport channel parameters for Conversational / speech / DL:5.9 kbps / CS RAB

Higher Layer	RAB/Signalling RB	RAB subflow #1	RAB subflow #2	
RLC	Logical channel type	DTCH		
	RLC mode	TM	TM	
	Payload sizes, bit	0, 39, 55	63	
	Max data rate, bps	5900		
	RLC header, bit	0		
MAC	MAC header, bit	0		
	MAC multiplexing	N/A		
Layer 1	TrCH type	DCH	DCH	
	TB sizes, bit	0, 39, 55	63	
	TFS*1	TF0, bits	1x0*2	0x63
		TF1, bits	1x39	1x63
		TF2, bits	1x55	N/A
	TTI, ms	20	20	
	Coding type	CC 1/3	CC 1/3	
	CRC, bit	12	N/A	
Max number of bits/TTI after channel coding	225	213		
RM attribute	180-220	170-210		

*1: The TrCH corresponding to RAB subflow #1 should be used as the guiding TrCH, (see section 4.3 in TS25.212).

*2: CRC parity bits are to be attached to RAB subflow#1 any time since number of TrBlks are 1 even if there is no data on RAB subflow#1 (see clause 4.2.1.1 in TS25.212.).

6.10.3.4.1.9.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.2.1.1

6.10.3.4.1.9.2.1.3 TFCS

TFCS size	6
TFCS	(RAB subflow#1, RAB subflow#2, DCCH)= (TF0, TF0, TF0), (TF1, TF0, TF0), (TF2, TF1, TF0), (TF0, TF0, TF1), (TF1, TF0, TF1), (TF2, TF1, TF1)

6.10.3.4.1.9.2.2 Physical channel parameters

DPCH Downlink	Midamble	512 chips
	Codes and time slots	SF16 x 1 code x 1 time slot
	Max. Number of data bits/radio frame	228 bits
	TFCI code word	16 bits
	Puncturing limit	0,64

6.10.3.4.1.10 Conversational / speech / UL:5.15 DL:5.15 kbps / CS RAB + UL:1.7 DL:1.7 kbps SRBs for DCCH

6.10.3.4.1.10.1 Uplink

6.10.3.4.1.10.1.1 Transport channel parameters

6.10.3.4.1.10.1.1 Transport channel parameters for Conversational / speech / UL:5.15 kbps / CS RAB

Higher Layer	RAB/Signalling RB	RAB subflow #1	RAB subflow #2	
RLC	Logical channel type	DTCH		
	RLC mode	TM	TM	
	Payload sizes, bit	39, 49 (alt. 0, 39, 49)	54	
	Max data rate, bps	5150		
	RLC header, bit TrD PDU header, bit	0		
MAC	MAC header, bit	0		
	MAC multiplexing	N/A		
Layer 1	TrCH type	DCH	DCH	
	TB sizes, bit	39, 49 (alt. 0, 39, 49)	54	
	TFS	TF0, bits	0x49 (alt. 1x0 ^{*1})	0x54
		TF1, bits	1x39	1x54
		TF2, bits	1x49	N/A
	TTI, ms	20	20	
	Coding type	CC 1/3	CC 1/3	
	CRC, bit	12	N/A	
	Max number of bits/TTI after channel coding	207	186	
	Uplink: Max number of bits/radio frame before rate matching	104	93	
RM attribute	180-220	170-210		

*1: : In case of using this alternative, CRC parity bits are to be attached to RAB subflow#1 any time since number of TrBlks are 1 even if there is no data on RAB subflow#1 (see clause 4.2.1.1 in TS25.212.).

6.10.3.4.1.10.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.1.1.1

6.10.3.4.1.10.1.1.3 TFCS

TFCS size	6
TFCS	(RAB subflow#1, RAB subflow#2, DCCH)= (TF0, TF0, TF0), (TF1, TF0, TF0), (TF2, TF1, TF0), (TF0, TF0, TF1), (TF1, TF0, TF1), (TF2, TF1, TF1)

6.10.3.4.1.10.1.2 Physical channel parameters

DPCH Uplink	Midamble	512 chips
	Codes and time slots	SF16 x 1 code x 1 time slot
	Max. Number of data bits/radio frame	226 bits
	TFCI code word	16 bits
	TPC	2 bits
	Puncturing Limit	0.68

6.10.3.4.1.10.2 Downlink

6.10.3.4.1.10.2.1 Transport channel parameters

6.10.3.4.1.10.2.1.1 Transport channel parameters for Conversational / speech / DL:5.15 kbps / CS RAB

Higher Layer	RAB/Signalling RB	RAB subflow #1	RAB subflow #2	
RLC	Logical channel type	DTCH		
	RLC mode	TM	TM	
	Payload sizes, bit	0, 39, 49	54	
	Max data rate, bps	5150		
	RLC header, bit TrD PDU header, bit	0		
MAC	MAC header, bit	0		
	MAC multiplexing	N/A		
Layer 1	TrCH type	DCH	DCH	
	TB sizes, bit	0, 39, 49	54	
	TFS*1	TF0, bits	1x0	0x54
		TF1, bits	1x39	1x54
		TF2, bits	1x49	N/A
	TTI, ms	20	20	
	Coding type	CC 1/3	CC 1/3	
	CRC, bit	12	N/A	
	Max number of bits/TTI after channel coding	207	186	
RM attribute	180-220	170-210		

*1: The TrCH corresponding to RAB subflow #1 should be used as the guiding TrCH, (see section 4.3 in TS25.212).

*2: CRC parity bits are to be attached to RAB subflow#1 any time since number of TrBlks are 1 even if there is no data on RAB subflow#1 (see clause 4.2.1.1 in TS25.212.).

6.10.3.4.1.10.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.2.1.1

6.10.3.4.1.10.2.1.3 TFCS

TFCS size	6
TFCS	(RAB subflow#1, RAB subflow#2, DCCH)= (TF0, TF0, TF0), (TF1, TF0, TF0), (TF2, TF1, TF0), (TF0, TF0, TF1), (TF1, TF0, TF1), (TF2, TF1, TF1)

6.10.3.4.1.10.2.2 Physical channel parameters

DPCH Downlink	Midamble	512 chips
	Codes and time slots	SF16 x 1 code x 1 time slot
	Max. Number of data bits/radio frame	228 bits
	TFCI code word	16 bits
	Puncturing limit	0,7

6.10.3.4.1.11 Conversational / speech / UL:4.75 DL:4.75 kbps / CS RAB + UL:1.7 DL:1.7 kbps SRBs for DCCH

6.10.3.4.1.11.1 Uplink

6.10.3.4.1.11.1.1 Transport channel parameters

6.10.3.4.1.11.1.1.1 Transport channel parameters for Conversational / speech / UL:4.75 kbps / CS RAB

Higher Layer	RAB/Signalling RB	RAB subflow #1	RAB subflow #2	
RLC	Logical channel type	DTCH		
	RLC mode	TM	TM	
	Payload sizes, bit	39, 42 (alt. 0, 39, 42)	53	
	Max data rate, bps	4750		
	RLC header, bit TrD PDU header, bit	0		
MAC	MAC header, bit	0		
	MAC multiplexing	N/A		
Layer 1	TrCH type	DCH	DCH	
	TB sizes, bit	39, 42 (alt. 0, 39, 42)	53	
	TFS	TF0, bits	0x42 (alt. 1x0 ^{*1})	0x53
		TF1, bits	1x39	1x53
		TF2, bits	1x42	N/A
	TTI, ms	20	20	
	Coding type	CC 1/3	CC 1/3	
	CRC, bit	12	N/A	
	Max number of bits/TTI after channel coding	186	183	
	Uplink: Max number of bits/radio frame before rate matching	93	92	
	RM attribute	180-220	170-210	

*1: In case of using this alternative, CRC parity bits are to be attached to RAB subflow#1 any time since number of TrBlks are 1 even if there is no data on RAB subflow#1 (see clause 4.2.1.1 in TS25.212.).

6.10.3.4.1.11.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.1.1.1

6.10.3.4.1.11.1.1.3 TFCS

TFCS size	6
TFCS	(RAB subflow#1, RAB subflow#2, DCCH)= (TF0, TF0, TF0), (TF1, TF0, TF0), (TF2, TF1, TF0), (TF0, TF0, TF1), (TF1, TF0, TF1), (TF2, TF1, TF1)

6.10.3.4.1.11.1.2 Physical channel parameters

DPCH Uplink	Midamble	512 chips
	Codes and time slots	SF16 x 1 code x 1 time slot
	Max. Number of data bits/radio frame	226 bits
	TFCI code word	16 bits
	TPC	2 bits
	Puncturing Limit	0.72

6.10.3.4.1.11.2 Downlink

6.10.3.4.1.11.2.1 Transport channel parameters

6.10.3.4.1.11.2.1.1 Transport channel parameters for Conversational / speech / DL:4.75 kbps / CS RAB

Higher Layer	RAB/Signalling RB	RAB subflow #1	RAB subflow #2	
RLC	Logical channel type	DTCH		
	RLC mode	TM	TM	
	Payload sizes, bit	0, 39, 42	53	
	Max data rate, bps	4750		
	RLC header, bit TrD PDU header, bit	0		
MAC	MAC header, bit	0		
	MAC multiplexing	N/A		
Layer 1	TrCH type	DCH	DCH	
	TB sizes, bit	0, 39, 42	53	
	TFS*1	TF0, bits	1x0*2	0x53
		TF1, bits	1x39	1x53
		TF2, bits	1x42	N/A
	TTI, ms	20	20	
	Coding type	CC 1/3	CC 1/3	
	CRC, bit	12	N/A	
	Max number of bits/TTI after channel coding	186	183	
RM attribute	180-220	170-210		

*1: The TrCH corresponding to RAB subflow #1 should be used as the guiding TrCH, (see section 4.3 in TS25.212).

*2: CRC parity bits are to be attached to RAB subflow#1 any time since number of TrBlks are 1 even if there is no data on RAB subflow#1 (see clause 4.2.1.1 in TS25.212.).

6.10.3.4.1.11.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.2.1.1

6.10.3.4.1.11.2.1.3 TFCS

TFCS size	6
TFCS	(RAB subflow#1, RAB subflow#2, DCCH)= (TF0, TF0, TF0), (TF1, TF0, TF0), (TF2, TF1, TF0), (TF0, TF0, TF1), (TF1, TF0, TF1), (TF2, TF1, TF1)

6.10.3.4.1.11.2.2 Physical channel parameters

DPCH Downlink	Midamble	512 chips
	Codes and time slots	SF16 x 1 code x 1 time slot
	Max. Number of data bits/radio frame	228 bits
	TFCI code word	16 bits
	Puncturing limit	0,72

6.10.3.4.1.12 Conversational / unknown / UL:28.8/DL:28.8 kbps / CS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.10.3.4.1.12.1 Uplink

6.10.3.4.1.12.1.1 Transport channel parameters

6.10.3.4.1.12.1.1.1 Transport channel parameters for conversational / unknown / UL:28.8 kbps / CS RAB

Higher Layer	RAB/Signalling RB	RAB	
RLC	Logical channel type	DTCH	
	RLC mode	TM	
	Payload sizes, bit	576	
	Max data rate, bps	28800	
	RLC header, bit TrD PDU header, bit	0	
MAC	MAC header, bit	0	
	MAC multiplexing	N/A	
Layer 1	TrCH type	DCH	
	TB sizes, bit	576	
	TFS	TF0, bits	0x576
		TF1, bits	1x576
		TF2, bits	2x576
	TTI, ms	40	
	Coding type	TC	
	CRC, bit	16	
	Max number of bits/TTI after channel coding	3564	
	Uplink: Max number of bits/radio frame before rate matching	891	
RM attribute	160-200		

6.10.3.4.1.12.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.1.1.1

6.10.3.4.1.12.1.1.3 TFCS

TFCS size	6
TFCS	(28.8 kbps RAB, DCCH)= (TF0, TF0), (TF1, TF0), (TF2, TF0), (TF0, TF1), (TF1, TF1), (TF2, TF1)

6.10.3.4.1.12.1.2 Physical channel parameters

DPCH Uplink	Midamble	512 chips
	Codes and time slots	SF8 x 1 code x 1 time slot
	Max. Number of data bits/radio frame	452 bits
	TFCI code word	16 bits
	TPC	2 bits
	Puncturing Limit	0.44

6.10.3.4.1.12.2 Downlink

6.10.3.4.1.12.2.1 Transport channel parameters

6.10.3.4.1.12.2.1.1 Transport channel parameters for conversational / unknown / DL:28.8 kbps / CS RAB

Higher Layer	RAB/Signalling RB	RAB	
RLC	Logical channel type	DTCH	
	RLC mode	TM	
	Payload sizes, bit	576	
	Max data rate, bps	28800	
	RLC header, bit TrD PDU header, bit	0	
MAC	MAC header, bit	0	
	MAC multiplexing	N/A	
Layer 1	TrCH type	DCH	
	TB sizes, bit	576	
	TFS	TF0, bits	0x576
		TF1, bits	1x576
		TF2, bits	2x576
	TTI, ms	40	
	Coding type	TC	
	CRC, bit	16	
	Max number of bits/TTI after channel coding	3564	
RM attribute	160-200		

6.10.3.4.1.12.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.2.1.1

6.10.3.4.1.12.2.1.3 TFCS

TFCS size	6
TFCS	(28.8 kbps RAB, DCCH)= (TF0, TF0), (TF1, TF0), (TF2, TF0), (TF0, TF1), (TF1, TF1), (TF2, TF1)

6.10.3.4.1.12.2.2 Physical channel parameters

DPCH Downlink	Midamble	512 chips
	Codes and time slots	SF16 x 2 codes x 1 time slot
	Max. Number of data bits/radio frame	472 bits
	TFCI code word	16 bits
	Puncturing limit	0,44

6.10.3.4.1.13 Conversational / unknown / UL:64 DL:64 kbps / CS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.10.3.4.1.13.1 Uplink

6.10.3.4.1.13.1.1 Transport channel parameters

6.10.3.4.1.13.1.1.1 Transport channel parameters for Conversational / unknown / UL:64 kbps / CS RAB

Higher Layer	RAB/Signalling RB	RAB		
RLC	Logical channel type	DTCH		
	RLC mode	TM		
	Payload sizes, bit	640		
	Max data rate, bps	64000		
	RLC header, bit TrD PDU header, bit	0		
MAC	MAC header, bit	0		
	MAC multiplexing	N/A		
Layer 1	TrCH type	DCH		
	TB sizes, bit	640		
	TFS	TF0, bits	0x640	
		TF1, bits	2x640(alt. 4x640)	
	TTI, ms	20(alt. 40)		
	Coding type	TC		
	CRC, bit	16		
	Max number of bits/TTI after channel coding	3948(alt. 7884)		
	Uplink: Max number of bits/radio frame before rate matching	1974(alt. 1971)		
	RM attribute	150-195		

6.10.3.4.1.13.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.1.1.1

6.10.3.4.1.13.1.1.3 TFCS

TFCS size	4
TFCS	(64 kbps RAB, DCCH)=(TF0, TF0), (TF1, TF0), (TF0, TF1), (TF1, TF1)

6.10.3.4.1.13.1.2 Physical channel parameters

DPCH Uplink	Midamble	512 chips
	Codes and time slots	{SF16 x 1 code + SF4 x 1 code} x 1 time slot
	Max. Number of data	1210 bits
	TFCI code word	8 bits
	TPC	2 bits
	Puncturing Limit	0.56

6.10.3.4.1.13.2 Downlink

6.10.3.4.1.13.2.1 Transport channel parameters

6.10.3.4.1.13.2.1.1 Transport channel parameters for Conversational / unknown / DL:64 kbps / CS RAB

Higher Layer	RAB/Signalling RB	RAB	
RLC	Logical channel type	DTCH	
	RLC mode	TM	
	Payload sizes, bit	640	
	Max data rate, bps	64000	
	RLC header, bit TrD PDU header, bit	0	
MAC	MAC header, bit	0	
	MAC multiplexing	N/A	
Layer 1	TrCH type	DCH	
	TB sizes, bit	640	
	TFS	TF0, bits	0x640
		TF1, bits	2x640(alt. 4x640)
	TTI, ms	20(alt. 40)	
	Coding type	TC	
	CRC, bit	16	
	Max number of bits/TTI after channel coding	3948(alt. 7884)	
RM attribute	150-195		

6.10.3.4.1.13.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.2.1.1

6.10.3.4.1.13.2.1.3 TFCS

TFCS size	4
TFCS	(64 kbps RAB, DCCH)=(TF0, TF0), (TF1, TF0), (TF0, TF1), (TF1, TF1)

6.10.3.4.1.13.2.2 Physical channel parameters

DPCH Downlink	Midamble	512 chips
	Codes and time slots	SF16 x 5 codes x 1 time slot
	Max. Number of data bits/radio frame	1212 bits
	TFCI code word	8 bits
	Puncturing limit	0,56

6.10.3.4.1.14 Conversational / unknown / UL:32 DL:32 kbps / CS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.10.3.4.1.14.1 Uplink

6.10.3.4.1.14.1.1 Transport channel parameters

6.10.3.4.1.14.1.1.1 Transport channel parameters for Conversational / unknown / UL:32 kbps / CS RAB

Higher Layer	RAB/Signalling RB	RAB	
RLC	Logical channel type	DTCH	
	RLC mode	TM	
	Payload sizes, bit	640	
	Max data rate, bps	32000	
	RLC header, bit TrD PDU header, bit	0	
MAC	MAC header, bit	0	
	MAC multiplexing	N/A	
Layer 1	TrCH type	DCH	
	TB sizes, bit	640	
	TFS	TF0, bits	0x640
		TF1, bits	1x640(alt. 2x640)
	TTI, ms	20(alt. 40)	
	Coding type	TC	
	CRC, bit	16	
	Max number of bits/TTI after channel coding	1980(alt. 3948)	
	Uplink: Max number of bits/radio frame before rate matching	990(alt. 987)	
	RM attribute	165-210	

6.10.3.4.1.14.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.1.1.1

6.10.3.4.1.13.1.1.3 TFCS

TFCS size	4
TFCS	(32 kbps RAB, DCCH)=(TF0, TF0), (TF1, TF0), (TF0, TF1), (TF1, TF1)

6.10.3.4.1.14.1.2 Physical channel parameters

DPCH Uplink	Midamble	512 chips
	Codes and time slots	SF4 x 1 code x 1 time slot
	Max. Number of data bits/radio frame	936 bits
	TFCI code word	8 bits
	TPC	2 bits
	Puncturing Limit	0.80

6.10.3.4.1.14.2 Downlink

6.10.3.4.1.14.2.1 Transport channel parameters

6.10.3.4.1.14.2.1.1 Transport channel parameters for Conversational / unknown / DL:32 kbps / CS RAB

Higher Layer	RAB/Signalling RB	RAB	
RLC	Logical channel type	DTCH	
	RLC mode	TM	
	Payload sizes, bit	640	
	Max data rate, bps	32000	
	RLC header, bit TrD PDU header, bit	0	
MAC	MAC header, bit	0	
	MAC multiplexing	N/A	
Layer 1	TrCH type	DCH	
	TB sizes, bit	640	
	TFS	TF0, bits	0x640
		TF1, bits	1x640(alt. 2x640)
	TTI, ms	20(alt. 40)	
	Coding type	TC	
	CRC, bit	16	
	Max number of bits/TTI after channel coding	1980(alt. 3948)	
	RM attribute	165-210	

6.10.3.4.1.14.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.2.1.1

6.10.3.4.1.14.2.1.3 TFCS

TFCS size	4
TFCS	(32 kbps RAB, DCCH)=(TF0, TF0), (TF1, TF0), (TF0, TF1), (TF1, TF1)

6.10.3.4.1.14.2.2 Physical channel parameters

DPCH Downlink	Midamble	512 chips
	Codes and time slots	SF16 x 3 codes x 1 time slot
	Max. Number of data bits/radio frame	724 bits
	TFCI code word	8 bits
	Puncturing limit	0,64

6.10.3.4.1.15 Streaming / unknown / UL:14.4/DL:14.4 kbps / CS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.10.3.4.1.15.1 Uplink

6.10.3.4.1.15.1.1 Transport channel parameters

6.10.3.4.1.15.1.1.1 Transport channel parameters for Streaming / unknown / UL: 14.4 kbps / CS RAB

Higher Layer	RAB/Signalling RB	RAB	
RLC	Logical channel type	DTCH	
	RLC mode	TM	
	Payload sizes, bit	576	
	Max data rate, bps	14400	
	RLC header, bit TrD PDU header, bit	0	
MAC	MAC header, bit	0	
	MAC multiplexing	N/A	
Layer 1	TrCH type	DCH	
	TB sizes, bit	576	
	TFS	TF0, bits	0x576
		TF1, bits	1x576
	TTI, ms	40	
	Coding type	TC	
	CRC, bit	16	
	Max number of bits/TTI after channel coding	1788	
	Uplink: Max number of bits/radio frame before rate matching	447	
	RM attribute	145-185	

6.10.3.4.1.15.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.1.1.1

6.10.3.4.1.15.1.1.3 TFCS

TFCS size	4
TFCS	(14.4 kbps RAB, DCCH)=(TF0, TF0), (TF1, TF0), (TF0, TF1), (TF1, TF1)

6.10.3.4.1.15.1.2 Physical channel parameters

DPCH Uplink	Midamble	512 chips
	Codes and time slots	SF8 x 1 code x 1 time slot
	Max. Number of data bits/radio frame	468 bits
	TFCI code word	8 bits
	TPC	2 bits
	Puncturing Limit	0.80

6.10.3.4.1.15.2 Downlink

6.10.3.4.1.15.2.1 Transport channel parameters

6.10.3.4.1.15.2.1.1 Transport channel parameters for Streaming / unknown / DL:14.4 kbps / CS RAB

Higher Layer	RAB/Signalling RB	RAB	
RLC	Logical channel type	DTCH	
	RLC mode	TM	
	Payload sizes, bit	576	
	Max data rate, bps	14400	
	RLC header, bit TrD PDU header, bit	0	
MAC	MAC header, bit	0	
	MAC multiplexing	N/A	
Layer 1	TrCH type	DCH	
	TB sizes, bit	576	
	TFS	TF0, bits	0x576
		TF1, bits	1x576
	TTI, ms	40	
	Coding type	TC	
	CRC, bit	16	
	Max number of bits/TTI after channel coding	1788	
	RM attribute	145-185	

6.10.3.4.1.15.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.2.1.1

6.10.3.4.1.15.2.1.3 TFCS

TFCS size	4
TFCS	(14.4 kbps RAB, DCCH)=(TF0, TF0), (TF1, TF0), (TF0, TF1), (TF1, TF1)

6.10.3.4.1.15.2.2 Physical channel parameters

DPCH Downlink	Midamble	512 chips
	Codes and time slots	SF16 x 2 codes x 1 time slot
	Max. Number of data bits/radio frame	480 bits
	TFCI code word	8 bits
	Puncturing limit	0,8

6.10.3.4.1.16 Streaming / unknown / UL:28.8/DL:28.8 kbps / CS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.10.3.4.1.16.1 Uplink

6.10.3.4.1.16.1.1 Transport channel parameters

6.10.3.4.1.16.1.1.1 Transport channel parameters for Streaming / unknown / UL:28.8 kbps / CS RAB

Higher Layer	RAB/Signalling RB	RAB	
RLC	Logical channel type	DTCH	
	RLC mode	TM	
	Payload sizes, bit	576	
	Max data rate, bps	28800	
	RLC header, bit TrD PDU header, bit	0	
MAC	MAC header, bit	0	
	MAC multiplexing	N/A	
Layer 1	TrCH type	DCH	
	TB sizes, bit	576	
	TFS	TF0, bits	0x576
		TF1, bits	1x576
		TF2, bits	2x576
	TTI, ms	40	
	Coding type	TC	
	CRC, bit	16	
	Max number of bits/TTI after channel coding	3564	
	Uplink: Max number of bits/radio frame before rate matching	891	
RM attribute	135-175		

6.10.3.4.1.16.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.1.1.1

6.10.3.4.1.16.1.1.3 TFCS

TFCS size	6
TFCS	(28.8kbps RAB, DCCH)= (TF0, TF0), (TF1, TF0), (TF2, TF0), (TF0, TF1), (TF1, TF1), (TF2, TF1)

6.10.3.4.1.16.1.2 Physical channel parameters

DPCH Uplink	Midamble	512 chips
	Codes and time slots	SF8 x 1 code x 1 time slot
	Max. Number of data bits/radio frame	452 bits
	TFCI code word	16 bits
	TPC	2 bits
	Puncturing Limit	0.44

6.10.3.4.1.16.2 Downlink

6.10.3.4.1.16.2.1 Transport channel parameters

6.10.3.4.1.16.2.1.1 Transport channel parameters for Streaming / unknown / DL:28.8 kbps / CS RAB

Higher Layer	RAB/Signalling RB	RAB	
RLC	Logical channel type	DTCH	
	RLC mode	TM	
	Payload sizes, bit	576	
	Max data rate, bps	28800	
	RLC header, bit TrD PDU header, bit	0	
MAC	MAC header, bit	0	
	MAC multiplexing	N/A	
Layer 1	TrCH type	DCH	
	TB sizes, bit	576	
	TFS	TF0, bits	0x576
		TF1, bits	1x576
		TF2, bits	2x576
	TTI, ms	40	
	Coding type	TC	
	CRC, bit	16	
	Max number of bits/TTI after channel coding	3564	
RM attribute	135-175		

6.10.3.4.1.16.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.2.1.1

6.10.3.4.1.16.2.1.3 TFCS

TFCS size	6
TFCS	(28.8kbps RAB, DCCH)= (TF0, TF0), (TF1, TF0), (TF2, TF0), (TF0, TF1), (TF1, TF1), (TF2, TF1)

6.10.3.4.1.16.2.2 Physical channel parameters

DPCH Downlink	Midamble	512 chips
	Codes and time slots	SF16 x 2 codes x 1 time slot
	Max. Number of data bits/radio frame	472 bits
	TFCl code word	16 bits
	Puncturing limit	0,44

6.10.3.4.1.17 Streaming / unknown / UL:57.6/DL:57.6 kbps / CS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.10.3.4.1.17.1 Uplink

6.10.3.4.1.17.1.1 Transport channel parameters

6.10.3.4.1.17.1.1.1 Transport channel parameters for Streaming / unknown / UL:57.6 kbps / CS RAB

Higher Layer	RAB/Signalling RB	RAB	
RLC	Logical channel type	DTCH	
	RLC mode	TM	
	Payload sizes, bit	576	
	Max data rate, bps	57600	
	RLC header, bit TrD PDU header, bit	0	
MAC	MAC header, bit	0	
	MAC multiplexing	N/A	
Layer 1	TrCH type	DCH	
	TB sizes, bit	576	
	TFS	TF0, bits	0x576
		TF1, bits	1x576
		TF2, bits	2x576
		TF3, bits	3x576
		TF4, bits	4x576
	TTI, ms	40	
	Coding type	TC	
	CRC, bit	16	
	Max number of bits/TTI after channel coding	7116	
Uplink: Max number of bits/radio frame before rate matching	1779		
RM attribute	125-165		

6.10.3.4.1.17.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.1.1.1

6.10.3.4.1.17.1.1.3 TFCS

TFCS size	10
TFCS	(57.6 kbps RAB, DCCH)= (TF0, TF0), (TF1, TF0), (TF2, TF0), (TF3, TF0), (TF4, TF0), (TF0, TF1), (TF1, TF1), (TF2, TF1), (TF3, TF1), (TF4, TF1)

6.10.3.4.1.17.1.2 Physical channel parameters

DPCH Uplink	Midamble	512 chips
	Codes and time slots	SF4 x 1 code x 1 time slot
	Max. Number of data bits/radio frame	904 bits
	TFCI code word	16 bits
	TPC	2 bits
	Puncturing Limit	0.48

6.10.3.4.1.17.2 Downlink

6.10.3.4.1.17.2.1 Transport channel parameters

6.10.3.4.1.17.2.1.1 Transport channel parameters for Streaming / unknown / DL:57.6 kbps / CS RAB

Higher Layer	RAB/Signalling RB	RAB	
RLC	Logical channel type	DTCH	
	RLC mode	TM	
	Payload sizes, bit	576	
	Max data rate, bps	57600	
	RLC header, bit TrD PDU header, bit	0	
MAC	MAC header, bit	0	
	MAC multiplexing	N/A	
Layer 1	TrCH type	DCH	
	TB sizes, bit	576	
	TFS	TF0, bits	0x576
		TF1, bits	1x576
		TF2, bits	2x576
		TF3, bits	3x576
		TF4, bits	4x576
	TTI, ms	40	
	Coding type	TC	
	CRC, bit	16	
	Max number of bits/TTI after channel coding	7116	
RM attribute	125-165		

6.10.3.4.1.17.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.2.1.1

6.10.3.4.1.17.2.1.3 TFCS

TFCS size	10
TFCS	(57.6 kbps RAB, DCCH)= (TF0, TF0), (TF1, TF0), (TF2, TF0), (TF3, TF0), (TF4, TF0), (TF0, TF1), (TF1, TF1), (TF2, TF1), (TF3, TF1), (TF4, TF1)

6.10.3.4.1.17.2.2 Physical channel parameters

DPCH Downlink	Midamble	512 chips
	Codes and time slots	SF16 x 4 codes x 1 time slot
	Max. Number of data bits/radio frame	960 bits
	TFCl code word	16 bits
	Puncturing limit	0,48

6.10.3.4.1.18 Streaming / unknown / UL:0 DL:64 kbps / CS or PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.10.3.4.1.18.1 Uplink

6.10.3.4.1.18.1.1 Transport channel parameters

6.10.3.4.1.18.1.1.1 Transport channel parameters for Streaming / unknown / UL:0 kbps / CS or PS RAB

N/A

6.10.3.4.1.18.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.1.1.1

6.10.3.4.1.18.1.1.3 TFCS

See 6.10.3.4.1.2.1.1.2

6.10.3.4.1.18.1.2 Physical channel parameters

See 6.10.3.4.1.2.1.2.

6.10.3.4.1.18.2 Downlink

6.10.3.4.1.18.2.1 Transport channel parameters

6.10.3.4.1.18.2.1.1 Transport channel parameters for Streaming / unknown / DL:64 kbps / CS or PS RAB

Higher Layer	RAB/Signalling RB	RAB	
RLC	Logical channel type	DTCH	
	RLC mode	TM	
	Payload sizes, bit	320	
	Max data rate, bps	64000	
	RLC header, bit TrD PDU header, bit	0	
MAC	MAC header, bit	0	
	MAC multiplexing	N/A	
Layer 1	TrCH type	DCH	
	TB sizes, bit	320	
	TFS	TF0, bits	0x320
		TF1, bits	1x320
		TF2, bits	2x320
		TF3, bits	4x320
		TF4, bits	8x320
	TTI, ms	40	
	Coding type	TC	
	CRC, bit	16	
Max number of bits/TTI after channel coding	8076		
RM attribute	125-165		

6.10.3.4.1.18.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.2.1.1

6.10.3.4.1.18.2.1.3 TFCS

TFCS size	10
TFCS	(64 kbps RAB, DCCH)= (TF0, TF0), (TF1, TF0), (TF2, TF0), (TF3, TF0), (TF4, TF0), (TF0, TF1), (TF1, TF1), (TF2, TF1), (TF3, TF1), (TF4, TF1)

6.10.3.4.1.18.2.2 Physical channel parameters

DPCH Downlink	Midamble	512 chips
	Codes and time slots	SF16 x 5 codes x 1 time slot
	Max. Number of data bits/radio frame	1204 bits
	TFCI code word	16 bits
	Puncturing limit	0,56

6.10.3.4.1.19 Streaming / unknown / UL:64 DL:0 kbps / CS or PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.10.3.4.1.19.1 Uplink

6.10.3.4.1.19.1.1 Transport channel parameters

6.10.3.4.1.19.1.1.1 Transport channel parameters for Streaming / unknown / UL:64 kbps / CS or PS RAB

Higher Layer	RAB/Signalling RB	RAB	
RLC	Logical channel type	DTCH	
	RLC mode	TM	
	Payload sizes, bit	320	
	Max data rate, bps	64000	
	RLC header, bit TrD PDU header, bit	0	
MAC	MAC header, bit	0	
	MAC multiplexing	N/A	
Layer 1	TrCH type	DCH	
	TB sizes, bit	320	
	TFS	TF0, bits	0x320
		TF1, bits	1x320
		TF2, bits	2x320
		TF3, bits	4x320
		TF4, bits	8x320
	TTI, ms	40	
	Coding type	TC	
	CRC, bit	16	
	Max number of bits/TTI after channel coding	8076	
Uplink: Max number of bits/radio frame before rate matching	2019		
RM attribute	125-165		

6.10.3.4.1.19.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.1.1.1

6.10.3.4.1.19.1.1.3 TFCS

TFCS size	10
TFCS	(64 kbps RAB, DCCH)= (TF0, TF0), (TF1, TF0), (TF2, TF0), (TF3, TF0), (TF4, TF0), (TF0, TF1), (TF1, TF1), (TF2, TF1), (TF3, TF1), (TF4, TF1)

6.10.3.4.1.19.1.2 Physical channel parameters

DPCH Uplink	Midamble	512 chips
	Codes and time slots	{SF16 x 1 code + SF4 x 1 code} x 1 time slot
	Max. Number of data bits/radio frame	1202 bits
	TFCI code word	16 bits
	TPC	2 bits
	Puncturing Limit	0.56

6.10.3.4.1.19.2	Downlink
6.10.3.4.1.19.2.1	Transport channel parameters
6.10.3.4.1.19.2.1.1	Transport channel parameters for Streaming / unknown / DL:0 kbps / CS or PS RAB N/A
6.10.3.4.1.19.2.1.2	Transport channel parameters for DL:3.4 kbps SRBs for DCCH See 6.10.3.4.1.2.2.1.1
6.10.3.4.1.19.2.1.3	TFCS See 6.10.3.4.1.2.2.1.2
6.10.3.4.1.19.2.2	Physical channel parameters See 6.10.3.4.1.2.2.2.
6.10.3.4.1.20	Streaming / unknown / UL:0 DL:128 kbps / CS or PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH
6.10.3.4.1.20.1	Uplink
6.10.3.4.1.20.1.1	Transport channel parameters
6.10.3.4.1.20.1.1.1	Transport channel parameters for Streaming / unknown / UL:0 kbps / CS or PS RAB N/A
6.10.3.4.1.20.1.1.2	Transport channel parameters for UL:3.4 kbps SRBs for DCCH See 6.10.3.4.1.2.1.1.1
6.10.3.4.1.20.1.1.3	TFCS See 6.10.3.4.1.2.1.1.2
6.10.3.4.1.20.1.2	Physical channel parameters See 6.10.3.4.1.2.1.2.

6.10.3.4.1.20.2 Downlink

6.10.3.4.1.20.2.1 Transport channel parameters

6.10.3.4.1.20.2.1.1 Transport channel parameters for Streaming / unknown / DL:128 kbps / CS or PS RAB

Higher Layer	RAB/Signalling RB	RAB	
RLC	Logical channel type	DTCH	
	RLC mode	TM	
	Payload sizes, bit	320	
	Max data rate, bps	128000	
	RLC header, bit TrD PDU header, bit	0	
MAC	MAC header, bit	0	
	MAC multiplexing	N/A	
Layer 1	TrCH type	DCH	
	TB sizes, bit	320	
	TFS	TF0, bits	0x320
		TF1, bits	1x320
		TF2, bits	2x320
		TF3, bits	4x320
		TF4, bits	8x320
		TF5, bits	16x320
	TTI, ms	40	
	Coding type	TC	
	CRC, bit	16	
Max number of bits/TTI after channel coding	16152		
RM attribute	125-165		

6.10.3.4.1.20.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.2.1.1

6.10.3.4.1.20.2.1.3 TFCS

TFCS size	12
TFCS	(128 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)

6.10.3.4.1.20.2.2 Physical channel parameters

DPCH Downlink	Midamble	256 chips
	Codes and time slots	SF16 x 8 codes x 1 time slot
	Max. Number of data bits/radio frame	2192 bits
	TFCl code word	16 bits
	Puncturing limit	0,52

6.10.3.4.1.21 Streaming / unknown / UL:128 DL:0 kbps / CS or PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH

6.10.3.4.1.21.1 Uplink

6.10.3.4.1.21.1.1 Transport channel parameters

6.10.3.4.1.21.1.1.1 Transport channel parameters for Streaming / unknown / UL:128 kbps / CS or PS RAB

Higher Layer	RAB/Signalling RB	RAB	
RLC	Logical channel type	DTCH	
	RLC mode	TM	
	Payload sizes, bit	320	
	Max data rate, bps	128000	
	RLC header, bit TrD PDU header, bit	0	
MAC	MAC header, bit	0	
	MAC multiplexing	N/A	
Layer 1	TrCH type	DCH	
	TB sizes, bit	320	
	TFS	TF0, bits	0x320
		TF1, bits	1x320
		TF2, bits	2x320
		TF3, bits	4x320
		TF4, bits	8x320
		TF5, bits	16x320
	TTI, ms	40	
	Coding type	TC	
	CRC, bit	16	
	Max number of bits/TTI after channel coding	16152	
Uplink: Max number of bits/radio frame before rate matching	4038		
RM attribute	125-165		

6.10.3.4.1.21.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.1.1.1

6.10.3.4.1.21.1.1.3 TFCS

TFCS size	12
TFCS	(128 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)

6.10.3.4.1.21.1.2 Physical channel parameters

DPCH Uplink	Midamble	256 chips
	Codes and time slots	SF2 x 1 code x 1 time slot
	Max. Number of data bits/radio frame	2064 bits
	TFCI code word	16 bit
	TPC	2 bits
	Puncturing Limit	0.52

6.10.3.4.1.21.2	Downlink
6.10.3.4.1.21.2.1	Transport channel parameters
6.10.3.4.1.21.2.1.1	Transport channel parameters for Streaming / unknown / DL:0 kbps / CS or PS RAB N/A
6.10.3.4.1.21.2.1.2	Transport channel parameters for DL:3.4 kbps SRBs for DCCH See 6.10.3.4.1.2.2.1.1
6.10.3.4.1.21.2.1.3	TFCS See 6.10.3.4.1.2.2.1.1
6.10.3.4.1.21.2.2	Physical channel parameters See 6.10.3.4.1.2.2.2.
6.10.3.4.1.22	Streaming / unknown / UL:0 DL:384 kbps / CS or PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH
6.10.3.4.1.22.1	Uplink
6.10.3.4.1.22.1.1	Transport channel parameters
6.10.3.4.1.22.1.1.1	Transport channel parameters for Streaming / unknown / UL:0 kbps / CS or PS RAB N/A
6.10.3.4.1.22.1.1.2	Transport channel parameters for UL:3.4 kbps SRBs for DCCH See 6.10.3.4.1.2.1.1.1
6.10.3.4.1.22.1.1.3	TFCS See 6.10.3.4.1.2.1.1.2
6.10.3.4.1.22.1.2	Physical channel parameters See 6.10.3.4.1.2.1.2

6.10.3.4.1.22.2 Downlink

6.10.3.4.1.22.2.1 Transport channel parameters

6.10.3.4.1.22.2.1.1 Transport channel parameters for Streaming / unknown / DL:384 kbps / CS or PS RAB

Higher Layer	RAB/Signalling RB	RAB	
RLC	Logical channel type	DTCH	
	RLC mode	TM	
	Payload sizes, bit	320	
	Max data rate, bps	384000	
	RLC header, bit TrD PDU header, bit	0	
MAC	MAC header, bit	0	
	MAC multiplexing	N/A	
Layer 1	TrCH type	DCH	
	TB sizes, bit	320	
	TFS	TF0, bits	0x320
		TF1, bits	1x320
		TF2, bits	2x320
		TF3, bits	4x320
		TF4, bits	8x320
		TF5, bits	16x320
		TF6, bits	32x320
	TF7, bits	48x320	
	TTI, ms	40	
	Coding type	TC	
	CRC, bit	16	
Max number of bits/TTI after channel coding	48432		
RM attribute	110-150		

6.10.3.4.1.22.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.2.1.1

6.10.3.4.1.22.2.1.3 TFCS

TFCS size	16
TFCS	(384 kbps RAB, DCCH)= (TF0, TF0), (TF1, TF0), (TF2, TF0), (TF3, TF0), (TF4, TF0), (TF5, TF0), (TF6, TF0), (TF7, TF0), (TF0, TF1), (TF1, TF1), (TF2, TF1), (TF3, TF1), (TF4, TF1), (TF5, TF1), (TF6, TF1), (TF7, TF1)

6.10.3.4.1.22.2.2 Physical channel parameters

DPCH Downlink	Midamble	256 chips
	Codes and time slots	SF16 x 8 codes x 3 time slots
	Max. Number of data bits/radio frame	6608 bits
	TFCI code word	16 bits
	Puncturing limit	0,52

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

6.10.3.4.1.23.1 Uplink

6.10.3.4.1.23.1.1 Transport channel parameters

6.10.3.4.1.23.1.1.1 Transport channel parameters for Interactive or background / UL:32 kbps / PS RAB

Higher Layer	RAB/Signalling RB	RAB	
RLC	Logical channel type	DTCH	
	RLC mode	AM	
	Payload sizes, bit	320	
	Max data rate, bps	32000	
	RLC header, bit AMD PDU header, bit	16	
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 (alt. N/A)
	TTI, ms	20 (alt. 10)	
	Coding type	TC (alt. CC 1/3)	
	CRC, bit	16	
	Max number of bits/TTI after channel coding	2124 (alt. 1080)	
	Uplink: Max number of bits/radio frame before rate matching	1062 (alt. 1080)	
RM attribute	135-175		

6.10.3.4.1.23.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.1.1.1

6.10.3.4.1.23.1.1.3 TFCS

TFCS size	6 (alt. 4)
TFCS	(32 kbps RAB, DCCH)= (TF0, TF0), (TF1, TF0), (TF2, TF0), (TF0, TF1), (TF1, TF1), (TF2, TF1) (alt. (TF0, TF0), (TF1, TF0), (TF0, TF1), (TF1, TF1))

6.10.3.4.1.23.1.2 Physical channel parameters

DPCH Uplink	Midamble	512 chips
	Codes and time slots	SF4 x 1 code x 1 time slot
	Max. Number of data bits/radio frame	904 bits
	TFCI code word	16 bits
	TPC	2 bits
	Puncturing Limit	0.76

6.10.3.4.1.23.2 Downlink

6.10.3.4.1.23.2.1 Transport channel parameters

6.10.3.4.1.23.2.1.1 Transport channel parameters for Interactive or background / DL:8 kbps / PS RAB

Higher Layer	RAB/Signalling RB	RAB	
RLC	Logical channel type	DTCH	
	RLC mode	AM	
	Payload sizes, bit	320	
	Max data rate, bps	8000	
	RLC header, bit AMD PDU header, bit	16	
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	TC (alt. CC 1/3)	
	CRC, bit	16	
	Max number of bits/TTI after channel coding	1068 (alt. 1080)	
	RM attribute	135-175	

6.10.3.4.1.23.2.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.2.1.1

6.10.3.4.1.23.2.1.3 TFCS

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

6.10.3.4.1.23.2.2 Physical channel parameters

DPCH Downlink	Midamble	512 chips
	Codes and time slots	SF16 x 1 code x 1 time slot
	Max. Number of data bits/radio frame	236 bits
	TFCI code word	8 bits
	Puncturing limit	0,56

6.10.3.4.1.24 Interactive or background / UL:64 DL:8 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.10.3.4.1.24.1 Uplink

6.10.3.4.1.24.1.1 Transport channel parameters

6.10.3.4.1.24.1.1.1 Transport channel parameters for Interactive or background / UL:64 kbps / PS RAB

Higher Layer	RAB/Signalling RB	RAB	
RLC	Logical channel type	DTCH	
	RLC mode	AM	
	Payload sizes, bit	320	
	Max data rate, bps	64000	
	RLC header, bit AMD PDU header, bit	16	
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
		TF3, bits	3x336
		TF4, bits	4x336
	TTI, ms	20	
	Coding type	TC	
	CRC, bit	16	
	Max number of bits/TTI after channel coding	4236	
Uplink: Max number of bits/radio frame before rate matching	2118		
RM attribute	130-170		

6.10.3.4.1.24.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.1.1.1

6.10.3.4.1.24.1.1.3 TFCS

TFCS size	10
TFCS	(64 kbps RAB, DCCH)= (TF0, TF0), (TF1, TF0), (TF2, TF0), (TF3, TF0), (TF4, TF0), (TF0, TF1), (TF1, TF1), (TF2, TF1), (TF3, TF1), (TF4, TF1)

6.10.3.4.1.24.1.2 Physical channel parameters

DPCH Uplink	Midamble	512 chips
	Codes and time slots	{SF16 x 1 code + SF4 x 1 code} x 1 time slot
	Max. Number of data bits/radio frame	1202 bits
	TFCI code word	16 bits
	TPC	2 bits
	Puncturing Limit	0.52

6.10.3.4.1.24.2 Downlink

See 6.10.3.4.1.23.2

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

6.10.3.4.1.25.1 Uplink

See 6.10.3.4.1.23.1

6.10.3.4.1.25.2 Downlink

6.10.3.4.1.25.2.1 Transport channel parameters

6.10.3.4.1.25.2.1.1 Transport channel parameters for Interactive or background / DL:64 kbps / PS RAB

Higher Layer	RAB/Signalling RB	RAB	
RLC	Logical channel type	DTCH	
	RLC mode	AM	
	Payload sizes, bit	320	
	Max data rate, bps	64000	
	RLC header, bit AMD PDU header, bit	16	
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
		TF3, bits	3x336
		TF4, bits	4x336
	TTI, ms	20	
	Coding type	TC	
	CRC, bit	16	
Max number of bits/TTI after channel coding	4236		
RM attribute	130-170		

6.10.3.4.1.25.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.2.1.1

6.10.3.4.1.25.2.1.3 TFCS

TFCS size	10
TFCS	(64 kbps RAB, DCCH)= (TF0, TF0), (TF1, TF0), (TF2, TF0), (TF3, TF0), (TF4, TF0), (TF0, TF1), (TF1, TF1), (TF2, TF1), (TF3, TF1), (TF4, TF1)

6.10.3.4.1.25.2.2 Physical channel parameters

DPCH Downlink	Midamble	512 chips
	Codes and time slots	SF16 x 5 codes x 1 time slot
	Max. Number of data bits/radio frame	1204 bits
	TFCI code word	16 bits
	Puncturing limit	0,52

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

6.10.3.4.1.26.1 Uplink

See 6.10.3.4.1.24.1

6.10.3.4.1.26.2 Downlink

See 6.10.3.4.1.25.2

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

6.10.3.4.1.27.1 Uplink

See 6.10.3.4.1.24.1

6.10.3.4.1.27.2 Downlink

6.10.3.4.1.27.2.1 Transport channel parameters

6.10.3.4.1.27.2.1.1 Transport channel parameters for Interactive or background / DL:128 kbps / PS RAB

Higher Layer	RAB/Signalling RB	RAB	
RLC	Logical channel type	DTCH	
	RLC mode	AM	
	Payload sizes, bit	320	
	Max data rate, bps	128000	
	RLC header, bitAMD PDU header, bit	16	
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
		TF3, bits	4 x336
		TF4, bits	8 x336
	TTI, ms	20	
	Coding type	TC	
	CRC, bit	16	
	Max number of bits/TTI after channel coding	8460	
RM attribute	120-160		

6.10.3.4.1.27.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.22.1.1

6.10.3.4.1.27.2.1.3 TFCS

TFCS size	10
TFCS	(128 kbps RAB, DCCH)= (TF0, TF0), (TF1, TF0), (TF2, TF0), (TF3, TF0), (TF4, TF0), (TF0, TF1), (TF1, TF1), (TF2, TF1), (TF3, TF1), (TF4, TF1)

6.10.3.4.1.27.2.2 Physical channel parameters

DPCH Downlink	Midamble	256 chips
	Codes and time slots	SF16 x 8 codes x 1 time slot
	Max. Number of data bits/radio frame	2192 bits
	TFCI code word	16 bits
	Puncturing limit	0,48

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

6.10.3.4.1.28.1 Uplink

6.10.3.4.1.28.1.1 Transport channel parameters

6.10.3.4.1.28.1.1.1 Transport channel parameters for Interactive or background / UL:128 kbps / PS RAB

Higher Layer	RAB/Signalling RB	RAB	
RLC	Logical channel type	DTCH	
	RLC mode	AM	
	Payload sizes, bit	320	
	Max data rate, bps	128000	
	RLC header, bit AMD PDU header, bit	16	
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
		TF3, bits	4 x336
		TF4, bits	8 x336
	TTI, ms	20	
	Coding type	TC	
	CRC, bit	16	
	Max number of bits/TTI after channel coding	8460	
	Uplink: Max number of bits/radio frame before rate matching	4230	
RM attribute	120-160		

6.10.3.4.1.28.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.1.1.1

6.10.3.4.1.28.1.1.3 TFCS

TFCS size	10
TFCS	(128 kbps RAB, DCCH)= (TF0, TF0), (TF1, TF0), (TF2, TF0), (TF3, TF0), (TF4, TF0), (TF0, TF1), (TF1, TF1), (TF2, TF1), (TF3, TF1), (TF4, TF1)

6.10.3.4.1.28.1.2 Physical channel parameters

DPCH Uplink	Midamble	256 chips
	Codes and time slots	SF2 x 1 code x 1 time slot
	Max. Number of data bits/radio frame	2064 bits
	TFCI code word	16 bits
	TPC	2 bits
	Puncturing Limit	0.48

6.10.3.4.1.28.2 Downlink

See 6.10.3.4.1.27.2.

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

6.10.3.4.1.29.1 Uplink

See 6.10.3.4.1.24.1.

6.10.3.4.1.29.2 Downlink

6.10.3.4.1.29.2.1 Transport channel parameters

6.10.3.4.1.29.2.1.1 Transport channel parameters for Interactive or background / DL:144 kbps / PS RAB

Higher Layer	RAB/Signalling RB	RAB	
RLC	Logical channel type	DTCH	
	RLC mode	AM	
	Payload sizes, bit	320	
	Max data rate, bps	144000	
	RLC header, bitAMD PDU header, bit	16	
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
		TF3, bits	4 x336
		TF4, bits	8 x336
		TF5, bits	9x336
	TTI, ms	20	
	Coding type	TC	
	CRC, bit	16	
Max number of bits/TTI after channel coding	9516		
RM attribute	140-180		

6.10.3.4.1.29.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.2.1.1

6.10.3.4.1.29.2.1.3 TFCS

TFCS size	12
TFCS	(144 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)

6.10.3.4.1.29.2.2 Physical channel parameters

DPCH Downlink	Midamble	256 chips
	Codes and time slots	SF16 x 9 codes x 1 time slot
	Max. Number of data bits/radio frame	2468 bits
	TFCI code word	16 bits
	Puncturing limit	0,48

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

6.10.3.4.1.30.1 Uplink

6.10.3.4.1.30.1.1 Transport channel parameters

6.10.3.4.1.30.1.1.1 Transport channel parameters for Interactive or background / UL:144 kbps / PS RAB

Higher Layer	RAB/Signalling RB	RAB	
RLC	Logical channel type	DTCH	
	RLC mode	AM	
	Payload sizes, bit	320	
	Max data rate, bps	144000	
	RLC header, bit AMD PDU header, bit	16	
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
		TF3, bits	4 x336
		TF4, bits	8 x336
		TF5, bits	9 x336
	TTI, ms	20	
	Coding type	TC	
	CRC, bit	16	
	Max number of bits/TTI after channel coding	9516	
Uplink: Max number of bits/radio frame before rate matching	4758		
RM attribute	140-180		

6.10.3.4.1.30.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.1.1.1

6.10.3.4.1.30.1.1.3 TFCS

TFCS size	12
TFCS	(144 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)

6.10.3.4.1.30.1.2 Physical channel parameters

DPCH Uplink	Midamble	256 chips
	Codes and time slots	{SF16 x 1 code + SF2 x 1 code} x 1 time slot
	Max. Number of data bits/radio frame	2466 bits
	TFCI code word	16 bits
	TPC	2 bits
	Puncturing Limit	0.52

6.10.3.4.1.30.2 Downlink

See 6.10.3.4.1.29.2.

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

6.10.3.4.1.31.1 Uplink

See 6.10.3.4.1.24.1

6.10.3.4.1.31.2 Downlink

6.10.3.4.1.31.2.1 Transport channel parameters

6.10.3.4.1.31.2.1.1 Transport channel parameters for Interactive or background / DL:256 kbps / PS RAB

Higher Layer	RAB/Signalling RB	RAB	
RLC	Logical channel type	DTCH	
	RLC mode	AM	
	Payload sizes, bit	320	
	Max data rate, bps	384000	
	RLC header, bit AMD PDU header, bit	16	
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
		TF3, bits	4 x336
		TF4, bits	8 x336
		TF5, bits	N/A (alt. 12x336)
TF6, bits	N/A (alt. 16x336)		

TTI, ms	10(alt. 20)
Coding type	TC
CRC, bit	16
Max number of bits/TTI after channel coding	8460(alt. 16920)
RM attribute	135-175

6.10.3.4.1.31.2.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.2.1.1

6.10.3.4.1.31.2.1.3 TFCS

TFCS size	10 (alt.14)
TFCS	(256 kbps RAB, DCCH)= (TF0, TF0), (TF1, TF0), (TF2, TF0), (TF3, TF0), (TF4, 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) (TF0, TF1), (TF1, TF1), (TF2, TF1), (TF3, TF1), (TF4, TF1), (TF5, TF1), (TF6, TF1))

6.10.3.4.1.31.2.2 Physical channel parameters

DPCH Downlink	Midamble	256 chips
	Codes and time slots	SF16 x 8 codes x 2 time slots
	Max. Number of data bits/radio frame	4400 bits
	TFCI code word	16 bits
	Puncturing limit	0,48

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

6.10.3.4.1.32.1 Uplink

See 6.10.3.4.1.24.1.

6.10.3.4.1.32.2 Downlink

6.10.3.4.1.32.2.1 Transport channel parameters

6.10.3.4.1.32.2.1.1 Transport channel parameters for Interactive or background / DL:384 kbps / PS RAB

Higher Layer	RAB/Signalling RB	RAB	
RLC	Logical channel type	DTCH	
	RLC mode	AM	
	Payload sizes, bit	320	
	Max data rate, bps	384000	
	RLC header, bit AMD PDU header, bit	16	
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
		TF3, bits	4 x336
		TF4, bits	8 x336
		TF5, bits	12x336
		TF6, bits	N/A (alt. 16 x336)
		TF7, bits	N/A (alt. 20 x336)
	TF8, bits	N/A (alt. 24 x336)	
	TTI, ms	10(alt. 20)	
	Coding type	TC	
	CRC, bit	16	
Max number of bits/TTI after channel coding	12684(alt. 25368)		
RM attribute	110-150		

6.10.3.4.1.32.2.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.2.1.1

6.10.3.4.1.32.2.1.3 TFCS

TFCS size	12 (alt.18)
TFCS	(384 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))

6.10.3.4.1.32.2.2 Physical channel parameters

DPCH Downlink	Midamble	256 chips
	Codes and time slots	SF16 x 8 codes x 3 time slots
	Max. Number of data bits/radio frame	6608 bits
	TFCI code word	16 bits
	Puncturing limit	0,52

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

6.10.3.4.1.33.1 Uplink

See 6.10.3.4.1.28.1.

6.10.3.4.1.33.2 Downlink

See 6.10.3.4.1.32.2.

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

6.10.3.4.1.34.1 Uplink

6.10.3.4.1.34.1.1 Transport channel parameters

6.10.3.4.1.34.1.1.1 Transport channel parameters for Interactive or background / UL:384 kbps / PS RAB

Higher Layer	RAB/Signalling RB	RAB	
RLC	Logical channel type	DTCH	
	RLC mode	AM	
	Payload sizes, bit	320	
	Max data rate, bps	384000	
	RLC header, bit AMD PDU header, bit	16	
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
		TF3, bits	4 x336
		TF4, bits	8 x336
		TF5, bits	12x336
		TF6, bits	16x336(alt. N/A)
		TF7, bits	20x336(alt. N/A)
	TF8, bits	24 x336 (alt. N/A)	
	TTI, ms	20 (alt. 10)	
	Coding type	TC	
	CRC, bit	16	
Max number of bits/TTI after channel coding	25368		
Uplink: Max number of bits/radio frame before rate matching	12684		
RM attribute	110-150		

6.10.3.4.1.34.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.1.1.1

6.10.3.4.1.34.1.1.3 TFCS

TFCS size	18 (alt.12)
TFCS	(384 kbps RAB, DCCH)= (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) (alt. (TF0, TF0), (TF1, TF0), (TF2, TF0), (TF3, TF0), (TF4, TF0), (TF5, TF0) (TF0, TF1), (TF1, TF1), (TF2, TF1), (TF3, TF1), (TF4, TF1), (TF5, TF1))

6.10.3.4.1.34.1.2 Physical channel parameters

DPCH Uplink	Midamble	256 chips
	Codes and time slots	SF2 x 1 code x 3 time slots
	Max. Number of data bits/radio frame	6480 bits
	TFCI code word	16 bits
	TPC	2 bits
	Puncturing Limit	0.48

6.10.3.4.1.34.2 Downlink

See 6.10.3.4.1.32.2.

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

6.10.3.4.1.35.1 Uplink

See 6.10.3.4.1.24.1.

6.10.3.4.1.35.2 Downlink

6.10.3.4.1.35.2.1 Transport channel parameters

6.10.3.4.1.35.2.1.1 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	640	
	Max data rate, bps	2048000	
	RLC header, bitAMD PDU header, bit	16	
MAC	MAC header, bit	0	
	MAC multiplexing	N/A	
Layer 1	TrCH type	DCH	
	TB sizes, bit	656	
	TFS	TF0, bits	0x656
		TF1, bits	1x656
		TF2, bits	2x656
		TF3, bits	4 x656
		TF4, bits	8 x656
		TF5, bits	12x656
		TF6, bits	16x656
		TF7, bits	20x656
		TF8, bits	24x656
		TF9, bits	28x656
TF10, bits	32x656		
TF11, bits	N/A (alt. 36x656)		

	TF12, bits	N/A (alt. 40x656)
	TF13, bits	N/A (alt. 44x656)
	TF14, bits	N/A (alt. 48x656)
	TF15, bits	N/A (alt. 52x656)
	TF16, bits	N/A (alt. 56x656)
	TF17, bits	N/A (alt. 60x656)
	TF18, bits	N/A (alt. 64x656)
	TTI, ms	10(alt. 20)
	Coding type	TC
	CRC, bit	16
	Max number of bits/TTI after channel coding	64572 (alt. 129132)
	RM attribute	130-170

6.10.3.4.1.35.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.2.1.1

6.10.3.4.1.35.2.1.3 TFCS

TFCS size	22 (alt.38)
TFCS	(2048 kbps RAB, DCCH)= (TF0, TF0), (TF1, TF0), (TF2, TF0), (TF3, TF0), (TF4, TF0), (TF5, TF0), (TF6, TF0), (TF7, TF0), (TF8, TF0), (TF9, TF0), (TF10, TF0), (TF0, TF1), (TF1, TF1), (TF2, TF1), (TF3, TF1), (TF4, TF1), (TF5, TF1), (TF6, TF1), (TF7, TF1), (TF8, TF1), (TF9, TF1), (TF10, TF1) (alt. TF0, TF0), (TF1, TF0), (TF2, TF0), (TF3, TF0), (TF4, TF0), (TF5, TF0), (TF6, TF0), (TF7, TF0), (TF8, TF0), (TF9, TF0), (TF10, TF0),(TF11, TF0), (TF12, TF0), (TF13, TF0), (TF14, TF0), (TF15, TF0), (TF16, TF0), (TF17, TF0), (TF18, TF0), (TF0, TF1), (TF1, TF1), (TF2, TF1), (TF3, TF1), (TF4, TF1), (TF5, TF1), (TF6, TF1), (TF7, TF1), (TF8, TF1), (TF9, TF1), (TF10, TF1),(TF11, TF0), (TF12, TF0), (TF13, TF0), (TF14, TF0), (TF15, TF0), (TF16, TF0), (TF17, TF0), (TF18, TF0))

6.10.3.4.1.35.2.2 Physical channel parameters

DPCH Downlink	Midamble	256 chips
	Codes and time slots	SF1 x 1 code x 12 time slot
	Max. Number of data bits/radio frame	52976 bits
	TFCI code word	16 bits
	Puncturing limit	0,86

6.10.3.4.1.36 Interactive or background / UL:128 DL:2048 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.10.3.4.1.36.1 Uplink

See 6.10.3.4.1.28.1.

6.10.3.4.1.36.2 Downlink

See 6.10.3.4.1.35.2.

6.10.3.4.1.37 Interactive or background / UL:384 DL:2048 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.10.3.4.1.37.1 Uplink

See 6.10.3.4.1.34.1.

6.10.3.4.1.37.2 Downlink

See 6.10.3.4.1.35.2.

6.10.2.4.1.38 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

6.10.3.4.1.38.1 Uplink

6.10.3.4.1.38.1.1 Transport channel parameters

6.10.3.4.1.38.1.1.1 Transport channel parameters for Conversational / speech / UL:12.2 kbps / CS RAB

See 6.10.3.4.1.4.1.1.1

6.10.3.4.1.38.1.1.2 Transport channel parameters for Interactive or background / UL:32 kbps / PS RAB

See 6.10.3.4.1.23.1.1.1

6.10.3.4.1.38.1.1.3 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.1.1.1

6.10.3.4.1.38.1.1.4 TFCS

TFCS size	18 (alt. 12)
TFCS	(RAB subflow#1, RAB subflow#2, RAB subflow#3, 32kbps RAB , DCCH)= (TF0, TF0, TF0, TF0, TF0), (TF1, TF0, TF0, TF0, TF0), (TF2, TF1, TF1, TF0, TF0), (TF0, TF0, TF0, TF1, TF0), (TF1, TF0, TF0, TF1, TF0), (TF2, TF1, TF1, TF1, TF0), (TF0, TF0, TF0, TF2, TF0), (TF1, TF0, TF0, TF2, TF0), (TF2, TF1, TF1, TF2, TF0), (TF0, TF0, TF0, TF0, TF1), (TF1, TF0, TF0, TF0, TF1), (TF2, TF1, TF1, TF0, TF1), (TF0, TF0, TF0, TF1, TF1), (TF1, TF0, TF0, TF1, TF1), (TF2, TF1, TF1, TF1, TF1), (TF0, TF0, TF0, TF2, TF1), (TF1, TF0, TF0, TF2, TF1), (TF2, TF1, TF1, TF2, TF1) (alt. (TF0, TF0, TF0, TF0, TF0), (TF1, TF0, TF0, TF0, TF0), (TF2, TF1, TF1, TF0, TF0), (TF0, TF0, TF0, TF1, TF0), (TF1, TF0, TF0, TF1, TF0), (TF2, TF1, TF1, TF1, TF0), (TF0, TF0, TF0, TF0, TF1), (TF1, TF0, TF0, TF0, TF1), (TF2, TF1, TF1, TF0, TF1), (TF0, TF0, TF0, TF1, TF1), (TF1, TF0, TF0, TF1, TF1), (TF2, TF1, TF1, TF1, TF1))

6.10.3.4.1.38.1.2 Physical channel parameters

DPCH Uplink	Midamble	512 chips
	Codes and time slots	SF4 x 1 code x 1 time slot
	Max. Number of data bits/radio frame	904 bits
	TFCI code word	16 bits
	TPC	2 bits
	Puncturing Limit	0.56

6.10.3.4.1.38.2 Downlink

6.10.3.4.1.38.2.1 Transport channel parameters

6.10.3.4.1.38.2.1.1 Transport channel parameters for Conversational / speech / DL:12.2 kbps / CS RAB

See 6.10.3.4.1.4.2.1.1

6.10.3.4.1.38.2.1.2 Transport channel parameters for Interactive or background / DL:8 kbps / PS RAB

See 6.10.3.4.1.23.2.1.1

6.10.3.4.1.38.2.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.2.1

6.10.3.4.1.38.2.1.4 TFCS

TFCS size	12
TFCS	(RAB subflow#1, RAB subflow#2, RAB subflow#3,8kbps RAB, DCCH)= (TF0, TF0, TF0, TF0, TF0), (TF1, TF0, TF0, TF0, TF0), (TF2, TF1, TF1, TF0, TF0), (TF0, TF0, TF0, TF1, TF0), (TF1, TF0, TF0, TF1, TF0), (TF2, TF1, TF1, TF1, TF0), (TF0, TF0, TF0, TF0, TF1), (TF1, TF0, TF0, TF0, TF1), (TF2, TF1, TF1, TF0, TF1), (TF0, TF0, TF0, TF1, TF1), (TF1, TF0, TF0, TF1, TF1), (TF2, TF1, TF1, TF1, TF1)

6.10.3.4.1.38.2.2 Physical channel parameters

DPCH Downlink	Midamble	512 chips
	Codes and time slots	SF16 x 2 codes x 1 time slot
	Max. Number of data bits/radio frame	472 bits
	TFCI code word	16 bits
	Puncturing limit	0,48

6.10.3.4.1.39 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

6.10.3.4.1.39.1 Uplink

See 6.10.3.4.1.38.1.

6.10.3.4.1.39.2 Downlink

6.10.3.4.1.39.2.1 Transport channel parameters

6.10.3.4.1.39.2.1.1 Transport channel parameters for Conversational / speech / DL:12.2 kbps / CS RAB

See 6.10.3.4.1.4.2.1.1

6.10.3.4.1.39.2.1.2 Transport channel parameters for Interactive or background / DL:64 kbps / PS RAB

See 6.10.3.4.1.25.2.1.1

6.10.3.4.1.39.2.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.2.1.1

6.10.3.4.1.39.2.1.4 TFCS

TFCS size	30
TFCS	(RAB subflow#1, RAB subflow#2, RAB subflow#3, 64 kbps RAB , DCCH)= (TF0, TF0, TF0, TF0, TF0), (TF1, TF0, TF0, TF0, TF0), (TF2, TF1, TF1, TF0, TF0), (TF0, TF0, TF0, TF1, TF0), (TF1, TF0, TF0, TF1, TF0), (TF2, TF1, TF1, TF1, TF0), (TF0, TF0, TF0, TF2, TF0), (TF1, TF0, TF0, TF2, TF0), (TF2, TF1, TF1, TF2, TF0), (TF0, TF0, TF0, TF3, TF0), (TF1, TF0, TF0, TF3, TF0), (TF2, TF1, TF1, TF3, TF0), (TF0, TF0, TF0, TF4, TF0), (TF1, TF0, TF0, TF4, TF0), (TF2, TF1, TF1, TF4, TF0), (TF0, TF0, TF0, TF0, TF1), (TF1, TF0, TF0, TF0, TF1), (TF2, TF1, TF1, TF0, TF1), (TF0, TF0, TF0, TF1, TF1), (TF1, TF0, TF0, TF1, TF1), (TF2, TF1, TF1, TF1, TF1), (TF0, TF0, TF0, TF2, TF1), (TF1, TF0, TF0, TF2, TF1), (TF2, TF1, TF1, TF2, TF1), (TF0, TF0, TF0, TF3, TF1), (TF1, TF0, TF0, TF3, TF1), (TF2, TF1, TF1, TF3, TF1), (TF0, TF0, TF0, TF4, TF1), (TF1, TF0, TF0, TF4, TF1), (TF2, TF1, TF1, TF4, TF1)

6.10.3.4.1.39.2.2 Physical channel parameters

DPCH Downlink	Midamble	512 chips
	Codes and time slots	SF16 x 8 codes x 1 time slot
	Max. Number of data bits/radio frame	1936 bits
	TFCI code word	16 bits
	Puncturing limit	0,68

6.10.3.4.1.40 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

6.10.3.4.1.40.1 Uplink

6.10.3.4.1.40.1.1 Transport channel parameters

6.10.3.4.1.40.1.1.1 Transport channel parameters for Conversational / speech / UL:12.2 kbps / CS RAB

See 6.10.3.4.1.4.1.1.1

6.10.3.4.1.40.1.1.2 Transport channel parameters for Interactive or background / UL:64 kbps / PS RAB

See 6.10.3.4.1.24.1.1.1

6.10.3.4.1.40.1.1.3 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.1.1.1

6.10.3.4.1.40.1.1.4 TFCS

TFCS size	30
TFCS	(RAB subflow#1, RAB subflow#2, RAB subflow#3, 64 kbps RAB , DCCH)= (TF0, TF0, TF0, TF0, TF0), (TF1, TF0, TF0, TF0, TF0), (TF2, TF1, TF1, TF0, TF0), (TF0, TF0, TF0, TF1, TF0), (TF1, TF0, TF0, TF1, TF0), (TF2, TF1, TF1, TF1, TF0), (TF0, TF0, TF0, TF2, TF0), (TF1, TF0, TF0, TF2, TF0), (TF2, TF1, TF1, TF2, TF0), (TF0, TF0, TF0, TF3, TF0), (TF1, TF0, TF0, TF3, TF0), (TF2, TF1, TF1, TF3, TF0), (TF0, TF0, TF0, TF4, TF0), (TF1, TF0, TF0, TF4, TF0), (TF2, TF1, TF1, TF4, TF0), (TF0, TF0, TF0, TF0, TF1), (TF1, TF0, TF0, TF0, TF1), (TF2, TF1, TF1, TF0, TF1), (TF0, TF0, TF0, TF1, TF1), (TF1, TF0, TF0, TF1, TF1), (TF2, TF1, TF1, TF1, TF1), (TF0, TF0, TF0, TF2, TF1), (TF1, TF0, TF0, TF2, TF1), (TF2, TF1, TF1, TF2, TF1), (TF0, TF0, TF0, TF3, TF1), (TF1, TF0, TF0, TF3, TF1), (TF2, TF1, TF1, TF3, TF1), (TF0, TF0, TF0, TF4, TF1), (TF1, TF0, TF0, TF4, TF1), (TF2, TF1, TF1, TF4, TF1)

6.10.3.4.1.40.1.2 Physical channel parameters

DPCH Uplink	Midamble	512 chips
	Codes and time slots	SF2 x 1 code x 1 time slot
	Max. Number of data bits/radio frame	1808 bits
	TFCI code word	16 bit
	TPC	2 bits
	Puncturing Limit	0.68

6.10.3.4.1.40.2 Downlink

See 6.10.3.4.1.39.2.

- 6.10.3.4.1.41 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
- 6.10.3.4.1.41.1 Uplink
See 6.10.3.4.1.40.1.
- 6.10.3.4.1.41.2 Downlink
- 6.10.3.4.1.41.2.1 Transport channel parameters
- 6.10.3.4.1.41.2.1.1 Transport channel parameters for Conversational / speech / DL:12.2 kbps / CS RAB
See 6.10.3.4.1.4.2.1.1
- 6.10.3.4.1.41.2.1.2 Transport channel parameters for Interactive or background / DL:128 kbps / PS RAB
See 6.10.3.4.1.27.2.1.1
- 6.10.3.4.1.41.2.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCH
See 6.10.3.4.1.2.2.1.1
- 6.10.3.4.1.41.2.1.4 TFCS

TFCS size	30
TFCS	(RAB subflow#1, RAB subflow#2, RAB subflow#3, 128 kbps RAB , DCCH)= (TF0, TF0, TF0, TF0, TF0), (TF1, TF0, TF0, TF0, TF0), (TF2, TF1, TF1, TF0, TF0), (TF0, TF0, TF0, TF1, TF0), (TF1, TF0, TF0, TF1, TF0), (TF2, TF1, TF1, TF1, TF0), (TF0, TF0, TF0, TF2, TF0), (TF1, TF0, TF0, TF2, TF0), (TF2, TF1, TF1, TF2, TF0), (TF0, TF0, TF0, TF3, TF0), (TF1, TF0, TF0, TF3, TF0), (TF2, TF1, TF1, TF3, TF0), (TF0, TF0, TF0, TF4, TF0), (TF1, TF0, TF0, TF4, TF0), (TF2, TF1, TF1, TF4, TF0), (TF0, TF0, TF0, TF0, TF1), (TF1, TF0, TF0, TF0, TF1), (TF2, TF1, TF1, TF0, TF1), (TF0, TF0, TF0, TF1, TF1), (TF1, TF0, TF0, TF1, TF1), (TF2, TF1, TF1, TF1, TF1), (TF0, TF0, TF0, TF2, TF1), (TF1, TF0, TF0, TF2, TF1), (TF2, TF1, TF1, TF2, TF1), (TF0, TF0, TF0, TF3, TF1), (TF1, TF0, TF0, TF3, TF1), (TF2, TF1, TF1, TF3, TF1), (TF0, TF0, TF0, TF4, TF1), (TF1, TF0, TF0, TF4, TF1), (TF2, TF1, TF1, TF4, TF1)

6.10.3.4.1.41.2.2 Physical channel parameters

DPCH Downlink	Midamble	256 chips
	Codes and time slots	SF16 x 10 codes x 1 time slot
	Max. Number of data bits/radio frame	2744 bits
	TFCI code word	16 bits
	Puncturing limit	0,56

- 6.10.3.4.1.42 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
- 6.10.3.4.1.42.1 Uplink
See 6.10.3.4.1.40.1

6.10.3.4.1.42.2 Downlink

6.10.3.4.1.42.2.1 Transport channel parameters

6.10.3.4.1.42.2.1.1 Transport channel parameters for Conversational / speech / DL:12.2 kbps / CS RAB

See 6.10.3.4.1.4.2.1.1

6.10.3.4.1.42.2.1.2 Transport channel parameters for Interactive or background / DL:256 kbps / PS RAB

See 6.10.3.4.1.31.2.1.1

6.10.3.4.1.42.2.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.2.1.1

6.10.3.4.1.42.2.1.4 TFCS

TFCS size	30 (alt. 42)
TFCS	(RAB subflow#1, RAB subflow#2, RAB subflow#3, 256 kbps RAB , DCCH)= (TF0, TF0, TF0, TF0, TF0), (TF1, TF0, TF0, TF0, TF0), (TF2, TF1, TF1, TF0, TF0), (TF0, TF0, TF0, TF1, TF0), (TF1, TF0, TF0, TF1, TF0), (TF2, TF1, TF1, TF1, TF0), (TF0, TF0, TF0, TF2, TF0), (TF1, TF0, TF0, TF2, TF0), (TF2, TF1, TF1, TF2, TF0), (TF0, TF0, TF0, TF3, TF0), (TF1, TF0, TF0, TF3, TF0), (TF2, TF1, TF1, TF3, TF0), (TF0, TF0, TF0, TF4, TF0), (TF1, TF0, TF0, TF4, TF0), (TF2, TF1, TF1, TF4, TF0), (TF0, TF0, TF0, TF0, TF1), (TF1, TF0, TF0, TF0, TF1), (TF2, TF1, TF1, TF0, TF1), (TF0, TF0, TF0, TF1, TF1), (TF1, TF0, TF0, TF1, TF1), (TF2, TF1, TF1, TF1, TF1), (TF0, TF0, TF0, TF2, TF1), (TF1, TF0, TF0, TF2, TF1), (TF2, TF1, TF1, TF2, TF1), (TF0, TF0, TF0, TF3, TF1), (TF1, TF0, TF0, TF3, TF1), (TF2, TF1, TF1, TF3, TF1), (TF0, TF0, TF0, TF4, TF1), (TF1, TF0, TF0, TF4, TF1), (TF2, TF1, TF1, TF4, TF1), (alt. (TF0, TF0, TF0, TF0, TF0), (TF1, TF0, TF0, TF0, TF0), (TF2, TF1, TF1, TF0, TF0), (TF0, TF0, TF0, TF1, TF0), (TF1, TF0, TF0, TF1, TF0), (TF2, TF1, TF1, TF1, TF0), (TF0, TF0, TF0, TF2, TF0), (TF1, TF0, TF0, TF2, TF0), (TF2, TF1, TF1, TF2, TF0), (TF0, TF0, TF0, TF3, TF0), (TF1, TF0, TF0, TF3, TF0), (TF2, TF1, TF1, TF3, TF0), (TF0, TF0, TF0, TF4, TF0), (TF1, TF0, TF0, TF4, TF0), (TF2, TF1, TF1, TF4, TF0), (TF0, TF0, TF0, TF5, TF0), (TF1, TF0, TF0, TF5, TF0), (TF2, TF1, TF1, TF5, TF0), (TF0, TF0, TF0, TF6, TF0), (TF1, TF0, TF0, TF6, TF0), (TF2, TF1, TF1, TF6, TF0), (TF0, TF0, TF0, TF0, TF1), (TF1, TF0, TF0, TF0, TF1), (TF2, TF1, TF1, TF0, TF1), (TF0, TF0, TF0, TF1, TF1), (TF1, TF0, TF0, TF1, TF1), (TF2, TF1, TF1, TF1, TF1), (TF0, TF0, TF0, TF2, TF1), (TF1, TF0, TF0, TF2, TF1), (TF2, TF1, TF1, TF2, TF1), (TF0, TF0, TF0, TF3, TF1), (TF1, TF0, TF0, TF3, TF1), (TF2, TF1, TF1, TF3, TF1), (TF0, TF0, TF0, TF4, TF1), (TF1, TF0, TF0, TF4, TF1), (TF2, TF1, TF1, TF4, TF1), (TF0, TF0, TF0, TF5, TF1), (TF1, TF0, TF0, TF5, TF1), (TF2, TF1, TF1, TF5, TF1), (TF0, TF0, TF0, TF6, TF1), (TF1, TF0, TF0, TF6, TF1), (TF2, TF1, TF1, TF6, TF1))

6.10.3.4.1.42.2.2 Physical channel parameters

DPCH Downlink	Midamble	256 chips
	Codes and time slots	SF16 x 10 codes x 2 time slots
	Max. Number of data bits/radio frame	5504 bits
	TFCI code word	16 bits
	Puncturing limit	0,60

- 6.10.3.4.1.43 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
- 6.10.3.4.1.43.1 Uplink
- See 6.10.3.4.1.40.1.
- 6.10.3.4.1.43.2 Downlink
- 6.10.3.4.1.43.2.1 Transport channel parameters
- 6.10.3.4.1.43.2.1.1 Transport channel parameters for Conversational / speech / DL:12.2 kbps / CS RAB
- See 6.10.3.4.1.4.2.1.1
- 6.10.3.4.1.43.2.1.2 Transport channel parameters for Interactive or background / DL:384 kbps / PS RAB
- See 6.10.3.4.1.32.2.1.1
- 6.10.3.4.1.43.2.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCH
- See 6.10.3.4.1.2.2.1.1
- 6.10.3.4.1.43.2.1.4 TFCS

TFCS size	36 (alt. 54)
TFCS	(RAB subflow#1, RAB subflow#2, RAB subflow#3, 384 kbps RAB , DCCH)= (TF0, TF0, TF0, TF0, TF0), (TF1, TF0, TF0, TF0, TF0), (TF2, TF1, TF1, TF0, TF0), (TF0, TF0, TF0, TF1, TF0), (TF1, TF0, TF0, TF1, TF0), (TF2, TF1, TF1, TF1, TF0), (TF0, TF0, TF0, TF2, TF0), (TF1, TF0, TF0, TF2, TF0), (TF2, TF1, TF1, TF2, TF0), (TF0, TF0, TF0, TF3, TF0), (TF1, TF0, TF0, TF3, TF0), (TF2, TF1, TF1, TF3, TF0), (TF0, TF0, TF0, TF4, TF0), (TF1, TF0, TF0, TF4, TF0), (TF2, TF1, TF1, TF4, TF0), (TF0, TF0, TF0, TF5, TF0), (TF1, TF0, TF0, TF5, TF0), (TF2, TF1, TF1, TF5, TF0), (TF0, TF0, TF0, TF0, TF1), (TF1, TF0, TF0, TF0, TF1), (TF2, TF1, TF1, TF0, TF1), (TF0, TF0, TF0, TF1, TF1), (TF1, TF0, TF0, TF1, TF1), (TF2, TF1, TF1, TF1, TF1), (TF0, TF0, TF0, TF2, TF1), (TF1, TF0, TF0, TF2, TF1), (TF2, TF1, TF1, TF2, TF1), (TF0, TF0, TF0, TF3, TF1), (TF1, TF0, TF0, TF3, TF1), (TF2, TF1, TF1, TF3, TF1), (TF0, TF0, TF0, TF4, TF1), (TF1, TF0, TF0, TF4, TF1), (TF2, TF1, TF1, TF4, TF1), (TF0, TF0, TF0, TF5, TF1), (TF1, TF0, TF0, TF5, TF1), (TF2, TF1, TF1, TF5, TF1), (alt. (TF0, TF0, TF0, TF0, TF0), (TF1, TF0, TF0, TF0, TF0), (TF2, TF1, TF1, TF0, TF0), (TF0, TF0, TF0, TF1, TF0), (TF1, TF0, TF0, TF1, TF0), (TF2, TF1, TF1, TF1, TF0), (TF0, TF0, TF0, TF2, TF0), (TF1, TF0, TF0, TF2, TF0), (TF2, TF1, TF1, TF2, TF0), (TF0, TF0, TF0, TF3, TF0), (TF1, TF0, TF0, TF3, TF0), (TF2, TF1, TF1, TF3, TF0), (TF0, TF0, TF0, TF4, TF0), (TF1, TF0, TF0, TF4, TF0), (TF2, TF1, TF1, TF4, TF0), (TF0, TF0, TF0, TF5, TF0), (TF1, TF0, TF0, TF5, TF0), (TF2, TF1, TF1, TF5, TF0), (TF0, TF0, TF0, TF6, TF0), (TF1, TF0, TF0, TF6, TF0), (TF2, TF1, TF1, TF6, TF0), (TF0, TF0, TF0, TF7, TF0), (TF1, TF0, TF0, TF7, TF0), (TF2, TF1, TF1, TF7, TF0), (TF0, TF0, TF0, TF8, TF0), (TF1, TF0, TF0, TF8, TF0), (TF2, TF1, TF1, TF8, TF0), (TF0, TF0, TF0, TF0, TF1), (TF1, TF0, TF0, TF0, TF1), (TF2, TF1, TF1, TF0, TF1), (TF0, TF0, TF0, TF1, TF1), (TF1, TF0, TF0, TF1, TF1), (TF2, TF1, TF1, TF1, TF1), (TF0, TF0, TF0, TF2, TF1), (TF1, TF0, TF0, TF2, TF1), (TF2, TF1, TF1, TF2, TF1), (TF0, TF0, TF0, TF3, TF1), (TF1, TF0, TF0, TF3, TF1), (TF2, TF1, TF1, TF3, TF1), (TF0, TF0, TF0, TF4, TF1), (TF1, TF0, TF0, TF4, TF1), (TF2, TF1, TF1, TF4, TF1), (TF0, TF0, TF0, TF5, TF1), (TF1, TF0, TF0, TF5, TF1), (TF2, TF1, TF1, TF5, TF1), (TF0, TF0, TF0, TF6, TF1), (TF1, TF0, TF0, TF6, TF1), (TF2, TF1, TF1, TF6, TF1), (TF0, TF0, TF0, TF7, TF1), (TF1, TF0, TF0, TF7, TF1), (TF2, TF1, TF1, TF7, TF1), (TF0, TF0, TF0, TF8, TF1), (TF1, TF0, TF0, TF8, TF1), (TF2, TF1, TF1, TF8, TF1))

- 6.10.3.4.1.43.2.2 Physical channel parameters

DPCH Downlink	Midamble	256 chips
	Codes and time slots	SF16 x 8 codes x 3 time slots
	Max. Number of data bits/radio frame	6592 bits
	TFCI code word	32 bits
	Puncturing limit	0,48

6.10.3.4.1.44 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

6.10.3.4.1.44.1 Uplink

6.10.3.4.1.44.1.1 Transport channel parameters

6.10.3.4.1.44.1.1.1 Transport channel parameters for Conversational / speech / UL:12.2 kbps / CS RAB

See 6.10.3.4.1.4.1.1.1

6.10.3.4.1.44.1.1.2 Transport channel parameters for Interactive or background / UL:128 kbps / PS RAB

See 6.10.3.4.1.28.1.1.1

6.10.3.4.1.44.1.1.3 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.1.1.1

6.10.3.4.1.44.1.1.4 TFCS

TFCS size	30
TFCS	(RAB subflow#1, RAB subflow#2, RAB subflow#3, 128 kbps RAB , DCCH)= (TF0, TF0, TF0, TF0, TF0), (TF1, TF0, TF0, TF0, TF0), (TF2, TF1, TF1, TF0, TF0), (TF0, TF0, TF0, TF1, TF0), (TF1, TF0, TF0, TF1, TF0), (TF2, TF1, TF1, TF1, TF0), (TF0, TF0, TF0, TF2, TF0), (TF1, TF0, TF0, TF2, TF0), (TF2, TF1, TF1, TF2, TF0), (TF0, TF0, TF0, TF3, TF0), (TF1, TF0, TF0, TF3, TF0), (TF2, TF1, TF1, TF3, TF0), (TF0, TF0, TF0, TF4, TF0), (TF1, TF0, TF0, TF4, TF0), (TF2, TF1, TF1, TF4, TF0), (TF0, TF0, TF0, TF0, TF1), (TF1, TF0, TF0, TF0, TF1), (TF2, TF1, TF1, TF0, TF1), (TF0, TF0, TF0, TF1, TF1), (TF1, TF0, TF0, TF1, TF1), (TF2, TF1, TF1, TF1, TF1), (TF0, TF0, TF0, TF2, TF1), (TF1, TF0, TF0, TF2, TF1), (TF2, TF1, TF1, TF2, TF1), (TF0, TF0, TF0, TF3, TF1), (TF1, TF0, TF0, TF3, TF1), (TF2, TF1, TF1, TF3, TF1), (TF0, TF0, TF0, TF4, TF1), (TF1, TF0, TF0, TF4, TF1), (TF2, TF1, TF1, TF4, TF1)

6.10.3.4.1.44.1.2 Physical channel parameters

DPCH Uplink	Midamble	256 chips
	Codes and time slots	{SF8 x 1 code + SF2 x 1 code} x 1 time slot
	Max. Number of data bits/radio frame	2724 bits
	TFCI code word	16 bits
	TPC	2 bits
	Puncturing Limit	0.56

6.10.3.4.1.44.2 Downlink

6.10.3.4.1.44.2.1 Transport channel parameters

6.10.3.4.1.44.2.1.1 Transport channel parameters for Conversational / speech / DL:12.2 kbps / CS RAB

See 6.10.3.4.1.4.2.1.1

6.10.3.4.1.44.2.1.2 Transport channel parameters for Interactive or background / DL:2048 kbps / PS RAB
See 6.10.3.4.1.35.2.1.1

6.10.3.4.1.44.2.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCH
See 6.10.3.4.1.2.2.1.1

6.10.3.4.1.44.2.2 Physical channel parameters

DPCH Downlink	Midamble	256 chips
	Codes and time slots	SF1 x 1 code x 12 time slots
	Max. Number of data bits/radio frame	36400 bits
	TFCI code word	32 bits
	Puncturing limit	0,52

6.10.3.4.1.45 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

6.10.3.4.1.45.1 Uplink

6.10.3.4.1.45.1.1 Transport channel parameters

6.10.3.4.1.45.1.1.1 Transport channel parameters for Conversational / speech / UL:12.2 kbps / CS RAB

See 6.10.3.4.1.4.1.1.1

6.10.3.4.1.45.1.1.2 Transport channel parameters for Streaming / unknown / UL:57.6 kbps / CS RAB

See 6.10.3.4.1.17.1.1.1

6.10.3.4.1.45.1.1.3 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.1.1.1

6.10.3.4.1.45.1.1.4 TFCS

TFCS size	30
TFCS	(RAB subflow#1, RAB subflow#2, RAB subflow#3, 57.6 kbps RAB , DCCH)= (TF0, TF0, TF0, TF0, TF0), (TF1, TF0, TF0, TF0, TF0), (TF2, TF1, TF1, TF0, TF0), (TF0, TF0, TF0, TF1, TF0), (TF1, TF0, TF0, TF1, TF0), (TF2, TF1, TF1, TF1, TF0), (TF0, TF0, TF0, TF2, TF0), (TF1, TF0, TF0, TF2, TF0), (TF2, TF1, TF1, TF2, TF0), (TF0, TF0, TF0, TF3, TF0), (TF1, TF0, TF0, TF3, TF0), (TF2, TF1, TF1, TF3, TF0), (TF0, TF0, TF0, TF4, TF0), (TF1, TF0, TF0, TF4, TF0), (TF2, TF1, TF1, TF4, TF0), (TF0, TF0, TF0, TF0, TF1), (TF1, TF0, TF0, TF0, TF1), (TF2, TF1, TF1, TF0, TF1), (TF0, TF0, TF0, TF1, TF1), (TF1, TF0, TF0, TF1, TF1), (TF2, TF1, TF1, TF1, TF1), (TF0, TF0, TF0, TF2, TF1), (TF1, TF0, TF0, TF2, TF1), (TF2, TF1, TF1, TF2, TF1), (TF0, TF0, TF0, TF3, TF1), (TF1, TF0, TF0, TF3, TF1), (TF2, TF1, TF1, TF3, TF1), (TF0, TF0, TF0, TF4, TF1), (TF1, TF0, TF0, TF4, TF1), (TF2, TF1, TF1, TF4, TF1)

6.10.3.4.1.45.1.2 Physical channel parameters

DPCH Uplink	Midamble	512 chips
	Codes and time slots	{SF8 x 1 code + SF4 x 1 code} x 1 time slot
	Max. Number of data bits/radio frame	1428 bits
	TFCI code word	16 bits
	TPC	2 bits
	Puncturing Limit	0.60

- 6.10.3.4.1.45.2 Downlink
- 6.10.3.4.1.45.2.1 Transport channel parameters
- 6.10.3.4.1.45.2.1.1 Transport channel parameters for Conversational / speech / DL:12.2 kbps / CS RAB
See 6.10.3.4.1.4.2.1.1
- 6.10.3.4.1.45.2.1.2 Transport channel parameters for Streaming / unknown / DL:57.6 kbps / CS RAB
See 6.10.3.4.1.17.2.1.1
- 6.10.3.4.1.45.2.1.3 Transport channel parameters for UL:3.4 kbps SRBs for DCCH
See 6.10.3.4.1.2.2.11
- 6.10.3.4.1.45.2.1.4 TFCS

TFCS size	30
TFCS	(RAB subflow#1, RAB subflow#2, RAB subflow#3, 57.6 kbps RAB , DCCH)= (TF0, TF0, TF0, TF0, TF0), (TF1, TF0, TF0, TF0, TF0), (TF2, TF1, TF1, TF0, TF0), (TF0, TF0, TF0, TF1, TF0), (TF1, TF0, TF0, TF1, TF0), (TF2, TF1, TF1, TF1, TF0), (TF0, TF0, TF0, TF2, TF0), (TF1, TF0, TF0, TF2, TF0), (TF2, TF1, TF1, TF2, TF0), (TF0, TF0, TF0, TF3, TF0), (TF1, TF0, TF0, TF3, TF0), (TF2, TF1, TF1, TF3, TF0), (TF0, TF0, TF0, TF4, TF0), (TF1, TF0, TF0, TF4, TF0), (TF2, TF1, TF1, TF4, TF0), (TF0, TF0, TF0, TF0, TF1), (TF1, TF0, TF0, TF0, TF1), (TF2, TF1, TF1, TF0, TF1), (TF0, TF0, TF0, TF1, TF1), (TF1, TF0, TF0, TF1, TF1), (TF2, TF1, TF1, TF1, TF1), (TF0, TF0, TF0, TF2, TF1), (TF1, TF0, TF0, TF2, TF1), (TF2, TF1, TF1, TF2, TF1), (TF0, TF0, TF0, TF3, TF1), (TF1, TF0, TF0, TF3, TF1), (TF2, TF1, TF1, TF3, TF1), (TF0, TF0, TF0, TF4, TF1), (TF1, TF0, TF0, TF4, TF1), (TF2, TF1, TF1, TF4, TF1)

6.10.3.4.1.45.2.2 Physical channel parameters

DPCH Downlink	Midamble	512 chips
	Codes and time slots	SF16 x 6 codes x 1 time slot
	Max. Number of data bits/radio frame	1448 bits
	TFCI code word	16 bits
	Puncturing limit	0,6

- 6.10.3.4.1.46 Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ Streaming / unknown / UL:0 DL:64 kbps / CS or PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH
- 6.10.3.4.1.46.1 Uplink
See 6.10.3.4.1.4.1.
- 6.10.3.4.1.46.2 Downlink
- 6.10.3.4.1.46.2.1 Transport channel parameters
- 6.10.3.4.1.46.2.1.1 Transport channel parameters for Conversational / speech / DL:12.2 kbps / CS RAB
See 6.10.3.4.1.4.2.1.1
- 6.10.3.4.1.46.2.1.2 Transport channel parameters for Streaming / unknown / DL:64 kbps / CS or PS RAB
See 6.10.3.4.1.18.2.1.1

6.10.3.4.1.46.2.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.2.1.1

6.10.3.4.1.46.2.1.4 TFCS

TFCS size	30
TFCS	(RAB subflow#1, RAB subflow#2, RAB subflow#3, 64 kbps RAB , DCCH)= (TF0, TF0, TF0, TF0, TF0), (TF1, TF0, TF0, TF0, TF0), (TF2, TF1, TF1, TF0, TF0), (TF0, TF0, TF0, TF1, TF0), (TF1, TF0, TF0, TF1, TF0), (TF2, TF1, TF1, TF1, TF0), (TF0, TF0, TF0, TF2, TF0), (TF1, TF0, TF0, TF2, TF0), (TF2, TF1, TF1, TF2, TF0), (TF0, TF0, TF0, TF3, TF0), (TF1, TF0, TF0, TF3, TF0), (TF2, TF1, TF1, TF3, TF0), (TF0, TF0, TF0, TF4, TF0), (TF1, TF0, TF0, TF4, TF0), (TF2, TF1, TF1, TF4, TF0), (TF0, TF0, TF0, TF0, TF1), (TF1, TF0, TF0, TF0, TF1), (TF2, TF1, TF1, TF0, TF1), (TF0, TF0, TF0, TF1, TF1), (TF1, TF0, TF0, TF1, TF1), (TF2, TF1, TF1, TF1, TF1), (TF0, TF0, TF0, TF2, TF1), (TF1, TF0, TF0, TF2, TF1), (TF2, TF1, TF1, TF2, TF1), (TF0, TF0, TF0, TF3, TF1), (TF1, TF0, TF0, TF3, TF1), (TF2, TF1, TF1, TF3, TF1), (TF0, TF0, TF0, TF4, TF1), (TF1, TF0, TF0, TF4, TF1), (TF2, TF1, TF1, TF4, TF1)

6.10.3.4.1.46.2.2 Physical channel parameters

DPCH Downlink	Midamble	256 chips
	Codes and time slots	SF16 x 8 codes x 1 time slot
	Max. Number of data bits/radio frame	2192 bits
	TFCI code word	16 bits
	Puncturing limit	0,8

6.10.3.4.1.47 Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
 + Streaming / unknown / UL:0 DL:128 kbps / CS RAB
 + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.10.3.4.1.47.1 Uplink

See 6.10.3.4.1.4.1.

6.10.3.4.1.47.2 Downlink

6.10.3.4.1.47.2.1 Transport channel parameters

6.10.3.4.1.47.2.1.1 Transport channel parameters for Conversational / speech / DL:12.2 kbps / CS RAB

See 6.10.3.4.1.4.2.1.1

6.10.3.4.1.47.2.1.2 Transport channel parameters for Streaming / unknown / DL:128 kbps / CS or PS RAB

See 6.10.3.4.1.20.2.1.1

6.10.3.4.1.47.2.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.2.1.1

6.10.3.4.1.47.2.1.4 TFCS

TFCS size	36
TFCS	(RAB subflow#1, RAB subflow#2, RAB subflow#3, 128 kbps RAB , DCCH)= (TF0, TF0, TF0, TF0, TF0), (TF1, TF0, TF0, TF0, TF0), (TF2, TF1, TF1, TF0, TF0), (TF0, TF0, TF0, TF1, TF0), (TF1, TF0, TF0, TF1, TF0), (TF2, TF1, TF1, TF1, TF0), (TF0, TF0, TF0, TF2, TF0), (TF1, TF0, TF0, TF2, TF0), (TF2, TF1, TF1, TF2, TF0), (TF0, TF0, TF0, TF3, TF0), (TF1, TF0, TF0, TF3, TF0), (TF2, TF1, TF1, TF3, TF0), (TF0, TF0, TF0, TF4, TF0), (TF1, TF0, TF0, TF4, TF0), (TF2, TF1, TF1, TF4, TF0), (TF0, TF0, TF0, TF5, TF0), (TF1, TF0, TF0, TF5, TF0), (TF2, TF1, TF1, TF5, TF0), (TF0, TF0, TF0, TF0, TF1), (TF1, TF0, TF0, TF0, TF1), (TF2, TF1, TF1, TF0, TF1), (TF0, TF0, TF0, TF1, TF1), (TF1, TF0, TF0, TF1, TF1), (TF2, TF1, TF1, TF1, TF1), (TF0, TF0, TF0, TF2, TF1), (TF1, TF0, TF0, TF2, TF1), (TF2, TF1, TF1, TF2, TF1), (TF0, TF0, TF0, TF3, TF1), (TF1, TF0, TF0, TF3, TF1), (TF2, TF1, TF1, TF3, TF1), (TF0, TF0, TF0, TF4, TF1), (TF1, TF0, TF0, TF4, TF1), (TF2, TF1, TF1, TF4, TF1), (TF0, TF0, TF0, TF5, TF1), (TF1, TF0, TF0, TF5, TF1), (TF2, TF1, TF1, TF5, TF1)

6.10.3.4.1.47.2.2 Physical channel parameters

DPCH Downlink	Midamble	256 chips
	Codes and time slots	SF16 x 10 codes x 1 time slot
	Max. Number of data bits/radio frame	2728 bits
	TFCI code word	32 bits
	Puncturing limit	0,56

6.10.3.4.1.48 Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
 + Streaming / unknown / UL:0 DL:384 kbps / CS RAB
 + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.10.3.4.1.48.1 Uplink

See 6.10.3.4.1.4.1.

6.10.3.4.1.48.2 Downlink

6.10.3.4.1.48.2.1 Transport channel parameters

6.10.3.4.1.48.2.1.1 Transport channel parameters for Conversational / speech / DL:12.2 kbps / CS RAB

See 6.10.3.4.1.4.2.1.1

6.10.3.4.1.48.2.1.2 Transport channel parameters for Streaming / unknown / DL:384 kbps / CS or PS RAB

See 6.10.3.4.1.22.2.1.1

6.10.3.4.1.48.2.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.2.1.1

6.10.3.4.1.48.2.1.4 TFCS

TFCS size	48
TFCS	(RAB subflow#1, RAB subflow#2, RAB subflow#3, 384 kbps RAB , DCCH)= (TF0, TF0, TF0, TF0, TF0), (TF1, TF0, TF0, TF0, TF0), (TF2, TF1, TF1, TF0, TF0), (TF0, TF0, TF0, TF1, TF0), (TF1, TF0, TF0, TF1, TF0), (TF2, TF1, TF1, TF1, TF0), (TF0, TF0, TF0, TF2, TF0), (TF1, TF0, TF0, TF2, TF0), (TF2, TF1, TF1, TF2, TF0), (TF0, TF0, TF0, TF3, TF0), (TF1, TF0, TF0, TF3, TF0), (TF2, TF1, TF1, TF3, TF0), (TF0, TF0, TF0, TF4, TF0), (TF1, TF0, TF0, TF4, TF0), (TF2, TF1, TF1, TF4, TF0), (TF0, TF0, TF0, TF5, TF0), (TF1, TF0, TF0, TF5, TF0), (TF2, TF1, TF1, TF5, TF0), (TF0, TF0, TF0, TF6, TF0), (TF1, TF0, TF0, TF6, TF0), (TF2, TF1, TF1, TF6, TF0), (TF0, TF0, TF0, TF7, TF0), (TF1, TF0, TF0, TF7, TF0), (TF2, TF1, TF1, TF7, TF0), (TF0, TF0, TF0, TF0, TF1), (TF1, TF0, TF0, TF0, TF1), (TF2, TF1, TF1, TF0, TF1), (TF0, TF0, TF0, TF1, TF1), (TF1, TF0, TF0, TF1, TF1), (TF2, TF1, TF1, TF1, TF1), (TF0, TF0, TF0, TF2, TF1), (TF1, TF0, TF0, TF2, TF1), (TF2, TF1, TF1, TF2, TF1), (TF0, TF0, TF0, TF3, TF1), (TF1, TF0, TF0, TF3, TF1), (TF2, TF1, TF1, TF3, TF1), (TF0, TF0, TF0, TF4, TF1), (TF1, TF0, TF0, TF4, TF1), (TF2, TF1, TF1, TF4, TF1), (TF0, TF0, TF0, TF5, TF1), (TF1, TF0, TF0, TF5, TF1), (TF2, TF1, TF1, TF5, TF1), (TF0, TF0, TF0, TF6, TF1), (TF1, TF0, TF0, TF6, TF1), (TF2, TF1, TF1, TF6, TF1), (TF0, TF0, TF0, TF7, TF1), (TF1, TF0, TF0, TF7, TF1), (TF2, TF1, TF1, TF7, TF1)

6.10.3.4.1.48.2.2 Physical channel parameters

DPCH Downlink	Midamble	256 chips
	Codes and time slots	SF16 x 10 codes x 3 time slots
	Max. Number of data bits/radio frame	8248 bits
	TFCI code word	32 bits
	Puncturing limit	0,64

6.10.3.4.1.49 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

6.10.3.4.1.49.1 Uplink

6.10.3.4.1.49.1.1 Transport channel parameters

6.10.3.4.1.49.1.1.1 Transport channel parameters for Conversational / speech / UL:12.2 kbps / CS RAB

See 6.10.3.4.1.4.1.1.1

6.10.3.4.1.49.1.1.2 Transport channel parameters for Conversational / unknown / UL:64 kbps / CS RAB

See 6.10.3.4.1.13.1.1.1

6.10.3.4.1.49.1.1.3 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.1.1.1

6.10.3.4.1.49.1.1.4 TFCS

TFCS size	12
TFCS	(RAB subflow#1, RAB subflow#2, RAB subflow#3, 64 kbps RAB , DCCH)= (TF0, TF0, TF0, TF0, TF0), (TF1, TF0, TF0, TF0, TF0), (TF2, TF1, TF1, TF0, TF0), (TF0, TF0, TF0, TF1, TF0), (TF1, TF0, TF0, TF1, TF0), (TF2, TF1, TF1, TF1, TF0), (TF0, TF0, TF0, TF0, TF1), (TF1, TF0, TF0, TF0, TF1), (TF2, TF1, TF1, TF0, TF1), (TF0, TF0, TF0, TF1, TF1), (TF1, TF0, TF0, TF1, TF1), (TF2, TF1, TF1, TF1, TF1)

6.10.3.4.1.49.1.2 Physical channel parameters

DPCH Uplink	Midamble	256 chips
	Codes and time slots	SF2 x 1 code x 1 time slot
	Max. Number of data bits/radio frame	2064 bits
	TFCI code word	16 bits
	TPC	2 bits
	Puncturing Limit	0.72

6.10.3.4.1.49.2 Downlink

6.10.3.4.1.49.2.1 Transport channel parameters

6.10.3.4.1.49.2.1.1 Transport channel parameters for Conversational / speech / DL:12.2 kbps / CS RAB

See 6.10.3.4.1.4.2.1.1

6.10.3.4.1.49.2.1.2 Transport channel parameters for Conversational / unknown / DL:64 kbps / CS RAB

See 6.10.3.4.1.13.2.1.1

6.10.3.4.1.49.2.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.2.11

6.10.3.4.1.49.2.1.4 TFCS

TFCS size	12
TFCS	(RAB subflow#1, RAB subflow#2, RAB subflow#3, 64 kbps RAB , DCCH)= (TF0, TF0, TF0, TF0, TF0), (TF1, TF0, TF0, TF0, TF0), (TF2, TF1, TF1, TF0, TF0), (TF0, TF0, TF0, TF1, TF0), (TF1, TF0, TF0, TF1, TF0), (TF2, TF1, TF1, TF1, TF0), (TF0, TF0, TF0, TF0, TF1), (TF1, TF0, TF0, TF0, TF1), (TF2, TF1, TF1, TF0, TF1), (TF0, TF0, TF0, TF1, TF1), (TF1, TF0, TF0, TF1, TF1), (TF2, TF1, TF1, TF1, TF1)

6.10.3.4.1.49.2.2 Physical channel parameters

DPCH Downlink	Midamble	256 chips
	Codes and time slots	SF16 x 8 codes x 1 time slot
	Max. Number of data bits/radio frame	2192 bits
	TFCI code word	16 bits
	Puncturing limit	0,88

6.10.3.4.1.50 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

6.10.3.4.1.50.1 Uplink

6.10.3.4.1.50.1.1 Transport channel parameters

6.10.3.4.1.50.1.1.1 Transport channel parameters for Conversational / unknown / UL:64 kbps / CS RAB

See 6.10.3.5.4.1.13.1.1.1

6.10.3.4.1.50.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.1.1.1

6.10.3.4.1.50.1.1.3 TFCS

TFCS size	8
TFCS	(64 kbps RAB, 64 kbps RAB, DCCH)= (TF0, TF0, TF0), (TF1, TF0, TF0), (TF0, TF1, TF0), (TF1, TF1, TF0) (TF0, TF0, TF1), (TF1, TF0, TF1), (TF0, TF1, TF1), (TF1, TF1, TF1)

6.10.3.4.1.50.1.2 Physical channel parameters

DPCH Uplink	Midamble	512 chips
	Codes and time slots	{SF16 x 1 code + SF4 x 1 code} x 1 time slot
	Max. Number of data bits/radio frame	1202 bits
	TFCI code word	16 bits
	TPC	2 bits
	Puncturing Limit	0.56

6.10.3.4.1.50.2 Downlink

6.10.3.4.1.50.2.1 Transport channel parameters

6.10.3.4.1.50.2.1.1 Transport channel parameters for Conversational / unknown / DL:64 kbps / CS RAB

See 6.10.3.4.1.13.2.1.1

6.10.3.4.1.50.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.2.1.1

6.10.3.4.1.50.2.1.3 TFCS

TFCS size	8
TFCS	(64 kbps RAB, 64 kbps RAB, DCCH)= (TF0, TF0, TF0), (TF1, TF0, TF0), (TF0, TF1, TF0), (TF1, TF1, TF0) (TF0, TF0, TF1), (TF1, TF0, TF1), (TF0, TF1, TF1), (TF1, TF1, TF1)

6.10.3.4.1.50.2.2 Physical channel parameters

DPCH Downlink	Midamble	512 chips
	Codes and time slots	SF16 x 5 codes x 1 time slot
	Max. Number of data bits/radio frame	1204 bits
	TFCI code word	16 bits
	Puncturing limit	0,56

6.10.3.4.1.51 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

6.10.3.4.1.51.1 Uplink

6.10.3.4.1.51.1.1 Transport channel parameters

6.10.3.4.1.51.1.1.1 Transport channel parameters for Conversational / unknown / UL:64 kbps / CS RAB

See 6.10.3.4.1.13.1.1.1

6.10.3.4.1.51.1.1.2 Transport channel parameters for Interactive or background / UL:64 kbps / PS RAB

See 6.10.3.4.1.24.1.1.1

6.10.3.4.1.51.1.1.3 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.1.1.1

6.10.3.4.1.51.1.1.4 TFCS

TFCS size	20
TFCS	(Conv. 64 kbps RAB, I/B 64 kbps RAB, DCCH)= (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), (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)

6.10.3.4.1.51.1.2 Physical channel parameters

DPCH Uplink	Midamble	256 chips
	Codes and time slots	SF2 x 1 code x 1 time slot
	Max. Number of data bits/radio frame	2064 bits
	TFCI code word	16 bits
	TPC	2 bits
	Puncturing Limit	0.44

6.10.3.4.1.51.2 Downlink

6.10.3.4.1.51.2.1 Transport channel parameters

6.10.3.4.1.51.2.1.1 Transport channel parameters for Conversational / unknown / DL:64 kbps / CS RAB

See 6.10.3.4.1.13.2.1.1

6.10.3.4.1.51.2.1.2 Transport channel parameters for Interactive or background / DL:64 kbps / PS RAB

See 6.10.3.4.1.25.2.1.1

6.10.3.4.1.51.2.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.2.1.1

6.10.3.4.1.51.2.1.4 TFCS

TFCS size	20
TFCS	(Conv. 64 kbps RAB, I/B 64 kbps RAB, DCCH)= (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), (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)

6.10.3.4.1.51.2.2 Physical channel parameters

DPCH Downlink	Midamble	256 chips
	Codes and time slots	SF16 x 8 codes x 1 time slot
	Max. Number of data bits/radio frame	2192 bits
	TFCI code word	16 bits
	Puncturing limit	0,48

6.10.3.4.1.52 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

6.10.3.4.1.52.1 Uplink

See 6.10.3.4.1.51.1.

6.10.3.4.1.52.2 Downlink

6.10.3.4.1.52.2.1 Transport channel parameters

6.10.3.4.1.52.2.1.1 Transport channel parameters for Conversational / unknown / DL:64 kbps / CS RAB

See 6.10.3.4.1.13.2.1.1.

6.10.3.4.1.52.2.1.2 Transport channel parameters for Interactive or background / DL:128 kbps / PS RAB

See 6.10.3.4.1.27.2.1.1

6.10.3.4.1.52.2.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.2.1.1

6.10.3.4.1.52.2.1.4 TFCS

TFCS size	20
TFCS	(Conv. 64 kbps RAB, I/B 128 kbps RAB, DCCH)= (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), (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)

6.10.3.4.1.52.2.2 Physical channel parameters

DPCH Downlink	Midamble	512 chips
	Codes and time slots	{SF16 x 8 codes x 1 time slot} + {SF16 x 5 codes x 1 time slot}
	Max. Number of data bits/radio frame	3156 bits
	TFCI code word	16 bits
	Puncturing limit	0,44

6.10.3.4.1.53 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

6.10.3.4.1.53.1 Uplink

6.10.3.4.1.53.1.1 Transport channel parameters

6.10.3.4.1.53.1.1.1 Transport channel parameters for Conversational / unknown / UL:64 kbps / CS RAB

See 6.10.3.4.1.13.1.1.1

6.10.3.4.1.53.1.1.2 Transport channel parameters for Interactive or background / UL:128 kbps / PS RAB

See 6.10.3.4.1.28.1.1.1

6.10.3.4.1.53.1.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.1.1.1

6.10.3.4.1.53.1.1.4 TFCS

TFCS size	20
TFCS	(Conv. 64 kbps RAB, I/B 128kbps RAB, DCCH)= (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), (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)

6.10.3.4.1.53.1.2 Physical channel parameters

DPCH Uplink	Midamble	512 chips
	Codes and time slots	{SF2 x 1 code x 1 time slot} + {SF16 x 1 code + SF4 x 1 code} x 1 time slot
	Max. Number of data bits/radio frame	3154 bits
	TFCI code word	16 bits
	TPC	2 bits
	Puncturing Limit	0.48

6.10.3.4.1.53.2 Downlink

See 6.10.3.4.1.52.2.

6.10.3.4.1.54 Interactive or background / UL:64 DL:128 kbps / PS RAB
 + Streaming / unknown / UL:0 DL:64 kbps / CS or PS RAB
 + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.10.3.4.1.54.1 Uplink

See 6.10.3.4.1.24.1.

6.10.3.4.1.54.2 Downlink

6.10.3.4.1.54.2.1 Transport channel parameters

6.10.3.4.1.54.2.1.1 Transport channel parameters for Interactive or background / DL:128 kbps / PS RAB

See 6.10.3.4.1.27.2.1.1

6.10.3.4.1.54.2.1.2 Transport channel parameters for Streaming / unknown / DL:64 kbps / CS or PS RAB

See 6.10.3.4.1.18.2.1.1

6.10.3.4.1.54.2.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.2.1.1

6.10.3.4.1.54.2.1.4 TFCS

TFCS size	50
TFCS	(I/B 128 kbps RAB, Str. 64 kbps RAB, DCCH)= (TF0, TF0, TF0), (TF1, TF0, TF0), (TF2, TF0, TF0), (TF3, TF0, TF0), (TF4, TF0, TF0), (TF0, TF1, TF0), (TF1, TF1, TF0), (TF2, TF1, TF0), (TF3, TF1, TF0), (TF4, TF1, TF0), (TF0, TF2, TF0), (TF1, TF2, TF0), (TF2, TF2, TF0), (TF3, TF2, TF0), (TF4, TF2, TF0), (TF0, TF3, TF0), (TF1, TF3, TF0), (TF2, TF3, TF0), (TF3, TF3, TF0), (TF4, TF3, TF0), (TF0, TF4, TF0), (TF1, TF4, TF0), (TF2, TF4, TF0), (TF3, TF4, TF0), (TF4, TF4, TF0), (TF0, TF0, TF1), (TF1, TF0, TF1), (TF2, TF0, TF1), (TF3, TF0, TF1), (TF4, TF0, TF1), (TF0, TF1, TF1), (TF1, TF1, TF1), (TF2, TF1, TF1), (TF3, TF1, TF1), (TF4, TF1, TF1), (TF0, TF2, TF1), (TF1, TF2, TF1), (TF2, TF2, TF1), (TF3, TF2, TF1), (TF4, TF2, TF1), (TF0, TF3, TF1), (TF1, TF3, TF1), (TF2, TF3, TF1), (TF3, TF3, TF1), (TF4, TF3, TF1), (TF0, TF4, TF1), (TF1, TF4, TF1), (TF2, TF4, TF1), (TF3, TF4, TF1), (TF4, TF4, TF1)

6.10.3.4.1.54.2.4 Physical channel parameters

DPCH Downlink	Midamble	512 chips
	Codes and time slots	{SF16 x 8 codes x 1 time slot} + {SF16 x 5 codes x 1 time slot}
	Max. Number of data bits/radio frame	3140 bits
	TFCI code word	32 bits
	Puncturing limit	0,68

6.10.3.4.1.55 Interactive or background / UL:64 DL:128 kbps / PS RAB
 + Streaming / unknown / UL:0 DL:128 kbps / CS or PS RAB
 + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.10.3.4.1.55.1 Uplink

See 6.10.3.4.1.24.1.

6.10.3.4.1.55.2 Downlink

6.10.3.4.1.55.2.1 Transport channel parameters

6.10.3.4.1.55.2.1.1 Transport channel parameters for Interactive or background / DL:128 kbps / PS RAB

See 6.10.3.4.1.27.2.1.1

6.10.3.4.1.55.2.1.2 Transport channel parameters for Streaming / unknown / DL:128 kbps / CS or PS RAB

See 6.10.3.4.1.20.2.1.1

6.10.3.4.1.55.2.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.2.1.1

6.10.3.4.1.55.2.1.4 TFCS

TFCS size	60
TFCS	(I/B 128 kbps RAB, Str. 128 kbps RAB, DCCH)= (TF0, TF0, TF0), (TF1, TF0, TF0), (TF2, TF0, TF0), (TF3, TF0, TF0), (TF4, TF0, TF0), (TF0, TF1, TF0), (TF1, TF1, TF0), (TF2, TF1, TF0), (TF3, TF1, TF0), (TF4, TF1, TF0), (TF0, TF2, TF0), (TF1, TF2, TF0), (TF2, TF2, TF0), (TF3, TF2, TF0), (TF4, TF2, TF0), (TF0, TF3, TF0), (TF1, TF3, TF0), (TF2, TF3, TF0), (TF3, TF3, TF0), (TF4, TF3, TF0), (TF0, TF4, TF0), (TF1, TF4, TF0), (TF2, TF4, TF0), (TF3, TF4, TF0), (TF4, TF4, TF0), (TF0, TF5, TF0), (TF1, TF5, TF0), (TF2, TF5, TF0), (TF3, TF5, TF0), (TF4, TF5, TF0), (TF0, TF0, TF1), (TF1, TF0, TF1), (TF2, TF0, TF1), (TF3, TF0, TF1), (TF4, TF0, TF1), (TF0, TF1, TF1), (TF1, TF1, TF1), (TF2, TF1, TF1), (TF3, TF1, TF1), (TF4, TF1, TF1), (TF0, TF2, TF1), (TF1, TF2, TF1), (TF2, TF2, TF1), (TF3, TF2, TF1), (TF4, TF2, TF1), (TF0, TF3, TF1), (TF1, TF3, TF1), (TF2, TF3, TF1), (TF3, TF3, TF1), (TF4, TF3, TF1), (TF0, TF4, TF1), (TF1, TF4, TF1), (TF2, TF4, TF1), (TF3, TF4, TF1), (TF4, TF4, TF1), (TF0, TF5, TF1), (TF1, TF5, TF1), (TF2, TF5, TF1), (TF3, TF5, TF1), (TF4, TF5, TF1)

6.10.3.4.1.55.2.2 Physical channel parameters

DPCH Downlink	Midamble	256 chips
	Codes and time slots	SF16 x 8 codes x 1 time slot
	Max. Number of data bits/radio frame	2176 bits
	TFCI code word	32 bits
	Puncturing limit	0,48

6.10.3.4.2 Combinations on PDSCH, SCCPCH, PUSCH and PRACH

6.10.3.4.2.1 Interactive or background / UL: 64 DL: 256 kbps / PS RAB
 + UL: 16.8 DL: 33.6 kbps SRBs for DCCH, CCCH and BCCH
 + UL: 16.8 DL: 16 kbps SRBs for SHCCH

6.10.3.4.2.1.1 Uplink

6.10.3.4.2.1.1.1 Transport channel parameters

6.10.3.4.2.1.1.1.1 Transport channel parameters for Interactive or background / UL: 64 kbps / PS RAB and UL SRB for SHCCH mapped on USCH

Higher Layer	RAB/Signalling RB	RAB	SRB#5	
RLC	Logical channel type	DTCH	SHCCH	
	RLC mode	AM	TM	
	Payload sizes, bit	320	168	
	Max data rate, bps	64000	16800	
	RLC header, bit AMD/TrD PDU header, bit	16	0	
MAC	MAC header, bit	0	0	
	MAC multiplexing	N/A	N/A	
Layer 1	TrCH type	USCH	USCH	
	TB sizes, bit	336	168	
	TFS	TF0, bits	0x336	0x168
		TF1, bits	1x336	1x168
		TF2, bits	2x336	N/A
		TF3, bits	3x336	N/A
		TF4, bits	4x336	N/A
	TTI, ms	20	10	
	Coding type	TC	CC 1/2	
	CRC, bit	16	16	
	Max number of bits/TTI after channel coding	4236	384	
Uplink: Max number of bits/radio frame before rate matching	2118	384		
RM attribute	135-175	180-220		

6.10.3.4.2.1.1.1.2 TFCS for USCH

TFCS size	10
TFCS	(64 kbps RAB, SHCCH)= (TF0, TF0), (TF1, TF0), (TF2, TF0), (TF3, TF0), (TF4, TF0), (TF0, TF1), (TF1, TF1), (TF2, TF1), (TF3, TF1), (TF4, TF1)

6.10.3.4.2.1.1.1.3 Transport channel parameters for SRB for CCCH and UL SRBs for DCCH and UL SRB for SHCCH mapped on RACH

Higher layer	RAB/signalling RB	SRB#0	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	RRC
RLC	Logical channel type	CCCH	DCCH	DCCH	DCCH	DCCH	SHCCH
	RLC mode	TM	UM	AM	AM	AM	TM
	Payload sizes, bit	168	136	128	128	128	168
	Max data rate, bps	16800	13600	12800	12800	12800	16800
	RLC header, bit AMD/UMD/TrD PDU header, bit	0	8	16	16	16	0
MAC	MAC header, bit	2	26	26	26	26	2

	MAC multiplexing	6 logical channel multiplexing					
Layer 1	TrCH type	RACH					
	TB sizes, bit	170	170	170	170	170	170
	TFS	1x170					
	TF0, bits						
	TTI, ms	10					
	Coding type	CC 1/2					
	CRC, bit	16					
Max number of bits/TTI after channel coding	388	388	388	388	388	388	388

6.10.3.4.2.1.1.2 Physical channel parameters

PUSCH	Midamble	512 chips
	Codes and time slots	{SF16 x 1 code + SF4 x 1 code} x 1 time slot
	Max. Number of data bits/radio frame	1202 bits
	TFCI code word	16 bits
	TPC	2 bits
	Puncturing Limit	0.48

PRACH	Midamble	512 chips
	Codes and time slots	SF8 (alt. SF16) x 1 code x 1 time slot
	Max. Number of data bits/radio frame	464 (alt. 232)
	Puncturing Limit	1.0 (alt. 0.56)

6.10.3.4.2.1.2 Downlink

6.10.3.4.2.1.2.1 Transport channel parameters

6.10.3.4.2.1.2.1.1 Transport channel parameters for Interactive or background / DL: 256 kbps / PS RAB and DL SRB for SHCCH mapped on DSCH

Higher Layer	RAB/Signalling RB	RAB	SRB#5	
RLC	Logical channel type	DTCH	SHCCH	
	RLC mode	AM	UM	
	Payload sizes, bit	320	160	
	Max data rate, bps	256000	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	336	168	
	TFS	TF0, bits	0x336	0x168
		TF1, bits	1x336	1x168
		TF2, bits	2x336	N/A
		TF3, bits	4x336	N/A
		TF4, bits	8x336	N/A
		TF5, bits	N/A (alt. 12x336)	N/A
		TF6, bits	N/A (alt. 16x336)	N/A
	TTI, ms	10 (alt. 20)	10	
	Coding type	TC	CC 1/2	
	CRC, bit	16	16	
	Max number of bits/TTI after channel coding	8460 (alt. 16908)	384	
Downlink: Max number of bits/radio frame before rate matching	8460 (alt. 8454)	384		
RM attribute	135-175	180-220		

6.10.3.4.2.1.2.1.2 TFCS for DSCH

TFCS size	10 (alt. 14)
TFCS	(256 kbps RAB, SHCCH)= (TF0, TF0), (TF1, TF0), (TF2, TF0), (TF3, TF0), (TF4, 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), (TF1, TF1), (TF2, TF1), (TF3, TF1), (TF4, TF1), (TF5, TF1), (TF6, TF1))

6.10.3.4.2.1.2.1.3 Transport channel parameters for DL SRBs for DCCH and SRB for CCCH and SRB for BCCH and DL SRB for SHCCH mapped on FACH

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)	27200 or 24000 (alt. 40800 or 36000)	25600 (alt. 38400)	25600 (alt. 38400)	25600 (alt. 38400)	32000 (alt. 48000)	33600 (alt. 50400)	
	RLC header, bit AMD/UMD/TrD PDU 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	N/A (alt. 3x171)						
	TTI, ms	10							
	Coding type	CC 1/2							
	CRC, bit	16							
	Max number of bits/TTI after channel coding	764 (alt. 1138)	764 (alt. 1138)	764 (alt. 1138)	764 (alt. 1138)	764 (alt. 1138)	764 (alt. 1138)	764 (alt. 1138)	764 (alt. 1138)

* MAC header size and RLC payload size depend on use of U-RNTI or C-RNTI.

6.10.3.4.2.1.2.1.4 TFCS for FACH

TFCS size	3 (alt. 4)
TFCS	FACH = TF0, TF1, TF2 (alt. FACH = TF0, TF1, TF2, TF3)

6.10.3.4.2.1.2.2 Physical channel parameters

PDSCH	Midamble	256 chips
	Codes and time slots	SF16 x 8 codes x 2 time slots
	Max. Number of data bits/radio frame	4400 bits
	TFCI code word	16 bits
	Puncturing Limit	0.48

SCCPCH (burst type 1)	Midamble	512 chips
	Codes and time slots	SF16 x 5 codes x 1 time slot
	Max. Number of data bits/radio frame	1204 bits
	TFCI code word	16 bits
	Puncturing Limit	1

SCCPCH (burst type 2)	Midamble	256 chips
	Codes and time slots	SF16 x 5 codes x 1 time slot
	Max. Number of data bits/radio frame	1364 bits
	TFCI code word	16 bits
	Puncturing Limit	1

6.10.3.4.2.2 Interactive or background / UL: 64 DL: 384 kbps / PS RAB
 + UL: 16.8 DL: 33.6 kbps SRBs for DCCH, CCCH and BCCH
 + UL: 16.8 DL: 16 kbps SRBs for SHCCH

6.10.3.4.2.2.1 Uplink

See 6.10.3.4.2.1.1

6.10.3.4.2.2.2 Downlink

6.10.3.4.2.2.2.1 Transport channel parameters

6.10.3.4.2.2.2.1.1 Transport channel parameters for Interactive or background / DL: 384 kbps / PS RAB and DL SRB for SHCCH mapped on DSCH

Higher Layer	RAB/Signalling RB	RAB	SRB#5	
RLC	Logical channel type	DTCH	SHCCH	
	RLC mode	AM	UM	
	Payload sizes, bit	320	160	
	Max data rate, bps	384000	16000	
	RLC header, bit / AMD/UMD PDU 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	336	168	
	TFS	TF0, bits	0x336	0x168
		TF1, bits	1x336	1x168
		TF2, bits	2x336	N/A
		TF3, bits	4x336	N/A
		TF4, bits	8x336	N/A
		TF5, bits	12x336	N/A
		TF6, bits	N/A (alt. 16x336)	N/A
		TF7, bits	N/A (alt. 20x336)	N/A
	TF8, bits	N/A (alt. 24x336)	N/A	
	TTI, ms	10 (alt. 20)	10	
	Coding type	TC	CC 1/2	
	CRC, bit	16	16	
Max number of bits/TTI after channel coding	12684 (alt. 25356)	384		
Downlink: Max number of bits/radio frame before rate matching	12684 (alt. 12678)	384		
RM attribute	135-175	180-220		

6.10.3.4.2.2.1.2 TFCS for DSCH

TFCS size	12 (alt. 18)
TFCS	(384 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), (TF5, TF1) (alt. (TF0, TF0), (TF1, TF0), (TF2, TF0), (TF3, TF0), (TF4, TF0), (TF5, TF0), (TF6, TF0), (TF7, TF0), (TF8, TF0), (TF1, TF1), (TF2, TF1), (TF3, TF1), (TF4, TF1), (TF5, TF1), (TF6, TF1), (TF7, TF0), (TF8, TF0))

6.10.3.4.2.2.1.3 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 6.10.3.4.2.1.2.1.3

6.10.3.4.2.2.1.4 TFCS for FACH

See 6.10.3.4.2.1.2.1.4

6.10.3.4.2.2.2 Physical channel parameters

PDSCH	Midamble	256 chips
	Codes and time slots	SF16 x 8 codes x 3 time slots
	Max. Number of data bits/radio frame	6608 bits
	TFCI code word	16 bits
	Puncturing Limit	0.48

SCCPCH (burst type 1)	Midamble	512 chips
	Codes and time slots	SF16 x 5 codes x 1 time slot
	Max. Number of data bits/radio frame	1204 bits
	TFCI code word	16 bits
	Puncturing Limit	1

SCCPCH (burst type 2)	Midamble	256 chips
	Codes and time slots	SF16 x 5 codes x 1 time slot
	Max. Number of data bits/radio frame	1364 bits
	TFCI code word	16 bits
	Puncturing Limit	1

6.10.3.4.2.3 Interactive or background / UL: 64 DL: 2048 kbps / PS RAB
 + UL: 16.8 DL: 33.6 kbps SRBs for DCCH, CCCH and BCCH
 + UL: 16.8 DL: 16 kbps SRBs for SHCCH

6.10.3.4.2.3.1 Uplink

See 6.10.3.4.2.1.1

6.10.3.4.2.3.2 Downlink

6.10.3.4.2.3.2.1 Transport channel parameters

6.10.3.4.2.3.2.1.1 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	640	160	
	Max data rate, bps	2048000	16000	
	RLC header, bit AMD/UMD PDU 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	656	168	
	TFS	TF0, bits	0x656	0x168
		TF1, bits	1x656	1x168
		TF2, bits	2x656	N/A
		TF3, bits	4x656	N/A
		TF4, bits	8x656	N/A
		TF5, bits	12x656	N/A
		TF6, bits	16x656	N/A
		TF7, bits	20x656	N/A
		TF8, bits	24x656	N/A
		TF9, bits	28x656	N/A
		TF10, bits	32x656	N/A
		TF11, bits	N/A (alt. 36x656)	N/A
		TF12, bits	N/A (alt. 40x656)	N/A
		TF13, bits	N/A (alt. 44x656)	N/A
		TF14, bits	N/A (alt. 48x656)	N/A
		TF15, bits	N/A (alt. 52x656)	N/A
		TF16, bits	N/A (alt. 56x656)	N/A
		TF17, bits	N/A (alt. 60x656)	N/A
TF18, bits	N/A (alt. 64x656)	N/A		
TTI, ms	10 (alt. 20)	10		
Coding type	TC	CC ½		
CRC, bit	16	16		
Max number of bits/TTI after channel coding	64524 (alt. 129036)	384		
Downlink: Max number of bits/radio frame before rate matching	64524 (alt. 64518)	384		
RM attribute	135-175	180-220		

6.10.3.4.2.3.2.1.2 TFCS for DSCH

TFCS size	22 (alt. 38)
TFCS	(2048 kbps RAB, SHCCH)= (TF0, TF0), (TF1, TF0), (TF2, TF0), (TF3, TF0), (TF4, TF0), (TF5, TF0), (TF6, TF0), (TF7, TF0), (TF8, TF0), (TF9, TF0), (TF10, TF0), (TF0, TF1), (TF1, TF1), (TF2, TF1), (TF3, TF1), (TF4, TF1), (TF5, TF1), (TF6, TF1), (TF7, TF1), (TF8, TF1), (TF9, TF1), (TF10, TF1) (alt. (TF0, TF0), (TF1, TF0), (TF2, TF0), (TF3, TF0), (TF4, TF0), (TF5, TF0), (TF6, TF0), (TF7, TF0), (TF8, TF0), (TF9, TF0), (TF10, TF0),(TF11, TF0), (TF12, TF0), (TF13, TF0), (TF14, TF0), (TF15, TF0), (TF16, TF0), (TF17, TF0), (TF18, TF0), (TF0, TF1), (TF1, TF1), (TF2, TF1), (TF3, TF1), (TF4, TF1), (TF5, TF1), (TF6, TF1), (TF7, TF1), (TF8, TF1), (TF9, TF1), (TF10, TF1),(TF11, TF1), (TF12, TF1), (TF13, TF1), (TF14, TF1), (TF15, TF1), (TF16, TF1), (TF17, TF1), (TF18, TF1))

6.10.3.4.2.3.2.1.3 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 6.10.3.4.2.1.2.1.3

6.10.3.4.2.3.2.1.4 TFCS for FACH

See 6.10.3.4.2.1.2.1.4

6.10.3.4.2.3.2.2 Physical channel parameters

PDSCH	Midamble	256 chips
	Codes and time slots	SF16 x 12 codes x 11 time slots
	Max. Number of data bits/radio frame	36416 bits (alt. 36400 bits)
	TFCI code word	16 bits (alt. 32 bits)
	Puncturing Limit	0.56

SCCPCH (burst type 1)	Midamble	512 chips
	Codes and time slots	SF16 x 5 codes x 1 time slot
	Max. Number of data bits/radio frame	1204 bits
	TFCI code word	16 bits
	Puncturing Limit	1

SCCPCH (burst type 2)	Midamble	256 chips
	Codes and time slots	SF16 x 5 codes x 1 time slot
	Max. Number of data bits/radio frame	1364 bits
	TFCI code word	16 bits
	Puncturing Limit	1

6.10.3.4.3 Combinations on PDSCH, SCCPCH, DPCH, PUSCH and PRACH

6.10.3.4.3.1 Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
 + Interactive or background / UL: 64 DL: 256 kbps / PS RAB
 + UL: 16.8 DL: 33.6 kbps SRBs for DCCH, CCCH and BCCH
 + UL: 16.8 DL: 16 kbps SRBs for SHCCH

6.10.3.4.3.1.1 Uplink

6.10.3.4.3.1.1.1 Transport channel parameters

6.10.3.4.3.1.1.1.1 Transport channel parameters for Conversational / speech / UL:12.2 / CS RAB

See 6.10.3.4.1.4.1.1.1

6.10.3.4.3.1.1.1.2 Transport channel parameters for UL SRBs for DCCH

See 6.10.3.4.1.2.1.1.1

6.10.3.4.3.1.1.1.3 TFCS for DCH

See 6.10.3.4.1.4.1.1.3

6.10.3.4.3.1.1.1.4 Transport channel parameters for Interactive or background / UL: 64 kbps / PS RAB and UL SRB for SHCCH mapped on USCH

See 6.10.3.4.2.1.1.1.1

6.10.3.4.3.1.1.1.5 TFCS for USCH

See 6.10.3.4.2.1.1.1.2

6.10.3.4.3.1.1.1.6 Transport channel parameters for SRB for CCCH and UL SRB for SHCCH mapped on RACH

Higher layer	RAB/signalling RB	SRB#0	SRB#5
	User of Radio Bearer	RRC	RRC
RLC	Logical channel type	CCCH	SHCCH
	RLC mode	TM	TM
	Payload sizes, bit	168	168
	Max data rate, bps	16800	16800
	RLC header, bit TrD PDU header, bit	0	0
MAC	MAC header, bit	2	2
	MAC multiplexing	2 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	

6.10.3.4.3.1.1.2 Physical channel parameters

Physical channel parameters for uplink DPCH see 6.10.3.4.1.4.1.2

Physical channel parameters for PUSCH see 6.10.3.4.2.1.1.2

Physical channel parameters for PRACH see 6.10.3.4.2.1.1.2

6.10.3.4.3.1.2 Downlink

6.10.3.4.3.1.2.1 Transport channel parameters

6.10.3.4.3.1.2.1.1 Transport channel parameters for Conversational / speech / DL:12.2 kbps / CS RAB

See 6.10.3.4.1.4.2.1.1

6.10.3.4.3.1.2.1.2 Transport channel parameters for DL SRBs for DCCH

See 6.10.3.4.1.2.2.1.1

6.10.3.4.3.1.2.1.3 TFCS for DCH

See 6.10.3.4.1.4.2.1.3

6.10.3.4.3.1.2.1.4 Transport channel parameters for Interactive or background / DL: 256 kbps / PS RAB and DL SRB for SHCCH mapped on DSCH

See 6.10.3.4.2.1.2.1.1

6.10.3.4.3.1.2.1.5 TFCS for DSCH

See 6.10.3.4.2.1.2.1.2

6.10.3.4.3.1.2.1.6 Transport channel parameters for SRB for CCCH and SRB for BCCH and DL SRB for SHCCH mapped on FACH

Higher layer	RAB/Signalling RB	SRB#0	SRB#5	SRB#6
	User of Radio Bearer	RRC	RRC	RRC
RLC	Logical channel type	CCCH	SHCCH	BCCH
	RLC mode	UM	UM	TM
	Payload sizes, bit	160	160	168
	Max data rate, bps	32000 (alt. 48000)	32000 (alt. 48000)	33600 (alt. 50400)
	RLC header, bit UMD/TrD PDU header, bit	8	8	0
MAC	MAC header, bit	3		
	MAC multiplexing	3 logical channel multiplexing		
Layer 1	TrCH type	FACH		
	TB sizes, bit	171		
	TFS*1	TF0, bits	0x171	
		TF1, bits	1x171	
	TTI, ms	10		
	Coding type	CC 1/2		
	CRC, bit	16		
Max number of bits/TTI after channel coding	390			

6.10.3.4.3.1.2.1.7 TFCS for FACH

TFCS size	2
TFCS	FACH = TF0, TF1

6.10.3.4.3.1.2.2 Physical channel parameters

Physical channel parameters for downlink DPCH see 6.10.3.4.1.4.2.2

PDSCH	Midamble	512 chips
	Codes and time slots	SF16 x 5 codes x 1 time slot
	Max. Number of data bits/radio frame	1204 bits
	TFCI code word	16 bits
	Puncturing Limit	0.48

Physical channel parameters for SCCPCH see 6.10.3.4.2.1.2.2

6.10.3.4.3.2 Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
 + Interactive or background / UL: 64 DL: 384 kbps / PS RAB
 + UL: 16.8 DL: 33.6 kbps SRBs for DCCH, CCCH and BCCH
 + UL: 16.8 DL: 16 kbps SRBs for SHCCH

6.10.3.4.3.2.1 Uplink

See 6.10.3.4.3.1.1

6.10.3.4.3.2.2 Downlink

6.10.3.4.3.2.2.1 Transport channel parameters

6.10.3.4.3.2.2.1.1 Transport channel parameters for Conversational / speech / DL:12.2 kbps / CS RAB

See 6.10.3.4.1.4.2.1.1

6.10.3.4.3.2.2.1.2 Transport channel parameters for DL SRBs for DCCH

See 6.10.3.4.1.2.2.1.1

6.10.3.4.3.2.2.1.3 TFCS for DCH

See 6.10.3.4.1.4.2.1.3

6.10.3.4.3.2.2.1.4 Transport channel parameters for Interactive or background / DL: 384 kbps / PS RAB
 and DL SRB for SHCCH mapped on DSCH

See 6.10.3.4.2.2.2.1.1

6.10.3.4.3.2.2.1.5 TFCS for DSCH

See 6.10.3.4.2.2.2.1.2

6.10.3.4.3.2.2.1.6 Transport channel parameters for SRB for CCCH and SRB for BCCH and DL SRB for
 SHCCH mapped on FACH

See 6.10.3.4.3.1.2.1.6

6.10.3.4.3.2.2.1.7 TFCS for FACH

See 6.10.3.4.3.1.2.1.7

6.10.3.4.3.2.2.2 Physical channel parameters

Physical channel parameters for downlink DPCH see 6.10.3.4.1.4.2.2

Physical channel parameters for PDSCH see 6.10.3.4.2.2.2.2

Physical channel parameters for SCCPCH see 6.10.3.4.2.1.2.2

6.10.3.4.3.3 Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ Interactive or background / UL: 64 DL: 2048 kbps / PS RAB
+ UL: 16.8 DL: 33.6 kbps SRBs for DCCH, CCCH and BCCH
+ UL: 16.8 DL: 16 kbps SRBs for SHCCH

6.10.3.4.3.3.1 Uplink

See 6.10.3.4.3.1.1

6.10.3.4.3.3.2 Downlink

6.10.3.4.3.3.2.1 Transport channel parameters

6.10.3.4.3.3.2.1.1 Transport channel parameters for Conversational / speech / DL:12.2 kbps / CS RAB

See 6.10.3.4.1.4.2.1.1

6.10.3.4.3.3.2.1.2 Transport channel parameters for DL SRBs for DCCH

See 6.10.3.4.1.2.2.1.1

6.10.3.4.3.3.2.1.3 TFCS for DCH

See 6.10.3.4.1.4.2.1.3

6.10.3.4.3.3.2.1.4 Transport channel parameters for Interactive or background / DL: 2048 kbps / PS RAB
and DL SRB for SHCCH mapped on DSCH

See 6.10.3.4.2.3.2.1.1

6.10.3.4.3.3.2.1.5 TFCS for DSCH

See 6.10.3.4.2.3.2.1.2

6.10.3.4.3.3.2.1.6 Transport channel parameters for SRB for CCCH and SRB for BCCH and DL SRB for
SHCCH mapped on FACH

See 6.10.3.4.3.1.2.1.6

6.10.3.4.3.3.2.1.7 TFCS for FACH

See 6.10.3.4.3.1.2.1.7

6.10.3.4.3.3.2.2 Physical channel parameters

Physical channel parameters for downlink DPCH see 6.10.3.4.1.4.2.2

Physical channel parameters for PDSCH see 6.10.3.4.2.3.2.2

Physical channel parameters for SCCPCH see 6.10.3.4.2.1.2.2

6.10.3.4.4 Combinations on SCCPCH

6.10.3.4.4.1 Stand-alone signalling RB for PCCH

6.10.3.4.4.1.1 Transport channel parameters

6.10.3.4.4.1.1.1 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 TrD PDU 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)
	TTI, ms		40 ²⁰
	Coding type		CC 1/2
	CRC, bit		16
	Max number of bits/TTI before rate matching		528 (alt. 208)
RM attribute		210-250	

*1: This parameter will be changed to 20 ms.

6.10.3.4.4.1.1.2 TFCS

TFCS size	2
TFCS	SRBs for PCCH = TF0, TF1

6.10.3.4.2.1.2 Physical channel parameters

S-CCPCH	Midamble	512 chips
	Codes and time slots	SF16 x 2 codes x 1 time slot
	Max. Number of data bits/radio frame	472 bits
	TFCI code word	16 bits
	Puncturing limit	0,88

6.10.3.4.4.2 Interactive/Background 32 kbps PS RAB + SRBs for CCCH + SRB for DCCH + SRB for BCCH

6.10.3.4.4.2.1 Transport channel parameters

6.10.3.4.3.2.1.1 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 AMD PDU 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	
	TTI, ms	10		
	Coding type	TC		
	CRC, bit	16		
	Max number of bits/TTI before rate matching	1149		
	RM attribute	110-150		

6.10.3.4.4.2.1.2 Transport channel parameters of SRBs for CCCH, SRB for DCCH, and SRB for BCCH

Higher layer	RAB/signalling RB	SRB#1	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	
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)	27200 or 2400 (alt. 40800 or 36000)	25600 (alt. 38400)	25600 (alt. 38400)	25600 (alt. 38400)	33600 (alt. 50400)	
	RLC header, bit AMD/UMD/TrD PDU 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	N/A (alt. 3x171)					
	TTI, ms	10						
	Coding type	CC 1/2						
	CRC, bit	16						
Max number of bits/TTI before rate matching	764 (alt. 1154)							
RM attribute	200-240							

* MAC header size and RLC payload size depend on use of U-RNTI or C-RNTI.

6.10.3.4.4.2.1.3 TFCS

TFCS size	4, 5, or 6
TFCS	(32kbps RAB, SRBs for CCCH/DCCH/BCCH) = (TF0, TF0), (TF0, TF1), (TF0, TF2), [TF0, TF3]*, (TF1, TF0), [TF1, TF1]*

* These TFCs are available only if SCCPCH can be allocated bigger Tx power than required Tx power for TFC of (TF0, TF2).

6.10.3.4.4.2.2 Physical channel parameters

(burst type 1):

S-CCPCH	Midamble	512 chips
	Codes and time slots	SF16 x 5 codes x 1 time slot
	Max. Number of data bits/radio frame	1204 bits
	TFCI code word	16 bits
	Puncturing limit	0,6

(burst type 2):

S-CCPCH	Midamble	256 chips
	Codes and time slots	SF16 x 5 codes x 1 time slot
	Max. Number of data bits/radio frame	1364 bits
	TFCI code word	16 bits
	Puncturing limit	0,68

6.10.3.4.4.3 Interactive/Background 32 kbps RAB + SRB for PCCH + SRB for CCCH + SRB for DCCH + SRB for BCCH

6.10.3.4.4.3.1 Transport channel parameters

6.10.3.4.4.3.1.1 Transport channel parameters of SRB for Interactive/Background 32 kbps RAB

See 6.10.3.4.4.2.1

6.10.3.4.4.3.1.2 Transport channel parameters of SRB for PCCH

See 6.10.3.4.4.1.1

6.10.3.4.4.3.1.3 Transport channel parameters of SRBs for CCCH, SRB for DCCH, and SRB for BCCH

See 6.10.3.4.4.2.1.2

6.10.3.4.4.3.1.4 TFCS

TFCS size	6 or 7 for 240 bits PCH TrBlk size (alt. 6, 7, 8, 9, 10, or 11 for 80 bits PCH TrBlk size)
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, TF1, TF0), (TF0, TF1, TF1), [TF0, TF1, TF2]*, (TF1, TF0, TF0), [TF1, TF0, TF1]* (alt. (TF0, TF0, TF0), (TF0, TF0, TF1), (TF0, TF0, TF2), [TF0,TF0, TF3]*, (TF0, TF1, TF0), (TF0, TF1, TF1), [TF0, TF1, TF2]*, [TF0, TF1, TF3]*, (TF1, TF0, TF0), [TF1, TF0, TF1]*, [TF1, TF1, TF0]*)

* These TFCs are available only if SCCPCH can be allocated bigger Tx power than required Tx power for TFC of (TF0, TF0, TF2).

6.10.3.4.4.3.2 Physical channel parameters

(burst type 1):

S-CCPCH	Midamble	512 chips
	Codes and time slots	SF16 x 5 codes x 1 time slot
	Max. Number of data bits/radio frame	1204 bits
	TFCI code word	16 bits
	Puncturing limit	0,6

(burst type 2):

S-CCPCH	Midamble	256 chips
	Codes and time slots	SF16 x 5 codes x 1 time slot
	Max. Number of data bits/radio frame	1364 bits
	TFCI code word	16 bits
	Puncturing limit	0,68

6.10.3.4.5 Combinations on PRACH

6.10.3.4.5.1 SRB for CCCH + SRB for DCCH

6.10.3.4.5.1.1 Transport channel parameters

6.10.3.4.5.1.1.1 Transport channel parameter for SRB for CCCH, SRB for DCCH

Higher layer	RAB/signalling RB User of Radio Bearer	SRB#1 RRC	SRB#2 RRC	SRB#3 RRC	SRB#4 NAS_DT High prio	SRB#5 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 AMD/UMD/TrD PDU 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	194 (alt. 388)	194 (alt. 388)	194 (alt. 388)	194 (alt. 388)	194 (alt. 388)

6.10.3.4.5.1.1.2 TFCS

TFCS size	1
TFCS	SRBs for CCCH/ DCCH = TF0

6.10.3.4.5.1.2 Physical channel parameters

PRACH	Midamble	512 chips
	Codes and time slots	SF8 (alt. SF16) x 1 code x 1 time slot
	Max. Number of data bits/radio frame	488 bits (alt. 244 bits)
	Puncturing Limit	1.0 (alt. 0.75)

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Pusan, Korea, 3 September - 5 September 2001

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CR-Form-v4
<h2 style="margin: 0;">CHANGE REQUEST</h2>
⌘ 34.108 CR 053 ⌘ ev - ⌘ Current version: 3.4.0 ⌘

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

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

Title:	⌘ Update of generic test procedures and message contents		
Source:	⌘ NTT DoCoMo, Panasonic, ETSI, R&S, Siemens, Motorola		
Work item code:	⌘	Date:	⌘ 5 th September, 2001
Category:	⌘ F	Release:	⌘ R99
	Use <u>one</u> 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 <u>one</u> of the following releases: 2 (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) REL-4 (Release 4) REL-5 (Release 5)

Reason for change:	⌘ To align the system information block message content with the current specifications. To ease the implementation of defining the test conditions, this CR propose to include the ASN.1 descriptions of SIB. The current value of the IE “UTRAN DRX cycle length coefficient” in RRC CONNECTION SETUP message is 5. This value is smaller than the lowest allowable value for IE “CN DRX cycle length coefficient”, thus it is not possible for UE to select the latter when UE is in connected mode. From R&S, Procedures in clause 7.4 should not start with UE transmitting message to SS because the SS will have not control over the start of the procedure. Updates according to RAN2 CRs, In CR732r1, depending on the UTRAN bands where the UE is operating, the measurement capabilities (i.e. need for compressed mode) for the monitoring of other RATs or other UMTS frequencies may be different. The RF capabilities (i.e. power class, Tx/Rx frequency separation) may be different too. One set of UE measurement capabilities and one set of FDD RF capabilities are added for UTRAN FDD 2100, 1900 MHz frequency band in which the UE may operate.
Summary of change:	⌘ Corrections of the alignment of the information elements in SIB type 5 (FDD), SIB type 11 (FDD) and SIB type 12 (FDD). Add IE “Uplink transport channel type” into IE “Added or Reconfigured UL TrCH information”.

In IE "Cell selection and re-selection info for SIB11/12", IE "Qoffset2_{s,n}" is not need when IE "Cell_selection_and_reselection_quality_measure" is set to "CPICH_RSCP". Therefore, this IE is set to "Not Present".

Update the non-abstract parameters in the system information blocks.

ASN.1 descriptions for the system information blocks have been included in Annex A.

IE "UTRAN DRX cycle length coefficient" in RRC CONNECTION SETUP message is changed to 9.

Editorial corrections.

From R&S,

Paging response in P7 and CM Service Request in P8 and Service request in P9 and P10 in clause 7.4 are moved to P3 and P4, and P5 and P6 respectively.

From ETSI,

The Intra-frequency measurement identity in SIB 11 and 12 is out of range. It is corrected to '1'.

From T1S-010136r2 (Siemens), changes are highlighted in green

Editorial enhancements

Generally the expression "Reference to" is changed to "Reference" and the expression "is reference to" is changed to "is referring to"

SIB 3/4: Changes made according to TS 25.331-370

- Mapping Info should not be sent in R99,
- HCS Information elements removed according to HCS not used settings in SIB 11/12
- Position of Qqualmin and Qrxlevmin is corrected
- Cell Access Restriction IE is corrected

SIB 5/6: Corrections to TDD Mode

- Comment is added to ASC Settings
- ASC#7 is removed because it is not needed
- Repetition is corrected for continuous allocation
- MD Values are replaced by real values
- "Number of PI per frame" and "STTD indicator" do not exist for TDD

SIB 11/12: Corrections according to TS 25.331-370

- "Primary scrambling code" is referenced to Default settings for cell
- "Cell for measurement" is all cells for System Information
- for TDD: "P-CCPCH RSCP reporting indicator" is set to TRUE otherwise nothing is reported

From Motorola,

A second FACH is added to SIB type 5 and 6 so that the UE can use this transport channel to map to a DTCH when UE enters CELL_FACH_DTCH state.

Updates according to RAN2 CRs,

CR732r1:

IE "UE radio access capability extension" has been added in RRC CONNECTION SETUP COMPLETE message.

CR739r1:

IE "TFC subset" in IE "UL Transport channel information common for all transport

channels” has been realigned.

CR751r1:
IE “Security capability” has been re-structured.

CR755r1:
IE “DPCH compressed mode info” has been re-structured.

CR757r1:
IE “Re-establishment timer” has been removed from SIB type 16 and inserted in IE “Predefined RB configuration”.

IE “Downlink DPCH info common for all RL” has been re-structured.

In CR767r1, IE “CSICH Power Offset” has been moved from SIB type 6 to SIB type 8.

CR888r3:
In IE “Downlink information for each radio link”, IE “Secondary CCPCH info” and IE “References to system information Block” are removed and IE “SCCPCH Information for FACH” is added.

Re-alignment of IEs in IE “Secondary CCPCH system information”.

CR836r1:
Spelling mistake found in IE “Cell selection and re-selection info for SIB 3/4”.

Rename of the CHOICE parameter in IE “DL Transport channel information common for all transport channels”. ‘Independent’ is replaced with ‘Explicit’.

CR814r1:
Change the name of IE “Q_{HCS}” to “Qhcs”.

Consequences if not approved:

⌘ - RRC test cases in TS34.123-1 will not be configured properly.

Clauses affected:

⌘

Other specs affected:

⌘ Other core specifications ⌘
 Test specifications
 O&M Specifications

Other comments:

⌘

How to create CRs using this form:

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

- 1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.
- 2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under <ftp://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.

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6 Reference System Configurations

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

6.1 Simulated network environments

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

It is <ffs> whether a reference environment needs to be defined for multi-mode networks (eg: the environment could be created by combining two appropriate reference environments from the single mode cases).

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

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

- MIB value tag	1
- Supported PLMN types	GSM-MAP
- PLMN type	
- PLMN identity	Set to the same Mobile Country Codes stored in the test USIM card.
- MCC digit	Set to the same Mobile Network Codes stored in the test USIM card.
- MNC digit	Not Present
- ANSI-41 Core Network information	
- References to other system information blocks and scheduling blocks	
- References to other system information blocks	
- Scheduling information	
- CHOICE Value tag	
- Cell Value tag	1
- Scheduling	
- SEG_COUNT	2
- SIB_REP	16
- SIB_POS	2
- SIB_POS offset info	
- SIB_OFF	2
- SIB type	Scheduling Block 1
- Scheduling information	
- CHOICE Value tag	PLMN Value tag
- PLMN Value tag	1
- SEG_COUNT	2
- SIB_REP	128
- SIB_POS	10
- SIB_POS offset info	
- SIB_OFF	2
- SIB type SIBs only	System Information Type 1
- Scheduling information	
- CHOICE Value tag	Cell Value tag
- Cell Value tag	42
- SEG_COUNT	1
- SIB_REP	128
- SIB_POS	14
- SIB_POS offset info	Not Present – use default
- SIB type SIBs only	System Information Type 2
- Scheduling information	
- CHOICE Value tag	Cell Value tag
- Cell Value tag	42
- SEG_COUNT	1
- SIB_REP	64
- SIB_POS	6
- SIB_POS offset info	Not Present – use default
- SIB type SIBs only	System Information Type 3
- Scheduling information	

- CHOICE Value tag	Cell Value tag
- Cell Value tag	1
- SEG_COUNT	1
- SIB_REP	64
- SIB_POS	38
- SIB_POS offset info	Not Present – use default
- SIB type SIBs only	System Information Type 4

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	3
- SIB_REP	128
- SIB_POS	26
- SIB_POS offset info	
- SIB_OFF	2
- SIB_OFF	2
- SIB type SIBs only	System Information Type 5
- Scheduling information	
- CHOICE Value tag	Cell Value tag
- Cell Value tag	1
- SEG_COUNT	3
- SIB_REP	128
- SIB_POS	42
- SIB_POS offset info	
- SIB_OFF	2
- SIB_OFF	2
- SIB type SIBs only	System Information Type 6
- Scheduling information	
- CHOICE Value tag	Cell Value tag
- Cell Value tag	1
- SEG_COUNT	1
- SIB_REP	128
- SIB_POS	22
- SIB_POS offset info	Not Present – use default
- SIB type SIBs only	System Information Type 7
- Scheduling information	
- CHOICE Value tag	Cell Value tag
- Cell Value tag	1
- SEG_COUNT	2
- SIB_REP	128
- SIB_POS	58
- SIB_POS offset info	
- 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	2
- SIB_REP	128
- SIB_POS	106
- SIB_POS offset info	
- 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	6
- SIB_REP	128
- SIB_POS	74
- SIB_POS offset info	
- SIB_OFF	2
- SIB_OFF	2
- SIB_OFF	8
- SIB_OFF	4
- SIB_OFF	2
- SIB type SIBs only	System Information Type 16

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	3
- SIB_REP	128
- SIB_POS	26
- SIB_POS offset info	
- SIB_OFF	2
- SIB_OFF	2
- SIB type SIBs only	System Information Type 5
- Scheduling information	
- CHOICE Value tag	Cell Value tag
- Cell Value tag	1
- SEG_COUNT	3
- SIB_REP	128
- SIB_POS	42
- SIB_POS offset info	
- SIB_OFF	2
- SIB_OFF	2
- SIB type SIBs only	System Information Type 6
- Scheduling information	
- CHOICE Value tag	Cell Value tag
- Cell Value tag	1
- SEG_COUNT	1
- SIB_REP	128
- SIB_POS	22
- SIB_POS offset info	Not Present – use default
- SIB type SIBs only	System Information Type 7
- Scheduling information	
- CHOICE Value tag	Cell Value tag
- Cell Value tag	1
- SEG_COUNT	2
- SIB_REP	128
- SIB_POS	58
- SIB_POS offset info	
- 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	2
- SIB_REP	128
- SIB_POS	106
- SIB_POS offset info	
- 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	6
- SIB_REP	128
- SIB_POS	74
- SIB_POS offset info	
- SIB_OFF	2
- SIB_OFF	2
- SIB_OFF	8
- SIB_OFF	4
- SIB_OFF	2

- SIB type SIBs only	System Information Type 16
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Contents of System Information Block type 1 (supported PLMN type is GSM-MAP)

- CN common GSM-MAP NAS system information	
- GSM-MAP NAS system information	Contains the PLMN Identity and Location Area Code <u>00 80</u>
- MCC digit	Set to the same Mobile Country Code stored in test USIM card.
- MNC digit	Set to the same Mobile Network Code stored in test USIM card.
- Location area code	0001H
- CN domain system information	
- CN domain identity	PS
- CHOICE CN Type	GSM-MAP
- CN domain specific NAS system information	
- GSM-MAP NAS system information	T.B.D <u>00 00</u>
- CN domain specific DRX cycle length coefficient	7
- CN domain identity	CS
- CHOICE CN Type	GSM-MAP
- CN domain specific NAS system information	
- GSM-MAP NAS system information	T.B.D <u>1E 01</u>
- CN domain specific DRX cycle length coefficient	7
- UE Timers and constants in idle mode	
- T300	4 <u>000</u> milliseconds
- N300	7
- T312	10 seconds
- N312	200
- UE Timers and constants in connected mode	
- T301	2000 milliseconds
- N301	2
- T302	4000 milliseconds
- N302	3
- T304	1000 milliseconds
- N304	3
- T305	60 minutes
- T307	50 seconds
- T308	320 milliseconds
- T309	8 seconds
- T310	320 milliseconds
- N310	5
- T311	500 milliseconds
- T312	5 seconds
- N312	200
- T313	10 seconds
- N313	20
- T314	20 seconds
- T315	30 seconds
- N315	200
- T316	50 seconds
- T317	1800 seconds

Contents of System Information Block type 2

- URA identity list	<i>Only 1 URA identity broadcasted</i>
- URA identity	0000 0000 0000 0001B

Contents of System Information Block type 3 (FDD)

- SIB4 indicator	TRUE
- Cell identity	0000 0000 0000 0000 0000 0000 0001B
- Cell selection and re-selection info	
- Mapping info	Not Present
- Mapping List	
- RAT	UTRA_FDD
- Mapping Function Parameter List	
- Function type	Linear
- Map_parameter_1	
- Map_parameter_2	
- Upper limit	
- Cell selection_and_reselection_quality_measure	CPICH E_c/N_0 RSCP
- CHOICE mode	FDD
- Sintrasearch	16 dB
- Sintersearch	16 dB
- SsearchHCS	Not Present 40 dB
- RAT List	For conformance testing in Japan, this IE is omitted. For conformance testing in European countries, this IE is present with the following values.
- RAT identifier	GSM
- Ssearch,RAT	-105.32 dB
- SHCS,RAT	Not Present
- Slimit,SsearchRAT	Not Present
- Qqualmin	-20 dB
- Qrxlevmin	-115 dBm
- Qhyst1s	0 dB
- Qhyst2s	0 dB
- Treselections	0 seconds
- HCS Serving cell information	Not Present
- HCS_PRIO	0
- QHCS	0
- TCRmax	Not used
- NCR	Not Present
- TCMAXH	Not Present
- Maximum allowed UL TX power	33dBm
- CHOICE mode	FDD
- Qqualmin	-20 dB
- Qrxlevmin	-115 dBm
- Cell Access Restriction	
- Cell barred	Not barred
- Intra-frequency cell re-selection indicator	Not present
- Tbarred	Not present
- Cell Reserved for operator use	Not reserved
- Cell Reserved for 3G SA-exclusive use ation	Not reserved
Extension	
- Access Class Barred List	
- Access Class Barred0	Not barred
- Access Class Barred1	Not barred
- Access Class Barred2	Not barred
- Access Class Barred3	Not barred
- Access Class Barred4	Not barred
- Access Class Barred5	Not barred
- Access Class Barred6	Not barred
- Access Class Barred7	Not barred
- Access Class Barred8	Not barred
- Access Class Barred9	Not barred
- Access Class Barred10	Not barred
- Access Class Barred11	Not barred
- Access Class Barred12	Not barred
- Access Class Barred13	Not barred
- Access Class Barred14	Not barred
- Access Class Barred15	Not barred

Contents of System Information Block type 3 (TDD)

- SIB4 Indicator	TRUE
- Cell identity	0000 0000 0000 0000 0000 0000 0001B
- Cell selection and re-selection info	
- Mapping info	Not present
- RAT	UTRA-TDD
- Mapping Function Parameter List	
- Function type	Linear
- Map_parameter_1	
- Map_parameter_2	
- Upper_limit	
- Cell selection_and_reselection_quality_measure	CPICH RSCP Not present
- CHOICE mode	TDD
- Sintrasearch	10 dB
- Sintersearch	10 dB
- SsearchHCS	Not present 10 dB
- RAT List	For conformance testing in Japan, this IE is omitted. For conformance testing in European countries, this IE is present with the following values.
- RAT identifier	GSM
- Ssearch,RAT	-105.32 dB
- SHCS,RAT	Not present
- Slimit,SsearchRAT	Not Present
- Qrxlevmin	-115 dBm
- Qhyst1s	0 dB
- Treselections	0 seconds
- HCS Serving cell information	Not present
- HCS_PRIO	0
- QHCS	0
- TCRmax	Not used
- NCF	Not Present
- TCMAXH	Not Present
- Maximum allowed UL TX power	30dBm
- CHOICE mode	TDD
- Qrxlevmin	-103 dBm
- Cell Access Restriction	
- Cell barred	Not barred
- Intra-frequency cell re-selection indicator	Not present
- T_reselect	Not present
- Cell Reserved for operator use	Not reserved
- Cell Reservation Extension Reserved for S-MB SA-exclusive use	Not reserved
- Access Class Barred List	
- Access Class Barred0	Not barred
- Access Class Barred1	Not barred
- Access Class Barred2	Not barred
- Access Class Barred3	Not barred
- Access Class Barred4	Not barred
- Access Class Barred5	Not barred
- Access Class Barred6	Not barred
- Access Class Barred7	Not barred
- Access Class Barred8	Not barred
- Access Class Barred9	Not barred
- Access Class Barred10	Not barred
- Access Class Barred11	Not barred
- Access Class Barred12	Not barred
- Access Class Barred13	Not barred
- Access Class Barred14	Not barred
- Access Class Barred15	Not barred

Contents of System Information Block type 4 in connected mode (FDD)

- Cell identity	0000 0000 0000 0000 0000 0000 0001B
- Cell selection and re-selection info	
- Mapping Info	Not Present
- Mapping List	
- RAT	UTRA-FDD
- Mapping Function Parameter List	
- Function type	Linear
- Map_parameter_1	
- Map_parameter_2	
- Upper_limit	
- Cell_selection_and_reselection_quality_measure	CPICH RSCP
- CHOICE mode	FDD
- Sintrasearch	16 dB
- Sintersearch	16 dB
- SsearchHCS	Not Present
- RAT List	For conformance testing in Japan, this IE is omitted. For conformance testing in European countries, this IE is present with the following values.
- RAT identifier	GSM
- Ssearch,RAT	-105.32 dB
- SHCS,RAT	Not Present
- Slimit,SsearchRAT	Not Present
- Qqualmin	-20 dB
- Qrxlevmin	-115 dBm
- Qhyst1s	0 dB
- Qhyst2s	0 dB
- Treselections	0 seconds
- HCS Serving cell information	Not Present
- HCS_PRIO	0
- HCS	0
- TCRN	Not used
- NCR	Not Present
- TCMAX	Not Present
- Maximum allowed UL TX power	33dBm
- CHOICE mode	FDD
- Qqualmin	-20 dB
- Qrxlevmin	-115 dBm
- Cell Access Restriction	
- Cell barred	Not barred
- Intra-frequency cell re-selection indicator	Not present
- Tbarred	Not present
- Access Class Barred	Not barred
- Cell Reserved for operator use	Not reserved
- Cell Reservation Extension for S-LSA exclusive use	Not reserved
- Access Class Barred List	
- Access Class Barred0	Not barred
- Access Class Barred1	Not barred
- Access Class Barred2	Not barred
- Access Class Barred3	Not barred
- Access Class Barred4	Not barred
- Access Class Barred5	Not barred
- Access Class Barred6	Not barred
- Access Class Barred7	Not barred
- Access Class Barred8	Not barred
- Access Class Barred9	Not barred
- Access Class Barred10	Not barred
- Access Class Barred11	Not barred
- Access Class Barred12	Not barred
- Access Class Barred13	Not barred
- Access Class Barred14	Not barred
- Access Class Barred15	Not barred

Contents of System Information Block type 4 in connected mode (similar to SIB type3) (TDD)

- Cell identity	0000 0000 0000 0000 0000 0000 0001B
- Cell selection and re-selection info	
- Mapping info	Not present
- Mapping list	
- RAT	UTRA-TDD
- Mapping Function Parameter List	
- Function type	Linear
- Map_parameter_1	
- Map_parameter_2	
- Upper_limit	
- Cell_selection_and_reselection_quality_measure	CPICH RSCP Not present
- CHOICE mode	TDD
- Sintrasearch	10 dB
- Sintersearch	10 dB
- SsearchHCS	Not present -10 dB
- RAT List	For conformance testing in Japan, this IE is omitted. For conformance testing in European countries, this IE is present with the following values
- RAT identifier	GSM
- Ssearch,RAT	-105.32 dB
- SHCS,RAT	Not present
- Slimit,SsearchRAT	Not Present
- Qrxlevmin	-115 dBm
- Qhyst1s	0 dB
- Treselections	0 seconds
- HCS Serving cell information	Not present
- HCS_PRIO	0
- QHCS	0
- TCRmax	Not used
- NCF	Not Present
- TCMAXH	Not Present
- Maximum allowed UL TX power	30dBm
- CHOICE mode	TDD
- Qrxlevmin	-103 dBm
- Cell Access Restriction	
- Cell barred	Not barred
- Access Class Barred	Not barred
- Intra-frequency cell re-selection indicator	Not present
- Tbarred	Not present
- Cell Reserved for operator use	Not reserved
- Cell Reservation Extension Reserved for SAI SA-exclusive use	Not reserved
- Access Class Barred List	
- Access Class Barred0	Not barred
- Access Class Barred1	Not barred
- Access Class Barred2	Not barred
- Access Class Barred3	Not barred
- Access Class Barred4	Not barred
- Access Class Barred5	Not barred
- Access Class Barred6	Not barred
- Access Class Barred7	Not barred
- Access Class Barred8	Not barred
- Access Class Barred9	Not barred
- Access Class Barred10	Not barred
- Access Class Barred11	Not barred
- Access Class Barred12	Not barred
- Access Class Barred13	Not barred
- Access Class Barred14	Not barred
- Access Class Barred15	Not barred

Contents of System Information Block type 5 (FDD)

- SIB6 indicator	TRUE
- PICH Power offset	-5 dB
- CHOICE Mode	FDD
- AICH Power offset	0dB
- Primary CCPCH info	
- TX Diversity indicator	FALSE
- PRACH system information list	
- PRACH system information	
- PRACH info	
- CHOICE mode	FDD
- Available Signature	'0000 0000 1111 1111'B
- Available SF	Reference to clause 6.10 Parameter Set 64
- Preamble scrambling code number	0
- Puncturing Limit	Reference to clause 6.10 Parameter Set 100
- Available Sub Channel number	'1111 1111 1111'B
- Transport Channel Identity	15
- RACH TFS	
- CHOICE Transport channel type	Common transport channels
- Dynamic Transport format information	(This IE is repeated for TFI number)
- RLC size	Reference to clause 6.10 Parameter Set 168
- Number of TB and TTI List	Reference to clause 6.10 Parameter Set
- Number of Transport blocks	Reference to clause 6.10 Parameter Set 1
- CHOICE Mode	FDD
- CHOICE Logical Channel List	ALL
- RLC size	360
- Number of TB and TTI List	
- Number of Transport blocks	1
- CHOICE Mode	FDD
- CHOICE Logical Channel List	ALL
- Semi-static Transport Format information	
- Transmission time interval	20 ms Reference to clause 6.10 Parameter Set

- Type of channel coding	Convolutional Reference to clause 6.10 Parameter Set
- Coding Rate	1/2 Reference to clause 6.10 Parameter Set
- Rate matching attribute	150 Reference to clause 6.10 Parameter Set
- CRC size	16 Reference to clause 6.10 Parameter Set
- RACH TFCS	(This IE is repeated for TFC number.)
- Normal	
- TFCI Field 1 information	Complete Addition
- CHOICE TFCS representation	
- TFCS addition information	
- CHOICE CTFC Size	2bit Number of bits used must be enough to cover all combinations of CTFC from clause 6.10.
	0 Refer to clause 6.10 Parameter Set
- CTFC information	
- Power offset information	
- CHOICE Gain Factors	Signalled Computed Gain Factor
Gain factor β_e	0
Gain factor β_d	0
Reference TFC ID	Not Present
- Power offset Pp-m	0dB 5dB
- CTFC information	1
- Power offset information	
- CHOICE Gain Factors	Signalled Gain Factor
- Gain factor β_c	10
- Gain factor β_d	15
- Reference TFC ID	0
- Power offset Pp-m	-5dB
- PRACH partitioning	
- Access Service Class	
- ASC Setting	
- CHOICE mode	FDD
- Available signature Start Index	0 (ASC#0)
- Available signature End Index	7 (ASC#0)
- Assigned Sub-channel Number	'1111'B
- ASC Setting	
- CHOICE mode	FDD
- Available signature Start Index	0 (ASC#1)
- Available signature End Index	7 (ASC#1)
- Assigned Sub-channel Number	'1111'B
- ASC Setting	
- CHOICE mode	FDD
- Available signature Start Index	0 (ASC#2)
- Available signature End Index	7 (ASC#2)
- Assigned Sub-channel Number	'1111'B
- ASC Setting	
- CHOICE mode	FDD
- Available signature Start Index	0 (ASC#3)
- Available signature End Index	7 (ASC#3)
- ASC Setting	
- CHOICE mode	FDD
- Assigned Sub-channel Number	'1111'B
- Available signature Start Index	0 (ASC#4)
- Available signature End Index	7 (ASC#4)
- Assigned Sub-channel Number	'1111'B
- ASC Setting	
- CHOICE mode	FDD
- Available signature Start Index	0 (ASC#5)
- Available signature End Index	7 (ASC#5)
- Assigned Sub-channel Number	'1111'B
- ASC Setting	
- CHOICE mode	FDD
- Available signature Start Index	0 (ASC#6)
- Available signature End Index	7 (ASC#6)
- Assigned Sub-channel Number	'1111'B
- ASC Setting	
- CHOICE mode	FDD
- Available signature Start Index	0 (ASC#7)
- Available signature End Index	7 (ASC#7)
- Assigned Sub-channel Number	'1111'B
- Persistence scaling factor	
- Persistence scaling factor	0.9 (for ASC#2)

- Persistence scaling factor	0.9 (for ASC#3)
- Persistence scaling factor	0.9 (for ASC#4)
- Persistence scaling factor	0.9 (for ASC#5)
- Persistence scaling factor	0.9 (for ASC#6)
- Persistence scaling factor	0.9 (for ASC#7)
- AC-to-ASC mapping table	
- AC-to-ASC mapping	6 (AC0-9)
- AC-to-ASC mapping	5 (AC10)
- AC-to-ASC mapping	4 (AC11)
- AC-to-ASC mapping	3 (AC12)
- AC-to-ASC mapping	2 (AC13)
- AC-to-ASC mapping	1 (AC14)
- AC-to-ASC mapping	0 (AC15)
- Primary CPICH DL TX power	31 Reference to clause 6.10 Parameter Set
- Constant value	-10 Reference to clause 6.10 Parameter Set
- PRACH power offset	
- Power Ramp Step	3dB
- Preamble Retrans Max	2
- RACH transmission parameters	
- Mmax	2
- NB01min	3 slot
- NB01max	10 slot
- AICH info	
- Channelisation code	SF-1 (SF is reference to clause 6.10 Parameter Set) 3
- STTD indicator	FALSE
- AICH transmission timing	0
- Secondary CCPCH system information	
- Secondary CCPCH info	
- Primary CPICH usage for channel estimation	Primary CPICH may be used
- Secondary CPICH info	Not Present
- Secondary scrambling code	Not Present
- STTD indicator	FALSE
- Spreading factor	Reference to clause 6.10 Parameter Set 64
- Code number	SF-1 (SF is reference to clause 6.10 Parameter Set) 1
- Pilot symbol existence	FALSE
- TFCI existence	TRUE
- Fixed or Flexible position	Flexible
- Timing offset	0
- TFCS	(This IE is repeated for TFC number for PCH and FACH.)
- Normal	
- TFCI Field 1 information	
- CHOICE TFCS representation	complete Addition
- TFCS addition information	
- CHOICE CTFC Size	4bit Number of bits used must be enough to cover all combinations of CTFC from clause 6.10.
- CTFC information	0 Refer to clause 6.10 Parameter Set
- Power offset information	Not Present
- CTFC information	1
- Power offset information	Not Present
- CTFC information	2
- Power offset information	Not Present
- CTFC information	3
- Power offset information	Not Present
- CTFC information	4
- Power offset information	Not Present
- CTFC information	5
- Power offset information	Not Present
- CTFC information	6
- Power offset information	Not Present
- CTFC information	8
- Power offset information	Not Present
- CTFC information	10
- Power offset information	Not Present
- FACH/PCH information	
- Transport Channel Identity	12 (for PCH)
- TFS	(PCH)
- CHOICE Transport channel type	Common transport channels
- Dynamic Transport format information	(This IE is repeated for TFI number.)
- RLC Size	240 Reference to clause 6.10 Parameter Set

- Number of TB and TTI List	Reference to clause 6.10 Parameter Set
- <u>Number of Transport blocks</u>	0
- Number of Transport blocks	1 Reference to clause 6.10 Parameter Set
- CHOICE Mode	FDD
- CHOICE Logical Channel List	ALL
- Semi-static Transport Format information	
- Transmission time interval	10 ms Reference to clause 6.10 Parameter Set
- Type of channel coding	Convolutional Reference to clause 6.10 Parameter Set
- Coding Rate	1/2 Reference to clause 6.10 Parameter Set
- Rate matching attribute	230 Reference to clause 6.10 Parameter Set
- CRC size	16bit Reference to clause 6.10 Parameter Set
- <u>Transport Channel Identity</u>	12 (for PCH)
- <u>CTCH indicator</u>	FALSE
- Transport Channel Identity	13 (for FACH)
- TFS	(FACH)
- CHOICE Transport channel type	Common transport channels
- Dynamic Transport format information	(This IE is repeated for TFI number.)
- RLC Size	168 Reference to clause 6.10 Parameter Set
- Number of TB and TTI List	Reference to clause 6.10 Parameter Set
- <u>Number of Transport blocks</u>	0
- <u>Number of Transport blocks</u>	1
- <u>Number of Transport blocks</u>	2
- Number of Transport blocks	3 Reference to clause 6.10 Parameter Set
- CHOICE Mode	FDD
- CHOICE Logical Channel List	ALL
- Semi-static Transport Format information	
- Transmission time interval	10 ms Reference to clause 6.10 Parameter Set
- Type of channel coding	Convolutional Reference to clause 6.10 Parameter Set
- Coding Rate	1/2 Reference to clause 6.10 Parameter Set
- Rate matching attribute	220 Reference to clause 6.10 Parameter Set
- CRC size	16bit Reference to clause 6.10 Parameter Set
- <u>Transport Channel Identity</u>	13 (for FACH)
- CTCH indicator	FALSE
- TFS	(FACH)
- <u>CHOICE Transport channel type</u>	<u>Common transport channels</u>
- <u>Dynamic Transport format information</u>	
- <u>RLC Size</u>	360
- <u>Number of TB and TTI List</u>	
- <u>Number of Transport blocks</u>	0
- <u>Number of Transport blocks</u>	1
- <u>CHOICE Mode</u>	FDD
- <u>CHOICE Logical Channel List</u>	ALL
- <u>Semi-static Transport Format information</u>	
- <u>Transmission time interval</u>	10 ms
- <u>Type of channel coding</u>	Turbo
- <u>Rate matching attribute</u>	130
- <u>CRC size</u>	16bit
- <u>Transport Channel Identity</u>	14 (for FACH)
- <u>CTCH indicator</u>	FALSE
- PICH info	
- Channelisation code	SF 1(SF is reference to clause 6.10 Parameter Set)2
- Number of PI per frame	18
- STTD indicator	FALSE
- CBS DRX Level 1 information	Not Present

Contents of System Information Block type 5 (TDD)

- SIB6 indicator	TRUE
- PICH Power offset	-5 dB
- CHOICE Mode	TDD
- PUSCH system information	Not Present
- PDSCH system information	Not Present
- TDD open loop power control	
- Primary CCPCH Tx Power	30 dbm
- Alpha	(1/8)
- PRACH Constant Value	-10
- DPCH Constant Value	-10
- PUSCH Constant Value	-10
- Primary CCPCH info	
- CHOICE mode	TDD
- CHOICE SyncCase	Sync Case 2
- Timeslot	0
- Cell parameters ID	Not Present
- Block STTD indicator	FALSE
- PRACH system information list	
- PRACH system information	
- PRACH info	
- CHOICE mode	TDD
- Timeslot number	14
- PRACH Channelisation Code List	
- CHOICE SF	SF8
- Channelisation Code List	
- Channelisation Code	8/1
- Channelisation Code	8/2
- Channelisation Code	8/3
- Channelisation Code	8/4
- PRACH Midamble	Direct
- Transport Channel Identity	15
- RACH TFS	
- CHOICE Transport channel type	Common transport channels
- Dynamic Transport format information	This IE is repeated for TFI number
- RLC size	Reference to clause 6.10 Parameter Set
- Number of TB and TTI List	Reference to clause 6.10 Parameter Set
- Number of Transport blocks	Reference to clause 6.10 Parameter Set
- CHOICE Mode	TDD
- Transmission Time Interval	Not Present
- CHOICE Logical Channel List	ALL
- Semi-static Transport Format information	
- Transmission time interval	Reference to clause 6.10 Parameter Set
- Type of channel coding	Reference to clause 6.10 Parameter Set
- Coding Rate	Reference to clause 6.10 Parameter Set
- Rate matching attribute	Reference to clause 6.10 Parameter Set
- CRC size	Reference to clause 6.10 Parameter Set
- RACH TFCS	Not present
- PRACH partitioning	
- Access Service Class	
- ASC Settings	ASC#0
- CHOICE mode	TDD
- Available Channelisation codes indices	Not Present (Default all)
- CHOICE subchannel size	Size1
- Available Subchannels	Null
- ASC Settings	ASC#1
- CHOICE mode	TDD
- Available Channelisation codes indices	Not Present (Default all)
- CHOICE subchannel size	Size1
- Available Subchannels	Null
- ASC Settings	ASC#2
- CHOICE mode	TDD
- Available Channelisation codes indices	Not Present (Default all)
- CHOICE subchannel size	Size1
- Available Subchannels	null
- ASC Settings	ASC#3
- CHOICE mode	TDD
- Available Channelisation codes indices	Not Present (Default all)

- CHOICE subchannel size	Size1
- Available Subchannels}	null
- ASC Settings	ASC#4
- CHOICE mode	TDD
- Available Channelisation codes indices	Not Present (Default all)
- CHOICE subchannel size	Size1
- Available Subchannels}	null
- ASC Settings	ASC#5
- CHOICE mode	TDD
- Available Channelisation codes indices	Not Present (Default all)
- CHOICE subchannel size	Size1
- Available Subchannels}	null
- ASC Settings	ASC#6
- CHOICE mode	TDD
- Available Channelisation codes indices	Not Present (Default all)
- CHOICE subchannel size	Size1
- Available Subchannels}	null
- Persistence scaling factors	
- Access Service Class	
- Persistence scaling factor	0.9 (for ASC#2)
- Persistence scaling factor	0.9 (for ASC#3)
- Persistence scaling factor	0.9 (for ASC#4)
- Persistence scaling factor	0.9 (for ASC#5)
- Persistence scaling factor	0.9 (for ASC#6)
- Persistence scaling factor	0.9 (for ASC#7)
- AC-to-ASC mapping	
- AC-to-ASC mapping table	
- AC-to-ASC mapping	6 (AC0-9)
- AC-to-ASC mapping	5 (AC10)
- AC-to-ASC mapping	4 (AC11)
- AC-to-ASC mapping	3 (AC12)
- AC-to-ASC mapping	2 (AC13)
- AC-to-ASC mapping	1 (AC14)
- AC-to-ASC mapping	0 (AC15)
- CHOICE mode	TDD (no data)
- Secondary CCPCH system information	
- Secondary CCPCH system information	
- Secondary CCPCH info	
- CHOICE mode	TDD
- Offset	Not Present 0
- Common timeslot info	
- 2 nd interleaving mode	Not Present (MD "Frame")
- TFCI coding	Reference clause 6.10 Parameter Set Number of bits used must be enough to cover all combinations of CTFC from clause 6.10
- Puncturing limit	Reference to clause 6.10 Parameter Set
- Repetition period	Not Present (MD "1")
- Repetition length	Not present 1
- Individual timeslot info	
- Timeslot number	1
- TFCI existence	Reference clause 6.10 Parameter Set TRUE
- Midamble Shift and burst type	
- CHOICE Burst Type	Type 1
- Midamble Allocation Mode	Default midamble
- Midamble configuration burst type 1 and 3	4
- Midamble Shift	Not Present
- Code List	Reference to clause 6.10 Parameter Set
Channelisation Code	Reference clause 6.10 Parameter Set
- TFCS	(This IE is repeated for TFC number for PCH and FACH.)
- Normal	
- TFCI Field 1 information	
- CHOICE TFCS representation	Addition
- TFCS addition information	
- CHOICE CTFC Size	Number of bits used must be enough to cover all combinations of CTFC from clause 6.10.
- CTFC information	Reference to clause 6.10 Parameter Set
- Power offset information	Not Present
- FACH/PCH information	

<p>Transport Channel Identity</p> <ul style="list-style-type: none"> - TFS - CHOICE Transport channel type - Dynamic Transport format information - RLC Size - Number of TB and TTI List - Number of Transport blocks - CHOICE Mode - Transmission Time Interval - CHOICE Logical Channel List - Semi-static Transport Format information - Transmission time interval - Type of channel coding - Coding Rate - Rate matching attribute - CRC size <p>Transport Channel Identity</p> <p>CTCH indicator</p>	<p>12 (for PCH)</p> <p>(PCH)</p> <p>Common transport channels (This IE is repeated for TFI number.)</p> <p>Reference to clause 6.10 Parameter Set</p> <p>Reference to clause 6.10 Parameter Set</p> <p>Reference to clause 6.10 Parameter Set</p> <p>TDD</p> <p>Reference to clause 6.10 Parameter Set</p> <p>ALL</p> <p>Reference to clause 6.10 Parameter Set</p> <p>Reference to clause 6.10 Parameter Set</p> <p>Reference to clause 6.10 Parameter Set</p> <p>Reference to clause 6.10 Parameter Set</p> <p>Reference to clause 6.10 Parameter Set</p> <p>12 (for PCH)</p> <p>FALSE</p>
<p>Transport Channel Identity</p> <ul style="list-style-type: none"> - TFS - CHOICE Transport channel type - Dynamic Transport format information - RLC Size - Number of TB and TTI List - Number of Transport blocks - CHOICE Mode - Transmission Time Interval - CHOICE Logical Channel List - Semi-static Transport Format information - Transmission time interval - Type of channel coding - Coding Rate - Rate matching attribute - CRC size <p>Transport Channel Identity</p> <p>CTCH indicator</p> <p>TFS</p> <p>CHOICE Transport channel type</p> <p>Dynamic Transport format information</p> <p>RLC Size</p> <p>Number of TB and TTI List</p> <p>Number of Transport blocks</p> <p>CHOICE Mode</p> <p>CHOICE Logical Channel List</p> <p>Semi-static Transport Format information</p> <p>Transmission time interval</p> <p>Type of channel coding</p> <p>Coding Rate</p> <p>Rate matching attribute</p> <p>CRC size</p> <p>Transport Channel Identity</p> <p>CTCH indicator</p>	<p>13 (for FACH)</p> <p>(FACH)</p> <p>Common transport channels (This IE is repeated for TFI number.)</p> <p>Reference to clause 6.10 Parameter Set</p> <p>Reference to clause 6.10 Parameter Set</p> <p>Reference to clause 6.10 Parameter Set</p> <p>TDD</p> <p>Reference to clause 6.10 Parameter Set</p> <p>ALL</p> <p>Reference to clause 6.10 Parameter Set</p> <p>Reference to clause 6.10 Parameter Set</p> <p>Reference to clause 6.10 Parameter Set</p> <p>Reference to clause 6.10 Parameter Set</p> <p>Reference to clause 6.10 Parameter Set</p> <p>13 (for FACH)</p> <p>FALSE</p> <p>(FACH)</p>
<p>CHOICE Transport channel type</p> <p>Dynamic Transport format information</p> <p>RLC Size</p> <p>Number of TB and TTI List</p> <p>Number of Transport blocks</p> <p>CHOICE Mode</p> <p>CHOICE Logical Channel List</p> <p>Semi-static Transport Format information</p> <p>Transmission time interval</p> <p>Type of channel coding</p> <p>Coding Rate</p> <p>Rate matching attribute</p> <p>CRC size</p> <p>Transport Channel Identity</p> <p>CTCH indicator</p> <p>- PICH info</p> <p>- CHOICE <i>mode</i></p> <p>- Channelisation code</p> <p>- Timeslot number</p> <p>- CHOICE Burst Type</p> <p>- Midamble Shift</p> <p>- Repetition period/length</p> <p>- Offset</p> <p>- Paging indicator length</p> <p>- N_{GAP}</p> <p>- N_{PCH}</p> <p>Number of PI per frame</p> <p>STTD indicator</p> <p>- CBS DRX Level 1 information</p>	<p>Common transport channels (This IE is repeated for TFI number.)</p> <p>Reference clause 6.10 Parameter Set</p> <p>Reference clause 6.10 Parameter Set</p> <p>Reference clause 6.10 Parameter Set</p> <p>FDD</p> <p>ALL</p> <p>Reference clause 6.10 Parameter Set</p> <p>Reference clause 6.10 Parameter Set</p> <p>Reference clause 6.10 Parameter Set</p> <p>Reference clause 6.10 Parameter Set</p> <p>Reference clause 6.10 Parameter Set</p> <p>14 (for FACH)</p> <p>FALSE</p> <p>TDD</p> <p>16/16</p> <p>Not Present (MD)0</p> <p>Type 1</p> <p>0</p> <p>Not Present (MD-2)64/2</p> <p>0</p> <p>Not Present (MD-4)4</p> <p>Not Present (MD-4)4</p> <p>Not Present (MD-2)2</p> <p>14</p> <p>FALSE</p> <p>Not Present</p>

Contents of System Information Block type 6 in connected mode (FDD)

- PICH power offset	-5 dB
- CHOICE Mode	FDD
- AICH power offset	0 dB
- CSICH Power offset	Not Present
- Primary CCPCH info	
- TX Diversity indicator	FALSE
- PRACH system information list	
- PRACH system information	
- PRACH info	
- CHOICE mode	FDD
- Available Signature	'0000 0000 1111 1111'B
- Available SF	Reference to clause 6.10 Parameter Set 64
- Preamble scrambling code number	0
- Puncturing Limit	Reference to clause 6.10 Parameter Set 100
- Available Sub Channel number	'1111 1111 1111'B
- Transport Channel Identity	15
- RACH TFS	
- CHOICE Transport channel type	Common transport channels
- Dynamic Transport format information	(This IE is repeated for TFI number)
- RLC size	168 Reference to clause 6.10 Parameter Set
- Number of TB and TTI List	Reference to clause 6.10 Parameter Set
- Number of Transport blocks	1 Reference to clause 6.10 Parameter Set
- CHOICE Mode	FDD
- CHOICE Logical Channel List	ALL
- RLC size	360
- Number of TB and TTI List	
- Number of Transport blocks	1
- CHOICE Mode	FDD
- CHOICE Logical Channel List	ALL
- Semi-static Transport Format information	
- Transmission time interval	20 ms Reference to clause 6.10 Parameter Set

- Type of channel coding	Convolutional <u>Reference to clause 6.10 Parameter Set</u>
- Coding Rate	1/2 <u>Reference to clause 6.10 Parameter Set</u>
- Rate matching attribute	150 <u>Reference to clause 6.10 Parameter Set</u>
- CRC size	16 <u>Reference to clause 6.10 Parameter Set</u>
- RACH TFCS	(This IE is repeated for TFC number-)
- Normal	
- TFCI Field 1 information	<u>Complete</u> Addition
- CHOICE TFCS representation	
- TFCS addition information	<u>2bit</u> Number of bits used must be enough to cover all combinations of CTFC from clause 6.10.
- CHOICE CTFC Size	0 <u>Refer to clause 6.10 Parameter Set</u>
- CTFC information	
- Power offset information	
- CHOICE Gain Factors	Signalled <u>Computed</u> Gain Factor
Gain factor β_e	0
Gain factor β_d	0
Reference TFC ID	Not Present
- Power offset Pp-m	0dB <u>-5dB</u>
- CTFC information	<u>1</u>
- Power offset information	
- CHOICE Gain Factors	<u>Signalled Gain Factor</u>
- Gain factor β_c	<u>10</u>
- Gain factor β_d	<u>15</u>
- Reference TFC ID	<u>0</u>
- Power offset Pp-m	<u>-5dB</u>
- PRACH partitioning	
- Access Service Class	
- ASC Setting	
- CHOICE mode	FDD
- Available signature Start Index	0 (ASC#0)
- Available signature End Index	7 (ASC#0)
- Assigned Sub-channel Number	'1111'B
- ASC Setting	
- CHOICE mode	FDD
- Available signature Start Index	0 (ASC#1)
- Available signature End Index	7 (ASC#1)
- Assigned Sub-channel Number	'1111'B
- ASC Setting	
- CHOICE mode	FDD
- Available signature Start Index	0 (ASC#2)
- Available signature End Index	7 (ASC#2)
- Assigned Sub-channel Number	'1111'B
- ASC Setting	
- CHOICE mode	FDD
- Available signature Start Index	0 (ASC#3)
- Available signature End Index	7 (ASC#3)
- Assigned Sub-channel Number	'1111'B
- ASC Setting	
- CHOICE mode	FDD
- Available signature Start Index	0 (ASC#4)
- Available signature End Index	7 (ASC#4)
- Assigned Sub-channel Number	'1111'B
- ASC Setting	
- CHOICE mode	FDD
- Available signature Start Index	0 (ASC#5)
- Available signature End Index	7 (ASC#5)
- Assigned Sub-channel Number	'1111'B
- ASC Setting	
- CHOICE mode	FDD
- Available signature Start Index	0 (ASC#6)
- Available signature End Index	7 (ASC#6)
- Assigned Sub-channel Number	'1111'B
- ASC Setting	
- CHOICE mode	FDD
- Available signature Start Index	0 (ASC#7)
- Available signature End Index	7 (ASC#7)
- Assigned Sub-channel Number	'1111'B
- Persistence scaling factor	
- Persistence scaling factor	0.9 (for ASC#2)

- Persistence scaling factor	0.9 (for ASC#3)
- Persistence scaling factor	0.9 (for ASC#4)
- Persistence scaling factor	0.9 (for ASC#5)
- Persistence scaling factor	0.9 (for ASC#6)
- Persistence scaling factor	0.9 (for ASC#7)
- AC-to-ASC mapping	Not Present
- Primary CPICH DL TX power	31 Reference to clause 6.10 Parameter Set
- Constant value	10 Reference to clause 6.10 Parameter Set
- PRACH power offset	
- Power Ramp Step	3dB
- Preamble Retrans Max	2
- RACH transmission parameters	
- Mmax	2
- NB01min	3 slot
- NB01max	10 slot
- AICH info	
- Channelisation code	SF-1(SF is reference to clause 6.10 Parameter Set) 3
- STTD indicator	FALSE
- AICH transmission timing	0
- Secondary CCPCH system info	
- Secondary CCPCH info	
- Primary CPICH usage for channel estimation	Primary CPICH may be used
- Secondary CPICH info	Not Present
- Secondary scrambling code	Not Present
- STTD indicator	FALSE
- Spreading factor	Reference to clause 6.10 Parameter Set 64
- Code number	Reference to clause 6.10 Parameter Set 1
- Pilot symbol existence	FALSE
- TFCI existence	TRUE
- Fixed or Flexible position	Flexible
- Timing offset	0
- TFCS	(This IE is repeated for TFC number for PCH and FACH.)
- Normal	
- TFCI Field 1 information	
- CHOICE TFCS representation	Complete Addition
- TFCS addition information	
- CHOICE CTFC Size	
- CTFC information	4bit Number of bits used must be enough to cover all combinations of CTFC from clause 6.10.
- Power offset information	0 Refer to clause 6.10 Parameter Set
- CTFC information	Not Present
- Power offset information	1
- CTFC information	Not Present
- CTFC information	2
- Power offset information	Not Present
- CTFC information	3
- Power offset information	Not Present
- CTFC information	4
- Power offset information	Not Present
- CTFC information	5
- Power offset information	Not Present
- CTFC information	6
- Power offset information	Not Present
- CTFC information	8
- Power offset information	Not Present
- CTFC information	10
- Power offset information	Not Present
- FACH/PCH information	
- Transport Channel Identity	12 (for PCH)
- TFS	(PCH)
- CHOICE Transport channel type	Common transport channels
- Dynamic Transport format information	(This IE is repeated for TFI number.)
- RLC Size	240 Reference to clause 6.10 Parameter Set
- Number of TB and TTI List	Reference to clause 6.10 Parameter Set
- Number of Transport blocks	0
- Number of Transport blocks	1 Reference to clause 6.10 Parameter Set
- CHOICE Mode	FDD
- CHOICE Logical Channel List	ALL
- Semi-static Transport Format information	

- Transmission time interval	10 ms Reference to clause 6.10 Parameter Set
- Type of channel coding	Convolutional Reference to clause 6.10 Parameter Set
- Coding Rate	1/2 Reference to clause 6.10 Parameter Set
- Rate matching attribute	230 Reference to clause 6.10 Parameter Set
- CRC size	16bit Reference to clause 6.10 Parameter Set
- <u>Transport Channel Identity</u>	12 (for PCH)
- <u>CTCH indicator</u>	FALSE
- Transport Channel Identity	13 (for FACH)
- TFS	(FACH)
- CHOICE Transport channel type	Common transport channels
- Dynamic Transport format information	(This IE is repeated for TFI number.)
- RLC Size	168 Reference to clause 6.10 Parameter Set
- Number of TB and TTI List	Reference to clause 6.10 Parameter Set
- <u>Number of Transport blocks</u>	0
- <u>Number of Transport blocks</u>	1
- <u>Number of Transport blocks</u>	2
- Number of Transport blocks	3 Reference to clause 6.10 Parameter Set
- CHOICE Mode	FDD
- CHOICE Logical Channel List	ALL
- Semi-static Transport Format information	
- Transmission time interval	10 ms Reference to clause 6.10 Parameter Set
- Type of channel coding	Convolutional Reference to clause 6.10 Parameter Set
- Coding Rate	1/2 Reference to clause 6.10 Parameter Set
- Rate matching attribute	230 Reference to clause 6.10 Parameter Set
- CRC size	16bit Reference to clause 6.10 Parameter Set
- <u>Transport Channel Identity</u>	13 (for FACH)
- <u>CTCH indicator</u>	FALSE
- TFS	(FACH)
- <u>CHOICE Transport channel type</u>	Common transport channels
- <u>Dynamic Transport format information</u>	
- <u>RLC Size</u>	360
- <u>Number of TB and TTI List</u>	
- <u>Number of Transport blocks</u>	0
- <u>Number of Transport blocks</u>	1
- CHOICE Mode	FDD
- CHOICE Logical Channel List	ALL
- Semi-static Transport Format information	
- <u>Transmission time interval</u>	10 ms
- <u>Type of channel coding</u>	Turbo
- <u>Rate matching attribute</u>	130
- <u>CRC size</u>	16bit
- <u>Transport Channel Identity</u>	14 (for FACH)
- CTCH indicator	FALSE
- PICH info	
- Channelisation code	SF-1 (SF is reference to clause 6.10 Parameter Set) 2
- Number of PI per frame	18
- STTD indicator	FALSE
- CBS DRX Level 1 information	Not Present

Contents of System Information Block type 6 in connected mode (similar to SIB type 5) (TDD)

- PICH Power offset	-5 dB
- CHOICE Mode	TDD
- PUSCH system information	Not Present
- PDSCH system information	Not Present
- TDD open loop power control	
- Primary CCPCH Tx Power	30 dbm
- Alpha	(1/8)
- PRACH Constant Value	-10
- DPCH Constant Value	-10
- PUSCH Constant Value	-10
- Primary CCPCH info	
- CHOICE mode	TDD
- CHOICE SyncCase	Sync Case 2
- Timeslot	0
- Cell parameters ID	Not Present
- Block STTD indicator	FALSE
- PRACH system information list	
- PRACH system information	
- PRACH info	
- CHOICE mode	TDD
- Timeslot number	14
- PRACH Channelisation Code List	
- CHOICE SF	SF8
- Channelisation Code List	
- Channelisation Code	8/1
- Channelisation Code	8/2
- Channelisation Code	8/3
- Channelisation Code	8/4
- PRACH Midamble	Direct
- Transport Channel Identity	15
- RACH TFS	
- CHOICE Transport channel type	Common transport channels
- Dynamic Transport format information	(This IE is repeated for TFI number)
- RLC size	Reference to clause 6.10 Parameter Set
- Number of TB and TTI List	Reference to clause 6.10 Parameter Set
- Number of Transport blocks	Reference to clause 6.10 Parameter Set
- CHOICE Mode	TDD
- Transmission Time Interval	Not Present
- CHOICE Logical Channel List	ALL
- Semi-static Transport Format information	
- Transmission time interval	Reference to clause 6.10 Parameter Set
- Type of channel coding	Reference to clause 6.10 Parameter Set
- Coding Rate	Reference to clause 6.10 Parameter Set
- Rate matching attribute	Reference to clause 6.10 Parameter Set
- CRC size	Reference to clause 6.10 Parameter Set
- RACH TFCS	Not present
- PRACH partitioning	
- Access Service Class	
- ASC Settings	ASC#0
- CHOICE mode	TDD
- Available Channelisation codes indices	Not Present (Default all)
- CHOICE subchannel size	Size1
- Available Subchannels	null
- ASC Settings	ASC#1
- CHOICE mode	TDD
- Available Channelisation codes indices	Not Present (Default all)
- CHOICE subchannel size	Size1
- Available Subchannels	null
- ASC Settings	ASC#2
- CHOICE mode	TDD
- Available Channelisation codes indices	Not Present (Default all)
- CHOICE subchannel size	Size1
- Available Subchannels	null
- ASC Settings	ASC#3
- CHOICE mode	TDD
- Available Channelisation codes indices	Not Present (Default all)

- CHOICE subchannel size	Size1
- Available Subchannels	null
- ASC Settings	ASC#4
- CHOICE mode	TDD
- Available Channelisation codes indices	Not Present (Default all)
- CHOICE subchannel size	Size1
- Available Subchannels	null
- ASC Settings	ASC#5
- CHOICE mode	TDD
- Available Channelisation codes indices	Not Present (Default all)
- CHOICE subchannel size	Size1
- Available Subchannels	null
- ASC Settings	ASC#6
- CHOICE mode	TDD
- Available Channelisation codes indices	Not Present (Default all)
- CHOICE subchannel size	Size1
- Available Subchannels	null
- Persistence scaling factors	
- Access Service Class	
- Persistence scaling factor	0.9 (for ASC#2)
- Persistence scaling factor	0.9 (for ASC#3)
- Persistence scaling factor	0.9 (for ASC#4)
- Persistence scaling factor	0.9 (for ASC#5)
- Persistence scaling factor	0.9 (for ASC#6)
- Persistence scaling factor	0.9 (for ASC#7)
- AC-to-ASC mapping	
- AC-to-ASC mapping table	
- AC-to-ASC mapping	6 (AC0-9)
- AC-to-ASC mapping	5 (AC10)
- AC-to-ASC mapping	4 (AC11)
- AC-to-ASC mapping	3 (AC12)
- AC-to-ASC mapping	2 (AC13)
- AC-to-ASC mapping	1 (AC14)
- AC-to-ASC mapping	0 (AC15)
- CHOICE mode	TDD (no data)
- Secondary CCPCH system information	
- Secondary CCPCH system information	
- Secondary CCPCH info	
- CHOICE mode	TDD
- Offset	Not Present
- Common timeslot info	
- 2 nd interleaving mode	Not Present (MD "Frame")
- TFCI coding	Reference clause 6.10 Parameter Set Number of bits used must be enough to cover all combinations of CTFC from clause 6.10
- Puncturing limit	Reference to clause 6.10 Parameter Set
- Repetition period	Not Present (MD "1")
- Repetition length	Not present
- Individual timeslot info	
- Timeslot number	1
- TFCI existence	Reference clause 6.10 Parameter Set TRUE
- Midamble Shift and burst type	
- CHOICE Burst Type	Type 1
- Midamble Allocation Mode	Default midamble
- Midamble configuration burst type 1 and 3	4
- Midamble Shift	Not Present
- Code List	Reference to clause 6.10 Parameter Set
- Channelisation Code	Reference clause 6.10 Parameter Set
- TFCS	(This IE is repeated for TFC number for PCH and FACH.)
- Normal	
- TFCI Field 1 information	
- CHOICE TFCS representation	Addition
- TFCS addition information	
- CHOICE CTFC Size	Number of bits used must be enough to cover all combinations of CTFC from clause 6.10.
- CTFC information	Reference to clause 6.10 Parameter Set
- Power offset information	Not Present
- FACH/PCH information	

<p>Transport Channel Identity</p> <ul style="list-style-type: none"> - TFS - CHOICE Transport channel type - Dynamic Transport format information - RLC Size - Number of TB and TTI List - Number of Transport blocks - CHOICE Mode <ul style="list-style-type: none"> - Transmission Time Interval - CHOICE Logical Channel List - Semi-static Transport Format information <ul style="list-style-type: none"> - Transmission time interval - Type of channel coding - Coding Rate - Rate matching attribute - CRC size <p>Transport Channel Identity</p> <p>CTCH indicator</p>	<p>12 (for PCH)</p> <p>(PCH)</p> <p>Common transport channels (This IE is repeated for TFI number.)</p> <p>Reference to clause 6.10 Parameter Set</p> <p>Reference to clause 6.10 Parameter Set</p> <p>Reference to clause 6.10 Parameter Set</p> <p>TDD</p> <p>Reference to clause 6.10 Parameter Set</p> <p>ALL</p> <p>Reference to clause 6.10 Parameter Set</p> <p>Reference to clause 6.10 Parameter Set</p> <p>Reference to clause 6.10 Parameter Set</p> <p>Reference to clause 6.10 Parameter Set</p> <p>Reference to clause 6.10 Parameter Set</p> <p>12 (for PCH)</p> <p>FALSE</p>
<p>Transport Channel Identity</p> <ul style="list-style-type: none"> - TFS - CHOICE Transport channel type - Dynamic Transport format information - RLC Size - Number of TB and TTI List - Number of Transport blocks - CHOICE Mode <ul style="list-style-type: none"> - Transmission Time Interval - CHOICE Logical Channel List - Semi-static Transport Format information <ul style="list-style-type: none"> - Transmission time interval - Type of channel coding - Coding Rate - Rate matching attribute - CRC size <p>Transport Channel Identity</p> <p>TFS</p> <p>CHOICE Transport channel type</p> <p>Dynamic Transport format information</p> <p>RLC Size</p> <p>Number of TB and TTI List</p> <p>Number of Transport blocks</p> <p>CHOICE Mode</p> <p>CHOICE Logical Channel List</p> <p>Semi-static Transport Format information</p> <p>Transmission time interval</p> <p>Type of channel coding</p> <p>Coding Rate</p> <p>Rate matching attribute</p> <p>CRC size</p>	<p>13 (for FACH)</p> <p>(FACH)</p> <p>Common transport channels (This IE is repeated for TFI number.)</p> <p>Reference to clause 6.10 Parameter Set</p> <p>Reference to clause 6.10 Parameter Set</p> <p>Reference to clause 6.10 Parameter Set</p> <p>TDD</p> <p>Reference to clause 6.10 Parameter Set</p> <p>ALL</p> <p>Reference to clause 6.10 Parameter Set</p> <p>Reference to clause 6.10 Parameter Set</p> <p>Reference to clause 6.10 Parameter Set</p> <p>Reference to clause 6.10 Parameter Set</p> <p>Reference to clause 6.10 Parameter Set</p> <p>13 (for FACH)</p> <p>(FACH)</p> <p>Common transport channels</p> <p>(This IE is repeated for TFI number.)</p> <p>Reference clause 6.10 Parameter Set</p> <p>Reference clause 6.10 Parameter Set</p> <p>Reference clause 6.10 Parameter Set</p> <p>FDD</p> <p>ALL</p> <p>Reference clause 6.10 Parameter Set</p> <p>Reference clause 6.10 Parameter Set</p> <p>Reference clause 6.10 Parameter Set</p> <p>Reference clause 6.10 Parameter Set</p> <p>Reference clause 6.10 Parameter Set</p>
<p>Transport Channel Identity</p> <p>CTCH indicator</p> <p>CTCH indicator</p> <p>PICH info</p> <p>CHOICE <i>mode</i></p> <ul style="list-style-type: none"> - Channelisation code - Timeslot number - CHOICE Burst Type <ul style="list-style-type: none"> - Midamble Shift - Repetition period/length - Offset - Paging indicator length - N_{GAP} - N_{PCH} <p>Number of PI per frame</p> <p>STTD indicator</p> <p>CBS DRX Level 1 information</p>	<p>14 (for FACH)</p> <p>FALSE</p> <p>FALSE</p> <p>TDD</p> <p>16/16</p> <p>Not Present (MD)0</p> <p>Type 1</p> <p>0</p> <p>Not Present (MD-3)64/2</p> <p>0</p> <p>Not Present (MD-4)4</p> <p>Not Present (MD-4)4</p> <p>Not Present (MD-2)2</p> <p>14</p> <p>FALSE</p> <p>Not Present</p>

Contents of System Information Block type 7 (FDD)

CHOICE Mode	FDD
- UL interference	-100dBm
- PRACHs listed in system information block type5	
- Dynamic persistence level	2
- PRACHs listed in system information block type6	
- Dynamic persistence level	2
- Expiration Time Factor	Not Present – use default value of 1

Contents of System Information Block type 7 (TDD)

- PRACHs listed in system information block type5	
- Dynamic persistence level	2
- PRACHs listed in system information block type6	
- Dynamic persistence level	2
- Expiration Time Factor	Not Present – use default value of 1

Contents of System Information Block type 8, 9 (only for FDD)

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

Contents of System Information Block type 10 (only for FDD)

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

Contents of System Information Block type 11 (FDD)

- SIB12 indicator	TRUE
- FACH measurement occasion info	Not Present
- Measurement control system information	
- Use of HCS	Not used
- Cell_selection_and_reselection_quality_measure	CPICH RSCP
- Intra-frequency measurement system information	
- Intra-frequency measurement identity	0 ₁
- Intra-frequency cell info list	
- CHOICE intra-frequency cell removal	Remove no intra-frequency cells
- New intra-frequency cells	
- Intra-frequency cell id	0
- Cell info	
- Cell individual offset	0dB
- Reference time difference to cell	Not Present
- Read SFN indicator	FALSE TRUE
- CHOICE mode	FDD
- Primary CPICH info	
- Primary scrambling code	Reference clause 6.1 Default settings for cell The The current value plus 50 when the current cell is cell No. 1 then minus 50
- Primary CPICH TX power	Not Present
- TX Diversity indicator	FALSE
- Cell Selection and Re-selection info	
- Qoffset1 _{s,n}	0 dB
- Qoffset2 _{s,n}	0 dB Not Present
- Maximum allowed UL TX power	33 dBm
- HCS neighbouring cell information	Not Present
- CHOICE mode	FDD
- Qqualmin	-20 dB
- Qrxlevmin	-115 dBm
- Cell for measurement	Not present
- Intra-frequency cell id	See test content
- Intra-frequency measurement quantity	
- Filter coefficient	0
- Measurement quantity	CPICH RSCP
- Intra-frequency reporting quantity for RACH Reporting	
- SFN-SFN observed time difference	No report
- Reporting quantity	No report
- Maximum number of reported cells on RACH	
- Maximum number of reported cells	No report
- Reporting information for state CELL_DCH	
- Intra-frequency reporting quantity	
- Reporting quantities for active set cells	
- SFN-SFN observed time difference	No report
- reporting indicator type	
- Cell identity reporting indicator	TRUE
- Cell synchronisation information reporting indicator	FALSE
- Cell identity reporting indicator	TRUE
- CHOICE mode	FDD
- CPICH Ec/N0 reporting indicator	FALSE
- CPICH RSCP reporting indicator	TRUE
- Pathloss reporting indicator	FALSE
- Reporting quantities for monitored set cells	
- SFN-SFN observed time difference	No report
- reporting indicator type	
- Cell identity reporting indicator	TRUE
- Cell synchronisation information reporting indicator	FALSE
- Cell identity reporting indicator	TRUE
- CHOICE mode	FDD
- CPICH Ec/N0 reporting indicator	FALSE
- CPICH RSCP reporting indicator	TRUE
- Pathloss reporting indicator	FALSE

- Reporting quantities for detected set cells	Not Present
- Measurement reporting mode	Acknowledged mode RLC
- Measurement Report Transfer Mode	Event trigger
- Periodic Reporting/Event Trigger Reporting Mode	
- CHOICE report criteria	Intra-frequency measurement reporting criteria
- Intra-frequency measurement reporting criteria	
- Parameters required for each event	
- Intra-frequency event identity	1a
- Triggering condition 1	Not Present
- Triggering condition 2	Active set cells and monitored set cells
- Reporting Range	5dB
- Cells forbidden to affect Reporting range	Not Present
- W	1.0
- Hysteresis	0.0
- Threshold used frequency	Not Present
- Reporting deactivation threshold	43
- Replacement activation threshold	Not Present
- Time to trigger	640
- Amount of reporting	Infinity
- Reporting interval	4000
- Reporting cell status	
- Hysteresis	0.0
- Time to trigger	640
- CHOICE reported cell	Report cell within active set and/or monitored set cells on used frequency
- Maximum number of reported cells	23
- Inter-frequency measurement system information	Not Present
- Inter-RAT measurement system information	Not Present
- Traffic volume measurement system information	Not Present
- UE internal measurement system information	Not Present

Contents of System Information Block type 11 (TDD)

- SIB 12 Indicator	TRUE
- FACH measurement occasion info	Not Present
- Measurement control system information	
- Use of HCS	Not used
- Cell_selection_and_reselection_quality_measure	CPICH-RSCP
- Intra-frequency measurement system information	
- Intra-frequency measurement identity	01
- Intra-frequency cell info list	
- CHOICE intra-frequency cell removal	Remove no intra-frequency cells
- New intra-frequency cells	
- Intra-frequency cell id	0
- Cell info	
- Cell individual offset	0dB
- Reference time difference to cell	Not Present
- Read SFN Indicator	False
- CHOICE mode	TDD
- Primary CCPCH info	
- Cell parameters ID	Reference clause 6.1 Default settings for cell
- Primary CCPCH TX power	Not Present
- Timeslot list	Not Present
- Burst type	Not Present
- Cell Selection and Re-selection info	Not Present
- Cell for measurement	Not present
- Intra-frequency cell id	0
- Intra-frequency measurement quantity	
- Filter coefficient	0
- CHOICE mode	TDD
- Measurement quantity list	
- Measurement quantity	P-CCPCH RSCP
- Intra-frequency reporting quantity for RACH	
Reporting	
-SFN-SFN observed time difference	No report
- CHOICE mode	TDD
- Reporting quantity list	
- Reporting quantity	No report
- Maximum number of reported cells on RACH	No report
- Reporting information for state CELL_DCH	
- Intra-frequency reporting quantity	
- Reporting quantities for active set cells	
- SFN-SFN observed time difference	No report
reporting indicator	
- Cell synchronisation information reporting indicator	FALSE
- Cell identity reporting indicator	TRUE
- CHOICE mode	TDD
- Timeslot ISCP reporting indicator	FALSE
- Proposal TSGN reporting required	FALSE
- P-CCPCH RSCP reporting indicator	TRUE FALSE
- Pathloss reporting indicator	FALSE
- Reporting quantities for monitored set cells	
- SFN-SFN observed time difference reporting indicator	No report
- Cell synchronisation information reporting indicator	FALSE
- Cell identity reporting indicator	TRUE
- CHOICE mode	TDD
- Timeslot ISCP reporting indicator	FALSE
- Proposal TSGN reporting required	FALSE
- P-CCPCH RSCP reporting indicator	TRUE FALSE
- Pathloss reporting indicator	FALSE
- Reporting quantities for detected set cells	Not Present
- Measurement reporting mode	
- Measurement Report Transfer Mode	Acknowledged mode RLC

- - Periodical Reporting / Event Trigger Reporting Mode	Event trigger
- Intra-frequency measurement reporting criteria	
- Parameters required for each event	
- Intra-frequency event identity	1g
- Triggering condition1	Not Present
- Triggering condition2	Not Present
- Reporting Range	Not Present
- cells forbidden to affect reporting range	Not Present
- W(optional in case of 1a,1b)	Not Present
- Hysteresis	0
- Threshold used frequency	Not Present
- Reporting deactivation threshold	Not Present
- Replacement activation threshold	Not Present
- Time to trigger	640
- Amount of reporting	Infinity
- Reporting interval	0
- Reporting cell status	
- CHOICE reported cells	Report cell within active set and/or monitored cells on used frequency
- Maximum number of reported cells	2
- Inter-frequency measurement system information	Not Present
- Inter-RAT measurement system information	Not Present
- Traffic volume measurement system information	Not Present
- UE internal measurement system information	Not Present

Contents of System Information Block type 12 in connected mode (FDD)

- FACH measurement occasion info	Not Present
- Measurement control system information	Not used
- Use of HCS	CPICH RSCP
- Cell_selection_and_reselection_quality_measure	
- Intra-frequency measurement system information	
- Intra-frequency measurement identity	01
- Intra-frequency cell info list	
- CHOICE intra-frequency cell removal	Remove no intra-frequency cells
- New intra-frequency cells	
- Intra-frequency cell id	0
- Cell info	
- Cell individual offset	0dB
- Reference time difference to cell	Not Present
- Read SFN indicator	FALSE TRUE
- CHOICE mode	FDD
- Primary CPICH info	
- Primary scrambling code	Reference clause 6.1 Default settings for cellTheThe current value plus 50(When the current cell is cell No.1 then minus 50)
- Primary CPICH TX power	Not Present
- Read SFN indicator	TRUE
- TX Diversity indicator	FALSE
- Cell Selection and Re-selection info	
- Qoffset _{1s,n}	0 dB
- Qoffset _{2s,n}	0 dB Not Present
- Maximum allowed UL TX power	33dBm
- HCS neighbouring cell information	Not Present
- CHOICE mode	FDD
- Qqualmin	-20 dB
- Qrxlevmin	-115 dBm
- Cell for measurement	Not Present
- Intra-frequency cell id	See test contact
- Intra-frequency measurement quantity	
- Filter coefficient	0
- Measurement quantity	CPICH RSCP
- Intra-frequency reporting quantity for RACH Reporting	
- SFN-SFN observed time difference	No report
- Reporting quantity	No report
- Maximum number of reported cells on RACH	
- Maximum number of reported cells	No report
- Reporting information for state CELL_DCH	
- Intra-frequency reporting quantity	
- Reporting quantities for active set cells	
- SFN-SFN observed time difference	No report
- reporting-indicator type	
- Cell synchronisation information reporting indicator	FALSE
- Cell identity reporting indicator	TRUE
- CHOICE mode	FDD
- CPICH Ec/N0 reporting indicator	FALSE
- CPICH RSCP reporting indicator	TRUE
- Pathloss reporting indicator	FALSE
- Reporting quantities for monitored set cells	
- SFN-SFN observed time difference	No report
- reporting-indicator type	
- Cell synchronisation information reporting indicator	FALSE
- Cell identity reporting indicator	TRUE
- CHOICE mode	FDD
- CPICH Ec/N0 reporting indicator	FALSE
- CPICH RSCP reporting indicator	TRUE
- Pathloss reporting indicator	FALSE
- Reporting quantities for detected set cells	Not Present
- Measurement reporting mode	

- Measurement Report Transfer Mode	Acknowledged mode RLC
- Periodic Reporting/Event Trigger Reporting Mode	Event trigger
- CHOICE report criteria	Intra-frequency measurement reporting criteria
- Intra-frequency measurement reporting criteria	
- Parameters required for each event	
- Intra-frequency event identity	1a
- Triggering condition 1	Not Present
- Triggering condition 2	Active set cells and monitored set cells
- Reporting Range	5dB
- Cells forbidden to affect reporting range	Not Present
- W	1.0
- Hysteresis	0.0
- Threshold used frequency	Not Present
- Reporting deactivation threshold	4 3
- Replacement activation threshold	Not Present
- Time to trigger	0
- Amount of reporting	Infinity
- Reporting interval	0
- Hysteresis	0.0
- Time to trigger	4000
- Reporting cell status	
- CHOICE reported cell	Report cell Within active set and/or monitored set cells on used frequency
- Maximum number of reported cells	2 3
- Inter-frequency measurement system information	Not Present
- Inter-RAT measurement system information	Not Present
- Traffic volume measurement system information	Not Present
- UE internal measurement system information	Not Present

Contents of System Information Block type 12 in connected mode (similar to SIB type11) (TDD)

- FACH measurement occasion info	Not Present
- Measurement control system information	Not used
- Use of HCS	CPICH-RSCP
- Cell_selection_and_reselection_quality_measure	
- Intra-frequency measurement system information	
- Intra-frequency measurement identity	01
- Intra-frequency cell info list	
- CHOICE intra-frequency cell removal	Remove no intra-frequency cells
- New intra-frequency cells	
- Intra-frequency cell id	0
- Cell info	
- Cell individual offset	0dB
- Reference time difference to cell	Not Present
- Read SFN Indicator	False
- CHOICE mode	TDD
- Primary CCPCH info	
- Cell parameters ID	Reference clause 6.1 Default settings for cell
- Primary CCPCH TX power	Not Present
- Timeslot list	Not Present
- Burst type	
- Cell Selection and Re-selection info	Not Present
- Cell for measurement	Not present
- Intra-frequency measurement quantity	
- Filter coefficient	0
- CHOICE mode	TDD
- Measurement list	
- Measurement quantity	P-CCPCH RSCP
- Intra-frequency reporting quantity for RACH Reporting	
- SFN-SFN observed time difference	No report
- CHOICE mode	TDD
- Reporting quantity list	
- Reporting quantity	No report
- Maximum number of reported cells on RACH	No report
- Reporting information for state CELL_DCH	
- Intra-frequency reporting quantity	
- Reporting quantities for active set cells	
- SFN-SFN observed time difference reporting indicator	No report
- Cell synchronisation information reporting indicator	FALSE
- Cell identity reporting indicator	TRUE
- CHOICE mode	TDD
- Timeslot ISCP reporting indicator	FALSE
- Proposal TSGN reporting required	FALSE
- P-CCPCH RSCP reporting indicator	TRUE FALSE
- Pathloss reporting indicator	FALSE
- Reporting quantities for monitored set cells	
- SFN-SFN observed time difference reporting indicator	No report
- Cell synchronisation information reporting indicator	FALSE
- Cell identity reporting indicator	TRUE
- CHOICE mode	TDD
- Timeslot ISCP reporting indicator	FALSE
- Proposal TSGN reporting required	FALSE
- P-CCPCH RSCP reporting indicator	TRUE FALSE
- Pathloss reporting indicator	FALSE
- Reporting quantities for detected set cells	Not Present
- Measurement reporting mode	
- Measurement Report Transfer Mode	Acknowledged mode RLC
- Periodical Reporting / Event Trigger	Event trigger
Reporting Mode	
- Intra-frequency measurement reporting criteria	

- Parameters required for each event	1g
- Intra-frequency event identity	Not Present
- Triggering condition1	Not Present
- Triggering condition2	Not Present
- Reporting Range	Not Present
- cells forbidden to affect reporting range	Not Present
- W(optional in case of 1a,1b)	Not Present
- Hysteresis	0
- Threshold used frequency	Not Present
- Reporting deactivation threshold	Not Present
- Replacement activation threshold	Not Present
- Time to trigger	640
- Amount of reporting	Infinity
- Reporting interval	0
- Reporting cell status	
- CHOICE reported cells	Report cell within active set and/or monitored cells on used frequency
- Maximum number of reported cells	2
- Inter-frequency measurement system information	Not Present
- Inter-RAT measurement system information	Not Present
- Traffic volume measurement system information	Not Present
- UE internal measurement system information	Not Present

Contents of System Information Block type 13 (used when supported PLMN type is ANSI-41)

- CN Domain system information list	
- CN Domain system information	<i>For Packet-Switched domain</i>
- CN domain identity	PS
- CHOICE CN Type	ANSI-41
- CN domain specific NAS system information	
- NAS (ANSI-41) system information	T.B.D
- CN domain specific DRX cycle length coefficient	7
- CN Domain system information	<i>For Circuit-Switched domain</i>
- CN domain identity	CS
- CHOICE CN Type	ANSI-41
- CN domain specific NAS system information	
- NAS (ANSI-41) system information	T.B.D
- CN domain specific DRX cycle length coefficient	7
- UE timers and constants in idle mode	
- T300	400 milliseconds
- N300	7
- T312	10 seconds
- N312	200
- 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	Not Present

Contents of System Information Block type 14 (TDD)

- Individual Timeslot interference list	
- Individual Timeslot interference	
- Timeslot number	2
- UL Timeslot Interference	-90 dbm
- Individual Timeslot interference	
- Timeslot number	3
- UL Timeslot Interference	-90 dbm
- Individual Timeslot interference	
- Timeslot number	4
- UL Timeslot Interference	-90 dbm
- Individual Timeslot interference	
- Timeslot number	5
- UL Timeslot Interference	-90 dbm
- Individual Timeslot interference	
- Timeslot number	6
- UL Timeslot Interference	-90 dbm
- Individual Timeslot interference	
- Timeslot number	7
- UL Timeslot Interference	-90 dbm
- Individual Timeslot interference	
- Timeslot number	9
- UL Timeslot Interference	-90 dbm
- Individual Timeslot interference	
- Timeslot number	10
- UL Timeslot Interference	-90 dbm
- Individual Timeslot interference	
- Timeslot number	11
- UL Timeslot Interference	-90 dbm
- Individual Timeslot interference	
- Timeslot number	12
- UL Timeslot Interference	-90 dbm
- Individual Timeslot interference	
- Timeslot number	13
- UL Timeslot Interference	-90 dbm
- Individual Timeslot interference	
- Timeslot number	14
- UL Timeslot Interference	-90 dbm
- Expiration Time Factor	Not Present (MD "1")

Contents of System Information Block type 16

- Re-establishment timer	[FFS]
- Predefined RB configuration	[FFS]
- Predefined TrCh configuration	[FFS]
- Predefined Phy configuration	[FFS]

Contents of System Information Block type 17 (TDD)

This system information block contains fast changing parameters for the configuration of the shared physical channels to be used in connected mode, so this is not present.

Contents of System Information Block type 18

- Idle mode PLMN identities	
- PLMNs of intra-frequency cells list	
- PLMN identity	Set to the same value as indicated in MIB
- PLMNs of inter-frequency cells list	Not present
- PLMNs of inter-RAT cells list	Not present
- Connected mode PLMN identities	Not present

Default settings for cell No.1 (FDD):

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

Default settings for cell No.1 (TDD):

Downlink input level	Reference- te clause 6.10 Parameter Set Minimum supported by the UE's power class.
Uplink output power	
PCCPCH/PCPICH carrier number	Reference- te clause 6.10 Parameter Set
Cell Channel Description	0
- Primary CCPCH info	
- Cell parameters ID	

Cell No.2

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

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

Default settings for cell No.2 (FDD):

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

Default settings for cell No.2 (TDD):



Downlink input level	Reference- te clause 6.10 Parameter Set Minimum supported by the UE's power class.
Uplink output power	
PCCPCH/PCPICH carrier number	Reference- te clause 6.10 Parameter Set
Cell Channel Description	4
- Primary CCPCH info	
- Cell parameters ID	

Cell No.3



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

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

Default settings for cell No.3 (FDD):

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

Default settings for cell No.3 (TDD):



Downlink input level	Reference  clause 6.10 Parameter Set Minimum supported by the UE's power class.
Uplink output power	
PCCPCH/PCPICH carrier number	Reference  clause 6.10 Parameter Set
Cell Channel Description	8
- Primary CCPCH info	
- Cell parameters ID	

Cell No.4



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

Cell identity	0000 0000 0000 0000 0000 0000 0100B
URA identity	0000 0000 0000 0010B

Default settings for cell No.4 (FDD):

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

Default settings for cell No.4 (TDD):



Downlink input level	Reference  clause 6.10 Parameter Set Minimum supported by the UE's power class.
Uplink output power	
PCCPCH/PCPICH carrier number	Reference  clause 6.10 Parameter Set
Cell Channel Description	12
- Primary CCPCH info	
- Cell parameters ID	

Cell No.5



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

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

Default settings for cell No.5 (FDD):

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

Default settings for cell No.5 (TDD):



Downlink input level	Reference  clause 6.10 Parameter Set Minimum supported by the UE's power class.
Uplink output power	
PCCPCH/PCPICH carrier number	Reference  clause 6.10 Parameter Set
Cell Channel Description	114
- Primary CCPCH info	
- Cell parameters ID	

Cell No.6



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

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

Default settings for cell No.6 (FDD):

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

Default settings for cell No.6 (TDD):



Downlink input level	Reference  clause 6.10 Parameter Set Minimum supported by the UE's power class.
Uplink output power	
PCCPCH/PCPICH carrier number	Reference  clause 6.10 Parameter Set
Cell Channel Description	119
- Primary CCPCH info	
- Cell parameters ID	

Cell No.7



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

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

Default settings for cell No.7 (FDD):

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

Default settings for cell No.7 (TDD):



Downlink input level	Reference-  clause 6.10 Parameter Set Minimum supported by the UE's power class.
Uplink output power	
PCCPCH/PCPICH carrier number	Reference-  clause 6.10 Parameter Set
Cell Channel Description	123
- Primary CCPCH info	
- Cell parameters ID	

Cell No.8



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

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

Default settings for cell No.8 (FDD):

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

Default settings for cell No.8 (TDD):

Downlink input level	Reference-  clause 6.10 Parameter Set Minimum supported by the UE's power class.
Uplink output power	
PCCPCH/PCPICH carrier number	Reference-  clause 6.10 Parameter Set
Cell Channel Description	127
- Primary CCPCH info	
- Cell parameters ID	

Default Radio Conditions for Multi-Cell Environment (FDD)

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

Table 6.1.1 Default radio conditions dependent on Number of cells (for idle mode test cases)

Number of cells	Parameter	Unit	Cell 1	Cell 2	Cell 3	Cell 4	Cell 5	Cell 6
	UTRA RF Channel Number		Ch. 1	Ch. 1	Ch. 1	Ch. 2	Ch. 2	Ch. 2
1	\hat{I}_{or}/I_{oc}	dB	8					
	CPICH_Ec/Io	dB	-10.6					
	CPICH_RSCP	dBm	-72					
2	\hat{I}_{or}/I_{oc}	dB	8	8				
	CPICH_Ec/Io	dB	-13.3	-13.3				
	CPICH_RSCP	dBm	-72	-72				
3	\hat{I}_{or}/I_{oc}	dB	8	8	8			
	CPICH_Ec/Io	dB	-15	-15	-15			
	CPICH_RSCP	dBm	-72	-72	-72			
4	\hat{I}_{or}/I_{oc}	dB	8	8	8	8		
	CPICH_Ec/Io	dB	-15	-15	-15	-10.6		
	CPICH_RSCP	dBm	-72	-72	-72	-72		
5	\hat{I}_{or}/I_{oc}	dB	8	8	8	8	8	
	CPICH_Ec/Io	dB	-15	-15	-15	-13.3	-13.3	
	CPICH_RSCP	dBm	-72	-72	-72	-72	-72	
6	\hat{I}_{or}/I_{oc}	dB	8	8	8	8	8	8
	CPICH_Ec/Io	dB	-15	-15	-15	-15	-15	-15
	CPICH_RSCP	dBm	-72	-72	-72	-72	-72	-72

Table 6.1.2 Default radio conditions in Idle mode

Parameter	Unit	Cell 1	Cell 2	Cell 3	Cell 4	Cell 5	Cell 6
CPICH_Ec/Ior	dB	-10	-10	-10	-10	-10	-10
PCCPCH_Ec/Ior	dB	-12	-12	-12	-12	-12	-12
SCCPCH_Ec/Ior	dB	-12	-12	-12	-12	-12	-12
AICH_Ec/Ior	dB	-15	-15	-15	-15	-15	-15
SCH_Ec/Ior	dB	-12	-12	-12	-12	-12	-12
PICH_Ec/Ior	dB	-15	-15	-15	-15	-15	-15
DPCH_Ec/Ior	dB	-∞	-∞	-∞	-∞	-∞	-∞
OCNS_Ec/Ior	dB	-1.888	-1.888	-1.888	-1.888	-1.888	-1.888
I_{oc}	dBm/ 3.84 MHz	-70					
Propagation Condition		AWGN					
UE_TXPWR_MAX_RACH	dBm	Max. RF Output of UE	Max. RF Output of UE	Max. RF Output of UE	Max. RF Output of UE	Max. RF Output of UE	Max. RF Output of UE

In the event that a multi-cell environment is applied by the System Simulator for connected mode test cases, the following transmission parameters shall be used unless otherwise stated in the description of individual test case. The AWGN noise source and OCNS simulator will be not applied for connected mode test cases.

Table 6.1.3 Default radio conditions dependent on Number of cells (for connected mode test cases)

Number of cells	Parameter	Unit	Cell 1	Cell 2	Cell 3	Cell 4	Cell 5	Cell 6
	UTRA RF Channel Number		Ch. 1	Ch. 1	Ch. 1	Ch. 2	Ch. 2	Ch. 2
1	CPICH RSCP	dBm	-72					
2	CPICH RSCP	dBm	-72	-72				
3	CPICH RSCP	dBm	-72	-72	-72			
4	CPICH RSCP	dBm	-72	-72	-72	-72		
5	CPICH RSCP	dBm	-72	-72	-72	-72	-72	
6	CPICH RSCP	dBm	-72	-72	-72	-72	-72	-72

Table 6.1.4 Default radio conditions in Connected mode

Parameter	Unit	Cell 1	Cell 2	Cell 3	Cell 4	Cell 5	Cell 6
CPICH _{Ec/Ior}	dB	-10	-10	-10	-10	-10	-10
PCCPCH _{Ec/Ior}	dB	-12	-12	-12	-12	-12	-12
SCCPCH _{Ec/Ior}	dB	-12	-12	-12	-12	-12	-12
AICH _{Ec/Ior}	dB	-15	-15	-15	-15	-15	-15
SCH _{Ec/Ior}	dB	-12	-12	-12	-12	-12	-12
PICH _{Ec/Ior}	dB	-15	-15	-15	-15	-15	-15
DPCH ₁ _{Ec/Ior} (Note1)	dB	- 15	- 15	- 15	- 15	- 15	- 15
DPCH ₂ _{Ec/Ior} (Note1)	dB	-2.106	-2.106	-2.106	-2.106	-2.106	-2.106
		-2.106	-2.106	-2.106	-2.106	-2.106	-2.106
UE_TXPWR_MAX_RACH	dBm	Max. RF Output of UE	Max. RF Output of UE	Max. RF Output of UE	Max. RF Output of UE	Max. RF Output of UE	Max. RF Output of UE

Note1: In all test case executions, both DPCH₁ and DPCH₂ will be transmitted by SS in the downlink direction. However, only DPCH₁ will be signalled to the UE (i.e. using messages like RRC CONNECTION SETUP, PHYSICAL CHANNEL RECONFIGURATION etc.). The presence of DPCH₂ will not be signalled to the UE, it should act as dummy channel for absorbing the unused power of each cell.

Default Radio Conditions for Multi-Cell Environment (TDD)

<FFS>

7.2 Generic setup procedures

7.2.1 UE Test States for Generic setup procedures

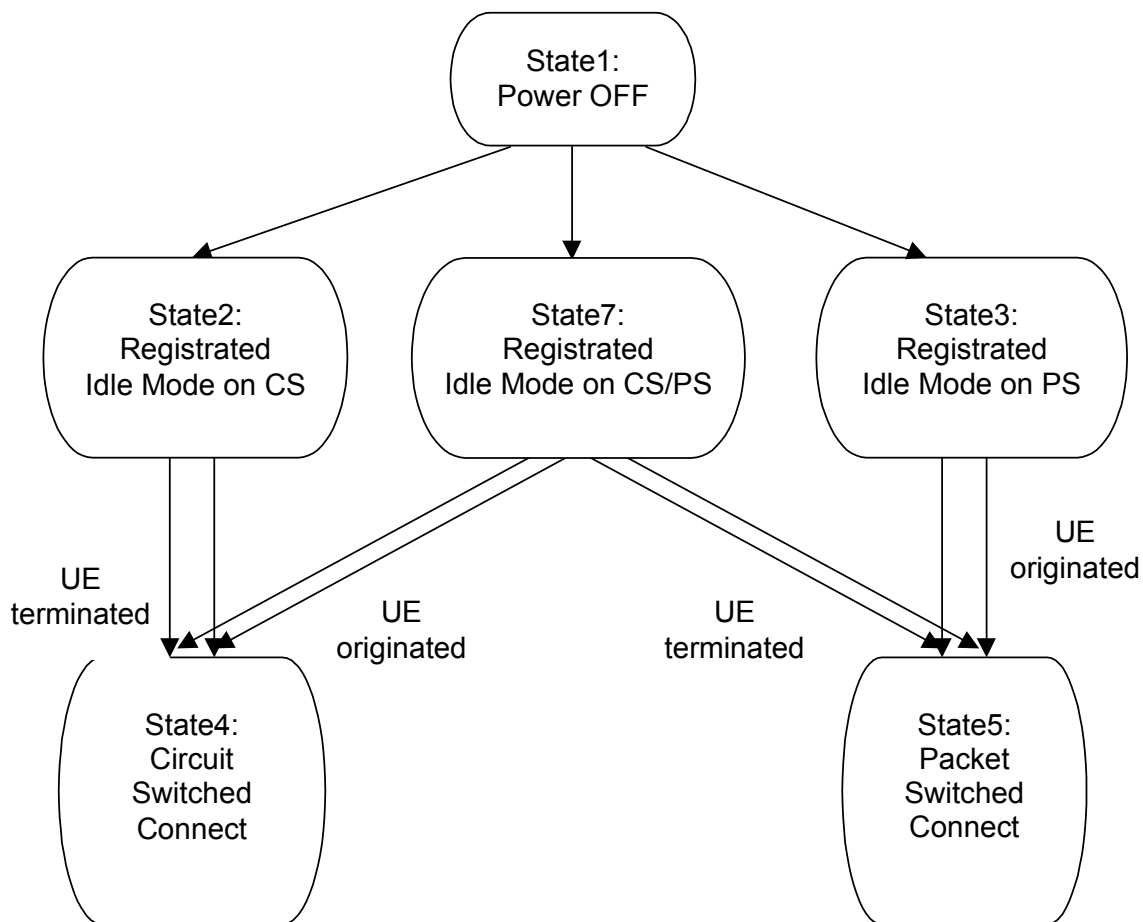


Figure 7.2.1.1: UE Test States for Generic setup procedures

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

Table 7.2.1.1: The UE states

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

7.2.2 Registration of UE

7.2.2.1 Registration on CS

7.2.2.1.1 Initial condition

System Simulator:

1 cell, default parameters.

User Equipment:

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

7.2.2.1.2 Definition of system information messages

The default system information messages are used.

7.2.2.1.3 Procedure

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

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

7.2.2.1.4 Specific message contents

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

7.2.2.2 Registration on PS

7.2.2.2.1 Initial condition

System Simulator:

1 cell, default parameters.

User Equipment:

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

7.2.2.2.2 Definition of system information messages

The default system information messages are used.

7.2.2.2.3 Procedure

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

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

7.2.2.2.4 Specific message contents

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

7.2.2.3 Registration on CS / PS combined environment

7.2.2.3.1 Initial condition

System Simulator:

1 cell, default parameters.

User Equipment:

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

7.2.2.3.2 Definition of system information messages

The default system information messages are used.

7.2.2.3.3 Procedure

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

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

7.2.2.3.4 Specific message contents

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

7.2.3 Call setup

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

7.2.3.1.1 Initial conditions

System Simulator:

1 cell, default parameters.

User Equipment:

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

7.2.3.1.2 Definition of system information messages

The default system information messages are used.

7.2.3.1.3 Procedure

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

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

7.2.3.1.4 Specific message contents

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

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

7.2.3.2.1 Initial conditions

System Simulator:

1 cell, default parameters.

User Equipment:

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

7.2.3.2.2 Definition of system information messages

The default system information messages are used.

7.2.3.2.3 Procedure

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

Step	Direction		Message	Comments
	UE	SS		
1	<--		SYSTEM INFORMATION (BCCH)	Broadcast
2	-->		RRC CONNECTION REQUEST (CCCH)	RRC
3	<--		RRC CONNECTION SETUP (CCCH)	RRC
4	-->		RRC CONNECTION SETUP COMPLETE (DCCH)	RRC
5	-->		CM SERVICE REQUEST	MM
6	<--		AUTHENTICATION REQUEST	MM
7	-->		AUTHENTICATION RESPONSE	MM
8	<--		SECURITY MODE COMMAND	RRC
9	-->		SECURITY MODE COMPLETE	RRC
10	-->		SET UP	CC
11	<--		CALL PROCEEDING	CC
12	<--		RADIO BEARER SETUP	RRC RAB SETUP
13	-->		RADIO BEARER SETUP COMPLETE	RRC
14	<--		ALERTING	CC
15	<--		CONNECT	CC
16	-->		CONNECT ACKNOWLEDGE	CC

7.2.3.2.4 Specific message contents

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

7.2.4 Session setup

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

7.2.4.1.1 Initial conditions

System Simulator:

1 cell, default parameters.

User Equipment:

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

7.2.4.1.2 Definition of system information messages

The default system information messages are used.

7.2.4.1.3 Procedure

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

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

7.2.4.1.4 Specific message contents

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

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

7.2.4.2.1 Initial conditions

System Simulator:

1 cell, default parameters.

User Equipment:

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

7.2.4.2.2 Definition of system information messages

The default system information messages are used.

7.2.4.2.3 Procedure

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

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

7.2.4.2.4 Specific message contents

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

7.4 Common generic procedures for AS testing

7.4.1 UE RRC Test States for common procedures

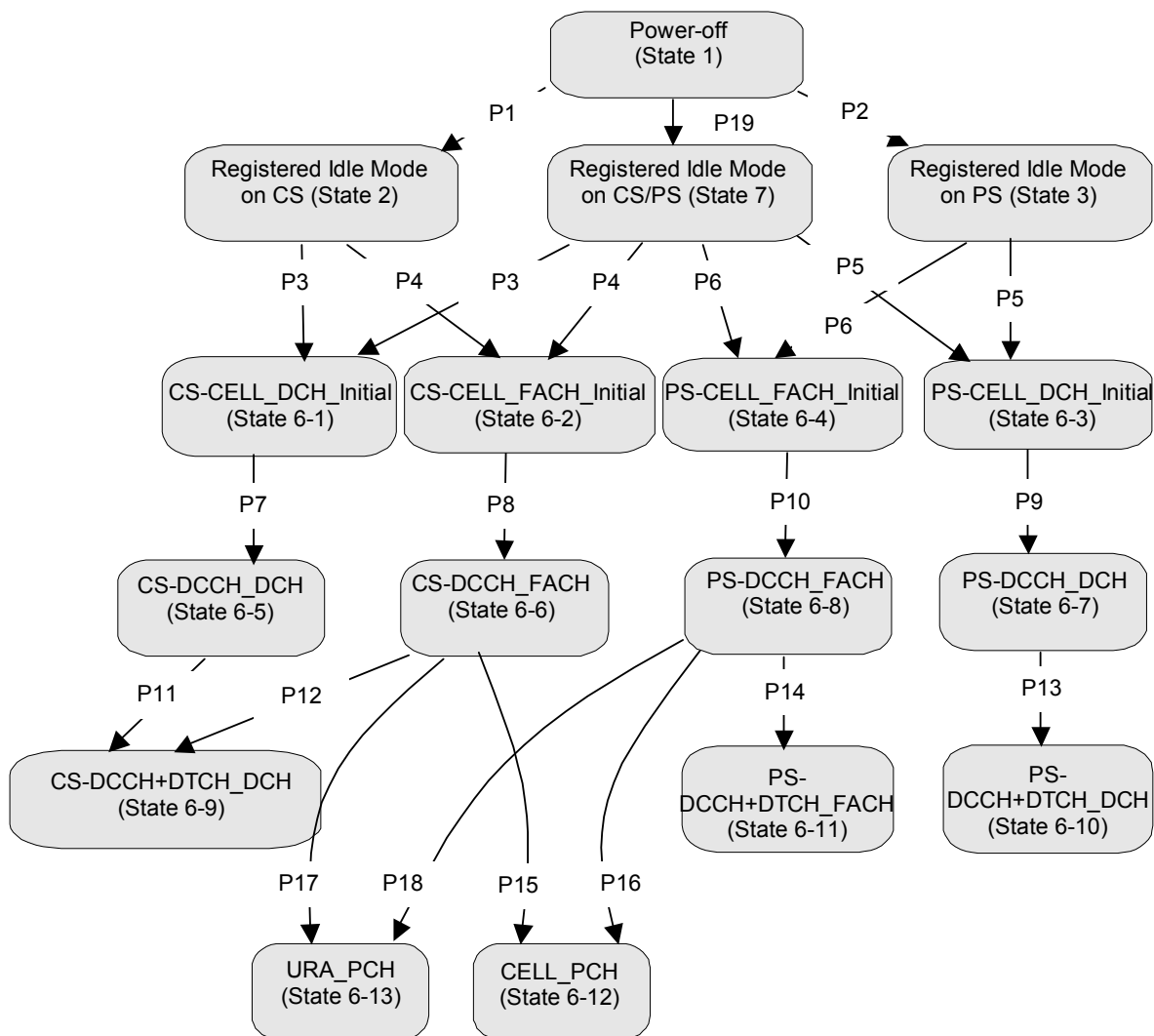


Figure 7.4.1.1: UE RRC test initial states and common procedures

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

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

Table 7.4.1.1: The UE states

		RRC	CC	MM	SM	GMM
State 1	Power OFF	-----	Null	Detached	Inactive	Detached
State 2	Registered Idle Mode on CS	Idle	Null	Idle	Inactive	Detached
State 3	Registered Idle Mode on PS	Idle	Null	Detached	Inactive	Idle
State 7	Registered Idle Mode on CS/PS	Idle	Null	Idle	Inactive	Idle
State BGP6-1	CS-CELL_DCH_Initial	Connected	Null	As previous	Inactive	As previous
State BGP6-2	CS-CELL_FACH_Initial	Connected	Null	As previous	Inactive	As previous
State BGP6-3	PS-CELL_DCH_Initial	Connected	Null	As previous	Inactive	As previous
State BGP6-4	PS-CELL_FACH_Initial	Connected	Null	As previous	Inactive	As previous
State BGP6-5	CS-DCCH_DCH	Connected (CELL_DCH)	Null	As previous	Inactive	As previous
State BGP6-6	CS-DCCH_FACH	Connected (CELL_FACH)	Null	As previous	Inactive	As previous
State BGP6-7	PS-DCCH_DCH	Connected (CELL_DCH)	Null	As previous	Active pending	As previous
State BGP6-8	PS-DCCH_FACH	Connected (CELL_FACH)	Null	As previous	Active pending	As previous
State BGP6-9	CS-DCCH+DTCH_DCH	Connected (CELL_DCH)	Connected	As previous	Inactive	As previous
State BGP6-10	PS-DCCH+DTCH_DCH	Connected (CELL_DCH)	Null	As previous	Active	As previous
State BGP6-11	PS-DCCH+DTCH_FACH	Connected (CELL_FACH)	Null	As previous	Active	As previous
State BGP6-12	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 1, state 2, state 3, P1, P2 and P19 are described in TS34.108 clause 7.2. States 6-X (for X=1 to 16) are described below.

7.4.2 Generic Setup Procedure for RRC test cases

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

7.4.2.1.1 Mobile terminating call

7.4.2.1.1.1 Initial conditions

System Simulator:

1 cell, default parameters

User Equipment:

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

7.4.2.1.1.2 Definition of system information messages

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

7.4.2.1.1.3 Procedure

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

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

7.4.2.1.1.4 Specific message contents

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

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

7.4.2.1.2 Mobile originating calls

7.4.2.1.2.1 Initial conditions

System Simulator:

1 cell, default parameters

User Equipment:

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

7.4.2.1.2.2 Definition of system information messages

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

7.4.2.1.2.3 Procedure

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

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

7.4.2.1.2.4 Specific message contents

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

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

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

7.4.2.2.1 Mobile terminating session

7.4.2.2.1.1 Initial conditions

System Simulator:

1 cell, default parameters.

User Equipment:

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

7.4.2.2.1.2 Definition of system information messages

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

7.4.2.2.1.3 Procedure

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

Reference Test Conditions:

Step	Direction		Message	Comments
	UE	SS		
1	<--		PAGING TYPE1 (PCCH)	Paging
2	-->		RRC CONNECTION REQUEST (CCCH)	RRC
3	<--		RRC CONNECTION SETUP (CCCH)	RRC
4	-->		RRC CONNECTION SETUP COMPLETE (DCCH)	RRC
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 34.123-1 Annex. A is used.

7.4.2.2.2 Mobile originating sessions

7.4.2.2.2.1 Initial conditions

System Simulator:

1 cell, default parameters.

User Equipment:

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

7.4.2.2.2.2 Definition of system information messages

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

7.4.2.2.2.3 Procedure

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

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

7.4.2.2.2.4 Specific message contents

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

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

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

7.4.2.3.1 Mobile terminating call

7.4.2.3.1.1 Initial conditions

System Simulator:

1 cell, default parameters.

User Equipment:

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

7.4.2.3.1.2 Definition of system information messages

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

7.4.2.3.1.3 Procedure

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

Reference Test Conditions:

Step	Direction		Message	Comments
	UE	SS		
4		-->	PAGING RESPONSE	RR
21		<--	AUTHENTICATION REQUEST	MM
32		-->	AUTHENTICATION RESPONSE	MM
43		<--	SECURITY MODE COMMAND	RRC
54		-->	SECURITY MODE COMPLETE	RRC
65		<--	SET UP	CC
76		-->	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 6-1 or state 6-2.
- The Test USIM shall be inserted.

7.4.2.3.2.2 Definition of system information messages

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

7.4.2.3.2.3 Procedure

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

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

7.4.2.3.2.4 Specific message contents

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

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

7.4.2.4.1 Mobile terminating session

7.4.2.4.1.1 Initial conditions

System Simulator:

1 cell, default parameters.

User Equipment:

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

7.4.2.4.1.2 Definition of system information messages

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

7.4.2.4.1.3 Procedure

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

Step	Direction		Message	Comments
	UE	SS		
1		→	SERVICE REQUEST	GMM
21	<	--	AUTHENTICATION AND CIPHERING REQUEST	GMM
32		-->	AUTHENTICATION AND CIPHERING RESPONSE	GMM
43	<	--	SECURITY MODE COMMAND	RRC
54		-->	SECURITY MODE COMPLETE	RRC
65	<	--	REQUEST PDP CONTEXT ACTIVATION	SM
76		-->	ACTIVATE PDP CONTEXT REQUEST	SM

7.4.2.4.1.4 Specific message contents

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

7.4.2.4.2 Mobile originating sessions

7.4.2.4.2.1 Initial conditions

System Simulator:

1 cell, default parameters.

User Equipment:

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

7.4.2.4.2.2 Definition of system information messages

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

7.4.2.4.2.3 Procedure

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

Step	Direction		Message	Comments
	UE	SS		
1		→	SERVICE REQUEST	GMM
21	<	--	AUTHENTICATION AND CIPHERING REQUEST	GMM
32		-->	AUTHENTICATION AND CIPHERING RESPONSE	GMM
43	<	--	SECURITY MODE COMMAND	RRC
54		-->	SECURITY MODE COMPLETE	RRC
65		-->	ACTIVATE PDP CONTEXT REQUEST	SM

7.4.2.4.2.4 Specific message contents

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

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

7.4.2.5.1 Mobile terminating call

7.4.2.5.1.1 Initial conditions

System Simulator:

1 cell, default parameters.

User Equipment:

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

7.4.2.5.1.2 Definition of system information messages

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

7.4.2.5.1.3 Procedure

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

Reference Test Conditions:

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

7.4.2.5.1.4 Specific message contents

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

7.4.2.5.2 Mobile originating calls

7.4.2.5.2.1 Initial conditions

System Simulator:

1 cell, default parameters.

User Equipment:

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

7.4.2.5.2.2 Definition of system information messages

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

7.4.2.5.2.3 Procedure

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

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

7.4.2.5.2.4 Specific message contents

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

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

7.4.2.6.1 Mobile terminating session

7.4.2.6.1.1 Initial conditions

System Simulator:

1 cell, default parameters.

User Equipment:

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

7.4.2.6.1.2 Definition of system information messages

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

7.4.2.6.1.3 Procedure

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

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

7.4.2.6.1.4 Specific message contents

For step 1, the messages in Annex A of TS 34.123-1 are used. To execute procedure P13, use the message titled “Packet to CELL_DCH from CELL_DCH in PS”. To execute procedure 14, use the message titled “Packet to CELL_FACH from CELL_FACH in PS”.

7.4.2.6.2 Mobile originating sessions

7.4.2.6.2.1 Initial conditions

System Simulator:

1 cell, default parameters.

User Equipment:

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

7.4.2.6.2.2 Definition of system information messages

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

7.4.2.6.2.3 Procedure

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

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

7.4.2.6.2.4 Specific message contents

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

7.4.2.7 Procedure for transitions to CELL_PCH or URA_PCH state (procedure P15, P16, P17 and P18)

7.4.2.7.1 Transition from CELL_FACH to CELL_PCH (procedure P15 and P16)

7.4.2.7.1.1 Initial conditions

System Simulator:

1 cell, default parameters.

User Equipment:

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

7.4.2.7.1.2 Definition of system information messages

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

7.4.2.7.1.3 Procedure

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

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

7.4.2.7.1.4 Specific message contents

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

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

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

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

7.4.2.7.2 Transition from CELL_FACH to URA_PCH (procedure P17 and P18)

7.4.2.7.2.1 Initial conditions

System Simulator:

- 1 cell, default parameters.

User Equipment:

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

7.4.2.7.2.2 Definition of system information messages

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

7.4.2.7.2.3 Procedure

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

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

7.4.2.7.2.4 Specific message contents

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

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

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

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

9 Default Message Contents

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

Contents of DOWNLINK DIRECT TRANSFER message: AM

Information Element	Value/remark
Message Type RRC transaction identifier Integrity check info - Message authentication code - RRC Message sequence number CN domain identity NAS message	0 The presence of this IE is dependent on IXT statements in TS 34.123-2. If integrity protection is indicated to be active, this IE is present with the values of the sub IEs as stated below. Else, this IE and the sub-IEs are omitted. SS calculates the value of MAC-I for this message and writes to this IE. SS provides the value of this IE, from its internal counter. CS domain See Specific Message Content for each test case

Contents of INITIAL DIRECT TRANSFER message: AM

Information Element	Value/remark
Message Type Integrity check info - Message authentication code - RRC Message sequence number CN domain identity Intra Domain NAS Node Selector NAS message Measured results on RACH	The presence of this IE is dependent on IXT statements in TS 34.123-2. If integrity protection is indicated to be active, this IE shall be present with the values of the sub IEs as stated below. Else, this IE and the sub-IEs shall be absent. This IE is checked to see if it is present. The value is compared against the XMAC-I value computed by SS. This IE is checked to see if it is present. The value is used by SS to compute the XMAC-I value. Not checked Not checked Not checked Not checked

Contents of PAGING TYPE 1 message: TM (Speech in CS)

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

Contents of PAGING TYPE 1 message: TM (The others of speech in CS)

Information Element	Value/remark
Message Type Paging record <ul style="list-style-type: none"> - CHOICE Used paging identity - Paging cause - CN domain identity - CHOICE UE identity - IMSI (GSM-MAP) BCCH modification info	CN identity Terminating Streaming Call CS domain Set to the same octet string as in the IMSI stored in the USIM card Not Present

Contents of PAGING TYPE 1 message: TM (Packet in PS)

Information Element	Value/remark
Message Type Paging record <ul style="list-style-type: none"> - CHOICE Used paging identity - Paging cause - CN domain identity - CHOICE UE identity - IMSI (GSM-MAP) BCCH modification info	CN identity Terminating Interactive Call PS domain Set to the same octet string as in the IMSI stored in the USIM card Not Present

Contents of RADIO BEARER SETUP COMPLETE message: AM

Message Type RRC transaction identifier Integrity check info <ul style="list-style-type: none"> - Message authentication code - RRC Message sequence number Uplink integrity protection activation info CHOICE mode START COUNT-C activation time Radio bearer uplink ciphering activation time info Uplink counter synchronisation info	Checked to see if the value is identical to the same IE in the downlink RADIO BEARER SETUP message. The presence of this IE is dependent on IXIT statements in TS 34.123-2. If integrity protection is indicated to be active, this IE shall be present with the values of the sub IEs as stated below. Else, this IE and the sub-IEs shall be absent. This IE is checked to see if it is present. The value is compared against the XMAC-I value computed by SS. 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 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. 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. Not checked
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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. The presence of this IE is dependent on IXIT statements in TS 34.123-2. If integrity protection is indicated to be active, this IE shall be present with the values of the sub IEs as stated below. Else, this IE and the sub-IEs shall be absent. This IE is checked to see if it is present. The value is compared against the XMAC-I value computed by SS. 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 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. 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. Not checked
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Contents of RRC CONNECTION REQUEST message: TM

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

Contents of RRC CONNECTION RELEASE message: UM

Information Element	Value/remark
Message Type U-RNTI - SRNC identity - S-RNTI RRC transaction identifier Integrity check info - Message authentication code - RRC Message sequence number N308 Release cause Rplmn information	This IE is set to the following value when the message is transmitted on the DCCH. When transmitted on CCCH, this is absent. 0000 0000 0001B 0000 0000 0000 0000 0001B 0 The presence of this IE depends on 2 factors: (a) IXIT statements in TS 34.123-2: If integrity protection is indicated to be active, this IE is present with the values of the sub IEs as stated below. Else, this IE and the sub-IEs are omitted. (b) This IE is present when this message is transmitted on downlink DCCH. Else, this IE and the sub-IEs are omitted. SS calculates the value of MAC-I for this message and writes to this IE. SS provides the value of this IE, from its internal counter. 2 (for CELL_DCH state). Not Present (for UE in other connected mode states). Normal Not Present

Contents of RRC CONNECTION RELEASE COMPLETE message: AM or UM

Information Element	Semantics description
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 RELEASE message.
Integrity check info - Message authentication code - RRC Message sequence number	The presence of this IE is dependent on IXIT statements in TS 34.123-2. If integrity protection is indicated to be active, this IE shall be present with the values of the sub IEs as stated below. Else, this IE and the sub-IEs shall be absent. Checked to see if it's identical to the value of XMAC-I calculated by the SS Checked to see if it is present. This number is used by the SS to compute the XMAC-I
Error indication	Not checked

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

Information Element	Value/remark
Message Type	
Initial UE identity	Reference to clause 6.10 Parameter Set
RRC transaction identifier	0
Activation time	(256+CFN-(CFN MOD 8 + 8))MOD 256
New U-RNTI	
- SRNC identity	0000 0000 0001B
- S-RNTI	0000 0000 0000 0000 0001B
New C-RNTI	0000 0000 0000 0001B
RRC State Indicator	CELL_DCH
UTRAN DRX cycle length coefficient	5 (2 to 12) 9
Capability update requirement	
- UE radio access capability update requirement	FALSE
- System specific capability update requirement	Not Present
Signalling RB information to setup	(UM DCCH for RRC)
- RB identity	1
- CHOICE RLC info type	
- RLC info	
- CHOICE Uplink RLC mode	UM RLC
- Transmission RLC discard	
- SDU discard mode	Max DAT retransmissions
- MAX_DAT	4
- Timer_MRW	100
- MaxMRW	4
- CHOICE Downlink RLC mode	UM RLC
- RB mapping info	
- Information for each multiplexing option	
- Number of RLC logical channels	1
- Uplink transport channel type	DCH
- Transport channel identity	5
- Logical channel identity	1
- CHOICE RLC size list	All
- 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
- Logical channel identity	1
Signalling RB information to setup	(AM DCCH for RRC)
- RB identity	2
- CHOICE RLC info type	
- RLC info	
- CHOICE Uplink RLC mode	AM RLC
- Transmission RLC discard	
- SDU discard mode	Max DAT retransmissions
- MAX_DAT	4
- Timer_MRW	100
- MaxMRW	4
- Transmission window size	8
- Timer_RST	500
- Max_RST	4
- Polling info	
- Timer_poll_prohibit	200
- Timer_poll	200
- Poll_SDU	1
- Last transmission PDU poll	TRUE
- Last retransmission PDU poll	TRUE
- Poll_Windows	99
- CHOICE Downlink RLC mode	AM RLC
- In-sequence delivery	TRUE
- Receiving window size	8
- Downlink RLC status info	
- Timer_status_prohibit	200
- Timer_EPC	200
- Missing PDU indicator	TRUE
- RB mapping info	

- Information for each multiplexing option	1
- Number of RLC logical channels	DCH
- Uplink transport channel type	5
- Transport channel identity	2
- Logical channel identity	All
- CHOICE RLC size list	2
- MAC logical channel priority	
- Downlink RLC logical channel info	1
- Number of RLC logical channels	DCH
- Downlink transport channel type	10
- DL DCH Transport channel identity	2
- Logical channel identity	(AM DCCH for NAS_DT High priority)
Signalling RB information to setup	3
- RB identity	
- CHOICE RLC info type	AM RLC
- RLC info	
- CHOICE Uplink RLC mode	
- Transmission RLC discard	Max DAT retransmissions
- SDU discard mode	4
- MAX_DAT	100
- Timer_MRW	4
- MaxMRW	8
- Transmission window size	500
- Timer_RST	4
- Max_RST	
- Polling info	200
- Timer_poll_prohibit	200
- Timer_poll	1
- Poll_SDU	TRUE
- Last transmission PDU poll	TRUE
- Last retransmission PDU poll	99
- Poll_Windows	AM RLC
- CHOICE Downlink RLC mode	TRUE
- In-sequence delivery	8
- Receiving window size	
- Downlink RLC status info	200
- Timer_status_prohibit	200
- Timer_EPC	TRUE
- Missing PDU indicator	
- RB mapping info	
- Information for each multiplexing option	1
- Number of RLC logical channels	DCH
- Uplink transport channel type	5
- Transport channel identity	3
- Logical channel identity	All
- CHOICE RLC size list	3
- MAC logical channel priority	
- Downlink RLC logical channel info	1
- Number of RLC logical channels	DCH
- Downlink transport channel type	10
- DL DCH Transport channel identity	3
- Logical channel identity	(AM DCCH for NAS_DT Low priority)
Signalling RB information to setup	4
- RB identity	
- CHOICE RLC info type	AM RLC
- RLC info	
- CHOICE Uplink RLC mode	
- Transmission RLC discard	Max DAT retransmissions
- SDU discard mode	4
- MAX_DAT	100
- Timer_MRW	4
- MaxMRW	8
- Transmission window size	500
- Timer_RST	4
- Max_RST	
- Polling info	200
- Timer_poll_prohibit	200
- Timer_poll	1
- Poll_SDU	

- Last transmission PDU poll	TRUE
- Last retransmission PDU poll	TRUE
- Poll_Windows	99
- CHOICE Downlink RLC mode	AM RLC
- In-sequence delivery	TRUE
- Receiving window size	8
- Downlink RLC status info	
- Timer_status_prohibit	200
- Timer_EPC	200
- Missing PDU indicator	TRUE
- RB mapping info	
- Information for each multiplexing option	
- Number of RLC logical channels	1
- Uplink transport channel type	DCH
- Transport channel identity	5
- Logical channel identity	4
- CHOICE RLC size list	All
- 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
- Logical channel identity	4
UL Transport channel information for all transport channels	
TFC subset	(This IE is repeated for TFC number.)
- Allowed Transport Format combination	0 to MaxTFCValue-1 (MaxTFCValue is refer to clause 6.10 Parameter Set.)
- PRACH TFCS	Not Present
- CHOICE Mode	FDD
<u>TFC subset</u>	<u>(This IE is repeated for TFC number.)</u>
- UL DCH TFCS	(This IE is repeated for TFC number.)
- CHOICE TFCI signalling	Normal
- TFCI Field 1 information	
- CHOICE TFCS representation	
- TFCS complete reconfigure	Complete
- CHOICE CTFC Size	
- CTFC information	Number of bits used must be enough to cover all combinations of CTFC from clause 6.10. Refer to clause 6.10 Parameter Set
- Power offset information	
- CHOICE Gain Factors	Signalled Gain Factor
- Gain factor β_c	0
- Gain factor β_d	0
- Reference TFC ID	Not Present
- Power offset Pp-m	0dB
Added or Reconfigured UL TrCH information	
<u>Uplink transport channel type</u>	<u>DCH</u>
- <u>UL</u> Transport channel identity	5
- TFS	
- CHOICE Transport channel type	Dedicated transport channels
- Dynamic Transport format information	(This IE is repeated for TFI number)
- RLC size	Reference to clause 6.10 Parameter Set
- Number of TBs and TTI lists	(This IE is repeated for TFI number)
- Transmission Time Interval	Reference to TS34.108 clause 6.10 Parameter Set
- Number of Transport blocks	Reference to TS34.108 clause 6.10 Parameter Set
- CHOICE Logical channel list	<u>Explicit List</u>
- Explicit List <u>RB identity</u>	Reference to TS34.108 clause 6.10 Parameter Set
- RB identity <u>LogicalChannel</u>	Reference to TS34.108 clause 6.10 Parameter Set
- Semi-static Transport Format information	
- Transmission time interval	Reference to clause 6.10 Parameter Set
- Type of channel coding	Reference to clause 6.10 Parameter Set
- Coding Rate	Reference to clause 6.10 Parameter Set
- Rate matching attribute	Reference to clause 6.10 Parameter Set
- CRC size	Reference to clause 6.10 Parameter Set
DL Transport channel information common for all transport channel	
- SCCPCH TFCS	Not Present

- CHOICE mode	FDD
- CHOICE DL parameters	Explicit Independent
- DL DCH TFCS	(This IE is repeated for TFC number.)
- CHOICE TFCI signalling	Normal
- TFCI Field 1 information	
- CHOICE TFCS representation	
- TFCS complete reconfigure	
	Complete
- CHOICE CTFC Size	
	Number of bits used must be enough to cover all combinations of CTFC from clause 6.10. Refer to clause 6.10 Parameter Set
- CTFC	
- Power offset information	Signalled Gain Factor
- CHOICE Gain Factor	0
- Gain factor β_c	0
- Gain factor β_d	Not Present
- Reference TFC ID	0dB
- Power offset Pp-m	
Added or Reconfigured DL TrCH information	
- Downlink transport channel type	DCH
- DL Transport channel identity	10
- CHOICE DL parameters	SameAsUL
- Uplink transport channel type	DCH
- UL TrCH Identity	5
- DCH quality target	
- BLER Quality value	-6.3
- Transparent mode signalling info	Not Present
Frequency info	
- UARFCN uplink(Nu)	Reference to clause 6.10 Parameter Set
- UARFCN downlink(Nd)	Reference to clause 6.10 Parameter Set
Maximum allowed UL TX power	33dBm
Uplink DPCH info	
- Uplink DPCH power control info	
- DPCCH power offset	-6dB
- PC Preamble	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	SF is reference to clause 6.10 Parameter Set
- TFCI existence	TRUE
- Number of FBI bit	Not Present(0)
- Puncturing Limit	Reference to clause 6.10 Parameter Set
Downlink information common for all radio links	
- Downlink DPCH info common for all RL	
- Timing Indication	Maintain
- CFN-targetCFN frame offset	Not Present
- <u>CHOICE mode</u>	<u>FDD</u>
- Downlink DPCH power control information	
- DPC mode	0 (single)
- <u>Power offset P_{Pilot-DPCH}</u> CHOICE mode	<u>FDD0</u>
- DL rate matching restriction information	Not Present
- Spreading factor	Reference to clause 6.10 Parameter Set
- Fixed or Flexible Position	Flexible
- TFCI existence	TRUE
- Number of bits for Pilot bits(SF=128,256)	Not Present
- DPCH compressed mode info	
-TGPSI	1
-TGPS Status Flag	Inactive
- Transmission gap pattern sequence configuration parameters	
- TGCFN	(Current CFN + (256 – TTI/10msec)) mod 256
- TGMP	FDD Measurement
- TGPRC	62
- TGSN	8
- TGL1	10
- TGL2	5

- TGD	15
- TGPL1	35
- TGPL2	35
- RPP	Mode 1
- ITP	Mode 1
- UL/DL Mode	DL
- Downlink compressed mode method	SF/2
Uplink compressed mode method	Not Present
- Downlink frame type	A
- DeltaSIR1	2.0
- DeltaSIRafter1	1.0
- DeltaSIR2	Not Present
- DeltaSIRafter2	Not Present
- TX Diversity mode	None
- SSDT information	Not Present
- S field	
- Code Word Set	
- Default DPCH Offset Value	0
Downlink information for each radio links	
- Primary CPICH info	
- Primary scrambling code	100
- PDSCH with SHO DCH info	Not Present
- PDSCH code mapping	Not Present
- Downlink DPCH info for each RL	
- Primary CPICH usage for channel estimation	Primary CPICH may be used
- DPCH frame offset	0 chips
- Power offset $P_{Pilot-DPCH}$	TBD
- Secondary CPICH info	Not Present
- Secondary scrambling code	
- channelisation code	
- DL channelisation code	
- Secondary scrambling code	1
- Spreading factor	Reference to clause 6.10 Parameter Set
- Code number	SF-1(SF is reference to clause 6.10 Parameter Set)
- Scrambling code change	No change
- TPC combination index	0
- SSDT Cell Identity	-a
- Closed loop timing adjustment mode	Not Present
- Secondary CCPCH information for FACH	Not Present
References to system information blocks	Not Present
Scheduling information	

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.
CN domain identity	Not checked
START	Not checked
UE radio access capability	Not checked
UE radio access capability extension	Not checked
UE system specific capability	Not checked

Contents of SECURITY MODE COMMAND message: AM

Information Element	Value/remark
Message Type	Arbitrarily selects an integer between 0 and 3
RRC transaction identifier	Arbitrarily selects an integer between 0 and 3
Integrity check info	Set to an arbitrarily selected 32-bits integer
- Message authentication code	Set to an arbitrarily selected integer between 0 and 15
- RRC Message Sequence Number	Set to an arbitrarily selected integer between 0 and 15
Security capability	If ciphering is indicated to be active on IXIT statements in TS 34.123-2, use one of the supported ciphering algorithms. Else, set this IE to 0000000000000000B (UEA0)
- Ciphering algorithm capability	If ciphering is not indicated to be active on IXIT statements in TS 34.123-2, set this IE to TRUE.
- UEA0	If ciphering is indicated to be active on IXIT statements in TS 34.123-2, set this IE to TRUE.
- UEA1	FALSE
- 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	1
- Radio bearer activation time	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
- RB identity	The presence of this IE is dependent on IXIT statements in TS 34.123-32. If integrity protection is indicated to be active, this IE is present with the values of the sub IEs as stated below. Else, this IE and the sub-IEs are omitted.
- RLC sequence number	Start
Integrity protection mode info	Not Present
- Integrity protection mode command	UIA1
- Downlink integrity protection activation info	SS selects an arbitrary 32 bits number for FRESH
- Integrity protection algorithm	Supported domain
- Integrity protection initialisation number	
CN domain identity	

Contents of SECURITY MODE 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 SECURITY MODE COMMAND message.
Integrity check info	The presence of this IE is dependent on IXIT statements in TS 34.123-2. If integrity protection is indicated to be active, this IE shall be present with the values of the sub IEs as stated below. Else, this IE and the sub-IEs shall be absent.
- Message authentication code	This IE is checked to see if it is present. The value is compared against the XMAC-I value computed by SS.
- RRC Message sequence number	This IE is checked to see if it is present. The value is used by SS to compute the XMAC-I value.
Uplink integrity protection activation info	Not checked.
Radio bearer uplink ciphering activation time info	If ciphering is not activated in SECURITY MODE COMMAND message, this IE must be absent. Else, SS checks this IE for the presence of activation times for all ciphered uplink RLC-UM and RLC-AM RBs.

Contents of UPLINK DIRECT TRANSFER message: AM

Information Element	Value/remark
Message Type	
Integrity check info	The presence of this IE is dependent on IXIT statements in TS 34.123-2. If integrity protection is indicated to be active, this IE shall be present with the values of the sub IEs as stated below. Else, this IE and the sub-IEs shall be absent.
- Message authentication code	This IE is checked to see if it is present. The value is compared against the XMAC-I value computed by SS.
- RRC Message sequence number	This IE is checked to see if it is present. The value is used by SS to compute the XMAC-I value.
CN domain identity	Checked to see if set to supported CN domain as specified in the IXIT statements
NAS message	Set according to that indicated in specific message content clause
Measured results on RACH	Not checked

[Next Modification](#)

Annex A (informative): System information definition using ASN.1 description

[Reference: clause 6.1.](#)

[MasterInformationBlock](#)

```

mib-ValueTag 1,
plmn-Type {
  _gsm-MAP {
    _plmn-Identity {
      _mcc {
        _MCC 0,
        _MCC 0,
        _MCC 1
      }
      _mnc {
        _MNC 0,
        _MNC 1
      }
    }
  }
},
sibSb-ReferenceList {
  _SIBSb-ReferenceList {
    _sibSb-Type sysInfoTypeSB1 1,
    _scheduling {
      _scheduling {
        _segCount 2,
        _sib-Pos {
          _rep16 1
        }
      }
      _sib-PosOffsetInfo {
        _SibOFF-List so2
      }
    }
  }
}

```

```
____ }  
____ }  
____ },  
____ SIBSb-ReferenceList {  
____ sibSb-Type sysInfoType1 2,  
____ scheduling {  
____ scheduling {  
____ segCount 2,  
____ sib-Pos {  
____ rep128 5  
____ },  
____ sib-PosOffsetInfo {  
____ SibOFF-List so2  
____ }  
____ }  
____ }  
____ }  
____ },  
____ SIBSb-ReferenceList {  
____ sibSb-Type sysInfoType2 2,  
____ scheduling {  
____ scheduling {  
____ segCount 1,  
____ sib-Pos {  
____ rep128 7  
____ }  
____ }  
____ }  
____ },  
____ SIBSb-ReferenceList {  
____ sibSb-Type sysInfoType3 1,  
____ scheduling {  
____ scheduling {  
____ segCount 1,  
____ sib-Pos {  
____ rep64 3
```

```

_____}
_____}
_____}
_____}
  SIBSb-ReferenceList {
    sibSb-Type sysInfoType4 1,
    scheduling {
      scheduling {
        segCount 1,
        sib-Pos {
          rep64 19
        }
      }
    }
  }
}

```

SysInfoTypeSB1

```

{
  sib-ReferenceList {
    {
      sib-Type sysInfoType5 : 1,
      scheduling {
        scheduling {
          segCount 3,
          sib-Pos rep128 : 13,
          sib-PosOffsetInfo {
            so2,
            so2
          }
        }
      }
    }
  }
  sib-Type sysInfoType6 : 1,
  scheduling {

```

```

_____ scheduling {
_____   segCount 3,
_____   sib-Pos rep128 : 21,
_____   sib-PosOffsetInfo {
_____     so2,
_____     so2
_____   }
_____ }
_____ }
_____ }
_____ },
_____ {
_____   sib-Type sysInfoType7 : NULL,
_____   scheduling {
_____     scheduling {
_____       segCount 1,
_____       sib-Pos rep128 : 11
_____     }
_____   }
_____ },
_____ {
_____   sib-Type sysInfoType11 : 1,
_____   scheduling {
_____     scheduling {
_____       segCount 2,
_____       sib-Pos rep128 : 29,
_____       sib-PosOffsetInfo {
_____         so2
_____       }
_____     }
_____   }
_____ },
_____ {
_____   sib-Type sysInfoType12 : 1,
_____   scheduling {
_____     scheduling {

```

```

      segCount 2,
      sib-Pos rep128 : 53,
      sib-PosOffsetInfo {
        so2
      }
    }
  }
}

SysInfoType1

{
  cn-CommonGSM-MAP-NAS-SysInfo '00 80'H,
  cn-DomainSysInfoList {
    {
      cn-DomainIdentity ps-domain,
      cn-Type gsm-MAP : '00 00'H,
      cn-DRX-CycleLengthCoeff 7
    },
    {
      cn-DomainIdentity cs-domain,
      cn-Type gsm-MAP : '1E 01'H,
      cn-DRX-CycleLengthCoeff 7
    }
  },
  ue-ConnTimersAndConstants {
    t-301 ms2000,
    n-301 2,
    t-302 ms4000,
    n-302 3,
    t-304 ms1000,
    n-304 3,
    t-305 m60,
    t-307 s50,
    t-308 ms320,

```

SysInfoType1


```

    t-309 8,
    t-310 ms320,
    n-310 5,
    t-311 ms500,
    t-312 5,
    n-312 s200,
    t-313 10,
    n-313 s20,
    t-314 s20,
    t-315 s30,
    n-315 s200,
    t-316 s50,
    t-317 s1800
  },
  ue-IdleTimersAndConstants {
    t-300 ms400,
    n-300 7,
    t-312 10,
    n-312 s200
  }
}

```

SysInfoType2

```

{
  ura-IdentityList {
    '00000000 00000001'B
  }
}

```

SysInfoType3

```

{
  sib4indicator TRUE,
  cellIdentity '00000000 00000000 00000000 0001'B,
  cellSelectReselectInfo {
    mappingInfo {
      {

```

```

_____ rat ultra-FDD,
_____ mappingFunctionParameterList {
_____ {
_____ functionType linear,
_____ mapParameter1 1,
_____ mapParameter2 1,
_____ upperLimit 1
_____ }
_____ }
_____ }
_____ },
_____ cellSelectQualityMeasure cpich-Ec-N0 : {
_____ q-HYST-2-S 0
_____ },
_____ modeSpecificInfo fdd : {
_____ s-Intrasearch 8,
_____ s-Intersearch 8,
_____ s-SearchHCS 5,
_____ q-QualMin -20,
_____ q-RxlevMin -58
_____ },
_____ q-Hyst-1-S 0,
_____ t-Reselection-S 0,
_____ hcs-ServingCellInformation {
_____ hcs-PRIO 0,
_____ q-HCS 0,
_____ t-CR-Max notUsed : NULL
_____ },
_____ maxAllowedUL-TX-Power 33
_____ },
_____ cellAccessRestriction {
_____ cellBarred notBarred : NULL,
_____ cellReservedForOperatorUse notReserved,
_____ cellReservationExtension notReserved,
_____ accessClassBarredList {

```

```

_____ notBarred,
_____ notBarred,
_____ notBarred,
_____ notBarred,
_____ notBarred,
_____ notBarred,
_____ notBarred,
_____ notBarred,
_____ notBarred,
_____ notBarred,
_____ notBarred,
_____ notBarred,
_____ notBarred,
_____ notBarred,
_____ notBarred
_____ }
_____ }
_____ }
_____ {
_____ cellIdentity '00000000 00000000 00000000 0001'B,
_____ cellSelectReselectInfo {
_____ mappingInfo {
_____ {
_____ rat ultra-FDD,
_____ mappingFunctionParameterList {
_____ {
_____ functionType linear,
_____ mapParameter1 1,
_____ mapParameter2 1,
_____ upperLimit 1
_____ }
_____ }
_____ }

```

SysInfoType4


```

____ notBarred,
____ notBarred,
____ notBarred,
____ notBarred,
____ notBarred,
____ notBarred
____ }
____ }
____ }

```

SysInfoType5

```

{
____ sib6indicator TRUE,
____ pich-PowerOffset -5,
____ modeSpecificInfo fdd : {
____ aich-PowerOffset 0
____ },
____ primaryCCPCH-Info fdd : {
____ tx-DiversityIndicator FALSE
____ },
____ prach-SystemInformationList {
____ {
____ prach-RACH-Info {
____ modeSpecificInfo fdd : {
____ availableSignatures '00000000 11111111'B,
____ availableSF sfpr64,
____ preambleScramblingCodeWordNumber 0,
____ puncturingLimit pl1,
____ availableSubChannelNumbers '11111111 1111'B
____ }
____ },
____ transportChannelIdentity 15,
____ rach-TransportFormatSet commonTransChTFS : {
____ tti tti20 : {
____ {

```

```

_____ rlc-Size fdd : {
_____   octetModeRLC-SizeInfoType2 sizeType1 : 15
_____ },
_____   numberOfTbSizeList {
_____     one : NULL
_____   },
_____   logicalChannelList allSizes : NULL
_____ },
_____ {
_____   rlc-Size fdd : {
_____     octetModeRLC-SizeInfoType2 sizeType2 : 3
_____   },
_____   numberOfTbSizeList {
_____     one : NULL
_____   },
_____   logicalChannelList allSizes : NULL
_____ }
_____ },
_____   semistaticTF-Information {
_____     channelCodingType convolutional : half,
_____     rateMatchingAttribute 150,
_____     crc-Size crc16
_____   }
_____ },
_____   rach-TFCS normalTFCI-Signalling : complete : {
_____     ctfcSize ctfc2Bit : {
_____       {
_____         ctfc2 0,
_____         powerOffsetInformation {
_____           gainFactorInformation computedGainFactors : 0,
_____           powerOffsetPp-m -5
_____         }
_____       },
_____     }
_____   },
_____   {
_____     ctfc2 1,

```

```
powerOffsetInformation {
  gainFactorInformation signalledGainFactors : {
    modeSpecificInfo fdd : {
      gainFactorBetaC 10
    },
    gainFactorBetaD 15,
    referenceTFC-ID 0
  },
  powerOffsetPp-m -5
}
}
}
},
prach-Partitioning fdd : {
  {
    accessServiceClass-FDD {
      availableSignatureStartIndex 0,
      availableSignatureEndIndex 7,
      assignedSubChannelNumber '1111'B
    }
  },
  {
    accessServiceClass-FDD {
      availableSignatureStartIndex 0,
      availableSignatureEndIndex 7,
      assignedSubChannelNumber '1111'B
    }
  },
  {
    accessServiceClass-FDD {
      availableSignatureStartIndex 0,
      availableSignatureEndIndex 7,
      assignedSubChannelNumber '1111'B
    }
  }
},
}
```



```
_____,
_____persistenceScalingFactorList {
_____psf0-9,
_____psf0-9,
_____psf0-9,
_____psf0-9,
_____psf0-9,
_____psf0-9
_____,
_____ac-To-ASC-MappingTable {
_____6,
_____5,
_____4,
_____3,
_____2,
_____1,
_____0
_____,
_____modeSpecificInfo fdd : {
_____primaryCPICH-TX-Power 31,
_____constantValue -10,
_____prach-PowerOffset {
_____powerRampStep 3,
_____preambleRetransMax 2
_____,
_____rach-TransmissionParameters {
_____mmax 2,
_____nb01Min 3,
_____nb01Max 10
_____,
_____aich-Info {
_____channelisationCode256 3,
_____std-Indicator FALSE,
_____aich-TransmissionTiming e0
_____,
_____}
```

```
_____ }  
_____  
_____  
_____  
_____sCCPCH-SystemInformationList {  
_____  
_____secondaryCCPCH-Info {  
_____modeSpecificInfo fdd : {  
_____pCPICH-UsageForChannelEst mayBeUsed,  
_____sttd-Indicator FALSE,  
_____sf-AndCodeNumber sf64 : 1,  
_____pilotSymbolExistence FALSE,  
_____tfcI-Existence TRUE,  
_____positionFixedOrFlexible flexible,  
_____timingOffset 0  
_____ }  
_____  
_____tfcI-normalTFCI-Signalling : complete : {  
_____ctfcSize ctfc4Bit : {  
_____ {  
_____ctfc4 0  
_____ },  
_____ {  
_____ctfc4 1  
_____ },  
_____ {  
_____ctfc4 2  
_____ },  
_____ {  
_____ctfc4 3  
_____ },  
_____ {  
_____ctfc4 4  
_____ },  
_____ {  
_____ctfc4 5
```

```

_____},
_____ {
_____ ctfc4 6
_____},
_____ {
_____ ctfc4 8
_____},
_____ {
_____ ctfc4 10
_____}
_____}
_____},
_____ fach-PCH-InformationList {
_____ {
_____ transportFormatSet commonTransChTFS : {
_____ tti tti10 : {
_____ {
_____ rlc-Size fdd : {
_____ octetModeRLC-SizeInfoType2 sizeType1 : 24
_____},
_____ numberOfTbSizeList {
_____ zero : NULL,
_____ one : NULL
_____},
_____ logicalChannelList allSizes : NULL
_____}
_____},
_____ semistaticTF-Information {
_____ channelCodingType convolutional : half,
_____ rateMatchingAttribute 230,
_____ crc-Size crc16
_____}
_____},
_____ transportChannelIdentity 12,
_____ ctch-Indicator FALSE

```

```

_____ },
_____ {
_____ transportFormatSet commonTransChTFS : {
_____ tti tti10 : {
_____ {
_____ rlc-Size fdd : {
_____ octetModeRLC-SizeInfoType2 sizeType1 : 15
_____ },
_____ numberOfTbSizeList {
_____ zero : NULL,
_____ one : NULL,
_____ small : 2,
_____ small : 3
_____ },
_____ logicalChannelList allSizes : NULL
_____ }
_____ },
_____ semistaticTF-Information {
_____ channelCodingType convolutional : half,
_____ rateMatchingAttribute 220,
_____ crc-Size crc16
_____ }
_____ },
_____ transportChannelIdentity 13,
_____ ctch-Indicator FALSE
_____ },
_____ {
_____ transportFormatSet commonTransChTFS : {
_____ tti tti10 : {
_____ {
_____ rlc-Size fdd : {
_____ octetModeRLC-SizeInfoType2 sizeType2 : 3
_____ },
_____ numberOfTbSizeList {
_____ zero : NULL,

```

```

_____ one : NULL
_____ },
_____ logicalChannelList allSizes : NULL
_____ }
_____ },
_____ semistaticTF-Information {
_____ channelCodingType turbo : NULL,
_____ rateMatchingAttribute 130,
_____ crc-Size crc16
_____ }
_____ },
_____ transportChannelIdentity 14,
_____ ctch-Indicator FALSE
_____ }
_____ },
_____ pich-Info fdd : {
_____ channelisationCode256 2,
_____ pi-CountPerFrame e18,
_____ sttd-Indicator FALSE
_____ }
_____ }
_____ }
_____ }
_____ }

```

SysInfoType6

```

{
_____ pich-PowerOffset -5,
_____ modeSpecificInfo fdd : {
_____ aich-PowerOffset 0
_____ },
_____ primaryCCPCH-Info fdd : {
_____ tx-DiversityIndicator FALSE
_____ },
_____ prach-SystemInformationList {
_____ {

```

```

prach-RACH-Info {
  modeSpecificInfo fdd : {
    availableSignatures '00000000 11111111'B,
    availableSF sfpr64,
    preambleScramblingCodeWordNumber 0,
    puncturingLimit pl1,
    availableSubChannelNumbers '11111111 1111'B
  }
},
transportChannelIdentity 15,
rach-TransportFormatSet commonTransChTFS : {
  tti tti20 : {
    {
      rlc-Size fdd : {
        octetModeRLC-SizeInfoType2 sizeType1 : 15
      },
      numberOfTbSizeList {
        one : NULL
      },
      logicalChannelList allSizes : NULL
    },
    {
      rlc-Size fdd : {
        octetModeRLC-SizeInfoType2 sizeType2 : 3
      },
      numberOfTbSizeList {
        one : NULL
      },
      logicalChannelList allSizes : NULL
    }
  },
  semistaticTF-Information {
    channelCodingType convolutional : half,
    rateMatchingAttribute 150,
    crc-Size crc16
  }
}

```

```

_____ }
_____ },
_____ rach-TFCS normalTFCI-Signalling : complete : {
_____ ctfcSize ctfc2Bit : {
_____ {
_____ ctfc2 0,
_____ powerOffsetInformation {
_____ gainFactorInformation computedGainFactors : 0,
_____ powerOffsetPp-m -5
_____ }
_____ },
_____ {
_____ ctfc2 1,
_____ powerOffsetInformation {
_____ gainFactorInformation signalledGainFactors : {
_____ modeSpecificInfo fdd : {
_____ gainFactorBetaC 10
_____ },
_____ gainFactorBetaD 15,
_____ referenceTFC-ID 0
_____ },
_____ powerOffsetPp-m -5
_____ }
_____ }
_____ }
_____ },
_____ prach-Partitioning fdd : {
_____ {
_____ accessServiceClass-FDD {
_____ availableSignatureStartIndex 0,
_____ availableSignatureEndIndex 7,
_____ assignedSubChannelNumber '1111'B
_____ }
_____ },
_____ {

```

```
_____ accessServiceClass-FDD {  
_____ availableSignatureStartIndex 0,  
_____ availableSignatureEndIndex 7,  
_____ assignedSubChannelNumber '1111'B  
_____ }  
_____.  
_____  
_____ accessServiceClass-FDD {  
_____ availableSignatureStartIndex 0,  
_____ availableSignatureEndIndex 7,  
_____ assignedSubChannelNumber '1111'B  
_____ }  
_____.  
_____  
_____ accessServiceClass-FDD {  
_____ availableSignatureStartIndex 0,  
_____ availableSignatureEndIndex 7,  
_____ assignedSubChannelNumber '1111'B  
_____ }  
_____.  
_____  
_____ accessServiceClass-FDD {  
_____ availableSignatureStartIndex 0,  
_____ availableSignatureEndIndex 7,  
_____ assignedSubChannelNumber '1111'B  
_____ }  
_____.  
_____  
_____ accessServiceClass-FDD {  
_____ availableSignatureStartIndex 0,  
_____ availableSignatureEndIndex 7,  
_____ assignedSubChannelNumber '1111'B  
_____ }  
_____.  
_____
```



```
_____ accessServiceClass-FDD {  
_____ availableSignatureStartIndex 0,  
_____ availableSignatureEndIndex 7,  
_____ assignedSubChannelNumber '1111'B  
_____ }  
_____,  
_____  
_____ accessServiceClass-FDD {  
_____ availableSignatureStartIndex 0,  
_____ availableSignatureEndIndex 7,  
_____ assignedSubChannelNumber '1111'B  
_____ }  
_____  
_____,  
_____ persistenceScalingFactorList {  
_____ psf0-9,  
_____ psf0-9,  
_____ psf0-9,  
_____ psf0-9,  
_____ psf0-9,  
_____ psf0-9  
_____,  
_____ modeSpecificInfo fdd : {  
_____ primaryCPICH-TX-Power 31,  
_____ constantValue -10,  
_____ prach-PowerOffset {  
_____ powerRampStep 3,  
_____ preambleRetransMax 2  
_____,  
_____ rach-TransmissionParameters {  
_____ mmax 2,  
_____ nb01Min 3,  
_____ nb01Max 10  
_____,  
_____ aich-Info {
```

```

channelisationCode256 3,
std-Indicator FALSE,
aich-TransmissionTiming e0
}
}
}
},
sCCPCH-SystemInformationList {
{
secondaryCCPCH-Info {
modeSpecificInfo fdd : {
pCPICH-UsageForChannelEst mayBeUsed,
std-Indicator FALSE,
sf-AndCodeNumber sf64 : 1,
pilotSymbolExistence FALSE,
tfc-Existence TRUE,
positionFixedOrFlexible flexible,
timingOffset 0
}
},
tfc normalTFCI-Signalling : complete : {
ctfcSize ctfc4Bit : {
{
ctfc4 0
},
{
ctfc4 1
},
{
ctfc4 2
},
{
ctfc4 3
},
{

```

```

_____ ctfc4 4
_____ },
_____ {
_____ ctfc4 5
_____ },
_____ {
_____ ctfc4 6
_____ },
_____ {
_____ ctfc4 8
_____ },
_____ {
_____ ctfc4 10
_____ }
_____ }
_____ },
_____ fach-PCH-InformationList {
_____ {
_____ transportFormatSet commonTransChTFS : {
_____ tti tti10 : {
_____ {
_____ rlc-Size fdd : {
_____ octetModeRLC-SizeInfoType2 sizeType1 : 24
_____ },
_____ numberOfTbSizeList {
_____ zero : NULL,
_____ one : NULL
_____ },
_____ logicalChannelList allSizes : NULL
_____ }
_____ },
_____ semistaticTF-Information {
_____ channelCodingType convolutional : half,
_____ rateMatchingAttribute 230,
_____ crc-Size crc16

```

```

_____ }
_____ },
_____ transportChannelIdentity 12,
_____ ctch-Indicator FALSE
_____ },
_____ {
_____ transportFormatSet commonTransChTFS : {
_____ tti tti10 : {
_____ {
_____ rlc-Size fdd : {
_____ octetModeRLC-SizeInfoType2 sizeType1 : 15
_____ },
_____ numberOfTbSizeList {
_____ zero : NULL,
_____ one : NULL,
_____ small : 2,
_____ small : 3
_____ },
_____ logicalChannelList allSizes : NULL
_____ }
_____ },
_____ semistaticTF-Information {
_____ channelCodingType convolutional : half,
_____ rateMatchingAttribute 220,
_____ crc-Size crc16
_____ }
_____ },
_____ transportChannelIdentity 13,
_____ ctch-Indicator FALSE
_____ },
_____ {
_____ transportFormatSet commonTransChTFS : {
_____ tti tti10 : {
_____ {
_____ rlc-Size fdd : {

```

```

_____ octetModeRLC-SizeInfoType2 sizeType2 : 3
_____ },
_____ numberOfTbSizeList {
_____ zero : NULL,
_____ one : NULL
_____ },
_____ logicalChannelList allSizes : NULL
_____ }
_____ },
_____ semistaticTF-Information {
_____ channelCodingType turbo : NULL,
_____ rateMatchingAttribute 130,
_____ crc-Size crc16
_____ }
_____ },
_____ transportChannelIdentity 14,
_____ ctch-Indicator FALSE
_____ }
_____ },
_____ pich-Info fdd : {
_____ channelisationCode256 2,
_____ pi-CountPerFrame e18,
_____ sttd-Indicator FALSE
_____ }
_____ }
_____ }
_____ }
_____ }

```

SysInfoType7

Analyzed Text:

```

{
_____ modeSpecificInfo fdd : {
_____ ul-Interference -100
_____ },
_____ prach-Information-SIB5-List {
_____ 2

```

```

    },
    prach-Information-SIB6-List {
    }
  }
}

SysInfoType11
{
  sib12indicator TRUE,
  measurementControlSysInfo {
    use-of-HCS hcs-not-used : {
      cellSelectQualityMeasure cpich-RSCP : {
        intraFreqMeasurementSysInfo {
          intraFreqMeasurementID 1,
          intraFreqCellInfoSI-List {
            removedIntraFreqCellList removeAllIntraFreqCells : NULL,
            newIntraFreqCellList {
              {
                intraFreqCellID 0,
                cellInfo {
                  cellIndividualOffset 0,
                  modeSpecificInfo fdd : {
                    primaryCPICH-Info {
                      primaryScramblingCode 100
                    },
                    readSFN-Indicator TRUE,
                    tx-DiversityIndicator FALSE
                  },
                  cellSelectionReselectionInfo {
                    q-OffsetS-N 0,
                    maxAllowedUL-TX-Power 33,
                    modeSpecificInfo fdd : {
                      q-QualMin -20,
                      q-RxlevMin -58
                    }
                  }
                }
              }
            }
          }
        }
      }
    }
  }
}

```

```
_____ }
_____ },
_____ {
_____   intraFreqCellID 1,
_____   cellInfo {
_____     cellIndividualOffset 0,
_____     modeSpecificInfo fdd : {
_____       primaryCPICH-Info {
_____         primaryScramblingCode 150
_____       },
_____       readSFN-Indicator TRUE,
_____       tx-DiversityIndicator FALSE
_____     },
_____     cellSelectionReselectionInfo {
_____       q-OffsetS-N 0,
_____       maxAllowedUL-TX-Power 33,
_____       modeSpecificInfo fdd : {
_____         q-QualMin -20,
_____         q-RxlevMin -58
_____       }
_____     }
_____   },
_____ }
_____ }
_____ }
_____ },
_____ {
_____   intraFreqCellID 2,
_____   cellInfo {
_____     cellIndividualOffset 0,
_____     modeSpecificInfo fdd : {
_____       primaryCPICH-Info {
_____         primaryScramblingCode 200
_____       },
_____       readSFN-Indicator TRUE,
_____       tx-DiversityIndicator FALSE
_____     },
_____     cellSelectionReselectionInfo {
```

```

q-OffsetS-N 0,
maxAllowedUL-TX-Power 33,
modeSpecificInfo fdd : {
q-QualMin -20,
q-RxlevMin -58
}
}
}
},
{
intraFreqCellID 3,
cellInfo {
cellIndividualOffset 0,
modeSpecificInfo fdd : {
primaryCPICH-Info {
primaryScramblingCode 250
},
readSFN-Indicator TRUE,
tx-DiversityIndicator FALSE
},
cellSelectionReselectionInfo {
q-OffsetS-N 0,
maxAllowedUL-TX-Power 33,
modeSpecificInfo fdd : {
q-QualMin -20,
q-RxlevMin -58
}
}
}
}
}
},
intraFreqMeasQuantity {
filterCoefficient fc0,
modeSpecificInfo fdd : {

```



```

intraFreqMeasQuantity-FDD cpich-RSCP
}
},
intraFreqReportingQuantityForRACH {
sfn-SFN-OTD-Type noReport,
modeSpecificInfo fdd : {
intraFreqRepQuantityRACH-FDD noReport
}
},
maxReportedCellsOnRACH noReport,
reportingInfoForCellDCH {
intraFreqReportingQuantity {
activeSetReportingQuantities {
sfn-SFN-OTD-Type noReport,
cellIdentity-reportingIndicator TRUE,
cellSynchronisationInfoReportingIndicator FALSE,
modeSpecificInfo fdd : {
cpich-Ec-N0-reportingIndicator FALSE,
cpich-RSCP-reportingIndicator TRUE,
pathloss-reportingIndicator FALSE
}
},
monitoredSetReportingQuantities {
sfn-SFN-OTD-Type noReport,
cellIdentity-reportingIndicator TRUE,
cellSynchronisationInfoReportingIndicator FALSE,
modeSpecificInfo fdd : {
cpich-Ec-N0-reportingIndicator FALSE,
cpich-RSCP-reportingIndicator TRUE,
pathloss-reportingIndicator FALSE
}
}
},
measurementReportingMode {
measurementReportTransferMode acknowledgedModeRLC,

```

```
periodicalOrEventTrigger eventTrigger
},
reportCriteria intraFreqReportingCriteria : {
  eventCriteriaList {
    {
      event e1a : {
        triggeringCondition activeSetAndMonitoredSetCells,
        reportingRange 5,
        w 1,
        reportDeactivationThreshold t3,
        reportingAmount ra-Infinity,
        reportingInterval ri4
      },
      hysteresis 0,
      timeToTrigger ttt640,
      reportingCellStatus withinActiveAndOrMonitoredUsedFreq : e3
    }
  }
}
}
```

SysInfoType12

```
{
  measurementControlSysInfo {
    use-of-HCS hcs-not-used : {
      cellSelectQualityMeasure cpich-RSCP : {
        intraFreqMeasurementSysInfo {
          intraFreqMeasurementID 1,
          intraFreqCellInfoSI-List {
            removedIntraFreqCellList removeNoIntraFreqCells : NULL,
            newIntraFreqCellList {
```

```

_____ {
_____   intraFreqCellID 0,
_____   cellInfo {
_____     cellIndividualOffset 0,
_____     modeSpecificInfo fdd : {
_____       primaryCPICH-Info {
_____         primaryScramblingCode 100
_____       },
_____     readSFN-Indicator TRUE,
_____     tx-DiversityIndicator FALSE
_____   },
_____   cellSelectionReselectionInfo {
_____     q-OffsetS-N 0,
_____     maxAllowedUL-TX-Power 33,
_____     modeSpecificInfo fdd : {
_____       q-QualMin -20,
_____       q-RxlevMin -58
_____     }
_____   }
_____ }
_____ }
_____ }
_____ },
_____ {
_____   intraFreqCellID 1,
_____   cellInfo {
_____     cellIndividualOffset 0,
_____     modeSpecificInfo fdd : {
_____       primaryCPICH-Info {
_____         primaryScramblingCode 150
_____       },
_____     readSFN-Indicator TRUE,
_____     tx-DiversityIndicator FALSE
_____   },
_____   cellSelectionReselectionInfo {
_____     q-OffsetS-N 0,
_____     maxAllowedUL-TX-Power 33,

```

```
modeSpecificInfo fdd : {  
  q-QualMin -20,  
  q-RxlevMin -58  
}  
}  
}  
},  
{  
  intraFreqCellID 2,  
  cellInfo {  
    cellIndividualOffset 0,  
    modeSpecificInfo fdd : {  
      primaryCPICH-Info {  
        primaryScramblingCode 200  
      },  
      readSFN-Indicator TRUE,  
      tx-DiversityIndicator FALSE  
    },  
    cellSelectionReselectionInfo {  
      q-OffsetS-N 0,  
      maxAllowedUL-TX-Power 33,  
      modeSpecificInfo fdd : {  
        q-QualMin -20,  
        q-RxlevMin -58  
      }  
    }  
  },  
  {  
    intraFreqCellID 3,  
    cellInfo {  
      cellIndividualOffset 0,  
      modeSpecificInfo fdd : {  
        primaryCPICH-Info {  
          primaryScramblingCode 250
```

```
_____,
    readSFN-Indicator TRUE,
    tx-DiversityIndicator FALSE
_____,
    cellSelectionReselectionInfo {
        q-OffsetS-N 0,
        maxAllowedUL-TX-Power 33,
        modeSpecificInfo fdd : {
            q-QualMin -20,
            q-RxlevMin -58
        }
    }
_____,
    }
_____,
    }
_____,
    }
_____,
    },
    intraFreqMeasQuantity {
        filterCoefficient fc0,
        modeSpecificInfo fdd : {
            intraFreqMeasQuantity-FDD cpich-RSCP
        }
    },
    intraFreqReportingQuantityForRACH {
        sfn-SFN-OTD-Type noReport,
        modeSpecificInfo fdd : {
            intraFreqRepQuantityRACH-FDD noReport
        }
    },
    maxReportedCellsOnRACH noReport,
    reportingInfoForCellDCH {
        intraFreqReportingQuantity {
            activeSetReportingQuantities {
                sfn-SFN-OTD-Type noReport,
                cellIdentity-reportingIndicator TRUE,
                cellSynchronisationInfoReportingIndicator FALSE,
```

```
modeSpecificInfo fdd : {  
  cpich-Ec-N0-reportingIndicator FALSE,  
  cpich-RSCP-reportingIndicator TRUE,  
  pathloss-reportingIndicator FALSE  
}  
},  
monitoredSetReportingQuantities {  
  sfn-SFN-OTD-Type noReport,  
  cellIdentity-reportingIndicator TRUE,  
  cellSynchronisationInfoReportingIndicator FALSE,  
  modeSpecificInfo fdd : {  
    cpich-Ec-N0-reportingIndicator FALSE,  
    cpich-RSCP-reportingIndicator TRUE,  
    pathloss-reportingIndicator FALSE  
  }  
}  
},  
measurementReportingMode {  
  measurementReportTransferMode acknowledgedModeRLC,  
  periodicalOrEventTrigger eventTrigger  
},  
reportCriteria intraFreqReportingCriteria : {  
  eventCriteriaList {  
    event e1a : {  
      triggeringCondition activeSetAndMonitoredSetCells,  
      reportingRange 5,  
      w 1,  
      reportDeactivationThreshold t3,  
      reportingAmount ra-Infinity,  
      reportingInterval ri4  
    },  
    hysteresis 0,  
    timeToTrigger ttt0,  
    reportingCellStatus withinActiveAndOrMonitoredUsedFreq : e3
```

_____}

_____}

_____}

_____}

_____}

_____}

_____}

_____}

_____}

End of Modification

Next Modification

Annex ~~A~~B (informative): Change history

3GPP TSG-T1 Meeting #12
Busan, Korea, 6-7 September, 2001

Tdoc T1-010281

3GPP TSG-T1/RF Meeting #20
3GPP TSG-T1/SIG Meeting #19
Busan, Korea, 3-5 September, 2001

Tdoc T1R010214r1
Tdoc T1S010230r1

CR-Form-v3

CHANGE REQUEST

⌘ **34.108 CR 054** ⌘ rev **-** ⌘ Current version: **3.4.0** ⌘

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

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

Title:	⌘ Updates to clause 6.1 of TS 34.108 v3.4.0 (Default radio conditions)
Source:	⌘ Ericsson
Work item code:	⌘ Date: ⌘ 2001-09-05
Category:	⌘ F Release: ⌘ R99
<p>Use <u>one</u> of the following categories:</p> <p>F (essential correction) A (corresponds to a correction in an earlier release) B (Addition of feature), C (Functional modification of feature) D (Editorial modification)</p> <p>Detailed explanations of the above categories can be found in 3GPP TR 21.900.</p>	
<p>Use <u>one</u> of the following releases:</p> <p>2 (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) REL-4 (Release 4) REL-5 (Release 5)</p>	

Reason for change: ⌘	<p>T1R010214r1 and T1S-010230r1:</p> <p>DPCH2_Ec/Ior has been removed. If needed in a specific test case, DPCH2_Ec/Ior should be specified in this.</p> <p>T1R010214 and T1S-010230:</p> <p>This CR is a revised version of T1R010193 (T1/RF #20). T1R010193 is identical to T1S010149 (T1/SIG #18). In this CR, DPCH2_Ec/Ior has been corrected.</p> <p>Changes in T1R010193 and T1S010149:</p> <ol style="list-style-type: none"> 1. AWGN and OCNS removed in Default radio conditions for Idle mode. 2. Only RSCP is used for representing cell level. 3. Tables for cell levels merged for Idle and Connected mode.
Summary of change: ⌘	<p>Changes in T1R010193 and T1S010149:</p> <ol style="list-style-type: none"> 1. AWGN and OCNS have been removed in Default radio conditions for Idle mode (old and new Table 6.1.2) as these conditions are applied only in signalling tests and therefore all noise sources should be eliminated. 2. CPICH_RSCP is considered sufficient for specifying cell level, thus CPICH_Ec/Io has been omitted (old and new Table 6.1.1). Where needed in a particular test, CPICH_Ec/Io is specified in this.

		3. "Default radio conditions dependent on number of cells for Idle and Connected mode" (old Table 6.1.1 and 6.1.3) have been merged into a new Table 6.1.1 and the dependence of "number of cells" removed									
Consequences if not approved:	⌘										
Clauses affected:	⌘	6.1									
Other specs affected:	⌘	<table border="1"> <tr> <td><input type="checkbox"/></td> <td>Other core specifications</td> <td>⌘</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>Test specifications</td> <td></td> </tr> <tr> <td><input type="checkbox"/></td> <td>O&M Specifications</td> <td></td> </tr> </table>	<input type="checkbox"/>	Other core specifications	⌘	<input checked="" type="checkbox"/>	Test specifications		<input type="checkbox"/>	O&M Specifications	
<input type="checkbox"/>	Other core specifications	⌘									
<input checked="" type="checkbox"/>	Test specifications										
<input type="checkbox"/>	O&M Specifications										
Other comments:	⌘										

Default Radio Conditions for Multi-Cell Environment (FDD)

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

Table 6.1.1 Default radio conditions dependent on Number of cells (for idle mode test cases)

Number of cells	Parameter	Unit	Cell-1	Cell-2	Cell-3	Cell-4	Cell-5	Cell-6
	UTRA RF Channel Number		Ch.-1	Ch.-1	Ch.-1	Ch.-2	Ch.-2	Ch.-2
4	\hat{I}_{or}/I_{oc}	dB	8					
	CPICH_Ec/Io	-dB	-10.6					
	CPICH_RSCP	-dBm	-72					
2	\hat{I}_{or}/I_{oc}	dB	8	8				
	CPICH_Ec/Io	-dB	-13.3	-13.3				
	CPICH_RSCP	-dBm	-72	-72				
3	\hat{I}_{or}/I_{oc}	dB	8	8	8			
	CPICH_Ec/Io	-dB	-15	-15	-15			
	CPICH_RSCP	-dBm	-72	-72	-72			
4	\hat{I}_{or}/I_{oc}	dB	8	8	8	8		
	CPICH_Ec/Io	-dB	-15	-15	-15	-10.6		
	CPICH_RSCP	-dBm	-72	-72	-72	-72		
5	\hat{I}_{or}/I_{oc}	dB	8	8	8	8	8	
	CPICH_Ec/Io	-dB	-15	-15	-15	-13.3	-13.3	
	CPICH_RSCP	-dBm	-72	-72	-72	-72	-72	
6	\hat{I}_{or}/I_{oc}	dB	8	8	8	8	8	8
	CPICH_Ec/Io	-dB	-15	-15	-15	-15	-15	-15
	CPICH_RSCP	-dBm	-72	-72	-72	-72	-72	-72

Table 6.1.2 Default radio conditions in Idle mode

Parameter	Unit	Cell-1	Cell-2	Cell-3	Cell-4	Cell-5	Cell-6
CPICH_Ec/Ior	dB	-10	-10	-10	-10	-10	-10
PCCPCH_Ec/Ior	dB	-12	-12	-12	-12	-12	-12
SCCPCH_Ec/Ior	dB	-12	-12	-12	-12	-12	-12
AICH_Ec/Ior	dB	-15	-15	-15	-15	-15	-15
SCH_Ec/Ior	dB	-12	-12	-12	-12	-12	-12
PICH_Ec/Ior	dB	-15	-15	-15	-15	-15	-15
DPCH_Ec/Ior	dB	∞	∞	∞	∞	∞	∞
OCNS_Ec/Ior	dB	-1.888	-1.888	-1.888	-1.888	-1.888	-1.888
I_{oc}	dBm/ 3.84 MHz	-70					
Propagation Condition		AWGN					
UE_TXPWR_MAX_RACH	dBm	Max. RF Output of UE	Max. RF Output of UE	Max. RF Output of UE	Max. RF Output of UE	Max. RF Output of UE	Max. RF Output of UE

In the event that a multi-cell environment is applied by the System Simulator for connected mode test cases, the following transmission parameters shall be used unless otherwise stated in the description of individual test case. The AWGN noise source and OCNS simulator will be not applied for connected mode test cases.

Table 6.1.31 Default radio conditions dependent on Number of cells (for connected mode test cases)

Number of cells	Parameter	Unit	Cell 1	Cell 2	Cell 3	Cell 4	Cell 5	Cell 6
	UTRA RF Channel Number		Ch. 1	Ch. 1	Ch. 1	Ch. 2	Ch. 2	Ch. 2
4	CPICH_RSCP	-dBm	-72					
2	CPICH_RSCP	-dBm	-72	-72				
3	CPICH_RSCP	-dBm	-72	-72	-72			
4	CPICH_RSCP	-dBm	-72	-72	-72	-72		
5	CPICH_RSCP	-dBm	-72	-72	-72	-72	-72	
6	CPICH_RSCP	dBm	-72	-72	-72	-72	-72	-72

Table 6.1.2 Default radio conditions in Idle mode

Parameter	Unit	Cell 1	Cell 2	Cell 3	Cell 4	Cell 5	Cell 6
CPICH_Ec/lor	dB	-10	-10	-10	-10	-10	-10
PCCPCH_Ec/lor	dB	-12	-12	-12	-12	-12	-12
SCCPCH_Ec/lor	dB	-12	-12	-12	-12	-12	-12
AICH_Ec/lor	dB	-15	-15	-15	-15	-15	-15
SCH_Ec/lor	dB	-12	-12	-12	-12	-12	-12
PICH_Ec/lor	dB	-15	-15	-15	-15	-15	-15
DPCH_Ec/lor	dB	-∞	-∞	-∞	-∞	-∞	-∞
		1.8881.484	1.8881.484	1.8881.484	1.8881.484	1.8881.484	1.8881.484
UE_TXPWR_MAX_RA_CH	dBm	Max. RF Output of UE	Max. RF Output of UE	Max. RF Output of UE	Max. RF Output of UE	Max. RF Output of UE	Max. RF Output of UE

Table 6.1.43 Default radio conditions in Connected mode

Parameter	Unit	Cell 1	Cell 2	Cell 3	Cell 4	Cell 5	Cell 6
CPICH_Ec/lor	dB	-10	-10	-10	-10	-10	-10
PCCPCH_Ec/lor	dB	-12	-12	-12	-12	-12	-12
SCCPCH_Ec/lor	dB	-12	-12	-12	-12	-12	-12
AICH_Ec/lor	dB	-15	-15	-15	-15	-15	-15
SCH_Ec/lor	dB	-12	-12	-12	-12	-12	-12
PICH_Ec/lor	dB	-15	-15	-15	-15	-15	-15
DPCH ₁ _Ec/lor (Note1)	dB	-15	-15	-15	-15	-15	-15
DPCH ₂ _Ec/lor (Note1)	dB	-2.1061.682	-2.1061.682	-2.1061.682	-2.1061.682	-2.1061.682	-2.1061.682
		-2.106	-2.106	-2.106	-2.106	-2.106	-2.106
UE_TXPWR_MAX_RA_CH	dBm	Max. RF Output of UE	Max. RF Output of UE	Max. RF Output of UE	Max. RF Output of UE	Max. RF Output of UE	Max. RF Output of UE

Note1: In all test case executions, both DPCH₁ and DPCH₂ will be transmitted by SS in the downlink direction. However, only DPCH₁ will be signalled to the UE (i.e. using messages like RRC CONNECTION SETUP, PHYSICAL CHANNEL RECONFIGURATION etc.). The presence of DPCH₂ will not be signalled to the UE, it should act as dummy channel for absorbing the unused power of each cell.

Default Radio Conditions for Multi-Cell Environment (TDD)

<FFS>

3GPP TSG-T1 SWG Meeting #12
 Busan, Korea, 6rd-7th September 2001

T1-010282

3GPP TSG-T1/SIG SWG Meeting #19
 Busan, Korea, 3rd-5th September 2001

T1S-010185r1

CR-Form-v3			
CHANGE REQUEST			
⌘	TS 34.108	CR 055	⌘ rev - ⌘ Current version: 3.4.0 ⌘

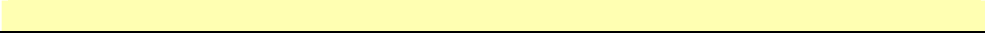
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Proposed change affects: ⌘ (U)SIM ME/UE Radio Access Network Core Network

Title:	⌘ Correction of Radio Bearer Configurations for FDD Mode		
Source:	⌘ NTTDoCoMo, Siemens AG		
Work item code:	⌘	Date:	⌘ 21.8.2001
Category:	⌘ F	Release:	⌘ R99
Use <u>one</u> of the following categories: F (essential correction) A (corresponds to a correction in an earlier release) B (Addition of feature), C (Functional modification of feature) D (Editorial modification) Detailed explanations of the above categories can be found in 3GPP TR 21.900.		Use <u>one</u> of the following releases: 2 (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) REL-4 (Release 4) REL-5 (Release 5)	

Reason for change:	⌘ Corrections of mistake are necessary for the typical radio parameters to fulfill the L1 requirements.
Summary of change:	⌘ Corrections of mistake in TFCS 6.10.2.4.1.44.2.1.4 Correction to the TFCS. It seems that the value was mixed up. Correction of mistake in Transport Channel Mapping 6.10.2.4.1.35.2.1.1 Correction of the bits/TTI. This is needed to fulfill the code block segmentation rules, which dictate the use of filler bits. (See 25.212 Sec. 4.2.2.2.) Comments from RAN1 (LS on T1-010248) Addition of a parameter set in support of DCCH BLER performance testing (Highlighted by Blue line)
Consequences if not approved:	⌘ Inconsistent specification.

Clauses affected:	⌘ 6.10.2.4.1.35, 6.10.2.4.1.44.2, 6.10.2.4.1.1, 6.10.2.4.1.2, 6.10.2.4.1.3
Other specs affected:	⌘ <input type="checkbox"/> Other core specifications <input type="checkbox"/> Test specifications <input type="checkbox"/> O&M Specifications

Other comments: ☞ 

<Start of modified section>

6.10.2.4 Typical radio parameter sets

6.10.2.4.1 Combinations on DPCH

6.10.2.4.1.1 Stand-alone UL:1.7 DL:1.7 kbps SRBs for DCCH

6.10.2.4.1.1.1 Uplink

6.10.2.4.1.1.1.1 Transport channel parameters

6.10.2.4.1.1.1.1.1 Transport channel parameters for UL:1.7 kbps SRBs for DCCH

Higher layer	RAB/signalling RB	SRB#1	SRB#2	SRB#3	SRB#4
	User of Radio Bearer	RRC	RRC	NAS_DT High prio	NAS_DT Low prio
RLC	Logical channel type	DCCH	DCCH	DCCH	DCCH
	RLC mode	UM	AM	AM	AM
	Payload sizes, bit	136	128	128	128
	Max data rate, bps	1700	1600	1600	1600
	AMD/UMD PDU header, bit	8	16	16	16
MAC	MAC header, bit	4	4	4	4
	MAC multiplexing	4 logical channel multiplexing			
Layer 1	TrCH type	DCH			
	TB sizes, bit	148 (alt 0, 148)			
	TFS	TF0, bits	0x148(alt 1x0)		
		TF1, bits	1x148		
	TTI, ms	80			
	Coding type	CC 1/3			
	CRC, bit	16			
	Max number of bits/TTI before rate matching	516			
	Uplink: Max number of bits/radio frame before rate matching	65			
	RM attribute	155-185			

6.10.2.4.1.1.1.1.2 TFCS

TFCS size	2
TFCS	SRBs for DCCH = TF0, TF1

6.10.2.4.1.1.1.2 Physical channel parameters

DPCH Uplink		
	Min spreading factor	256
	Max number of DPDCH data bits/radio frame	150
	Puncturing Limit	1

6.10.2.4.1.1.2 Downlink

6.10.2.4.1.1.2.1 Transport channel parameters

6.10.2.4.1.1.2.1.1 Transport channel parameters for DL:1.7 kbps SRBs for DCCH

Higher layer	RAB/signalling RB	SRB#1	SRB#2	SRB#3	SRB#4
	User of Radio Bearer	RRC	RRC	NAS_DT High prio	NAS_DT Low prio
RLC	Logical channel type	DCCH	DCCH	DCCH	DCCH
	RLC mode	UM	AM	AM	AM
	Payload sizes, bit	136	128	128	128
	Max data rate, bps	1700	1600	1600	1600
	AMD/UMD PDU header, bit	8	16	16	16
MAC	MAC header, bit	4	4	4	4
	MAC multiplexing	4 logical channel multiplexing			
Layer 1	TrCH type	DCH			
	TB sizes, bit	148(alt*1_0_148)			
	TFS	TF0, bits	0 x148(alt*1_1x0)		
		TF1, bits	1x148		
	TTI, ms	80			
	Coding type	CC 1/3			
	CRC, bit	16			
	Max number of bits/TTI before rate matching	516			
	RM attribute	155-185			

*1: alternative parameters enable the measurement "transport channel BLER" in the UE.

6.10.2.4.1.1.2.1.2 TFCS

TFCS size	2
TFCS	SRBs for DCCH = TF0, TF1

6.10.2.4.1.1.2.2 Physical channel parameters

DPCH Downlink	DTX position		N/A (SingleTrCH)
	Minimum spreading factor		512
	DPCCH	Number of TFCI bits/slot	0
		Number of TPC bits/slot	2
		Number of Pilot bits/slot	4
	DPDCH	Number of data bits/slot	4
		Number of data bits/frame	60

6.10.2.4.1.2 Stand-alone UL:3.4 DL:3.4 kbps SRBs for DCCH

6.10.2.4.1.2.1 Uplink

6.10.2.4.1.2.1.1 Transport channel parameters

6.10.2.4.1.2.1.1.1 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

Higher layer	RAB/signalling RB	SRB#1	SRB#2	SRB#3	SRB#4
	User of Radio Bearer	RRC	RRC	NAS_DT High prio	NAS_DT Low prio
RLC	Logical channel type	DCCH	DCCH	DCCH	DCCH
	RLC mode	UM	AM	AM	AM
	Payload sizes, bit	136	128	128	128
	Max data rate, bps	3400	3200	3200	3200
	AMD/UMD PDU header, bit	8	16	16	16
MAC	MAC header, bit	4	4	4	4
	MAC multiplexing	4 logical channel multiplexing			
Layer 1	TrCH type	DCH			
	TB sizes, bit	148 (alt 0, 148)			
	TFS	TF0, bits	0x148 (alt 1x0)		
		TF1, bits	1x148		
	TTI, ms	40			
	Coding type	CC 1/3			
	CRC, bit	16			
	Max number of bits/TTI before rate matching	516			
	Uplink: Max number of bits/radio frame before rate matching	129			
	RM attribute	155-185			

6.10.2.4.1.2.1.1.2 TFCS

TFCS size	2
TFCS	SRBs for DCCH = TF0, TF1

6.10.2.4.1.2.1.2 Physical channel parameters

DPCH Uplink	Min spreading factor	256
	Max number of DPDCH data bits/radio frame	150
	Puncturing Limit	1

6.10.2.4.1.2.2 Downlink

6.10.2.4.1.2.2.1 Transport channel parameters

6.10.2.4.1.2.2.1.1 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

Higher layer	RAB/signalling RB	SRB#1	SRB#2	SRB#3	SRB#4
	User of Radio Bearer	RRC	RRC	NAS_DT High prio	NAS_DT Low prio
RLC	Logical channel type	DCCH	DCCH	DCCH	DCCH
	RLC mode	UM	AM	AM	AM
	Payload sizes, bit	136	128	128	128
	Max data rate, bps	3400	3200	3200	3200
	AMD/UMD PDU header, bit	8	16	16	16
MAC	MAC header, bit	4	4	4	4
	MAC multiplexing	4 logical channel multiplexing			
Layer 1	TrCH type	DCH			
	TB sizes, bit	148(alt*1_0_148)			
	TFS	TF0, bits	0x148(alt*1_1x0)		
		TF1, bits	1x148		
	TTI, ms	40			
	Coding type	CC 1/3			
	CRC, bit	16			
	Max number of bits/TTI before rate matching	516			
	RM attribute	155-185			

*1: alternative parameters enable the measurement "transport channel BLER" in the UE.

6.10.2.4.1.2.2.1.2 TFCS

TFCS size	2
TFCS	SRBs for DCCH = TF0, TF1

6.10.2.4.1.2.2.2 Physical channel parameters

DPCH Downlink	DTX position	N/A (SingleTrCH)
	Minimum spreading factor	256
DPCCH	Number of TFCI bits/slot	0
	Number of TPC bits/slot	2
	Number of Pilot bits/slot	4
DPDCH	Number of data bits/slot	14
	Number of data bits/frame	210

6.10.2.4.1.3 Stand-alone UL:13.6 DL:13.6 kbps SRBs for DCCH

6.10.2.4.1.3.1 Uplink

6.10.2.4.1.3.1.1 Transport channel parameters

6.10.2.4.1.3.1.1.1 Transport channel parameters for UL:13.6 kbps SRBs for DCCH

Higher layer	RAB/signalling RB	SRB#1	SRB#2	SRB#3	SRB#4
	User of Radio Bearer	RRC	RRC	NAS_DT High prio	NAS_DT Low prio
RLC	Logical channel type	DCCH	DCCH	DCCH	DCCH
	RLC mode	UM	AM	AM	AM
	Payload sizes, bit	136	128	128	128
	Max data rate, bps	13600	12800	12800	12800
	AMD/UMD PDU header, bit	8	16	16	16
MAC	MAC header, bit	4	4	4	4
	MAC multiplexing	4 logical channel multiplexing			
Layer 1	TrCH type	DCH			
	TB sizes, bit	148 (alt 0, 148)			
	TFS	TF0, bits	0x148 (alt 1x0)		
		TF1, bits	1x148		
	TTI, ms	10			
	Coding type	CC 1/3			
	CRC, bit	16			
	Max number of bits/TTI before rate matching	516			
	Uplink: Max number of bits/radio frame before rate matching	516			

6.10.2.4.1.3.1.1.2 TFCS

TFCS size	2
TFCS	SRBs for DCCH = TF0, TF1

6.10.2.4.1.3.1.2 Physical channel parameters

DPCH Uplink	Min spreading factor	64
	Max number of DPDCH data bits/radio frame	600
	Puncturing Limit	1

6.10.2.4.1.3.2 Downlink

6.10.2.4.1.3.2.1 Transport channel parameters

6.10.2.4.1.3.2.1.1 Transport channel parameters for DL:13.6 kbps SRBs for DCCH

Higher layer	RAB/signalling RB	SRB#1	SRB#2	SRB#3	SRB#4
	User of Radio Bearer	RRC	RRC	NAS_DT High prio	NAS_DT Low prio
RLC	Logical channel type	DCCH	DCCH	DCCH	DCCH
	RLC mode	UM	AM	AM	AM
	Payload sizes, bit	136	128	128	128
	Max data rate, bps	13600	12800	12800	12800
	AMD/UMD PDU header, bit	8	16	16	16
MAC	MAC header, bit	4	4	4	4
	MAC multiplexing	4 logical channel multiplexing			
Layer 1	TrCH type	DCH			
	TB sizes, bit	148(alt*1_0_148)			
	TFS	TF0, bits	0x148 (alt*1_1x0)		
		TF1, bits	1x148		
	TTI, ms	10			
	Coding type	CC 1/3			
	CRC, bit	16			
	Max number of bits/TTI before rate matching	516			

*1: alternative parameters enable the measurement "transport channel BLER" in the UE.

6.10.2.4.1.3.2.1.2 TFCS

TFCS size	2
TFCS	SRBs for DCCH = TF0, TF1

6.10.2.4.1.3.2.2 Physical channel parameters

DPCH Downlink	DTX position		N/A (SingleTrCH)
	Minimum spreading factor		128
	DPCCH	Number of TFCI bits/slot	0
		Number of TPC bits/slot	2
		Number of Pilot bits/slot	4
	DPDCH	Number of data bits/slot	34
		Number of data bits/frame	510

<End of modified section>

<Start of modified section>

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

6.10.2.4.1.35.1 Uplink

See 6.10.2.4.1.24.1.

6.10.2.4.1.35.2 Downlink

6.10.2.4.1.35.2.1 Transport channel parameters

6.10.2.4.1.35.2.1.1 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	640	
	Max data rate, bps	2048000	
	AMD PDU header, bit	16	
MAC	MAC header, bit	0	
	MAC multiplexing	N/A	
Layer 1	TrCH type	DCH	
	TB sizes, bit	656	
	TFS	TF0, bits	0x656
		TF1, bits	1x656
		TF2, bits	2x656
		TF3, bits	4 x656
		TF4, bits	8 x656
		TF5, bits	12x656
		TF6, bits	16x656
		TF7, bits	20x656
		TF8, bits	24x656
		TF9, bits	28x656
		TF10, bits	32x656
		TF11, bits	N/A (alt. 36x656)
		TF12, bits	N/A (alt. 40x656)
		TF13, bits	N/A (alt. 44x656)
		TF14, bits	N/A (alt. 48x656)
		TF15, bits	N/A (alt. 52x656)
		TF16, bits	N/A (alt. 56x656)
		TF17, bits	N/A (alt. 60x656)
	TF18, bits	N/A (alt. 64x656)	
	TTI, ms	10(alt. 20)	
	Coding type	TC	
CRC, bit	16		
Max number of bits/TTI after channel coding	64572-64575 (alt. 129132 129141)		
RM attribute	130-170		

6.10.2.4.1.35.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See 6.10.2.4.1.2.2.1.1

6.10.2.4.1.35.2.1.3 TFCS

TFCS size	22 (alt.38)
TFCS	(2048 kbps RAB, DCCH)= (TF0, TF0), (TF1, TF0), (TF2, TF0), (TF3, TF0), (TF4, TF0), (TF5, TF0), (TF6, TF0), (TF7, TF0), (TF8, TF0), (TF9, TF0), (TF10, TF0), (TF0, TF1), (TF1, TF1), (TF2, TF1), (TF3, TF1), (TF4, TF1), (TF5, TF1), (TF6, TF1), (TF7, TF1), (TF8, TF1), (TF9, TF1), (TF10, TF1) (alt. TF0, TF0), (TF1, TF0), (TF2, TF0), (TF3, TF0), (TF4, TF0), (TF5, TF0), (TF6, TF0), (TF7, TF0), (TF8, TF0), (TF9, TF0), (TF10, TF0),(TF11, TF0), (TF12, TF0), (TF13, TF0), (TF14, TF0), (TF15, TF0), (TF16, TF0), (TF17, TF0), (TF18, TF0), (TF0, TF1), (TF1, TF1), (TF2, TF1), (TF3, TF1), (TF4, TF1), (TF5, TF1), (TF6, TF1), (TF7, TF1), (TF8, TF1), (TF9, TF1), (TF10, TF1),(TF11, TF0), (TF12, TF0), (TF13, TF0), (TF14, TF0), (TF15, TF0), (TF16, TF0), (TF17, TF0), (TF18, TF0))

6.10.2.4.1.35.2.2 Physical channel parameters

DPCH Downlink	DTX position		Flexible
	Spreading factor		4
	Number of DPCH		3
	DPCCH	Number of TFCI bits/slot	8
		Number of TPC bits/slot	8
		Number of Pilot bits/slot	16
	DPDCH	Number of data bits/slot	1248
		Number of data bits/frame	18720

<End of modified section>

<Start of modified section>

6.10.2.4.1.44.2 Downlink

6.10.2.4.1.44.2.1 Transport channel parameters

6.10.2.4.1.44.2.1.1 Transport channel parameters for Conversational / speech / DL:12.2 kbps / CS RAB

See 6.10.2.4.1.4.2.1.1

6.10.2.4.1.44.2.1.2 Transport channel parameters for Interactive or background / DL:2048 kbps / PS RAB

See 6.10.2.4.1.35.2.1.1

6.10.2.4.1.44.2.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See 6.10.2.4.1.2.2.1.1

6.10.2.4.1.44.2.2 Physical channel parameters

DPCH Downlink	DTX position		Flexible
	Spreading factor		4
	Number of DPDCH		3
	DPCCH	Number of TFCI bits/slot	8
		Number of TPC bits/slot	8
		Number of Pilot bits/slot	16
	DPDCH	Number of data bits/slot	1248
		Number of data bits/frame	18720

<End of modified section>

3GPP TSG-T1 SWG Meeting #12
 Busan, Korea, 6rd-7th September 2001

T1-010283

3GPP TSG-T1/SIG SWG Meeting #19
 Busan, Korea, 3rd-5th September 2001

T1S-010186

CR-Form-v3	CHANGE REQUEST
⌘ TS 34.108 CR 056 ⌘ rev - ⌘ Current version: 3.4.0 ⌘	

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

Title:	⌘ Correction of Radio Bearer Configurations for TDD Mode		
Source:	⌘ NTTDoCoMo, Siemens AG		
Work item code:	⌘	Date:	⌘ 21.8.2001
Category:	⌘ F	Release:	⌘ R99
	<i>Use one of the following categories:</i> F (essential correction) A (corresponds to a correction in an earlier release) B (Addition of feature), C (Functional modification of feature) D (Editorial modification) Detailed explanations of the above categories can be found in 3GPP TR 21.900.		<i>Use one of the following releases:</i> 2 (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) REL-4 (Release 4) REL-5 (Release 5)

Reason for change:	⌘ Corrections of mistake are necessary for the typical radio parameters to fulfill the L1 requirements. Further some editorial modification are proposed.
Summary of change:	⌘ 1) Editorial Enhancement: Data / Radio Frame In TDD mode, the rate matching works for downlink in the same way as in uplink. (TS 25.222 ,V4.0 , Sect.4.2, Figure 1.) For a better understanding, it is possible to include the line "max number of bits / radio frame before rate matching" in the transport channel parameter table for the downlink cases 6.10.3.4.1.1.2.1.1, 6.10.3.4.1.2.2.1.1, 6.10.3.4.1.3.2.1.1, 6.10.3.4.1.4.2.1.1, 6.10.3.4.1.4.2.1.1, 6.10.3.4.1.5.2, 6.10.3.4.1.6.2.1.1, 6.10.3.4.1.7.2.1.1, 6.10.3.4.1.8.2.1.1, 6.10.3.4.1.9.2.1.1, 6.10.3.4.1.10.2.1.1, 6.10.3.4.1.11.2.1.1, 6.10.3.4.1.12.2.1.1, 6.10.3.4.1.13.2.1.1, 6.10.3.4.1.14.2.1.1, 6.10.3.4.1.15.2.1.1, 6.10.3.4.1.16.2.1.1, 6.10.3.4.1.17.2.1.1, 6.10.3.4.1.18.2.1.1, 6.10.3.4.1.20.2.1.1, 6.10.3.4.1.22.2.1.1, 6.10.3.4.1.23.2.1.1, 6.10.3.4.1.25.2.1.1, 6.10.3.4.1.27.2.1.1, 6.10.3.4.1.29.2.1.1, 6.10.3.4.1.31.2.1.1, 6.10.3.4.1.32.2.1.1, 6.10.3.4.1.35.2.1.1 2) Editorial Enhancement: Deleting of the "Uplink" entry The word "Uplink" in the transport channel tabel for uplink is not is not necessary, because this is identical with the headline.

6.10.3.4.1.1.2.1.1, 6.10.3.4.1.2.2.1.1, 6.10.3.4.1.3.2.1.1, 6.10.3.4.1.4.2.1.1, 6.10.3.4.1.5.2.1.1, 6.10.3.4.1.6.2.1.1, 6.10.3.4.1.7.2.1.1, 6.10.3.4.1.8.2.1.1, 6.10.3.4.1.9.2.1.1, 6.10.3.4.1.10.2.1.1, 6.10.3.4.1.11.2.1.1, 6.10.3.4.1.12.2.1.1, 6.10.3.4.1.13.2.1.1, 6.10.3.4.1.14.2.1.1, 6.10.3.4.1.15.2.1.1, 6.10.3.4.1.16.2.1.1, 6.10.3.4.1.17.2.1.1, 6.10.3.4.1.18.2.1.1, 6.10.3.4.1.20.2.1.1, 6.10.3.4.1.21.1.1.1, 6.10.3.4.1.23.1.1.1, 6.10.3.4.1.24.1.1.1, 6.10.3.4.1.28.1.1.1, 6.10.3.4.1.30.1.1.1, 6.10.3.4.1.34.1.1.1, 6.10.3.4.1.34.1.1.1, 6.10.3.4.2.1.1.1.1

3) Correction of mistake for puncturing

6.10.3.4.1.4.1.2 The puncturing limit is too high.
 6.10.3.4.1.4.2.2 The puncturing limit is too high.
 6.10.3.4.1.17.1.2 The puncturing limit is too high.
 6.10.3.4.1.19.1.2 The puncturing limit is too high
 6.10.3.4.1.21.1.2 The puncturing limit is too high
 6.10.3.4.1.38.2.2 The puncturing limit is too low.

(In the case that the puncturing limit is to high, it is not possible to use the service.)

4) Correction of mistake in Physical Channel Size

6.10.3.4.1.50.1.2 The physical channel does not fit to the data rate of the transport channel.
 6.10.3.4.1.50.2.2 The physical channel does not fit to the data rate transport channel.

5) Correction of mistake in Transport Channel Mapping

Correction of the bits/TTI. This is needed to fulfill the code block segmentation rules, which dictate the use of filler bits. (See 25.222, Sec. 4.2.2.2.)
 Hence, a correction to the physical channel follows in 6.10.3.4.1.35.2.2.

6) Correction to PRACH

6.10.3.4.5.1.1.1 For TDD exists only a TTI of 10ms. Hence, the values for “ Max number of bits/TTI after channel coding” and “ Max number of bits/Radio frame before rate matching” are the same.

7) Correction for TTI on S-CCPCH

The change of TTI to 20ms was already planned. (See the note below the table in 6.10.3.4.4.1.1.1) Using TTI=20ms is necessary for the use of SCCPCH in order to broadcast to different UEs. (E.g. transmitting of PCCH, BCCH, Shared Channels)

6.10.3.4.4.1.1.1 Correction to the TTI of SCCPCH to 20ms.
 6.10.3.4.1.44.2.1.4 Correction in the table for TFCS.

8) Editorial Points

6.10.3.4.1.13.1.1.1 Text style has to be changed to: TAL, Areal, 9
 6.10.3.4.3.1.2.1.7 The text style has to be changed to headline 7 and Areal.

9) Correction to mixed up chapter numbers

The chapter number “6.10.3.4.3.2.1.1” has to be changed to “ 6.10.3.4.3.2.1.1”

10) Correction of TTI to 20ms for S-CCPCH

(See explanation in Point 7)

Adaption of Transport Channel Parameter in 6.10.3.4.4.1.1.1, 6.10.3.4.4.2.1.2 and 6.10.3.4.2.1.2.1.3.

Adaption of TFCS in 6.10.3.4.4.1.1.2, 6.10.3.4.4.2.1.3, 6.10.3.4.4.3.1.4 and 6.10.3.4.2.1.2.1.4.

Adaption to the physical channel in 6.10.3.4.4.2.2, 6.10.3.4.4.3.2

11) Correction of headlines for Combinations with PDSCH, SCCPCH, DPCH, PUSCH and PRACH

The headlines in chapter 6.10.3.4.3.1, 6.10.3.4.3.2 and 6.10.3.4.3.3 are changed to avoid misunderstandings. With this change the headlines will fit better to the following channel mappings. According to that, a change in Section 6.10.3.2 is made. (See also Point 12 and Point 13)

12) Correction of data rate for mapping on FACH

To fulfill the data rate to 33.6kbit/s and TTI=20ms (see Point 7), the transport channel parameters is changed in chapter 6.10.3.4.3.1.2.1.6.

This change influences indirectly also 6.10.3.4.3.2.2.1.6 and 10.3.4.3.3.2.1.6, but text has not to be changed.

13) Correction of mistake to PDSCH

The missing physical channel parameter 6.10.3.4.3.1.2.2 was added. (The corresponding transport channel does already exist in 6.10.3.4.3.1.2.1.4.)

Consequences if not approved: ⌘ Inconsistent specification.

Clauses affected: ⌘ 6.10.3.2, 6.10.3.4

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

Other comments: ⌘

<Start of modified section>

6.10.3.2 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
- 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
- 5) Conversational / speech / UL:10.2 DL:10.2 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
- 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) Streaming / unknown / UL:0 DL:64 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH

- 19) Streaming / unknown / UL:64 DL:0 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH
- 20) Streaming / unknown / UL:0 DL:128 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH
- 21) Streaming / unknown / UL:128 DL:0 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH
- 22) Streaming / unknown / UL:0 DL:384 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH
- 23) Interactive or background / UL:32 DL:8 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH
- 24) Interactive or background / UL:64 DL:8 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH
- 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) Interactive or background / UL:128 DL:2048 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH
- 37) Interactive or background / UL:384 DL:2048 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH
- 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
- 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) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ Streaming / unknown / UL:0 DL:64 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH
- 47) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ Streaming / unknown / UL:0 DL:128 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH
- 48) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ Streaming / unknown / UL:0 DL:384 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH
- 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
- 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
- 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) Interactive or /background / UL:64 kbps DL:128 kbps / PS RAB
+ Streaming / unknown / UL:0 DL:64 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH
- 55) Interactive or /background / UL:64 kbps DL:128 kbps / PS RAB
+ Streaming / unknown / UL:0 DL:128 kbps / CS 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: 16.8 DL: 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: 16.8 DL: 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 DL: 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 ~~DL: 33.6~~ kbps SRBs for ~~DCCH~~, CCCH and ~~BCCH~~ SHCCH
+ ~~UL: 16.8~~ 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 ~~DL: 33.6~~ kbps SRBs for ~~DCCH~~, CCCH and ~~BCCH~~ SHCCH
+ ~~UL: 16.8~~ 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 ~~DL: 33.6~~ kbps SRBs for ~~DCCH~~, CCCH and ~~BCCH~~ SHCCH
+ ~~UL: 16.8~~ 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
- 3) Interactive or background / DL:32 kbps / PS RAB
+ SRB for PCCH
+ SRB for CCCH
+ SRBs for DCCH
+ SRB for BCCH

Combinations on PRACH

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

<End of modified section>

<Start of modified section>

6.10.3.4 Typical radio parameter sets

6.10.3.4.1 Combinations on DPCH

6.10.3.4.1.1 Stand-alone UL:1.7 DL:1.7 kbps SRBs for DCCH

6.10.3.4.1.1.1 Uplink

6.10.3.4.1.1.1.1 Transport channel parameters

6.10.3.4.1.1.1.1.1 Transport channel parameters for UL:1.7 kbps SRBs for DCCH

Higher layer	RAB/signalling RB	SRB#1	SRB#2	SRB#3	SRB#4
	User of Radio Bearer	RRC	RRC	NAS_DT High prio	NAS_DT Low prio
RLC	Logical channel type	DCCH	DCCH	DCCH	DCCH
	RLC mode	UM	AM	AM	AM
	Payload sizes, bit	136	128	128	128
	Max data rate, bps	1700	1600	1600	1600
MAC	RLC header, bit	8	16	16	16
	MAC header, bit	4	4	4	4
	MAC multiplexing	4 logical channel multiplexing			
Layer 1	TrCH type	DCH			
	TB sizes, bit	148			
	TFS	TF0, bits	0x148		
		TF1, bits	1x148		
	TTI, ms	80			
	Coding type	CC 1/3			
	CRC, bit	16			
	Max number of bits/TTI before rate matching	516			
Uplink : Max number of bits/radio frame before rate matching	65				

6.10.3.4.1.1.1.1.2 TFCS

TFCS size	2
TFCS	SRBs for DCCH = TF0, TF1

6.10.3.4.1.1.1.2 Physical channel parameters

DPCH Uplink	Midamble	512 chips
	Codes and time slots	SF16 x 1 code x 1 time slot
	Max. Number of data bits/radio frame	238
	TFCI code word	4 bit
	TPC	2 bit
	Puncturing Limit	1

6.10.3.4.1.1.2 Downlink

6.10.3.4.1.1.2.1 Transport channel parameters

6.10.3.4.1.1.2.1.1 Transport channel parameters for DL:1.7 kbps SRBs for DCCH

Higher layer	RAB/signalling RB	SRB#1	SRB#2	SRB#3	SRB#4
	User of Radio Bearer	RRC	RRC	NAS_DT High prio	NAS_DT Low prio
RLC	Logical channel type	DCCH	DCCH	DCCH	DCCH
	RLC mode	UM	AM	AM	AM
	Payload sizes, bit	136	128	128	128
	Max data rate, bps	1700	1600	1600	1600
	RLC header, bit	8	16	16	16
MAC	MAC header, bit	4	4	4	4
	MAC multiplexing	4 logical channel multiplexing			
Layer 1	TrCH type	DCH			
	TB sizes, bit	148			
	TFS	TF0, bits	0 x148		
		TF1, bits	1x148		
	TTI, ms	80			
	Coding type	CC 1/3			
	CRC, bit	16			
	Max number of bits/TTI before rate matching	516			
	Max number of bits/radio frame before rate matching	65			

6.10.3.4.1.1.2.1.2 TFCS

TFCS size	2
TFCS	SRBs for DCCH = TF0, TF1

6.10.3.4.1.1.2.2 Physical channel parameters

DPCH Downlink	Midamble	512 chips
	Codes and time slots	SF16 x 1 code x 1 time slot
	Max. Number of data bits/radio frame	240 bits
	TFCl code word	4 bits
	Puncturing limit	1

6.10.3.4.1.2 Stand-alone UL:3.4 DL:3.4 kbps SRBs for DCCH

6.10.3.4.1.2.1 Uplink

6.10.3.4.1.2.1.1 Transport channel parameters

6.10.3.4.1.2.1.1.1 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

Higher layer	RAB/signalling RB	SRB#1	SRB#2	SRB#3	SRB#4
	User of Radio Bearer	RRC	RRC	NAS_DT High prio	NAS_DT Low prio
RLC	Logical channel type	DCCH	DCCH	DCCH	DCCH
	RLC mode	UM	AM	AM	AM
	Payload sizes, bit	136	128	128	128
	Max data rate, bps	3400	3200	3200	3200
	RLC header, bit	8	16	16	16
MAC	MAC header, bit	4	4	4	4
	MAC multiplexing	4 logical channel multiplexing			
Layer 1	TrCH type	DCH			
	TB sizes, bit	148			
	TFS	TF0, bits	0x148		
		TF1, bits	1x148		
	TTI, ms	40			
	Coding type	CC 1/3			
	CRC, bit	16			
	Max number of bits/TTI before rate matching	516			
	Uplink : Max number of bits/radio frame before rate matching	129			
	RM attribute	155-165			

6.10.3.4.1.2.1.1.2 TFCS

TFCS size	2
TFCS	SRBs for DCCH = TF0, TF1

6.10.3.4.1.2.1.2 Physical channel parameters

DPCH Uplink	Midamble	512 chips
	Codes and time slots	SF16 x 1 code x 1 time slot
	Max. Number of data bits/radio frame	238 bits
	TFCI code word	4 bits
	TPC	2 bit
	Puncturing Limit	1

6.10.3.4.1.2.2 Downlink

6.10.3.4.1.2.2.1 Transport channel parameters

6.10.3.4.1.2.2.1.1 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

Higher layer	RAB/signalling RB	SRB#1	SRB#2	SRB#3	SRB#4
	User of Radio Bearer	RRC	RRC	NAS_DT High prio	NAS_DT Low prio
RLC	Logical channel type	DCCH	DCCH	DCCH	DCCH
	RLC mode	UM	AM	AM	AM
	Payload sizes, bit	136	128	128	128
	Max data rate, bps	3400	3200	3200	3200
	RLC header, bit	8	16	16	16
MAC	MAC header, bit	4	4	4	4
	MAC multiplexing	4 logical channel multiplexing			
Layer 1	TrCH type	DCH			
	TB sizes, bit	148			
	TFS	TF0, bits	0x148		
		TF1, bits	1x148		
	TTI, ms	40			
	Coding type	CC 1/3			
	CRC, bit	16			
	Max number of bits/TTI before rate matching	516			
	Max number of bits/radio frame before rate matching	129			
	RM attribute	155-165			

6.10.3.4.1.2.2.1.2 TFCS

TFCS size	2
TFCS	SRBs for DCCH = TF0, TF1

6.10.3.4.1.2.2.2 Physical channel parameters

DPCH Downlink	Midamble	512 chips
	Codes and time slots	SF16 x 1 code x 1 time slot
	Max. Number of data bits/radio frame	240
	TFCI code word	4 bits
	Puncturing limit	1

6.10.3.4.1.3 Stand-alone UL:13.6 DL:13.6 kbps SRBs for DCCH

6.10.3.4.1.3.1 Uplink

6.10.3.4.1.3.1.1 Transport channel parameters

6.10.3.4.1.3.1.1.1 Transport channel parameters for UL:13.6 kbps SRBs for DCCH

Higher layer	RAB/signalling RB	SRB#1	SRB#2	SRB#3	SRB#4
	User of Radio Bearer	RRC	RRC	NAS_DT High prio	NAS_DT Low prio
RLC	Logical channel type	DCCH	DCCH	DCCH	DCCH
	RLC mode	UM	AM	AM	AM
	Payload sizes, bit	136	128	128	128
	Max data rate, bps	13600	12800	12800	12800
	RLC header, bit	8	16	16	16
MAC	MAC header, bit	4	4	4	4
	MAC multiplexing	4 logical channel multiplexing			
Layer 1	TrCH type	DCH			
	TB sizes, bit	148			
	TFS	TF0, bits	0x148		

	TF1, bits	1x148
TTI, ms		10
Coding type		CC 1/3
CRC, bit		16
Max number of bits/TTI before rate matching		516
Uplink Max number of bits/radio frame before rate matching		516

6.10.3.4.1.3.1.1.2 TFCS

TFCS size	2
TFCS	SRBs for DCCH = TF0, TF1

6.10.3.4.1.3.1.2 Physical channel parameters

DPCH Uplink	Midamble	512 chips
	Codes and time slots	SF8 x 1 code x 1 time slot
	Max. Number of data bits/radio frame	476 bits
	TFCI code word	4 bits
	TPC	2 bits
	Puncturing Limit	0.92

6.10.3.4.1.3.2 Downlink

6.10.3.4.1.3.2.1 Transport channel parameters

6.10.3.4.1.3.2.1.1 Transport channel parameters for DL:13.6 kbps SRBs for DCCH

Higher layer	RAB/signalling RB	SRB#1	SRB#2	SRB#3	SRB#4
	User of Radio Bearer	RRC	RRC	NAS_DT High prio	NAS_DT Low prio
RLC	Logical channel type	DCCH	DCCH	DCCH	DCCH
	RLC mode	UM	AM	AM	AM
	Payload sizes, bit	136	128	128	128
	Max data rate, bps	13600	12800	12800	12800
	RLC header, bit	8	16	16	16
MAC	MAC header, bit	4	4	4	4
	MAC multiplexing	4 logical channel multiplexing			
Layer 1	TrCH type	DCH			
	TB sizes, bit	148			
	TFS	TF0, bits	0x148		
		TF1, bits	1x148		
	TTI, ms	10			
	Coding type	CC 1/3			
	CRC, bit	16			
	Max number of bits/TTI before rate matching	516			
Max number of bits/radio frame before rate matching	516				

6.10.3.4.1.3.2.1.2 TFCS

TFCS size	2
TFCS	SRBs for DCCH = TF0, TF1

6.10.3.4.1.3.2.2 Physical channel parameters

DPCH Downlink	Midamble	512 chips
	Codes and time slots	SF16 x 2 codes x 1 time slot
	Max. Number of data bits/radio frame	484 bits
	TFCI code word	4 bits
	Puncturing limit	0.92

6.10.3.4.1.4 Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.10.3.4.1.4.1 Uplink

6.10.3.4.1.4.1.1 Transport channel parameters

6.10.3.4.1.4.1.1.1 Transport channel parameters for Conversational / speech / UL:12.2 kbps / CS RAB

Higher Layer	RAB/Signalling RB	RAB subflow #1	RAB subflow #2	RAB subflow #3	
RLC	Logical channel type	DTCH			
	RLC mode	TM	TM	TM	
	Payload sizes, bit	39, 81 (alt. 0, 39, 81)	103	60	
	Max data rate, bps	12200			
	RLC header, bit	0			
MAC	MAC header, bit	0			
	MAC multiplexing	N/A			
Layer 1	TrCH type	DCH	DCH	DCH	
	TB sizes, bit	39, 81 (alt. 0, 39, 81)	103	60	
	TFS	TF0, bits	0x81(alt. 1x0 ^{*1})	0x103	0x60
		TF1, bits	1x39	1x103	1x60
		TF2, bits	1x81	N/A	N/A
	TTI, ms	20	20	20	
	Coding type	CC 1/3	CC 1/3	CC 1/2	
	CRC, bit	12	N/A	N/A	
	Max number of bits/TTI after channel coding	303	333	136	
	Uplink Max number of bits/radio frame before rate matching	152	167	68	
RM attribute	180-220	170-210	215-256		

*1: In case of using this alternative, CRC parity bits are to be attached to RAB subflow#1 any time since number of TrBlks are 1 even if there is no data on RAB subflow#1 (see clause 4.2.1.1 in TS25.212.).

6.10.3.4.1.4.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.1.1.

6.10.3.4.1.4.1.1.3 TFCS

TFCS size	6
TFCS	(RAB subflow#1, RAB subflow#2, RAB subflow#3,DCCH)= (TF0, TF0, TF0, TF0), (TF1, TF0, TF0, TF0), (TF2, TF1, TF1, TF0), (TF0, TF0, TF0, TF1), (TF1, TF0, TF0, TF1), (TF2, TF1, TF1, TF1)

6.10.3.4.1.4.1.2 Physical channel parameters

DPCH Uplink	Midamble	512 chips
	Codes and time slots	SF8 x 1 code x 1 time slot
	Max. Number of data bits/radio frame	452 bits
	TFCI code word	16 bits
	TPC	2 bit
	Puncturing Limit	0-880 .84

6.10.3.4.1.4.2 Downlink

6.10.3.4.1.4.2.1 Transport channel parameters

6.10.3.4.1.4.2.1.1 Transport channel parameters for Conversational / speech / DL:12.2 kbps / CS RAB

Higher Layer	RAB/Signalling RB	RAB subflow #1	RAB subflow #2	RAB subflow #3	
RLC	Logical channel type	DTCH			
	RLC mode	TM	TM	TM	
	Payload sizes, bit	0, 39, 81	103	60	
	Max data rate, bps	12200			
	RLC header, bit	0			
MAC	MAC header, bit	0			
	MAC multiplexing	N/A			
Layer 1	TrCH type	DCH	DCH	DCH	
	TB sizes, bit	0	103	60	
		39			
		81			
	TFS*1	TF0, bits	1x0*2	0x103	0x60
		TF1, bits	1x39	1x103	1x60
		TF2, bits	1x81	N/A	N/A
	TTI, ms	20	20	20	
	Coding type	CC 1/3	CC 1/3	CC 1/2	
	CRC, bit	12	N/A	N/A	
	Max number of bits/TTI after channel coding	303	333	136	
<u>Max number of bits/radio frame before rate matching</u>	<u>152</u>	<u>167</u>	<u>68</u>		
RM attribute	180-220	170-210	215-256		

*1: The TrCH corresponding to RAB subflow #1 should be used as the guiding TrCH, (see section 4.3 in TS25.212).

*2: CRC parity bits are to be attached to RAB subflow#1 any time since number of TrBlks are 1 even if there is no data on RAB subflow#1 (see clause 4.2.1.1 in TS25.212.).

6.10.3.4.1.4.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.2.1.1

6.10.3.4.1.4.2.1.3 TFCS

TFCS size	6
TFCS	(RAB subflow#1, RAB subflow#2, RAB subflow#3,DCCH)= (TF0, TF0, TF0, TF0), (TF1, TF0, TF0, TF0), (TF2, TF1, TF1, TF0), (TF0, TF0, TF0, TF1), (TF1, TF0, TF0, TF1), (TF2, TF1, TF1, TF1)

6.10.3.4.1.4.2.2 Physical channel parameters

DPCH Downlink	Midamble	512 chips
	Codes and time slots	SF16 x 2 codes x 1 time slot
	Max. Number of data bits/radio frame	472 bits
	TFCI code word	16 bits
	Puncturing limit	0-920 .88

6.10.3.4.1.5 Conversational / speech / UL:10.2 DL:10.2 kbps / CS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.10.3.4.1.5.1 Uplink

6.10.3.4.1.5.1.1 Transport channel parameters

6.10.3.4.1.5.1.1.1 Transport channel parameters for Conversational / speech / UL:10.2 kbps / CS RAB

Higher Layer	RAB/Signalling RB	RAB subflow #1	RAB subflow #2	RAB subflow #3	
RLC	Logical channel type	DTCH			
	RLC mode	TM	TM	TM	
	Payload sizes, bit	39, 65 (alt. 0, 39, 65)	99	40	
	Max data rate, bps	10200			
	RLC header, bit	0			
MAC	MAC header, bit	0			
	MAC multiplexing	N/A			
Layer 1	TrCH type	DCH	DCH	DCH	
	TB sizes, bit	39, 65 (alt. 0, 39, 65)	99	40	
	TFS	TF0, bits	0x65 (alt. 1x0 ^{*1})	0x99	0x40
		TF1, bits	1x39	1x99	1x40
		TF2, bits	1x65	N/A	N/A
	TTI, ms	20	20	20	
	Coding type	CC 1/3	CC 1/3	CC 1/2	
	CRC, bit	12	N/A	N/A	
	Max number of bits/TTI after channel coding	255	321	96	
	Uplink Max number of bits/radio frame before rate matching	128	161	48	
RM attribute	180-220	170-210	215-256		

*1: In case of using this alternative, CRC parity bits are to be attached to RAB subflow#1 any time since number of TrBlks are 1 even if there is no data on RAB subflow#1 (see clause 4.2.1.1 in TS25.212.).

6.10.3.4.1.5.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.1.1.1

6.10.3.4.1.5.1.1.3 TFCS

TFCS size	6
TFCS	(RAB subflow#1, RAB subflow#2, RAB subflow#3, DCCH)= (TF0, TF0, TF0, TF0), (TF1, TF0, TF0, TF0), (TF2, TF1, TF1, TF0), (TF0, TF0, TF0, TF1), (TF1, TF0, TF0, TF1), (TF2, TF1, TF1, TF1)

6.10.3.4.1.5.1.2 Physical channel parameters

DPCH Uplink	Midamble	512 chips
	Codes and time slots	SF16 x 1 code x 1 time slot
	Max. Number of data bits/radio frame	226 bits
	TFCI code word	16 bits
	TPC	2 bit
Puncturing Limit	0.48	

6.10.3.4.1.5.2 Downlink

6.10.3.4.1.5.2.1 Transport channel parameters

6.10.3.4.1.5.2.1.1 Transport channel parameters for Conversational / speech / DL:10.2 kbps / CS RAB

Higher Layer	RAB/Signalling RB	RAB subflow #1	RAB subflow #2	RAB subflow #3	
RLC	Logical channel type	DTCH			
	RLC mode	TM	TM	TM	
	Payload sizes, bit	0, 39, 65	99	40	
	Max data rate, bps	10200			
	RLC header, bit	0			
MAC	MAC header, bit	0			
	MAC multiplexing	N/A			
Layer 1	TrCH type	DCH	DCH	DCH	
	TB sizes, bit	0	99	40	
		39			
		65			
	TFS	TF0, bits	1x0 ^{*2}	0x99	0x40
		TF1, bits	1x39	1x99	1x40
		TF2, bits	1x65	N/A	N/A
	TTI, ms	20	20	20	
	Coding type	CC 1/3	CC 1/3	CC 1/2	
	CRC, bit	12	N/A	N/A	
	Max number of bits/TTI after channel coding	255	321	96	
Max number of bits/radio frame before rate matching	128	161	48		
RM attribute	180-220	170-210	215-256		

*1: The TrCH corresponding to RAB subflow #1 should be used as the guiding TrCH, (see section 4.3 in TS25.212).

*2: CRC parity bits are to be attached to RAB subflow#1 any time since number of TrBlks are 1 even if there is no data on RAB subflow#1 (see clause 4.2.1.1 in TS25.212.).

6.10.3.4.1.5.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.2.1.1

6.10.3.4.1.5.2.1.3 TFCS

TFCS size	6
TFCS	(RAB subflow#1, RAB subflow#2, RAB subflow#3,DCCH)= (TF0, TF0, TF0, TF0), (TF1, TF0, TF0, TF0), (TF2, TF1, TF1, TF0), (TF0, TF0, TF0, TF1), (TF1, TF0, TF0, TF1), (TF2, TF1, TF1, TF1)

6.10.3.4.1.5.2.2 Physical channel parameters

DPCH Downlink	Midamble	512 chips
	Codes and time slots	SF16 x 1 code x 1 time slot
	Max. Number of data bits/radio frame	228 bits
	TFCI code word	16 bits
	Puncturing limit	0,48

6.10.3.4.1.6 Conversational / speech / UL:7.95 DL:7.95 kbps / CS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.10.3.4.1.6.1 Uplink

6.10.3.4.1.6.1.1 Transport channel parameters

6.10.3.4.1.6.1.1.1 Transport channel parameters for Conversational / speech / UL:7.95 kbps / CS RAB

Higher Layer	RAB/Signalling RB	RAB subflow #1	RAB subflow #2	
RLC	Logical channel type	DTCH		
	RLC mode	TM	TM	
	Payload sizes, bit	39, 75 (alt. 0, 39, 75)	84	
	Max data rate, bps	7950		
	RLC header, bit	0		
MAC	MAC header, bit	0		
	MAC multiplexing	N/A		
Layer 1	TrCH type	DCH	DCH	
	TB sizes, bit	39, 75 (alt. 0, 39, 75)	84	
	TFS	TF0, bits	0x75 (alt. 1x0 ^{*1})	0x84
		TF1, bits	1x39	1x84
		TF2, bits	1x75	N/A
	TTI, ms	20	20	
	Coding type	CC 1/3	CC 1/3	
	CRC, bit	12	N/A	
	Max number of bits/TTI after channel coding	285	276	
	Uplink -Max number of bits/radio frame before rate matching	143	138	
RM attribute	180-220	170-210		

*1: In case of using this alternative, CRC parity bits are to be attached to RAB subflow#1 any time since number of TrBlks are 1 even if there is no data on RAB subflow#1 (see clauses 4.2.1.1 in TS25.212.).

6.10.3.4.1.6.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.1.1.1

6.10.3.4.1.6.1.1.3 TFCS

TFCS size	6
TFCS	(RAB subflow#1, RAB subflow#2, DCCH)= (TF0, TF0, TF0), (TF1, TF0, TF0), (TF2, TF1, TF0), (TF0, TF0, TF1), (TF1, TF0, TF1), (TF2, TF1, TF1)

6.10.3.4.1.6.1.2 Physical channel parameters

DPCH Uplink	Midamble	512 chips
	Codes and time slots	SF16 x 1 code x 1 time slot
	Max. Number of data bits/radio frame	226 bits
	TFCI code word	16 bits
	TPC	2 bits
	Puncturing Limit	0.52

6.10.3.4.1.6.2 Downlink

6.10.3.4.1.6.2.1 Transport channel parameters

6.10.3.4.1.6.2.1.1 Transport channel parameters for Conversational / speech / DL:7.95 kbps / CS RAB

Higher Layer	RAB/Signalling RB	RAB subflow #1	RAB subflow #2	
RLC	Logical channel type	DTCH		
	RLC mode	TM	TM	
	Payload sizes, bit	0, 39, 75	84	
	Max data rate, bps	7950		
	RLC header, bit	0		
MAC	MAC header, bit	0		
	MAC multiplexing	N/A		
Layer 1	TrCH type	DCH	DCH	
	TB sizes, bit	0, 39, 75	84	
	TFS*1	TF0, bits	1x0*2	0x84
		TF1, bits	1x39	1x84
		TF2, bits	1x75	N/A
	TTI, ms	20	20	
	Coding type	CC 1/3	CC 1/3	
	CRC, bit	12	N/A	
	Max number of bits/TTI after channel coding	285	276	
	Max number of bits/radio frame before rate matching	143	138	
RM attribute	180-220	170-210		

*1: The TrCH corresponding to RAB subflow #1 should be used as the guiding TrCH, (see section 4.3 in TS25.212).

*2: CRC parity bits are to be attached to RAB subflow#1 any time since number of TrBlks are 1 even if there is no data on RAB subflow#1 (see clause 4.2.1.1 in TS25.212.).

6.10.3.4.1.6.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.2.1.1

6.10.3.4.1.6.2.1.3 TFCS

TFCS size	6
TFCS	(RAB subflow#1, RAB subflow#2, DCCH)= (TF0, TF0, TF0), (TF1, TF0, TF0), (TF2, TF1, TF0), (TF0, TF0, TF1), (TF1, TF0, TF1), (TF2, TF1, TF1)

6.10.3.4.1.6.2.2 Physical channel parameters

DPCH Downlink	Midamble	512 chips
	Codes and time slots	SF16 x 1 code x 1 time slot
	Max. Number of data bits/radio frame	228 bits
	TFCl code word	16 bits
	Puncturing limit	0.560,52

6.10.3.4.1.7 Conversational / speech / UL:7.4 DL:7.4 kbps / CS RAB+ UL:3.4 DL:3.4 kbps SRBs for DCCH

6.10.3.4.1.7.1 Uplink

6.10.3.4.1.7.1.1 Transport channel parameters

6.10.3.4.1.7.1.1.1 Transport channel parameters for Conversational / speech / UL:7.4 kbps / CS RAB

Higher Layer	RAB/Signalling RB	RAB subflow #1	RAB subflow #2	
RLC	Logical channel type	DTCH		
	RLC mode	TM	TM	
	Payload sizes, bit	39, 61 (alt. 0, 39, 61)	87	
	Max data rate, bps	7400		
	RLC header, bit	0		
MAC	MAC header, bit	0		
	MAC multiplexing	N/A		
Layer 1	TrCH type	DCH	DCH	
	TB sizes, bit	39, 61 (alt. 0, 39, 61)	87	
	TFS	TF0, bits	0x61 (alt. 1x0 ^{*1})	0x87
		TF1, bits	1x39	1x87
		TF2, bits	1x61	N/A
	TTI, ms	20	20	
	Coding type	CC 1/3	CC 1/3	
	CRC, bit	12	N/A	
	Max number of bits/TTI after channel coding	243	285	
	Uplink -Max number of bits/radio frame before rate matching	122	143	
RM attribute	180-220	170-210		

*1: CRC parity bits are to be attached to RAB subflow#1 any time since number of TrBlks are 1 even if there is no data on RAB subflow#1 (see clause 4.2.1.1 in TS25.212.).

6.10.3.4.1.7.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.1.1.1

6.10.3.4.1.7.1.1.3 TFCS

TFCS size	6
TFCS	(RAB subflow#1, RAB subflow#2, DCCH)= (TF0, TF0, TF0), (TF1, TF0, TF0), (TF2, TF1, TF0), (TF0, TF0, TF1), (TF1, TF0, TF1), (TF2, TF1, TF1)

6.10.3.4.1.7.1.2 Physical channel parameters

DPCH Uplink	Midamble	512 chips
	Codes and time slots	SF16 x 1 code x 1 time slot
	Max. Number of data bits/radio frame	226 bits
	TFCl code word	16 bits
	TPC	2 bits
	Puncturing Limit	0.56

6.10.3.4.1.7.2 Downlink

6.10.3.4.1.7.2.1 Transport channel parameters

6.10.3.4.1.7.2.1.1 Transport channel parameters for Conversational / speech / DL:7.4 kbps / CS RAB

Higher Layer	RAB/Signalling RB	RAB subflow #1	RAB subflow #2	
RLC	Logical channel type	DTCH		
	RLC mode	TM	TM	
	Payload sizes, bit	0, 39, 61	87	
	Max data rate, bps	7400		
	RLC header, bit	0		
MAC	MAC header, bit	0		
	MAC multiplexing	N/A		
Layer 1	TrCH type	DCH	DCH	
	TB sizes, bit	0, 39, 61	87	
	TFS* ¹	TF0, bits	1x0* ²	0x87
		TF1, bits	1x39	1x87
		TF2, bits	1x61	N/A
	TTI, ms	20	20	
	Coding type	CC 1/3	CC 1/3	
	CRC, bit	12	N/A	
	Max number of bits/TTI after channel coding	243	285	
	Max number of bits/radio frame before rate matching	122	143	
RM attribute	180-220	170-210		

*1: The TrCH corresponding to RAB subflow #1 should be used as the guiding TrCH, (see section 4.3 in TS25.212).

*2: CRC parity bits are to be attached to RAB subflow#1 any time since number of TrBlks are 1 even if there is no data on RAB #1 (see clause 4.2.1.1 in TS25.212.).

6.10.3.4.1.7.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.2.1.1

6.10.3.4.1.7.2.1.3 TFCS

TFCS size	6
TFCS	(RAB subflow#1, RAB subflow#2, DCCH)= (TF0, TF0, TF0), (TF1, TF0, TF0), (TF2, TF1, TF0), (TF0, TF0, TF1), (TF1, TF0, TF1), (TF2, TF1, TF1)

6.10.3.4.1.7.2.2 Physical channel parameters

DPCH Downlink	Midamble	512 chips
	Codes and time slots	SF16 x 1 code x 1 time slot
	Max. Number of data bits/radio frame	228 bits
	TFCI code word	16 bits
	Puncturing limit	0,56

6.10.3.4.1.8 Conversational / speech / UL:6.7 DL:6.7 kbps / CS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.10.3.4.1.8.1 Uplink

6.10.3.4.1.8.1.1 Transport channel parameters

6.10.3.4.1.8.1.1.1 Transport channel parameters for Conversational / speech / UL:6.7 kbps / CS RAB

Higher Layer	RAB/Signalling RB	RAB subflow #1	RAB subflow #2	
RLC	Logical channel type	DTCH		
	RLC mode	TM	TM	
	Payload sizes, bit	39, 58 (alt. 0, 39, 58)	76	
	Max data rate, bps	6700		
	RLC header, bit	0		
MAC	MAC header, bit	0		
	MAC multiplexing	N/A		
Layer 1	TrCH type	DCH	DCH	
	TB sizes, bit	39, 58 (alt. 0, 39, 58)	76	
	TFS	TF0, bits	0x58 (alt. 1x0 ^{*1})	0x76
		TF1, bits	1x39	1x76
		TF2, bits	1x58	N/A
	TTI, ms	20	20	
	Coding type	CC 1/3	CC 1/3	
	CRC, bit	12	N/A	
	Max number of bits/TTI after channel coding	234	252	
	Uplink -Max number of bits/radio frame before rate matching	117	126	
RM attribute	180-220	170-210		

*1: In case of using this alternative, CRC parity bits are to be attached to RAB subflow#1 any time since number of TrBlks are 1 even if there is no data on RAB subflow#1 (see clause 4.2.1.1 in TS25.212.).

6.10.3.4.1.8.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.1.1.1

6.10.3.4.8.1.1.3 TFCS

TFCS size	6
TFCS	(RAB subflow#1, RAB subflow#2, DCCH)= (TF0, TF0, TF0), (TF1, TF0, TF0), (TF2, TF1, TF0), (TF0, TF0, TF1), (TF1, TF0, TF1), (TF2, TF1, TF1)

6.10.3.4.1.8.1.2 Physical channel parameters

DPCH Uplink	Midamble	512 chips
	Codes and time slots	SF16 x 1 code x 1 time slot
	Max. Number of data bits/radio frame	226 bits
	TFCl code word	16 bits
	TPC	2 bits
	Puncturing Limit	0.60

6.10.3.4.1.8.2 Downlink

6.10.3.4.1.8.2.1 Transport channel parameters

6.10.3.4.1.8.2.1.1 Transport channel parameters for Conversational / speech / DL:6.7 kbps / CS RAB

Higher Layer	RAB/Signalling RB	RAB subflow #1	RAB subflow #2	
RLC	Logical channel type	DTCH		
	RLC mode	TM	TM	
	Payload sizes, bit	0, 39, 58	76	
	Max data rate, bps	6700		
	RLC header, bit	0		
MAC	MAC header, bit	0		
	MAC multiplexing	N/A		
Layer 1	TrCH type	DCH	DCH	
	TB sizes, bit	0	76	
		39		
		58		
	TFS* ¹	TF0, bits	1x0* ²	0x76
		TF1, bits	1x39	1x76
		TF2, bits	1x58	N/A
	TTI, ms	20	20	
	Coding type	CC 1/3	CC 1/3	
	CRC, bit	12	N/A	
Max number of bits/TTI after channel coding	234	252		
Max number of bits/radio frame before rate matching	117	126		
RM attribute	180-220	170-210		

*1: The TrCH corresponding to RAB subflow #1 should be used as the guiding TrCH, (see section 4.3 in TS25.212).

*2: CRC parity bits are to be attached to RAB subflow#1 any time since number of TrBlks are 1 even if there is no data on RAB subflow#1 (see clause 4.2.1.1 in TS25.212.).

6.10.3.4.1.8.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.2.1.1

6.10.3.4.1.8.2.1.3 TFCS

TFCS size	6
TFCS	(RAB subflow#1, RAB subflow#2, DCCH)= (TF0, TF0, TF0), (TF1, TF0, TF0), (TF2, TF1, TF0), (TF0, TF0, TF1), (TF1, TF0, TF1), (TF2, TF1, TF1)

6.10.3.4.1.8.2.2 Physical channel parameters

DPCH Downlink	Midamble	512 chips
	Codes and time slots	SF16 x 1 code x 1 time slot
	Max. Number of data bits/radio frame	228 bits
	TFCI code word	16 bits
	Puncturing limit	0,6

6.10.3.4.1.9 Conversational / speech / UL:5.9 DL:5.9 kbps / CS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.10.3.4.1.9.1 Uplink

6.10.3.4.1.9.1.1 Transport channel parameters

6.10.3.4.1.9.1.1.1 Transport channel parameters for Conversational / speech / UL:5.9 kbps / CS RAB

Higher Layer	RAB/Signalling RB	RAB subflow #1	RAB subflow #2	
RLC	Logical channel type	DTCH		
	RLC mode	TM	TM	
	Payload sizes, bit	39, 55 (alt. 0, 39, 55)	63	
	Max data rate, bps	5900		
	RLC header, bit	0		
MAC	MAC header, bit	0		
	MAC multiplexing	N/A		
Layer 1	TrCH type	DCH	DCH	
	TB sizes, bit	39, 55 (alt. 0, 39, 55)	63	
	TFS	TF0, bits	0x55 (alt. 1x0 ^{*1})	0x63
		TF1, bits	1x39	1x63
		TF2, bits	1x55	N/A
	TTI, ms	20	20	
	Coding type	CC 1/3	CC 1/3	
	CRC, bit	12	N/A	
	Max number of bits/TTI after channel coding	225	213	
	Uplink -Max number of bits/radio frame before rate matching	113	107	
RM attribute	180-220	170-210		

*1: In case of using this alternative, CRC parity bits are to be attached to RAB subflow#1 any time since number of TrBlks are 1 even if there is no data on RAB subflow#1 (see clause 4.2.1.1 in TS25.212.).

6.10.3.4.1.9.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.1.1.1

6.10.3.4.1.9.1.1.3 TFCS

TFCS size	6
TFCS	(RAB subflow#1, RAB subflow#2, DCCH)= (TF0, TF0, TF0), (TF1, TF0, TF0), (TF2, TF1, TF0), (TF0, TF0, TF1), (TF1, TF0, TF1), (TF2, TF1, TF1)

6.10.3.4.1.9.1.2 Physical channel parameters

DPCH Uplink	Midamble	512 chips
	Codes and time slots	SF16 x 1 code x 1 time slot
	Max. Number of data bits/radio frame	226 bits
	TFCI code word	16 bits
	TPC	2 bits
	Puncturing Limit	0.64

6.10.3.4.1.9.2 Downlink

6.10.3.4.1.9.2.1 Transport channel parameters

6.10.3.4.1.9.2.1.1 Transport channel parameters for Conversational / speech / DL:5.9 kbps / CS RAB

Higher Layer	RAB/Signalling RB	RAB subflow #1	RAB subflow #2	
RLC	Logical channel type	DTCH		
	RLC mode	TM	TM	
	Payload sizes, bit	0, 39, 55	63	
	Max data rate, bps	5900		
	RLC header, bit	0		
MAC	MAC header, bit	0		
	MAC multiplexing	N/A		
Layer 1	TrCH type	DCH	DCH	
	TB sizes, bit	0, 39, 55	63	
	TFS* ¹	TF0, bits	1x0* ²	0x63
		TF1, bits	1x39	1x63
		TF2, bits	1x55	N/A
	TTI, ms	20	20	
	Coding type	CC 1/3	CC 1/3	
	CRC, bit	12	N/A	
	Max number of bits/TTI after channel coding	225	213	
	Max number of bits/radio frame before rate matching	113	107	
RM attribute	180-220	170-210		

*1: The TrCH corresponding to RAB subflow #1 should be used as the guiding TrCH, (see section 4.3 in TS25.212).

*2: CRC parity bits are to be attached to RAB subflow#1 any time since number of TrBlks are 1 even if there is no data on RAB subflow#1 (see clause 4.2.1.1 in TS25.212.).

6.10.3.4.1.9.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.2.1.1

6.10.3.4.1.9.2.1.3 TFCS

TFCS size	6
TFCS	(RAB subflow#1, RAB subflow#2, DCCH)= (TF0, TF0, TF0), (TF1, TF0, TF0), (TF2, TF1, TF0), (TF0, TF0, TF1), (TF1, TF0, TF1), (TF2, TF1, TF1)

6.10.3.4.1.9.2.2 Physical channel parameters

DPCH Downlink	Midamble	512 chips
	Codes and time slots	SF16 x 1 code x 1 time slot
	Max. Number of data bits/radio frame	228 bits
	TFCI code word	16 bits
	Puncturing limit	0,64

6.10.3.4.1.10 Conversational / speech / UL:5.15 DL:5.15 kbps / CS RAB + UL:1.7 DL:1.7 kbps SRBs for DCCH

6.10.3.4.1.10.1 Uplink

6.10.3.4.1.10.1.1 Transport channel parameters

6.10.3.4.1.10.1.1 Transport channel parameters for Conversational / speech / UL:5.15 kbps / CS RAB

Higher Layer	RAB/Signalling RB	RAB subflow #1	RAB subflow #2	
RLC	Logical channel type	DTCH		
	RLC mode	TM	TM	
	Payload sizes, bit	39, 49 (alt. 0, 39, 49)	54	
	Max data rate, bps	5150		
	RLC header, bit	0		
MAC	MAC header, bit	0		
	MAC multiplexing	N/A		
Layer 1	TrCH type	DCH	DCH	
	TB sizes, bit	39, 49 (alt. 0, 39, 49)	54	
	TFS	TF0, bits	0x49 (alt. 1x0 ^{*1})	0x54
		TF1, bits	1x39	1x54
		TF2, bits	1x49	N/A
	TTI, ms	20	20	
	Coding type	CC 1/3	CC 1/3	
	CRC, bit	12	N/A	
	Max number of bits/TTI after channel coding	207	186	
	Uplink -Max number of bits/radio frame before rate matching	104	93	
RM attribute	180-220	170-210		

*1: : In case of using this alternative, CRC parity bits are to be attached to RAB subflow#1 any time since number of TrBlks are 1 even if there is no data on RAB subflow#1 (see clause 4.2.1.1 in TS25.212.).

6.10.3.4.1.10.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.1.1.1

6.10.3.4.1.10.1.1.3 TFCS

TFCS size	6
TFCS	(RAB subflow#1, RAB subflow#2, DCCH)= (TF0, TF0, TF0), (TF1, TF0, TF0), (TF2, TF1, TF0), (TF0, TF0, TF1), (TF1, TF0, TF1), (TF2, TF1, TF1)

6.10.3.4.1.10.1.2 Physical channel parameters

DPCH Uplink	Midamble	512 chips
	Codes and time slots	SF16 x 1 code x 1 time slot
	Max. Number of data bits/radio frame	226 bits
	TFCI code word	16 bits
	TPC	2 bits
	Puncturing Limit	0.68

6.10.3.4.1.10.2 Downlink

6.10.3.4.1.10.2.1 Transport channel parameters

6.10.3.4.1.10.2.1.1 Transport channel parameters for Conversational / speech / DL:5.15 kbps / CS RAB

Higher Layer	RAB/Signalling RB	RAB subflow #1	RAB subflow #2	
RLC	Logical channel type	DTCH		
	RLC mode	TM	TM	
	Payload sizes, bit	0, 39, 49	54	
	Max data rate, bps	5150		
	RLC header, bit	0		
MAC	MAC header, bit	0		
	MAC multiplexing	N/A		
Layer 1	TrCH type	DCH	DCH	
	TB sizes, bit	0, 39, 49	54	
	TFS* ¹	TF0, bits	1x0	0x54
		TF1, bits	1x39	1x54
		TF2, bits	1x49	N/A
	TTI, ms	20	20	
	Coding type	CC 1/3	CC 1/3	
	CRC, bit	12	N/A	
	Max number of bits/TTI after channel coding	207	186	
Max number of bits/radio frame before rate matching	104	93		
RM attribute	180-220	170-210		

*1: The TrCH corresponding to RAB subflow #1 should be used as the guiding TrCH, (see section 4.3 in TS25.212).

*2: CRC parity bits are to be attached to RAB subflow#1 any time since number of TrBlks are 1 even if there is no data on RAB subflow#1 (see clause 4.2.1.1 in TS25.212.).

6.10.3.4.1.10.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.2.1.1

6.10.3.4.1.10.2.1.3 TFCS

TFCS size	6
TFCS	(RAB subflow#1, RAB subflow#2, DCCH)= (TF0, TF0, TF0), (TF1, TF0, TF0), (TF2, TF1, TF0), (TF0, TF0, TF1), (TF1, TF0, TF1), (TF2, TF1, TF1)

6.10.3.4.1.10.2.2 Physical channel parameters

DPCH Downlink	Midamble	512 chips
	Codes and time slots	SF16 x 1 code x 1 time slot
	Max. Number of data bits/radio frame	228 bits
	TFCI code word	16 bits
	Puncturing limit	0.7 0.68

6.10.3.4.1.11 Conversational / speech / UL:4.75 DL:4.75 kbps / CS RAB + UL:1.7 DL:1.7 kbps SRBs for DCCH

6.10.3.4.1.11.1 Uplink

6.10.3.4.1.11.1.1 Transport channel parameters

6.10.3.4.1.11.1.1.1 Transport channel parameters for Conversational / speech / UL:4.75 kbps / CS RAB

Higher Layer	RAB/Signalling RB	RAB subflow #1	RAB subflow #2	
RLC	Logical channel type	DTCH		
	RLC mode	TM	TM	
	Payload sizes, bit	39, 42 (alt. 0, 39, 42)	53	
	Max data rate, bps	4750		
	RLC header, bit	0		
MAC	MAC header, bit	0		
	MAC multiplexing	N/A		
Layer 1	TrCH type	DCH	DCH	
	TB sizes, bit	39, 42 (alt. 0, 39, 42)	53	
	TFS	TF0, bits	0x42 (alt. 1x0 ^{*1})	0x53
		TF1, bits	1x39	1x53
		TF2, bits	1x42	N/A
	TTI, ms	20	20	
	Coding type	CC 1/3	CC 1/3	
	CRC, bit	12	N/A	
	Max number of bits/TTI after channel coding	186	183	
	Uplink -Max number of bits/radio frame before rate matching	93	92	
RM attribute	180-220	170-210		

*1: In case of using this alternative, CRC parity bits are to be attached to RAB subflow#1 any time since number of TrBlks are 1 even if there is no data on RAB subflow#1 (see clause 4.2.1.1 in TS25.212.).

6.10.3.4.1.11.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.1.1.1

6.10.3.4.1.11.1.1.3 TFCS

TFCS size	6
TFCS	(RAB subflow#1, RAB subflow#2, DCCH)= (TF0, TF0, TF0), (TF1, TF0, TF0), (TF2, TF1, TF0), (TF0, TF0, TF1), (TF1, TF0, TF1), (TF2, TF1, TF1)

6.10.3.4.1.11.1.2 Physical channel parameters

DPCH Uplink	Midamble	512 chips
	Codes and time slots	SF16 x 1 code x 1 time slot
	Max. Number of data bits/radio frame	226 bits
	TFCI code word	16 bits
	TPC	2 bits
	Puncturing Limit	0.7 0.68

6.10.3.4.1.11.2 Downlink

6.10.3.4.1.11.2.1 Transport channel parameters

6.10.3.4.1.11.2.1.1 Transport channel parameters for Conversational / speech / DL:4.75 kbps / CS RAB

Higher Layer	RAB/Signalling RB	RAB subflow #1	RAB subflow #2	
RLC	Logical channel type	DTCH		
	RLC mode	TM	TM	
	Payload sizes, bit	0, 39, 42	53	
	Max data rate, bps	4750		
	RLC header, bit	0		
MAC	MAC header, bit	0		
	MAC multiplexing	N/A		
Layer 1	TrCH type	DCH	DCH	
	TB sizes, bit	0, 39, 42	53	
	TFS* ¹	TF0, bits	1x0* ²	0x53
		TF1, bits	1x39	1x53
		TF2, bits	1x42	N/A
	TTI, ms	20	20	
	Coding type	CC 1/3	CC 1/3	
	CRC, bit	12	N/A	
	Max number of bits/TTI after channel coding	186	183	
	Max number of bits/radio frame before rate matching	93	92	
RM attribute	180-220	170-210		

*1: The TrCH corresponding to RAB subflow #1 should be used as the guiding TrCH, (see section 4.3 in TS25.212).

*2: CRC parity bits are to be attached to RAB subflow#1 any time since number of TrBlks are 1 even if there is no data on RAB subflow#1 (see clause 4.2.1.1 in TS25.212.).

6.10.3.4.1.11.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.2.1.1

6.10.3.4.1.11.2.1.3 TFCS

TFCS size	6
TFCS	(RAB subflow#1, RAB subflow#2, DCCH)= (TF0, TF0, TF0), (TF1, TF0, TF0), (TF2, TF1, TF0), (TF0, TF0, TF1), (TF1, TF0, TF1), (TF2, TF1, TF1)

6.10.3.4.1.11.2.2 Physical channel parameters

DPCH Downlink	Midamble	512 chips
	Codes and time slots	SF16 x 1 code x 1 time slot
	Max. Number of data bits/radio frame	228 bits
	TFCI code word	16 bits
	Puncturing limit	0,72

6.10.3.4.1.12 Conversational / unknown / UL:28.8/DL:28.8 kbps / CS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.10.3.4.1.12.1 Uplink

6.10.3.4.1.12.1.1 Transport channel parameters

6.10.3.4.1.12.1.1.1 Transport channel parameters for conversational / unknown / UL:28.8 kbps / CS RAB

Higher Layer	RAB/Signalling RB	RAB	
RLC	Logical channel type	DTCH	
	RLC mode	TM	
	Payload sizes, bit	576	
	Max data rate, bps	28800	
	RLC header, bit	0	
MAC	MAC header, bit	0	
	MAC multiplexing	N/A	
Layer 1	TrCH type	DCH	
	TB sizes, bit	576	
	TFS	TF0, bits	0x576
		TF1, bits	1x576
		TF2, bits	2x576
	TTI, ms	40	
	Coding type	TC	
	CRC, bit	16	
	Max number of bits/TTI after channel coding	3564	
	Uplink -Max number of bits/radio frame before rate matching	891	
RM attribute	160-200		

6.10.3.4.1.12.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.1.1.1

6.10.3.4.1.12.1.1.3 TFCS

TFCS size	6
TFCS	(28.8 kbps RAB, DCCH)= (TF0, TF0), (TF1, TF0), (TF2, TF0), (TF0, TF1), (TF1, TF1), (TF2, TF1)

6.10.3.4.1.12.1.2 Physical channel parameters

DPCH Uplink	Midamble	512 chips
	Codes and time slots	SF8 x 1 code x 1 time slot
	Max. Number of data bits/radio frame	452 bits
	TFCI code word	16 bits
	TPC	2 bits
	Puncturing Limit	0.44

6.10.3.4.1.12.2 Downlink

6.10.3.4.1.12.2.1 Transport channel parameters

6.10.3.4.1.12.2.1.1 Transport channel parameters for conversational / unknown / DL:28.8 kbps / CS RAB

Higher Layer	RAB/Signalling RB	RAB	
RLC	Logical channel type	DTCH	
	RLC mode	TM	
	Payload sizes, bit	576	
	Max data rate, bps	28800	
	RLC header, bit	0	
MAC	MAC header, bit	0	
	MAC multiplexing	N/A	
Layer 1	TrCH type	DCH	
	TB sizes, bit	576	
	TFS	TF0, bits	0x576
		TF1, bits	1x576
		TF2, bits	2x576
	TTI, ms	40	
	Coding type	TC	
	CRC, bit	16	
	Max number of bits/TTI after channel coding	3564	
	Max number of bits/radio frame before rate matching	891	
RM attribute	160-200		

6.10.3.4.1.12.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.2.1.1

6.10.3.4.1.12.2.1.3 TFCS

TFCS size	6
TFCS	(28.8 kbps RAB, DCCH)= (TF0, TF0), (TF1, TF0), (TF2, TF0), (TF0, TF1), (TF1, TF1), (TF2, TF1)

6.10.3.4.1.12.2.2 Physical channel parameters

DPCH Downlink	Midamble	512 chips
	Codes and time slots	SF16 x 2 codes x 1 time slot
	Max. Number of data bits/radio frame	472 bits
	TFCI code word	16 bits
	Puncturing limit	0,44

6.10.3.4.1.13 Conversational / unknown / UL:64 DL:64 kbps / CS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.10.3.4.1.13.1 Uplink

6.10.3.4.1.13.1.1 Transport channel parameters

6.10.3.4.1.13.1.1.1 Transport channel parameters for Conversational / unknown / UL:64 kbps / CS RAB

Higher Layer	RAB/Signalling RB	RAB		
RLC	Logical channel type	DTCH		
	RLC mode	TM		
	Payload sizes, bit	640		
	Max data rate, bps	64000		
	RLC header, bit	0		
MAC	MAC header, bit	0		
	MAC multiplexing	N/A		
Layer 1	TrCH type	DCH		
	TB sizes, bit	640		
	TFS	TF0, bits	0x640	
		TF1, bits	2x640(alt. 4x640)	
	TTI, ms	20(alt. 40)		
	Coding type	TC		
	CRC, bit	16		
	Max number of bits/TTI after channel coding	3948(alt. 7884)		
	Uplink Max number of bits/radio frame before rate matching	1974(alt. 1971)		
	RM attribute	150-195		

6.10.3.4.1.13.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.1.1.1

6.10.3.4.1.13.1.1.3 TFCS

TFCS size	4
TFCS	(64 kbps RAB, DCCH)=(TF0, TF0), (TF1, TF0), (TF0, TF1), (TF1, TF1)

6.10.3.4.1.13.1.2 Physical channel parameters

DPCH Uplink	Midamble	512 chips
	Codes and time slots	{SF16 x 1 code + SF4 x 1 code} x 1 time slot
	Max. Number of data	1210 bits
	TFCI code word	8 bits
	TPC	2 bits
	Puncturing Limit	0.56

6.10.3.4.1.13.2 Downlink

6.10.3.4.1.13.2.1 Transport channel parameters

6.10.3.4.1.13.2.1.1 Transport channel parameters for Conversational / unknown / DL:64 kbps / CS RAB

Higher Layer	RAB/Signalling RB	RAB		
RLC	Logical channel type	DTCH		
	RLC mode	TM		
	Payload sizes, bit	640		
	Max data rate, bps	64000		
	RLC header, bit	0		
MAC	MAC header, bit	0		
	MAC multiplexing	N/A		
Layer 1	TrCH type	DCH		
	TB sizes, bit	640		
	TFS	TF0, bits	0x640	
		TF1, bits	2x640(alt. 4x640)	
	TTI, ms	20(alt. 40)		
	Coding type	TC		
	CRC, bit	16		
	Max number of bits/TTI after channel coding	3948(alt. 7884)		
	Max number of bits/radio frame before rate matching	1974(alt. 1971)		
	RM attribute	150-195		

6.10.3.4.1.13.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.2.1.1

6.10.3.4.1.13.2.1.3 TFCS

TFCS size	4
TFCS	(64 kbps RAB, DCCH)=(TF0, TF0), (TF1, TF0), (TF0, TF1), (TF1, TF1)

6.10.3.4.1.13.2.2 Physical channel parameters

DPCH Downlink	Midamble	512 chips
	Codes and time slots	SF16 x 5 codes x 1 time slot
	Max. Number of data bits/radio frame	1212 bits
	TFCI code word	8 bits
	Puncturing limit	0,56

6.10.3.4.1.14 Conversational / unknown / UL:32 DL:32 kbps / CS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.10.3.4.1.14.1 Uplink

6.10.3.4.1.14.1.1 Transport channel parameters

6.10.3.4.1.14.1.1.1 Transport channel parameters for Conversational / unknown / UL:32 kbps / CS RAB

Higher Layer	RAB/Signalling RB	RAB	
RLC	Logical channel type	DTCH	
	RLC mode	TM	
	Payload sizes, bit	640	
	Max data rate, bps	32000	
	RLC header, bit	0	
MAC	MAC header, bit	0	
	MAC multiplexing	N/A	
Layer 1	TrCH type	DCH	
	TB sizes, bit	640	
	TFS	TF0, bits	0x640
		TF1, bits	1x640(alt. 2x640)
	TTI, ms	20(alt. 40)	
	Coding type	TC	
	CRC, bit	16	
	Max number of bits/TTI after channel coding	1980(alt. 3948)	
	Uplink Max number of bits/radio frame before rate matching	990(alt. 987)	
	RM attribute	165-210	

6.10.3.4.1.14.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.1.1.1

6.10.3.4.1.13.1.1.3 TFCS

TFCS size	4
TFCS	(32 kbps RAB, DCCH)=(TF0, TF0), (TF1, TF0), (TF0, TF1), (TF1, TF1)

6.10.3.4.1.14.1.2 Physical channel parameters

DPCH Uplink	Midamble	512 chips
	Codes and time slots	SF4 x 1 code x 1 time slot
	Max. Number of data bits/radio frame	936 bits
	TFCI code word	8 bits
	TPC	2 bits
	Puncturing Limit	0.80

6.10.3.4.1.14.2 Downlink

6.10.3.4.1.14.2.1 Transport channel parameters

6.10.3.4.1.14.2.1.1 Transport channel parameters for Conversational / unknown / DL:32 kbps / CS RAB

Higher Layer	RAB/Signalling RB	RAB	
RLC	Logical channel type	DTCH	
	RLC mode	TM	
	Payload sizes, bit	640	
	Max data rate, bps	32000	
	RLC header, bit	0	
MAC	MAC header, bit	0	
	MAC multiplexing	N/A	
Layer 1	TrCH type	DCH	
	TB sizes, bit	640	
	TFS	TF0, bits	0x640
		TF1, bits	1x640(alt. 2x640)
	TTI, ms	20(alt. 40)	
	Coding type	TC	
	CRC, bit	16	
	Max number of bits/TTI after channel coding	1980(alt. 3948)	
	Max number of bits/radio frame before rate matching	990(alt. 987)	
	RM attribute	165-210	

6.10.3.4.1.14.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.2.1.1

6.10.3.4.1.14.2.1.3 TFCS

TFCS size	4
TFCS	(32 kbps RAB, DCCH)=(TF0, TF0), (TF1, TF0), (TF0, TF1), (TF1, TF1)

6.10.3.4.1.14.2.2 Physical channel parameters

DPCH Downlink	Midamble	512 chips
	Codes and time slots	SF16 x 3 codes x 1 time slot
	Max. Number of data bits/radio frame	724 bits
	TFCI code word	8 bits
	Puncturing limit	0,64

6.10.3.4.1.15 Streaming / unknown / UL:14.4/DL:14.4 kbps / CS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.10.3.4.1.15.1 Uplink

6.10.3.4.1.15.1.1 Transport channel parameters

6.10.3.4.1.15.1.1.1 Transport channel parameters for Streaming / unknown / UL: 14.4 kbps / CS RAB

Higher Layer	RAB/Signalling RB	RAB	
RLC	Logical channel type	DTCH	
	RLC mode	TM	
	Payload sizes, bit	576	
	Max data rate, bps	14400	
	RLC header, bit	0	
MAC	MAC header, bit	0	
	MAC multiplexing	N/A	
Layer 1	TrCH type	DCH	
	TB sizes, bit	576	
	TFS	TF0, bits	0x576
		TF1, bits	1x576
	TTI, ms	40	
	Coding type	TC	
	CRC, bit	16	
	Max number of bits/TTI after channel coding	1788	
	Uplink Max number of bits/radio frame before rate matching	447	
	RM attribute	145-185	

6.10.3.4.1.15.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.1.1.1

6.10.3.4.1.15.1.1.3 TFCS

TFCS size	4
TFCS	(14.4 kbps RAB, DCCH)=(TF0, TF0), (TF1, TF0), (TF0, TF1), (TF1, TF1)

6.10.3.4.1.15.1.2 Physical channel parameters

DPCH Uplink	Midamble	512 chips
	Codes and time slots	SF8 x 1 code x 1 time slot
	Max. Number of data bits/radio frame	468 bits
	TFCI code word	8 bits
	TPC	2 bits
	Puncturing Limit	0.80

6.10.3.4.1.15.2 Downlink

6.10.3.4.1.15.2.1 Transport channel parameters

6.10.3.4.1.15.2.1.1 Transport channel parameters for Streaming / unknown / DL:14.4 kbps / CS RAB

Higher Layer	RAB/Signalling RB	RAB	
RLC	Logical channel type	DTCH	
	RLC mode	TM	
	Payload sizes, bit	576	
	Max data rate, bps	14400	
	RLC header, bit	0	
MAC	MAC header, bit	0	
	MAC multiplexing	N/A	
Layer 1	TrCH type	DCH	
	TB sizes, bit	576	
	TFS	TF0, bits	0x576
		TF1, bits	1x576
	TTI, ms	40	
	Coding type	TC	
	CRC, bit	16	
	Max number of bits/TTI after channel coding	1788	
	Max number of bits/radio frame before rate matching	447	
	RM attribute	145-185	

6.10.3.4.1.15.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.2.1.1

6.10.3.4.1.15.2.1.3 TFCS

TFCS size	4
TFCS	(14.4 kbps RAB, DCCH)=(TF0, TF0), (TF1, TF0), (TF0, TF1), (TF1, TF1)

6.10.3.4.1.15.2.2 Physical channel parameters

DPCH Downlink	Midamble	512 chips
	Codes and time slots	SF16 x 2 codes x 1 time slot
	Max. Number of data bits/radio frame	480 bits
	TFCI code word	8 bits
	Puncturing limit	0,8

6.10.3.4.1.16 Streaming / unknown / UL:28.8/DL:28.8 kbps / CS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.10.3.4.1.16.1 Uplink

6.10.3.4.1.16.1.1 Transport channel parameters

6.10.3.4.1.16.1.1.1 Transport channel parameters for Streaming / unknown / UL:28.8 kbps / CS RAB

Higher Layer	RAB/Signalling RB	RAB	
RLC	Logical channel type	DTCH	
	RLC mode	TM	
	Payload sizes, bit	576	
	Max data rate, bps	28800	
	RLC header, bit	0	
MAC	MAC header, bit	0	
	MAC multiplexing	N/A	
Layer 1	TrCH type	DCH	
	TB sizes, bit	576	
	TFS	TF0, bits	0x576
		TF1, bits	1x576
		TF2, bits	2x576
	TTI, ms	40	
	Coding type	TC	
	CRC, bit	16	
	Max number of bits/TTI after channel coding	3564	
	Uplink Max number of bits/radio frame before rate matching	891	
RM attribute	135-175		

6.10.3.4.1.16.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.1.1.1

6.10.3.4.1.16.1.1.3 TFCS

TFCS size	6
TFCS	(28.8kbps RAB, DCCH)= (TF0, TF0), (TF1, TF0), (TF2, TF0), (TF0, TF1), (TF1, TF1), (TF2, TF1)

6.10.3.4.1.16.1.2 Physical channel parameters

DPCH Uplink	Midamble	512 chips
	Codes and time slots	SF8 x 1 code x 1 time slot
	Max. Number of data bits/radio frame	452 bits
	TFCI code word	16 bits
	TPC	2 bits
	Puncturing Limit	0.44

6.10.3.4.1.16.2 Downlink

6.10.3.4.1.16.2.1 Transport channel parameters

6.10.3.4.1.16.2.1.1 Transport channel parameters for Streaming / unknown / DL:28.8 kbps / CS RAB

Higher Layer	RAB/Signalling RB	RAB	
RLC	Logical channel type	DTCH	
	RLC mode	TM	
	Payload sizes, bit	576	
	Max data rate, bps	28800	
	RLC header, bit	0	
MAC	MAC header, bit	0	
	MAC multiplexing	N/A	
Layer 1	TrCH type	DCH	
	TB sizes, bit	576	
	TFS	TF0, bits	0x576
		TF1, bits	1x576
		TF2, bits	2x576
	TTI, ms	40	
	Coding type	TC	
	CRC, bit	16	
	Max number of bits/TTI after channel coding	3564	
	Max number of bits/radio frame before rate matching	891	
RM attribute	135-175		

6.10.3.4.1.16.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.2.1.1

6.10.3.4.1.16.2.1.3 TFCS

TFCS size	6
TFCS	(28.8kbps RAB, DCCH)= (TF0, TF0), (TF1, TF0), (TF2, TF0), (TF0, TF1), (TF1, TF1), (TF2, TF1)

6.10.3.4.1.16.2.2 Physical channel parameters

DPCH Downlink	Midamble	512 chips
	Codes and time slots	SF16 x 2 codes x 1 time slot
	Max. Number of data bits/radio frame	472 bits
	TFCl code word	16 bits
	Puncturing limit	0,44

6.10.3.4.1.17 Streaming / unknown / UL:57.6/DL:57.6 kbps / CS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.10.3.4.1.17.1 Uplink

6.10.3.4.1.17.1.1 Transport channel parameters

6.10.3.4.1.17.1.1.1 Transport channel parameters for Streaming / unknown / UL:57.6 kbps / CS RAB

Higher Layer	RAB/Signalling RB	RAB	
RLC	Logical channel type	DTCH	
	RLC mode	TM	
	Payload sizes, bit	576	
	Max data rate, bps	57600	
	RLC header, bit	0	
MAC	MAC header, bit	0	
	MAC multiplexing	N/A	
Layer 1	TrCH type	DCH	
	TB sizes, bit	576	
	TFS	TF0, bits	0x576
		TF1, bits	1x576
		TF2, bits	2x576
		TF3, bits	3x576
		TF4, bits	4x576
	TTI, ms	40	
	Coding type	TC	
	CRC, bit	16	
	Max number of bits/TTI after channel coding	7116	
Uplink -Max number of bits/radio frame before rate matching	1779		
RM attribute	125-165		

6.10.3.4.1.17.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.1.1.1

6.10.3.4.1.17.1.1.3 TFCS

TFCS size	10
TFCS	(57.6 kbps RAB, DCCH)= (TF0, TF0), (TF1, TF0), (TF2, TF0), (TF3, TF0), (TF4, TF0), (TF0, TF1), (TF1, TF1), (TF2, TF1), (TF3, TF1), (TF4, TF1)

6.10.3.4.1.17.1.2 Physical channel parameters

DPCH Uplink	Midamble	512 chips
	Codes and time slots	SF4 x 1 code x 1 time slot
	Max. Number of data bits/radio frame	904 bits
	TFCI code word	16 bits
	TPC	2 bits
	Puncturing Limit	0.480.44

6.10.3.4.1.17.2 Downlink

6.10.3.4.1.17.2.1 Transport channel parameters

6.10.3.4.1.17.2.1.1 Transport channel parameters for Streaming / unknown / DL:57.6 kbps / CS RAB

Higher Layer	RAB/Signalling RB	RAB	
RLC	Logical channel type	DTCH	
	RLC mode	TM	
	Payload sizes, bit	576	
	Max data rate, bps	57600	
	RLC header, bit	0	
MAC	MAC header, bit	0	
	MAC multiplexing	N/A	
Layer 1	TrCH type	DCH	
	TB sizes, bit	576	
	TFS	TF0, bits	0x576
		TF1, bits	1x576
		TF2, bits	2x576
		TF3, bits	3x576
		TF4, bits	4x576
	TTI, ms	40	
	Coding type	TC	
	CRC, bit	16	
	Max number of bits/TTI after channel coding	7116	
	Max number of bits/radio frame before rate matching	1779	
	RM attribute	125-165	

6.10.3.4.1.17.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.2.1.1

6.10.3.4.1.17.2.1.3 TFCS

TFCS size	10
TFCS	(57.6 kbps RAB, DCCH)= (TF0, TF0), (TF1, TF0), (TF2, TF0), (TF3, TF0), (TF4, TF0), (TF0, TF1), (TF1, TF1), (TF2, TF1), (TF3, TF1), (TF4, TF1)

6.10.3.4.1.17.2.2 Physical channel parameters

DPCH Downlink	Midamble	512 chips
	Codes and time slots	SF16 x 4 codes x 1 time slot
	Max. Number of data bits/radio frame	960 bits
	TFCI code word	16 bits
	Puncturing limit	0,48

6.10.3.4.1.18 Streaming / unknown / UL:0 DL:64 kbps / CS or PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.10.3.4.1.18.1 Uplink

6.10.3.4.1.18.1.1 Transport channel parameters

6.10.3.4.1.18.1.1.1 Transport channel parameters for Streaming / unknown / UL:0 kbps / CS or PS RAB

N/A

6.10.3.4.1.18.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.1.1.1

6.10.3.4.1.18.1.1.3 TFCS

See 6.10.3.4.1.2.1.1.2

6.10.3.4.1.18.1.2 Physical channel parameters

See 6.10.3.4.1.2.1.2.

6.10.3.4.1.18.2 Downlink

6.10.3.4.1.18.2.1 Transport channel parameters

6.10.3.4.1.18.2.1.1 Transport channel parameters for Streaming / unknown / DL:64 kbps / CS or PS RAB

Higher Layer	RAB/Signalling RB	RAB	
RLC	Logical channel type	DTCH	
	RLC mode	TM	
	Payload sizes, bit	320	
	Max data rate, bps	64000	
	RLC header, bit	0	
MAC	MAC header, bit	0	
	MAC multiplexing	N/A	
Layer 1	TrCH type	DCH	
	TB sizes, bit	320	
	TFS	TF0, bits	0x320
		TF1, bits	1x320
		TF2, bits	2x320
		TF3, bits	4x320
		TF4, bits	8x320
	TTI, ms	40	
	Coding type	TC	
	CRC, bit	16	
	Max number of bits/TTI after channel coding	8076	
Max number of bits/radio frame before rate matching	2019		
RM attribute	125-165		

6.10.3.4.1.18.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.2.1.1

6.10.3.4.1.18.2.1.3 TFCS

TFCS size	10
TFCS	(64 kbps RAB, DCCH)= (TF0, TF0), (TF1, TF0), (TF2, TF0), (TF3, TF0), (TF4, TF0), (TF0, TF1), (TF1, TF1), (TF2, TF1), (TF3, TF1), (TF4, TF1)

6.10.3.4.1.18.2.2 Physical channel parameters

DPCH Downlink	Midamble	512 chips
	Codes and time slots	SF16 x 5 codes x 1 time slot
	Max. Number of data bits/radio frame	1204 bits
	TFCI code word	16 bits
	Puncturing limit	0,56

6.10.3.4.1.19 Streaming / unknown / UL:64 DL:0 kbps / CS or PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.10.3.4.1.19.1 Uplink

6.10.3.4.1.19.1.1 Transport channel parameters

6.10.3.4.1.19.1.1.1 Transport channel parameters for Streaming / unknown / UL:64 kbps / CS or PS RAB

Higher Layer	RAB/Signalling RB	RAB	
RLC	Logical channel type	DTCH	
	RLC mode	TM	
	Payload sizes, bit	320	
	Max data rate, bps	64000	
	RLC header, bit	0	
MAC	MAC header, bit	0	
	MAC multiplexing	N/A	
Layer 1	TrCH type	DCH	
	TB sizes, bit	320	
	TFS	TF0, bits	0x320
		TF1, bits	1x320
		TF2, bits	2x320
		TF3, bits	4x320
		TF4, bits	8x320
	TTI, ms	40	
	Coding type	TC	
	CRC, bit	16	
	Max number of bits/TTI after channel coding	8076	
Uplink -Max number of bits/radio frame before rate matching	2019		
RM attribute	125-165		

6.10.3.4.1.19.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.1.1.1

6.10.3.4.1.19.1.1.3 TFCS

TFCS size	10
TFCS	(64 kbps RAB, DCCH)= (TF0, TF0), (TF1, TF0), (TF2, TF0), (TF3, TF0), (TF4, TF0), (TF0, TF1), (TF1, TF1), (TF2, TF1), (TF3, TF1), (TF4, TF1)

6.10.3.4.1.19.1.2 Physical channel parameters

DPCH Uplink	Midamble	512 chips
	Codes and time slots	{SF16 x 1 code + SF4 x 1 code} x 1 time slot
	Max. Number of data bits/radio frame	1202 bits
	TFCI code word	16 bits
	TPC	2 bits
	Puncturing Limit	0.56 0.52

6.10.3.4.1.19.2 Downlink

6.10.3.4.1.19.2.1 Transport channel parameters

6.10.3.4.1.19.2.1.1 Transport channel parameters for Streaming / unknown / DL:0 kbps / CS or PS RAB

N/A

6.10.3.4.1.19.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.2.1.1

6.10.3.4.1.19.2.1.3 TFCS

See 6.10.3.4.1.2.2.1.2

6.10.3.4.1.19.2.2 Physical channel parameters

See 6.10.3.4.1.2.2.2.

6.10.3.4.1.20 Streaming / unknown / UL:0 DL:128 kbps / CS or PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.10.3.4.1.20.1 Uplink

6.10.3.4.1.20.1.1 Transport channel parameters

6.10.3.4.1.20.1.1.1 Transport channel parameters for Streaming / unknown / UL:0 kbps / CS or PS RAB

N/A

6.10.3.4.1.20.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.1.1.1

6.10.3.4.1.20.1.1.3 TFCS

See 6.10.3.4.1.2.1.1.2

6.10.3.4.1.20.1.2 Physical channel parameters

See 6.10.3.4.1.2.1.2.

6.10.3.4.1.20.2 Downlink

6.10.3.4.1.20.2.1 Transport channel parameters

6.10.3.4.1.20.2.1.1 Transport channel parameters for Streaming / unknown / DL:128 kbps / CS or PS RAB

Higher Layer	RAB/Signalling RB	RAB	
RLC	Logical channel type	DTCH	
	RLC mode	TM	
	Payload sizes, bit	320	
	Max data rate, bps	128000	
	RLC header, bit	0	
MAC	MAC header, bit	0	
	MAC multiplexing	N/A	
Layer 1	TrCH type	DCH	
	TB sizes, bit	320	
	TFS	TF0, bits	0x320
		TF1, bits	1x320
		TF2, bits	2x320
		TF3, bits	4x320
		TF4, bits	8x320
		TF5, bits	16x320
	TTI, ms	40	
	Coding type	TC	
	CRC, bit	16	
	Max number of bits/TTI after channel coding	16152	
	Max number of bits/radio frame before rate matching	4038	
RM attribute	125-165		

6.10.3.4.1.20.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.2.1.1

6.10.3.4.1.20.2.1.3 TFCS

TFCS size	12
TFCS	(128 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)

6.10.3.4.1.20.2.2 Physical channel parameters

DPCH Downlink	Midamble	256 chips
	Codes and time slots	SF16 x 8 codes x 1 time slot
	Max. Number of data bits/radio frame	2192 bits
	TFCI code word	16 bits
	Puncturing limit	0,52

6.10.3.4.1.21 Streaming / unknown / UL:128 DL:0 kbps / CS or PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH

6.10.3.4.1.21.1 Uplink

6.10.3.4.1.21.1.1 Transport channel parameters

6.10.3.4.1.21.1.1.1 Transport channel parameters for Streaming / unknown / UL:128 kbps / CS or PS RAB

Higher Layer	RAB/Signalling RB	RAB	
RLC	Logical channel type	DTCH	
	RLC mode	TM	
	Payload sizes, bit	320	
	Max data rate, bps	128000	
	RLC header, bit	0	
MAC	MAC header, bit	0	
	MAC multiplexing	N/A	
Layer 1	TrCH type	DCH	
	TB sizes, bit	320	
	TFS	TF0, bits	0x320
		TF1, bits	1x320
		TF2, bits	2x320
		TF3, bits	4x320
		TF4, bits	8x320
		TF5, bits	16x320
	TTI, ms	40	
	Coding type	TC	
	CRC, bit	16	
	Max number of bits/TTI after channel coding	16152	
	Uplink Max number of bits/radio frame before rate matching	4038	
RM attribute	125-165		

6.10.3.4.1.21.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.1.1.1

6.10.3.4.1.21.1.1.3 TFCS

TFCS size	12
TFCS	(128 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)

6.10.3.4.1.21.1.2 Physical channel parameters

DPCH Uplink	Midamble	256 chips
	Codes and time slots	SF2 x 1 code x 1 time slot
	Max. Number of data bits/radio frame	2064 bits
	TFCI code word	16 bit
	TPC	2 bits
	Puncturing Limit	0.52048

6.10.3.4.1.21.2 Downlink

6.10.3.4.1.21.2.1 Transport channel parameters

6.10.3.4.1.21.2.1.1 Transport channel parameters for Streaming / unknown / DL:0 kbps / CS or PS RAB

N/A

6.10.3.4.1.21.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.2.1.1

6.10.3.4.1.21.2.1.3 TFCS

See 6.10.3.4.1.2.2.1.1

6.10.3.4.1.21.2.2 Physical channel parameters

See 6.10.3.4.1.2.2.2.

6.10.3.4.1.22 Streaming / unknown / UL:0 DL:384 kbps / CS or PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.10.3.4.1.22.1 Uplink

6.10.3.4.1.22.1.1 Transport channel parameters

6.10.3.4.1.22.1.1.1 Transport channel parameters for Streaming / unknown / UL:0 kbps / CS or PS RAB

N/A

6.10.3.4.1.22.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.1.1.1

6.10.3.4.1.22.1.1.3 TFCS

See 6.10.3.4.1.2.1.1.2

6.10.3.4.1.22.1.2 Physical channel parameters

See 6.10.3.4.1.2.1.2

6.10.3.4.1.22.2 Downlink

6.10.3.4.1.22.2.1 Transport channel parameters

6.10.3.4.1.22.2.1.1 Transport channel parameters for Streaming / unknown / DL:384 kbps / CS or PS RAB

Higher Layer	RAB/Signalling RB	RAB	
RLC	Logical channel type	DTCH	
	RLC mode	TM	
	Payload sizes, bit	320	
	Max data rate, bps	384000	
	RLC header, bit	0	
MAC	MAC header, bit	0	
	MAC multiplexing	N/A	
Layer 1	TrCH type	DCH	
	TB sizes, bit	320	
	TFS	TF0, bits	0x320
		TF1, bits	1x320
		TF2, bits	2x320
		TF3, bits	4x320
		TF4, bits	8x320
		TF5, bits	16x320
		TF6, bits	32x320
		TF7, bits	48x320
	TTI, ms	40	
	Coding type	TC	
	CRC, bit	16	
	Max number of bits/TTI after channel coding	48432	
	Max number of bits/radio frame before rate matching	12108	
RM attribute	110-150		

6.10.3.4.1.22.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.2.1.1

6.10.3.4.1.22.2.1.3 TFCS

TFCS size	16
TFCS	(384 kbps RAB, DCCH)= (TF0, TF0), (TF1, TF0), (TF2, TF0), (TF3, TF0), (TF4, TF0), (TF5, TF0), (TF6, TF0), (TF7, TF0), (TF0, TF1), (TF1, TF1), (TF2, TF1), (TF3, TF1), (TF4, TF1), (TF5, TF1), (TF6, TF1), (TF7, TF1)

6.10.3.4.1.22.2.2 Physical channel parameters

DPCH Downlink	Midamble	256 chips
	Codes and time slots	SF16 x 8 codes x 3 time slots
	Max. Number of data bits/radio frame	6608 bits
	TFCI code word	16 bits
	Puncturing limit	0,52

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

6.10.3.4.1.23.1 Uplink

6.10.3.4.1.23.1.1 Transport channel parameters

6.10.3.4.1.23.1.1.1 Transport channel parameters for Interactive or background / UL:32 kbps / PS RAB

Higher Layer	RAB/Signalling RB	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	0	
	MAC multiplexing	N/A	
Layer 1	TrCH type	DCH	
	TB sizes, bit	336	
	TFS	TF0, bits	0x336
		TF1, bits	1x336
		TF2, bits	2x336 (alt. N/A)
	TTI, ms	20 (alt. 10)	
	Coding type	TC (alt. CC 1/3)	
	CRC, bit	16	
	Max number of bits/TTI after channel coding	2124 (alt. 1080)	
	Uplink Max number of bits/radio frame before rate matching	1062 (alt. 1080)	
RM attribute	135-175		

6.10.3.4.1.23.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.1.1.1

6.10.3.4.1.23.1.1.3 TFCS

TFCS size	6 (alt. 4)
TFCS	(32 kbps RAB, DCCH)= (TF0, TF0), (TF1, TF0), (TF2, TF0), (TF0, TF1), (TF1, TF1), (TF2, TF1) (alt. (TF0, TF0), (TF1, TF0), (TF0, TF1), (TF1, TF1))

6.10.3.4.1.23.1.2 Physical channel parameters

DPCH Uplink	Midamble	512 chips
	Codes and time slots	SF4 x 1 code x 1 time slot
	Max. Number of data bits/radio frame	904 bits
	TFCI code word	16 bits
	TPC	2 bits
	Puncturing Limit	0.76

6.10.3.4.1.23.2 Downlink

6.10.3.4.1.23.2.1 Transport channel parameters

6.10.3.4.1.23.2.1.1 Transport channel parameters for Interactive or background / DL:8 kbps / PS RAB

Higher Layer	RAB/Signalling RB	RAB	
RLC	Logical channel type	DTCH	
	RLC mode	AM	
	Payload sizes, bit	320	
	Max data rate, bps	8000	
	RLC header, bit	16	
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	TC (alt. CC 1/3)	
	CRC, bit	16	
	Max number of bits/TTI after channel coding	1068 (alt. 1080)	
	Max number of bits/radio frame before rate matching	267 (alt. 270)	
	RM attribute	135-175	

6.10.3.4.1.23.2.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.2.1.1

6.10.3.4.1.23.2.1.3 TFCS

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

6.10.3.4.1.23.2.2 Physical channel parameters

DPCH Downlink	Midamble	512 chips
	Codes and time slots	SF16 x 1 code x 1 time slot
	Max. Number of data bits/radio frame	236 bits
	TFCI code word	8 bits
	Puncturing limit	0,56

6.10.3.4.1.24 Interactive or background / UL:64 DL:8 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.10.3.4.1.24.1 Uplink

6.10.3.4.1.24.1.1 Transport channel parameters

6.10.3.4.1.24.1.1.1 Transport channel parameters for Interactive or background / UL:64 kbps / PS RAB

Higher Layer	RAB/Signalling RB	RAB	
RLC	Logical channel type	DTCH	
	RLC mode	AM	
	Payload sizes, bit	320	
	Max data rate, bps	64000	
	RLC header, bit	16	
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
		TF3, bits	3x336
		TF4, bits	4x336
	TTI, ms	20	
	Coding type	TC	
	CRC, bit	16	
	Max number of bits/TTI after channel coding	4236	
Uplink -Max number of bits/radio frame before rate matching	2118		
RM attribute	130-170		

6.10.3.4.1.24.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.1.1.1

6.10.3.4.1.24.1.1.3 TFCS

TFCS size	10
TFCS	(64 kbps RAB, DCCH)= (TF0, TF0), (TF1, TF0), (TF2, TF0), (TF3, TF0), (TF4, TF0), (TF0, TF1), (TF1, TF1), (TF2, TF1), (TF3, TF1), (TF4, TF1)

6.10.3.4.1.24.1.2 Physical channel parameters

DPCH Uplink	Midamble	512 chips
	Codes and time slots	{SF16 x 1 code + SF4 x 1 code} x 1 time slot
	Max. Number of data bits/radio frame	1202 bits
	TFCI code word	16 bits
	TPC	2 bits
	Puncturing Limit	0.52

6.10.3.4.1.24.2 Downlink

See 6.10.3.4.1.23.2

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

6.10.3.4.1.25.1 Uplink

See 6.10.3.4.1.23.1

6.10.3.4.1.25.2 Downlink

6.10.3.4.1.25.2.1 Transport channel parameters

6.10.3.4.1.25.2.1.1 Transport channel parameters for Interactive or background / DL:64 kbps / PS RAB

Higher Layer	RAB/Signalling RB	RAB	
RLC	Logical channel type	DTCH	
	RLC mode	AM	
	Payload sizes, bit	320	
	Max data rate, bps	64000	
	RLC header, bit	16	
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
		TF3, bits	3x336
		TF4, bits	4x336
	TTI, ms	20	
	Coding type	TC	
	CRC, bit	16	
	Max number of bits/TTI after channel coding	4236	
	Max number of bits/radio frame before rate matching	2118	
RM attribute	130-170		

6.10.3.4.1.25.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.2.1.1

6.10.3.4.1.25.2.1.3 TFCS

TFCS size	10
TFCS	(64 kbps RAB, DCCH)= (TF0, TF0), (TF1, TF0), (TF2, TF0), (TF3, TF0), (TF4, TF0), (TF0, TF1), (TF1, TF1), (TF2, TF1), (TF3, TF1), (TF4, TF1)

6.10.3.4.1.25.2.2 Physical channel parameters

DPCH Downlink	Midamble	512 chips
	Codes and time slots	SF16 x 5 codes x 1 time slot
	Max. Number of data bits/radio frame	1204 bits
	TFCI code word	16 bits
	Puncturing limit	0,52

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

6.10.3.4.1.26.1 Uplink

See 6.10.3.4.1.24.1

6.10.3.4.1.26.2 Downlink

See 6.10.3.4.1.25.2

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

6.10.3.4.1.27.1 Uplink

See 6.10.3.4.1.24.1

6.10.3.4.1.27.2 Downlink

6.10.3.4.1.27.2.1 Transport channel parameters

6.10.3.4.1.27.2.1.1 Transport channel parameters for Interactive or background / DL:128 kbps / PS RAB

Higher Layer	RAB/Signalling RB	RAB	
RLC	Logical channel type	DTCH	
	RLC mode	AM	
	Payload sizes, bit	320	
	Max data rate, bps	128000	
	RLC header, bit	16	
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
		TF3, bits	4 x336
		TF4, bits	8 x336
	TTI, ms	20	
	Coding type	TC	
	CRC, bit	16	
	Max number of bits/TTI after channel coding	8460	
Max number of bits/radio frame before rate matching	4230		
RM attribute	120-160		

6.10.3.4.1.27.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.2.1.1

6.10.3.4.1.27.2.1.3 TFCS

TFCS size	10
TFCS	(128 kbps RAB, DCCH)= (TF0, TF0), (TF1, TF0), (TF2, TF0), (TF3, TF0), (TF4, TF0), (TF0, TF1), (TF1, TF1), (TF2, TF1), (TF3, TF1), (TF4, TF1)

6.10.3.4.1.27.2.2 Physical channel parameters

DPCH Downlink	Midamble	256 chips
	Codes and time slots	SF16 x 8 codes x 1 time slot
	Max. Number of data bits/radio frame	2192 bits
	TFCI code word	16 bits
	Puncturing limit	0,48

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

6.10.3.4.1.28.1 Uplink

6.10.3.4.1.28.1.1 Transport channel parameters

6.10.3.4.1.28.1.1.1 Transport channel parameters for Interactive or background / UL:128 kbps / PS RAB

Higher Layer	RAB/Signalling RB	RAB	
RLC	Logical channel type	DTCH	
	RLC mode	AM	
	Payload sizes, bit	320	
	Max data rate, bps	128000	
	RLC header, bit	16	
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
		TF3, bits	4 x336
		TF4, bits	8 x336
	TTI, ms	20	
	Coding type	TC	
	CRC, bit	16	
	Max number of bits/TTI after channel coding	8460	
Uplink Max number of bits/radio frame before rate matching	4230		
RM attribute	120-160		

6.10.3.4.1.28.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.1.1.1

6.10.3.4.1.28.1.1.3 TFCS

TFCS size	10
TFCS	(128 kbps RAB, DCCH)= (TF0, TF0), (TF1, TF0), (TF2, TF0), (TF3, TF0), (TF4, TF0), (TF0, TF1), (TF1, TF1), (TF2, TF1), (TF3, TF1), (TF4, TF1)

6.10.3.4.1.28.1.2 Physical channel parameters

DPCH Uplink	Midamble	256 chips
	Codes and time slots	SF2 x 1 code x 1 time slot
	Max. Number of data bits/radio frame	2064 bits
	TFCI code word	16 bits
	TPC	2 bits
	Puncturing Limit	0.48

6.10.3.4.1.28.2 Downlink

See 6.10.3.4.1.27.2.

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

6.10.3.4.1.29.1 Uplink

See 6.10.3.4.1.24.1.

6.10.3.4.1.29.2 Downlink

6.10.3.4.1.29.2.1 Transport channel parameters

6.10.3.4.1.29.2.1.1 Transport channel parameters for Interactive or background / DL:144 kbps / PS RAB

Higher Layer	RAB/Signalling RB	RAB	
RLC	Logical channel type	DTCH	
	RLC mode	AM	
	Payload sizes, bit	320	
	Max data rate, bps	144000	
	RLC header, bit	16	
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
		TF3, bits	4 x336
		TF4, bits	8 x336
		TF5, bits	9x336
	TTI, ms	20	
	Coding type	TC	
	CRC, bit	16	
	Max number of bits/TTI after channel coding	9516	
	Max number of bits/radio frame before rate matching	4758	
RM attribute	140-180		

6.10.3.4.1.29.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.2.1.1

6.10.3.4.1.29.2.1.3 TFCS

TFCS size	12
TFCS	(144 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)

6.10.3.4.1.29.2.2 Physical channel parameters

DPCH Downlink	Midamble	256 chips
	Codes and time slots	SF16 x 9 codes x 1 time slot
	Max. Number of data bits/radio frame	2468 bits
	TFCl code word	16 bits
	Puncturing limit	0,48

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

6.10.3.4.1.30.1 Uplink

6.10.3.4.1.30.1.1 Transport channel parameters

6.10.3.4.1.30.1.1.1 Transport channel parameters for Interactive or background / UL:144 kbps / PS RAB

Higher Layer	RAB/Signalling RB	RAB	
RLC	Logical channel type	DTCH	
	RLC mode	AM	
	Payload sizes, bit	320	
	Max data rate, bps	144000	
	RLC header, bit	16	
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
		TF3, bits	4 x336
		TF4, bits	8 x336
		TF5, bits	9 x336
	TTI, ms	20	
	Coding type	TC	
	CRC, bit	16	
	Max number of bits/TTI after channel coding	9516	
	Uplink -Max number of bits/radio frame before rate matching	4758	
RM attribute	140-180		

6.10.3.4.1.30.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.1.1.1

6.10.3.4.1.30.1.1.3 TFCS

TFCS size	12
TFCS	(144 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)

6.10.3.4.1.30.1.2 Physical channel parameters

DPCH Uplink	Midamble	256 chips
	Codes and time slots	{SF16 x 1 code + SF2 x 1 code} x 1 time slot
	Max. Number of data bits/radio frame	2466 bits
	TFCI code word	16 bits
	TPC	2 bits
	Puncturing Limit	0.52

6.10.3.4.1.30.2 Downlink

See 6.10.3.4.1.29.2.

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

6.10.3.4.1.31.1 Uplink

See 6.10.3.4.1.24.1

6.10.3.4.1.31.2 Downlink

6.10.3.4.1.31.2.1 Transport channel parameters

6.10.3.4.1.31.2.1.1 Transport channel parameters for Interactive or background / DL:256 kbps / PS RAB

Higher Layer	RAB/Signalling RB	RAB	
RLC	Logical channel type	DTCH	
	RLC mode	AM	
	Payload sizes, bit	320	
	Max data rate, bps	384000	
	RLC header, bit	16	
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
		TF3, bits	4 x336
		TF4, bits	8 x336
		TF5, bits	N/A (alt. 12x336)
	TF6, bits	N/A (alt. 16x336)	
	TTI, ms	10(alt. 20)	
	Coding type	TC	
	CRC, bit	16	
Max number of bits/TTI after channel coding	8460(alt. 16920)		
Max number of bits/radio frame before rate matching	8460 (alt. 8460)		
RM attribute	135-175		

6.10.3.4.1.31.2.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.2.1.1

6.10.3.4.1.31.2.1.3 TFCS

TFCS size	10 (alt.14)
TFCS	(256 kbps RAB, DCCH)= (TF0, TF0), (TF1, TF0), (TF2, TF0), (TF3, TF0), (TF4, 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), (TF0, TF1), (TF1, TF1), (TF2, TF1), (TF3, TF1), (TF4, TF1), (TF5, TF1), (TF6, TF1))

6.10.3.4.1.31.2.2 Physical channel parameters

DPCH Downlink	Midamble	256 chips
	Codes and time slots	SF16 x 8 codes x 2 time slots
	Max. Number of data bits/radio frame	4400 bits
	TFCI code word	16 bits
	Puncturing limit	0,48

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

6.10.3.4.1.32.1 Uplink

See 6.10.3.4.1.24.1.

6.10.3.4.1.32.2 Downlink

6.10.3.4.1.32.2.1 Transport channel parameters

6.10.3.4.1.32.2.1.1 Transport channel parameters for Interactive or background / DL:384 kbps / PS RAB

Higher Layer	RAB/Signalling RB	RAB	
RLC	Logical channel type	DTCH	
	RLC mode	AM	
	Payload sizes, bit	320	
	Max data rate, bps	384000	
	RLC header, bit	16	
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
		TF3, bits	4 x336
		TF4, bits	8 x336
		TF5, bits	12x336
		TF6, bits	N/A (alt. 16 x336)
		TF7, bits	N/A (alt. 20 x336)
	TF8, bits	N/A (alt. 24 x336)	
	TTI, ms	10(alt. 20)	
	Coding type	TC	
	CRC, bit	16	
Max number of bits/TTI after channel coding	12684(alt. 25368)		
Max number of bits/radio frame before rate matching	12684 (alt. 12684)		
RM attribute	110-150		

6.10.3.4.1.32.2.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.2.1.1

6.10.3.4.1.32.2.1.3 TFCS

TFCS size	12 (alt.18)
TFCS	(384 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))

6.10.3.4.1.32.2.2 Physical channel parameters

DPCH Downlink	Midamble	256 chips
	Codes and time slots	SF16 x 8 codes x 3 time slots
	Max. Number of data bits/radio frame	6608 bits
	TFCI code word	16 bits
	Puncturing limit	0,52

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

6.10.3.4.1.33.1 Uplink

See 6.10.3.4.1.28.1.

6.10.3.4.1.33.2 Downlink

See 6.10.3.4.1.32.2.

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

6.10.3.4.1.34.1 Uplink

6.10.3.4.1.34.1.1 Transport channel parameters

6.10.3.4.1.34.1.1.1 Transport channel parameters for Interactive or background / UL:384 kbps / PS RAB

Higher Layer	RAB/Signalling RB	RAB	
RLC	Logical channel type	DTCH	
	RLC mode	AM	
	Payload sizes, bit	320	
	Max data rate, bps	384000	
	RLC header, bit	16	
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
		TF3, bits	4 x336
		TF4, bits	8 x336
		TF5, bits	12x336
		TF6, bits	16x336(alt. N/A)
		TF7, bits	20x336(alt. N/A)
	TF8, bits	24 x336 (alt. N/A)	
	TTI, ms	20 (alt. 10)	
	Coding type	TC	
CRC, bit	16		
Max number of bits/TTI after channel coding	25368		

	Uplink: Max number of bits/radio frame before rate matching	12684
	RM attribute	110-150

6.10.3.4.1.34.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.1.1.1

6.10.3.4.1.34.1.1.3 TFCS

TFCS size	18 (alt.12)
TFCS	(384 kbps RAB, DCCH)= (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) (alt. (TF0, TF0), (TF1, TF0), (TF2, TF0), (TF3, TF0), (TF4, TF0), (TF5, TF0) (TF0, TF1), (TF1, TF1), (TF2, TF1), (TF3, TF1), (TF4, TF1), (TF5, TF1))

6.10.3.4.1.34.1.2 Physical channel parameters

DPCH Uplink	Midamble	256 chips
	Codes and time slots	SF2 x 1 code x 3 time slots
	Max. Number of data bits/radio frame	6480 bits
	TFCI code word	16 bits
	TPC	2 bits
	Puncturing Limit	0.48

6.10.3.4.1.34.2 Downlink

See 6.10.3.4.1.32.2.

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

6.10.3.4.1.35.1 Uplink

See 6.10.3.4.1.24.1.

6.10.3.4.1.35.2 Downlink

6.10.3.4.1.35.2.1 Transport channel parameters

6.10.3.4.1.35.2.1.1 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	640	
	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	656	
	TFS	TF0, bits	0x656
		TF1, bits	1x656
		TF2, bits	2x656
		TF3, bits	4 x656
		TF4, bits	8 x656
		TF5, bits	12x656
		TF6, bits	16x656
		TF7, bits	20x656
		TF8, bits	24x656
		TF9, bits	28x656
		TF10, bits	32x656
		TF11, bits	N/A (alt. 36x656)
		TF12, bits	N/A (alt. 40x656)
		TF13, bits	N/A (alt. 44x656)
		TF14, bits	N/A (alt. 48x656)
		TF15, bits	N/A (alt. 52x656)
		TF16, bits	N/A (alt. 56x656)
		TF17, bits	N/A (alt. 60x656)
	TF18, bits	N/A (alt. 64x656)	
	TTI, ms	10(alt. 20)	
	Coding type	TC	
CRC, bit	16		
Max number of bits/TTI after channel coding	64572 64575 (alt. 429132 129141)		
<u>Max number of bits/radio frame before rate matching</u>	<u>64575 (alt. 64571)</u>		
RM attribute	130-170		

6.10.3.4.1.35.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.2.1.1

6.10.3.4.1.35.2.1.3 TFCS

TFCS size	22 (alt.38)
TFCS	(2048 kbps RAB, DCCH)= (TF0, TF0), (TF1, TF0), (TF2, TF0), (TF3, TF0), (TF4, TF0), (TF5, TF0), (TF6, TF0), (TF7, TF0), (TF8, TF0), (TF9, TF0), (TF10, TF0), (TF0, TF1), (TF1, TF1), (TF2, TF1), (TF3, TF1), (TF4, TF1), (TF5, TF1), (TF6, TF1), (TF7, TF1), (TF8, TF1), (TF9, TF1), (TF10, TF1) (alt. TF0, TF0), (TF1, TF0), (TF2, TF0), (TF3, TF0), (TF4, TF0), (TF5, TF0), (TF6, TF0), (TF7, TF0), (TF8, TF0), (TF9, TF0), (TF10, TF0), (TF11, TF0), (TF12, TF0), (TF13, TF0), (TF14, TF0), (TF15, TF0), (TF16, TF0), (TF17, TF0), (TF18, TF0), (TF0, TF1), (TF1, TF1), (TF2, TF1), (TF3, TF1), (TF4, TF1), (TF5, TF1), (TF6, TF1), (TF7, TF1), (TF8, TF1), (TF9, TF1), (TF10, TF1), (TF11, TF0), (TF12, TF0), (TF13, TF0), (TF14, TF0), (TF15, TF0), (TF16, TF0), (TF17, TF0), (TF18, TF0))

6.10.3.4.1.35.2.2 Physical channel parameters

DPCH Downlink	Midamble	256 chips
	Codes and time slots	SF1 x 1 code x 12 time slot
	Max. Number of data bits/radio frame	52976 bits
	TFCI code word	16 bits
	Puncturing limit	0.86 0.80

6.10.3.4.1.36 Interactive or background / UL:128 DL:2048 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.10.3.4.1.36.1 Uplink

See 6.10.3.4.1.28.1.

6.10.3.4.1.36.2 Downlink

See 6.10.3.4.1.35.2.

6.10.3.4.1.37 Interactive or background / UL:384 DL:2048 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.10.3.4.1.37.1 Uplink

See 6.10.3.4.1.34.1.

6.10.3.4.1.37.2 Downlink

See 6.10.3.4.1.35.2.

6.10.2.4.1.38 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

6.10.3.4.1.38.1 Uplink

6.10.3.4.1.38.1.1 Transport channel parameters

6.10.3.4.1.38.1.1.1 Transport channel parameters for Conversational / speech / UL:12.2 kbps / CS RAB

See 6.10.3.4.1.4.1.1.1

6.10.3.4.1.38.1.1.2 Transport channel parameters for Interactive or background / UL:32 kbps / PS RAB

See 6.10.3.4.1.23.1.1.1

6.10.3.4.1.38.1.1.3 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.1.1.1

6.10.3.4.1.38.1.1.4 TFCS

TFCS size	18 (alt. 12)
TFCS	(RAB subflow#1, RAB subflow#2, RAB subflow#3, 32kbps RAB , DCCH)= (TF0, TF0, TF0, TF0, TF0), (TF1, TF0, TF0, TF0, TF0), (TF2, TF1, TF1, TF0, TF0), (TF0, TF0, TF0, TF1, TF0), (TF1, TF0, TF0, TF1, TF0), (TF2, TF1, TF1, TF1, TF0), (TF0, TF0, TF0, TF2, TF0), (TF1, TF0, TF0, TF2, TF0), (TF2, TF1, TF1, TF2, TF0), (TF0, TF0, TF0, TF0, TF1), (TF1, TF0, TF0, TF0, TF1), (TF2, TF1, TF1, TF0, TF1), (TF0, TF0, TF0, TF1, TF1), (TF1, TF0, TF0, TF1, TF1), (TF2, TF1, TF1, TF1, TF1), (TF0, TF0, TF0, TF2, TF1), (TF1, TF0, TF0, TF2, TF1), (TF2, TF1, TF1, TF2, TF1) (alt. (TF0, TF0, TF0, TF0, TF0), (TF1, TF0, TF0, TF0, TF0), (TF2, TF1, TF1, TF0, TF0), (TF0, TF0, TF0, TF1, TF0), (TF1, TF0, TF0, TF1, TF0), (TF2, TF1, TF1, TF1, TF0), (TF0, TF0, TF0, TF0, TF1), (TF1, TF0, TF0, TF0, TF1), (TF2, TF1, TF1, TF0, TF1), (TF0, TF0, TF0, TF1, TF1), (TF1, TF0, TF0, TF1, TF1), (TF2, TF1, TF1, TF1, TF1))

6.10.3.4.1.38.1.2 Physical channel parameters

DPCH Uplink	Midamble	512 chips
	Codes and time slots	SF4 x 1 code x 1 time slot
	Max. Number of data bits/radio frame	904 bits
	TFCI code word	16 bits
	TPC	2 bits
	Puncturing Limit	0.56

6.10.3.4.1.38.2 Downlink

6.10.3.4.1.38.2.1 Transport channel parameters

6.10.3.4.1.38.2.1.1 Transport channel parameters for Conversational / speech / DL:12.2 kbps / CS RAB

See 6.10.3.4.1.4.2.1.1

6.10.3.4.1.38.2.1.2 Transport channel parameters for Interactive or background / DL:8 kbps / PS RAB

See 6.10.3.4.1.23.2.1.1

6.10.3.4.1.38.2.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.2.1

6.10.3.4.1.38.2.1.4 TFCS

TFCS size	12
TFCS	(RAB subflow#1, RAB subflow#2, RAB subflow#3, 8kbps RAB, DCCH)= (TF0, TF0, TF0, TF0, TF0), (TF1, TF0, TF0, TF0, TF0), (TF2, TF1, TF1, TF0, TF0), (TF0, TF0, TF0, TF1, TF0), (TF1, TF0, TF0, TF1, TF0), (TF2, TF1, TF1, TF1, TF0), (TF0, TF0, TF0, TF0, TF1), (TF1, TF0, TF0, TF0, TF1), (TF2, TF1, TF1, TF0, TF1), (TF0, TF0, TF0, TF1, TF1), (TF1, TF0, TF0, TF1, TF1), (TF2, TF1, TF1, TF1, TF1)

6.10.3.4.1.38.2.2 Physical channel parameters

DPCH Downlink	Midamble	512 chips
	Codes and time slots	SF16 x 2 codes x 1 time slot
	Max. Number of data bits/radio frame	472 bits
	TFCI code word	16 bits
	Puncturing limit	0.480.60

6.10.3.4.1.39 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

6.10.3.4.1.39.1 Uplink

See 6.10.3.4.1.38.1.

6.10.3.4.1.39.2 Downlink

6.10.3.4.1.39.2.1 Transport channel parameters

6.10.3.4.1.39.2.1.1 Transport channel parameters for Conversational / speech / DL:12.2 kbps / CS RAB

See 6.10.3.4.1.4.2.1.1

6.10.3.4.1.39.2.1.2 Transport channel parameters for Interactive or background / DL:64 kbps / PS RAB

See 6.10.3.4.1.25.2.1.1

6.10.3.4.1.39.2.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.2.1.1

6.10.3.4.1.39.2.1.4 TFCS

TFCS size	30
TFCS	(RAB subflow#1, RAB subflow#2, RAB subflow#3, 64 kbps RAB , DCCH)= (TF0, TF0, TF0, TF0, TF0), (TF1, TF0, TF0, TF0, TF0), (TF2, TF1, TF1, TF0, TF0), (TF0, TF0, TF0, TF1, TF0), (TF1, TF0, TF0, TF1, TF0), (TF2, TF1, TF1, TF1, TF0), (TF0, TF0, TF0, TF2, TF0), (TF1, TF0, TF0, TF2, TF0), (TF2, TF1, TF1, TF2, TF0), (TF0, TF0, TF0, TF3, TF0), (TF1, TF0, TF0, TF3, TF0), (TF2, TF1, TF1, TF3, TF0), (TF0, TF0, TF0, TF4, TF0), (TF1, TF0, TF0, TF4, TF0), (TF2, TF1, TF1, TF4, TF0), (TF0, TF0, TF0, TF0, TF1), (TF1, TF0, TF0, TF0, TF1), (TF2, TF1, TF1, TF0, TF1), (TF0, TF0, TF0, TF1, TF1), (TF1, TF0, TF0, TF1, TF1), (TF2, TF1, TF1, TF1, TF1), (TF0, TF0, TF0, TF2, TF1), (TF1, TF0, TF0, TF2, TF1), (TF2, TF1, TF1, TF2, TF1), (TF0, TF0, TF0, TF3, TF1), (TF1, TF0, TF0, TF3, TF1), (TF2, TF1, TF1, TF3, TF1), (TF0, TF0, TF0, TF4, TF1), (TF1, TF0, TF0, TF4, TF1), (TF2, TF1, TF1, TF4, TF1)

6.10.3.4.1.39.2.2 Physical channel parameters

DPCH Downlink	Midamble	512 chips
	Codes and time slots	SF16 x 8 codes x 1 time slot
	Max. Number of data bits/radio frame	1936 bits
	TFCI code word	16 bits
	Puncturing limit	0,68

6.10.3.4.1.40 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

6.10.3.4.1.40.1 Uplink

6.10.3.4.1.40.1.1 Transport channel parameters

6.10.3.4.1.40.1.1.1 Transport channel parameters for Conversational / speech / UL:12.2 kbps / CS RAB

See 6.10.3.4.1.4.1.1.1

6.10.3.4.1.40.1.1.2 Transport channel parameters for Interactive or background / UL:64 kbps / PS RAB

See 6.10.3.4.1.24.1.1.1

6.10.3.4.1.40.1.1.3 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.1.1.1

6.10.3.4.1.40.1.1.4 TFCS

TFCS size	30
TFCS	(RAB subflow#1, RAB subflow#2, RAB subflow#3, 64 kbps RAB , DCCH)= (TF0, TF0, TF0, TF0, TF0), (TF1, TF0, TF0, TF0, TF0), (TF2, TF1, TF1, TF0, TF0), (TF0, TF0, TF0, TF1, TF0), (TF1, TF0, TF0, TF1, TF0), (TF2, TF1, TF1, TF1, TF0), (TF0, TF0, TF0, TF2, TF0), (TF1, TF0, TF0, TF2, TF0), (TF2, TF1, TF1, TF2, TF0), (TF0, TF0, TF0, TF3, TF0), (TF1, TF0, TF0, TF3, TF0), (TF2, TF1, TF1, TF3, TF0), (TF0, TF0, TF0, TF4, TF0), (TF1, TF0, TF0, TF4, TF0), (TF2, TF1, TF1, TF4, TF0), (TF0, TF0, TF0, TF0, TF1), (TF1, TF0, TF0, TF0, TF1), (TF2, TF1, TF1, TF0, TF1), (TF0, TF0, TF0, TF1, TF1), (TF1, TF0, TF0, TF1, TF1), (TF2, TF1, TF1, TF1, TF1), (TF0, TF0, TF0, TF2, TF1), (TF1, TF0, TF0, TF2, TF1), (TF2, TF1, TF1, TF2, TF1), (TF0, TF0, TF0, TF3, TF1), (TF1, TF0, TF0, TF3, TF1), (TF2, TF1, TF1, TF3, TF1), (TF0, TF0, TF0, TF4, TF1), (TF1, TF0, TF0, TF4, TF1), (TF2, TF1, TF1, TF4, TF1)

6.10.3.4.1.40.1.2 Physical channel parameters

DPCH Uplink	Midamble	512 chips
	Codes and time slots	SF2 x 1 code x 1 time slot
	Max. Number of data bits/radio frame	1808 bits
	TFCI code word	16 bit
	TPC	2 bits
	Puncturing Limit	0.68

6.10.3.4.1.40.2 Downlink

See 6.10.3.4.1.39.2.

6.10.3.4.1.41 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

6.10.3.4.1.41.1 Uplink

See 6.10.3.4.1.40.1.

6.10.3.4.1.41.2 Downlink

6.10.3.4.1.41.2.1 Transport channel parameters

6.10.3.4.1.41.2.1.1 Transport channel parameters for Conversational / speech / DL:12.2 kbps / CS RAB

See 6.10.3.4.1.4.2.1.1

6.10.3.4.1.41.2.1.2 Transport channel parameters for Interactive or background / DL:128 kbps / PS RAB

See 6.10.3.4.1.27.2.1.1

6.10.3.4.1.41.2.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.2.1.1

6.10.3.4.1.41.2.1.4 TFCS

TFCS size	30
TFCS	(RAB subflow#1, RAB subflow#2, RAB subflow#3, 128 kbps RAB , DCCH)= (TF0, TF0, TF0, TF0, TF0), (TF1, TF0, TF0, TF0, TF0), (TF2, TF1, TF1, TF0, TF0), (TF0, TF0, TF0, TF1, TF0), (TF1, TF0, TF0, TF1, TF0), (TF2, TF1, TF1, TF1, TF0), (TF0, TF0, TF0, TF2, TF0), (TF1, TF0, TF0, TF2, TF0), (TF2, TF1, TF1, TF2, TF0), (TF0, TF0, TF0, TF3, TF0), (TF1, TF0, TF0, TF3, TF0), (TF2, TF1, TF1, TF3, TF0), (TF0, TF0, TF0, TF4, TF0), (TF1, TF0, TF0, TF4, TF0), (TF2, TF1, TF1, TF4, TF0), (TF0, TF0, TF0, TF0, TF1), (TF1, TF0, TF0, TF0, TF1), (TF2, TF1, TF1, TF0, TF1), (TF0, TF0, TF0, TF1, TF1), (TF1, TF0, TF0, TF1, TF1), (TF2, TF1, TF1, TF1, TF1), (TF0, TF0, TF0, TF2, TF1), (TF1, TF0, TF0, TF2, TF1), (TF2, TF1, TF1, TF2, TF1), (TF0, TF0, TF0, TF3, TF1), (TF1, TF0, TF0, TF3, TF1), (TF2, TF1, TF1, TF3, TF1), (TF0, TF0, TF0, TF4, TF1), (TF1, TF0, TF0, TF4, TF1), (TF2, TF1, TF1, TF4, TF1)

6.10.3.4.1.41.2.2 Physical channel parameters

DPCH Downlink	Midamble	256 chips
	Codes and time slots	SF16 x 10 codes x 1 time slot
	Max. Number of data bits/radio frame	2744 bits
	TFCI code word	16 bits
	Puncturing limit	0,56

6.10.3.4.1.42 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

6.10.3.4.1.42.1 Uplink

See 6.10.3.4.1.40.1

6.10.3.4.1.42.2 Downlink

6.10.3.4.1.42.2.1 Transport channel parameters

6.10.3.4.1.42.2.1.1 Transport channel parameters for Conversational / speech / DL:12.2 kbps / CS RAB

See 6.10.3.4.1.4.2.1.1

6.10.3.4.1.42.2.1.2 Transport channel parameters for Interactive or background / DL:256 kbps / PS RAB

See 6.10.3.4.1.31.2.1.1

6.10.3.4.1.42.2.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.2.1.1

6.10.3.4.1.42.2.1.4 TFCS

TFCS size	30 (alt. 42)
TFCS	(RAB subflow#1, RAB subflow#2, RAB subflow#3, 256 kbps RAB , DCCH)= (TF0, TF0, TF0, TF0, TF0), (TF1, TF0, TF0, TF0, TF0), (TF2, TF1, TF1, TF0, TF0), (TF0, TF0, TF0, TF1, TF0), (TF1, TF0, TF0, TF1, TF0), (TF2, TF1, TF1, TF1, TF0), (TF0, TF0, TF0, TF2, TF0), (TF1, TF0, TF0, TF2, TF0), (TF2, TF1, TF1, TF2, TF0), (TF0, TF0, TF0, TF3, TF0), (TF1, TF0, TF0, TF3, TF0), (TF2, TF1, TF1, TF3, TF0), (TF0, TF0, TF0, TF4, TF0), (TF1, TF0, TF0, TF4, TF0), (TF2, TF1, TF1, TF4, TF0), (TF0, TF0, TF0, TF0, TF1), (TF1, TF0, TF0, TF0, TF1), (TF2, TF1, TF1, TF0, TF1), (TF0, TF0, TF0, TF1, TF1), (TF1, TF0, TF0, TF1, TF1), (TF2, TF1, TF1, TF1, TF1), (TF0, TF0, TF0, TF2, TF1), (TF1, TF0, TF0, TF2, TF1), (TF2, TF1, TF1, TF2, TF1), (TF0, TF0, TF0, TF3, TF1), (TF1, TF0, TF0, TF3, TF1), (TF2, TF1, TF1, TF3, TF1), (TF0, TF0, TF0, TF4, TF1), (TF1, TF0, TF0, TF4, TF1), (TF2, TF1, TF1, TF4, TF1) (alt. (TF0, TF0, TF0, TF0, TF0), (TF1, TF0, TF0, TF0, TF0), (TF2, TF1, TF1, TF0, TF0), (TF0, TF0, TF0, TF1, TF0), (TF1, TF0, TF0, TF1, TF0), (TF2, TF1, TF1, TF1, TF0), (TF0, TF0, TF0, TF2, TF0), (TF1, TF0, TF0, TF2, TF0), (TF2, TF1, TF1, TF2, TF0), (TF0, TF0, TF0, TF3, TF0), (TF1, TF0, TF0, TF3, TF0), (TF2, TF1, TF1, TF3, TF0), (TF0, TF0, TF0, TF4, TF0), (TF1, TF0, TF0, TF4, TF0), (TF2, TF1, TF1, TF4, TF0), (TF0, TF0, TF0, TF5, TF0), (TF1, TF0, TF0, TF5, TF0), (TF2, TF1, TF1, TF5, TF0), (TF0, TF0, TF0, TF6, TF0), (TF1, TF0, TF0, TF6, TF0), (TF2, TF1, TF1, TF6, TF0), (TF0, TF0, TF0, TF0, TF1), (TF1, TF0, TF0, TF0, TF1), (TF2, TF1, TF1, TF0, TF1), (TF0, TF0, TF0, TF1, TF1), (TF1, TF0, TF0, TF1, TF1), (TF2, TF1, TF1, TF1, TF1), (TF0, TF0, TF0, TF2, TF1), (TF1, TF0, TF0, TF2, TF1), (TF2, TF1, TF1, TF2, TF1), (TF0, TF0, TF0, TF3, TF1), (TF1, TF0, TF0, TF3, TF1), (TF2, TF1, TF1, TF3, TF1), (TF0, TF0, TF0, TF4, TF1), (TF1, TF0, TF0, TF4, TF1), (TF2, TF1, TF1, TF4, TF1), (TF0, TF0, TF0, TF5, TF1), (TF1, TF0, TF0, TF5, TF1), (TF2, TF1, TF1, TF5, TF1), (TF0, TF0, TF0, TF6, TF1), (TF1, TF0, TF0, TF6, TF1), (TF2, TF1, TF1, TF6, TF1))

6.10.3.4.1.42.2.2 Physical channel parameters

DPCH Downlink	Midamble	256 chips
	Codes and time slots	SF16 x 10 codes x 2 time slots
	Max. Number of data bits/radio frame	5504 bits
	TFCI code word	16 bits
	Puncturing limit	0,60

6.10.3.4.1.43 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

6.10.3.4.1.43.1 Uplink

See 6.10.3.4.1.40.1.

6.10.3.4.1.43.2 Downlink

6.10.3.4.1.43.2.1 Transport channel parameters

6.10.3.4.1.43.2.1.1 Transport channel parameters for Conversational / speech / DL:12.2 kbps / CS RAB

See 6.10.3.4.1.4.2.1.1

6.10.3.4.1.43.2.1.2 Transport channel parameters for Interactive or background / DL:384 kbps / PS RAB

See 6.10.3.4.1.32.2.1.1

6.10.3.4.1.43.2.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.2.1.1

6.10.3.4.1.43.2.1.4 TFCS

TFCS size	36 (alt. 54)
TFCS	(RAB subflow#1, RAB subflow#2, RAB subflow#3, 384 kbps RAB , DCCH)= (TF0, TF0, TF0, TF0, TF0), (TF1, TF0, TF0, TF0, TF0), (TF2, TF1, TF1, TF0, TF0), (TF0, TF0, TF0, TF1, TF0), (TF1, TF0, TF0, TF1, TF0), (TF2, TF1, TF1, TF1, TF0), (TF0, TF0, TF0, TF2, TF0), (TF1, TF0, TF0, TF2, TF0), (TF2, TF1, TF1, TF2, TF0), (TF0, TF0, TF0, TF3, TF0), (TF1, TF0, TF0, TF3, TF0), (TF2, TF1, TF1, TF3, TF0), (TF0, TF0, TF0, TF4, TF0), (TF1, TF0, TF0, TF4, TF0), (TF2, TF1, TF1, TF4, TF0), (TF0, TF0, TF0, TF5, TF0), (TF1, TF0, TF0, TF5, TF0), (TF2, TF1, TF1, TF5, TF0), (TF0, TF0, TF0, TF0, TF1), (TF1, TF0, TF0, TF0, TF1), (TF2, TF1, TF1, TF0, TF1), (TF0, TF0, TF0, TF1, TF1), (TF1, TF0, TF0, TF1, TF1), (TF2, TF1, TF1, TF1, TF1), (TF0, TF0, TF0, TF2, TF1), (TF1, TF0, TF0, TF2, TF1), (TF2, TF1, TF1, TF2, TF1), (TF0, TF0, TF0, TF3, TF1), (TF1, TF0, TF0, TF3, TF1), (TF2, TF1, TF1, TF3, TF1), (TF0, TF0, TF0, TF4, TF1), (TF1, TF0, TF0, TF4, TF1), (TF2, TF1, TF1, TF4, TF1), (TF0, TF0, TF0, TF5, TF1), (TF1, TF0, TF0, TF5, TF1), (TF2, TF1, TF1, TF5, TF1), (alt. (TF0, TF0, TF0, TF0, TF0), (TF1, TF0, TF0, TF0, TF0), (TF2, TF1, TF1, TF0, TF0), (TF0, TF0, TF0, TF1, TF0), (TF1, TF0, TF0, TF1, TF0), (TF2, TF1, TF1, TF1, TF0), (TF0, TF0, TF0, TF2, TF0), (TF1, TF0, TF0, TF2, TF0), (TF2, TF1, TF1, TF2, TF0), (TF0, TF0, TF0, TF3, TF0), (TF1, TF0, TF0, TF3, TF0), (TF2, TF1, TF1, TF3, TF0), (TF0, TF0, TF0, TF4, TF0), (TF1, TF0, TF0, TF4, TF0), (TF2, TF1, TF1, TF4, TF0), (TF0, TF0, TF0, TF5, TF0), (TF1, TF0, TF0, TF5, TF0), (TF2, TF1, TF1, TF5, TF0), (TF0, TF0, TF0, TF6, TF0), (TF1, TF0, TF0, TF6, TF0), (TF2, TF1, TF1, TF6, TF0), (TF0, TF0, TF0, TF7, TF0), (TF1, TF0, TF0, TF7, TF0), (TF2, TF1, TF1, TF7, TF0), (TF0, TF0, TF0, TF8, TF0), (TF1, TF0, TF0, TF8, TF0), (TF2, TF1, TF1, TF8, TF0), (TF0, TF0, TF0, TF0, TF1), (TF1, TF0, TF0, TF0, TF1), (TF2, TF1, TF1, TF0, TF1), (TF0, TF0, TF0, TF1, TF1), (TF1, TF0, TF0, TF1, TF1), (TF2, TF1, TF1, TF1, TF1), (TF0, TF0, TF0, TF2, TF1), (TF1, TF0, TF0, TF2, TF1), (TF2, TF1, TF1, TF2, TF1), (TF0, TF0, TF0, TF3, TF1), (TF1, TF0, TF0, TF3, TF1), (TF2, TF1, TF1, TF3, TF1), (TF0, TF0, TF0, TF4, TF1), (TF1, TF0, TF0, TF4, TF1), (TF2, TF1, TF1, TF4, TF1), (TF0, TF0, TF0, TF5, TF1), (TF1, TF0, TF0, TF5, TF1), (TF2, TF1, TF1, TF5, TF1), (TF0, TF0, TF0, TF6, TF1), (TF1, TF0, TF0, TF6, TF1), (TF2, TF1, TF1, TF6, TF1), (TF0, TF0, TF0, TF7, TF1), (TF1, TF0, TF0, TF7, TF1), (TF2, TF1, TF1, TF7, TF1), (TF0, TF0, TF0, TF8, TF1), (TF1, TF0, TF0, TF8, TF1), (TF2, TF1, TF1, TF8, TF1))

6.10.3.4.1.43.2.2 Physical channel parameters

DPCH Downlink	Midamble	256 chips
	Codes and time slots	SF16 x 8 codes x 3 time slots
	Max. Number of data bits/radio frame	6592 bits
	TFCI code word	32 bits
	Puncturing limit	0,48

6.10.3.4.1.44 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

6.10.3.4.1.44.1 Uplink

6.10.3.4.1.44.1.1 Transport channel parameters

6.10.3.4.1.44.1.1.1 Transport channel parameters for Conversational / speech / UL:12.2 kbps / CS RAB

See 6.10.3.4.1.4.1.1.1

6.10.3.4.1.44.1.1.2 Transport channel parameters for Interactive or background / UL:128 kbps / PS RAB

See 6.10.3.4.1.28.1.1.1

6.10.3.4.1.44.1.1.3 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.1.1.1

6.10.3.4.1.44.1.1.4 TFCS

TFCS size	30
TFCS	(RAB subflow#1, RAB subflow#2, RAB subflow#3, 128 kbps RAB , DCCH)= (TF0, TF0, TF0, TF0, TF0), (TF1, TF0, TF0, TF0, TF0), (TF2, TF1, TF1, TF0, TF0), (TF0, TF0, TF0, TF1, TF0), (TF1, TF0, TF0, TF1, TF0), (TF2, TF1, TF1, TF1, TF0), (TF0, TF0, TF0, TF2, TF0), (TF1, TF0, TF0, TF2, TF0), (TF2, TF1, TF1, TF2, TF0), (TF0, TF0, TF0, TF3, TF0), (TF1, TF0, TF0, TF3, TF0), (TF2, TF1, TF1, TF3, TF0), (TF0, TF0, TF0, TF4, TF0), (TF1, TF0, TF0, TF4, TF0), (TF2, TF1, TF1, TF4, TF0), (TF0, TF0, TF0, TF0, TF1), (TF1, TF0, TF0, TF0, TF1), (TF2, TF1, TF1, TF0, TF1), (TF0, TF0, TF0, TF1, TF1), (TF1, TF0, TF0, TF1, TF1), (TF2, TF1, TF1, TF1, TF1), (TF0, TF0, TF0, TF2, TF1), (TF1, TF0, TF0, TF2, TF1), (TF2, TF1, TF1, TF2, TF1), (TF0, TF0, TF0, TF3, TF1), (TF1, TF0, TF0, TF3, TF1), (TF2, TF1, TF1, TF3, TF1), (TF0, TF0, TF0, TF4, TF1), (TF1, TF0, TF0, TF4, TF1), (TF2, TF1, TF1, TF4, TF1)

6.10.3.4.1.44.1.2 Physical channel parameters

DPCH Uplink	Midamble	256 chips
	Codes and time slots	{SF8 x 1 code + SF2 x 1 code} x 1 time slot
	Max. Number of data bits/radio frame	2724 bits
	TFCI code word	16 bits
	TPC	2 bits
	Puncturing Limit	0.56

6.10.3.4.1.44.2 Downlink

6.10.3.4.1.44.2.1 Transport channel parameters

6.10.3.4.1.44.2.1.1 Transport channel parameters for Conversational / speech / DL:12.2 kbps / CS RAB

See 6.10.3.4.1.4.2.1.1

6.10.3.4.1.44.2.1.2 Transport channel parameters for Interactive or background / DL:2048 kbps / PS RAB

See 6.10.3.4.1.35.2.1.1

6.10.3.4.1.44.2.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.2.1.1

6.10.3.4.1.44.2.2 Physical channel parameters

DPCH Downlink	Midamble	256 chips
	Codes and time slots	SF1 x 1 code x 12 time slots
	Max. Number of data bits/radio frame	36400 bits
	TFCI code word	32 bits
	Puncturing limit	0,52

6.10.3.4.1.45 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

6.10.3.4.1.45.1 Uplink

6.10.3.4.1.45.1.1 Transport channel parameters

6.10.3.4.1.45.1.1.1 Transport channel parameters for Conversational / speech / UL:12.2 kbps / CS RAB

See 6.10.3.4.1.4.1.1.1

6.10.3.4.1.45.1.1.2 Transport channel parameters for Streaming / unknown / UL:57.6 kbps / CS RAB

See 6.10.3.4.1.17.1.1.1

6.10.3.4.1.45.1.1.3 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.1.1.1

6.10.3.4.1.45.1.1.4 TFCS

TFCS size	30
TFCS	(RAB subflow#1, RAB subflow#2, RAB subflow#3, 57.6 kbps RAB , DCCH)= (TF0, TF0, TF0, TF0, TF0), (TF1, TF0, TF0, TF0, TF0), (TF2, TF1, TF1, TF0, TF0), (TF0, TF0, TF0, TF1, TF0), (TF1, TF0, TF0, TF1, TF0), (TF2, TF1, TF1, TF1, TF0), (TF0, TF0, TF0, TF2, TF0), (TF1, TF0, TF0, TF2, TF0), (TF2, TF1, TF1, TF2, TF0), (TF0, TF0, TF0, TF3, TF0), (TF1, TF0, TF0, TF3, TF0), (TF2, TF1, TF1, TF3, TF0), (TF0, TF0, TF0, TF4, TF0), (TF1, TF0, TF0, TF4, TF0), (TF2, TF1, TF1, TF4, TF0), (TF0, TF0, TF0, TF0, TF1), (TF1, TF0, TF0, TF0, TF1), (TF2, TF1, TF1, TF0, TF1), (TF0, TF0, TF0, TF1, TF1), (TF1, TF0, TF0, TF1, TF1), (TF2, TF1, TF1, TF1, TF1), (TF0, TF0, TF0, TF2, TF1), (TF1, TF0, TF0, TF2, TF1), (TF2, TF1, TF1, TF2, TF1), (TF0, TF0, TF0, TF3, TF1), (TF1, TF0, TF0, TF3, TF1), (TF2, TF1, TF1, TF3, TF1), (TF0, TF0, TF0, TF4, TF1), (TF1, TF0, TF0, TF4, TF1), (TF2, TF1, TF1, TF4, TF1)

6.10.3.4.1.45.1.2 Physical channel parameters

DPCH Uplink	Midamble	512 chips
	Codes and time slots	{SF8 x 1 code + SF4 x 1 code} x 1 time slot
	Max. Number of data bits/radio frame	1428 bits
	TFCI code word	16 bits
	TPC	2 bits
	Puncturing Limit	0.60

6.10.3.4.1.45.2 Downlink

6.10.3.4.1.45.2.1 Transport channel parameters

6.10.3.4.1.45.2.1.1 Transport channel parameters for Conversational / speech / DL:12.2 kbps / CS RAB

See 6.10.3.4.1.4.2.1.1

6.10.3.4.1.45.2.1.2 Transport channel parameters for Streaming / unknown / DL:57.6 kbps / CS RAB

See 6.10.3.4.1.17.2.1.1

6.10.3.4.1.45.2.1.3 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.2.11

6.10.3.4.1.45.2.1.4 TFCS

TFCS size	30
TFCS	(RAB subflow#1, RAB subflow#2, RAB subflow#3, 57.6 kbps RAB , DCCH)= (TF0, TF0, TF0, TF0, TF0), (TF1, TF0, TF0, TF0, TF0), (TF2, TF1, TF1, TF0, TF0), (TF0, TF0, TF0, TF1, TF0), (TF1, TF0, TF0, TF1, TF0), (TF2, TF1, TF1, TF1, TF0), (TF0, TF0, TF0, TF2, TF0), (TF1, TF0, TF0, TF2, TF0), (TF2, TF1, TF1, TF2, TF0), (TF0, TF0, TF0, TF3, TF0), (TF1, TF0, TF0, TF3, TF0), (TF2, TF1, TF1, TF3, TF0), (TF0, TF0, TF0, TF4, TF0), (TF1, TF0, TF0, TF4, TF0), (TF2, TF1, TF1, TF4, TF0), (TF0, TF0, TF0, TF0, TF1), (TF1, TF0, TF0, TF0, TF1), (TF2, TF1, TF1, TF0, TF1), (TF0, TF0, TF0, TF1, TF1), (TF1, TF0, TF0, TF1, TF1), (TF2, TF1, TF1, TF1, TF1), (TF0, TF0, TF0, TF2, TF1), (TF1, TF0, TF0, TF2, TF1), (TF2, TF1, TF1, TF2, TF1), (TF0, TF0, TF0, TF3, TF1), (TF1, TF0, TF0, TF3, TF1), (TF2, TF1, TF1, TF3, TF1), (TF0, TF0, TF0, TF4, TF1), (TF1, TF0, TF0, TF4, TF1), (TF2, TF1, TF1, TF4, TF1)

6.10.3.4.1.45.2.2 Physical channel parameters

DPCH Downlink	Midamble	512 chips
	Codes and time slots	SF16 x 6 codes x 1 time slot
	Max. Number of data bits/radio frame	1448 bits
	TFCI code word	16 bits
	Puncturing limit	0,6

6.10.3.4.1.46 Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
 + Streaming / unknown / UL:0 DL:64 kbps / CS or PS RAB
 + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.10.3.4.1.46.1 Uplink

See 6.10.3.4.1.4.1.

6.10.3.4.1.46.2 Downlink

6.10.3.4.1.46.2.1 Transport channel parameters

6.10.3.4.1.46.2.1.1 Transport channel parameters for Conversational / speech / DL:12.2 kbps / CS RAB

See 6.10.3.4.1.4.2.1.1

6.10.3.4.1.46.2.1.2 Transport channel parameters for Streaming / unknown / DL:64 kbps / CS or PS RAB

See 6.10.3.4.1.18.2.1.1

6.10.3.4.1.46.2.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.2.1.1

6.10.3.4.1.46.2.1.4 TFCS

TFCS size	30
TFCS	(RAB subflow#1, RAB subflow#2, RAB subflow#3, 64 kbps RAB , DCCH)= (TF0, TF0, TF0, TF0, TF0), (TF1, TF0, TF0, TF0, TF0), (TF2, TF1, TF1, TF0, TF0), (TF0, TF0, TF0, TF1, TF0), (TF1, TF0, TF0, TF1, TF0), (TF2, TF1, TF1, TF1, TF0), (TF0, TF0, TF0, TF2, TF0), (TF1, TF0, TF0, TF2, TF0), (TF2, TF1, TF1, TF2, TF0), (TF0, TF0, TF0, TF3, TF0), (TF1, TF0, TF0, TF3, TF0), (TF2, TF1, TF1, TF3, TF0), (TF0, TF0, TF0, TF4, TF0), (TF1, TF0, TF0, TF4, TF0), (TF2, TF1, TF1, TF4, TF0), (TF0, TF0, TF0, TF0, TF1), (TF1, TF0, TF0, TF0, TF1), (TF2, TF1, TF1, TF0, TF1), (TF0, TF0, TF0, TF1, TF1), (TF1, TF0, TF0, TF1, TF1), (TF2, TF1, TF1, TF1, TF1), (TF0, TF0, TF0, TF2, TF1), (TF1, TF0, TF0, TF2, TF1), (TF2, TF1, TF1, TF2, TF1), (TF0, TF0, TF0, TF3, TF1), (TF1, TF0, TF0, TF3, TF1), (TF2, TF1, TF1, TF3, TF1), (TF0, TF0, TF0, TF4, TF1), (TF1, TF0, TF0, TF4, TF1), (TF2, TF1, TF1, TF4, TF1)

6.10.3.4.1.46.2.2 Physical channel parameters

DPCH Downlink	Midamble	256 chips
	Codes and time slots	SF16 x 8 codes x 1 time slot
	Max. Number of data bits/radio frame	2192 bits
	TFCI code word	16 bits
	Puncturing limit	0,8

6.10.3.4.1.47 Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
 + Streaming / unknown / UL:0 DL:128 kbps / CS RAB
 + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.10.3.4.1.47.1 Uplink

See 6.10.3.4.1.4.1.

6.10.3.4.1.47.2 Downlink

6.10.3.4.1.47.2.1 Transport channel parameters

6.10.3.4.1.47.2.1.1 Transport channel parameters for Conversational / speech / DL:12.2 kbps / CS RAB

See 6.10.3.4.1.4.2.1.1

6.10.3.4.1.47.2.1.2 Transport channel parameters for Streaming / unknown / DL:128 kbps / CS or PS RAB

See 6.10.3.4.1.20.2.1.1

6.10.3.4.1.47.2.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.2.1.1

6.10.3.4.1.47.2.1.4 TFCS

TFCS size	36
TFCS	(RAB subflow#1, RAB subflow#2, RAB subflow#3, 128 kbps RAB , DCCH)= (TF0, TF0, TF0, TF0, TF0), (TF1, TF0, TF0, TF0, TF0), (TF2, TF1, TF1, TF0, TF0), (TF0, TF0, TF0, TF1, TF0), (TF1, TF0, TF0, TF1, TF0), (TF2, TF1, TF1, TF1, TF0), (TF0, TF0, TF0, TF2, TF0), (TF1, TF0, TF0, TF2, TF0), (TF2, TF1, TF1, TF2, TF0), (TF0, TF0, TF0, TF3, TF0), (TF1, TF0, TF0, TF3, TF0), (TF2, TF1, TF1, TF3, TF0), (TF0, TF0, TF0, TF4, TF0), (TF1, TF0, TF0, TF4, TF0), (TF2, TF1, TF1, TF4, TF0), (TF0, TF0, TF0, TF5, TF0), (TF1, TF0, TF0, TF5, TF0), (TF2, TF1, TF1, TF5, TF0), (TF0, TF0, TF0, TF0, TF1), (TF1, TF0, TF0, TF0, TF1), (TF2, TF1, TF1, TF0, TF1), (TF0, TF0, TF0, TF1, TF1), (TF1, TF0, TF0, TF1, TF1), (TF2, TF1, TF1, TF1, TF1), (TF0, TF0, TF0, TF2, TF1), (TF1, TF0, TF0, TF2, TF1), (TF2, TF1, TF1, TF2, TF1), (TF0, TF0, TF0, TF3, TF1), (TF1, TF0, TF0, TF3, TF1), (TF2, TF1, TF1, TF3, TF1), (TF0, TF0, TF0, TF4, TF1), (TF1, TF0, TF0, TF4, TF1), (TF2, TF1, TF1, TF4, TF1), (TF0, TF0, TF0, TF5, TF1), (TF1, TF0, TF0, TF5, TF1), (TF2, TF1, TF1, TF5, TF1)

6.10.3.4.1.47.2.2 Physical channel parameters

DPCH Downlink	Midamble	256 chips
	Codes and time slots	SF16 x 10 codes x 1 time slot
	Max. Number of data bits/radio frame	2728 bits
	TFCI code word	32 bits
	Puncturing limit	0,56

6.10.3.4.1.48 Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ Streaming / unknown / UL:0 DL:384 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH

6.10.3.4.1.48.1 Uplink

See 6.10.3.4.1.4.1.

6.10.3.4.1.48.2 Downlink

6.10.3.4.1.48.2.1 Transport channel parameters

6.10.3.4.1.48.2.1.1 Transport channel parameters for Conversational / speech / DL:12.2 kbps / CS RAB

See 6.10.3.4.1.4.2.1.1

6.10.3.4.1.48.2.1.2 Transport channel parameters for Streaming / unknown / DL:384 kbps / CS or PS RAB

See 6.10.3.4.1.22.2.1.1

6.10.3.4.1.48.2.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.2.1.1

6.10.3.4.1.48.2.1.4 TFCS

TFCS size	48
TFCS	(RAB subflow#1, RAB subflow#2, RAB subflow#3, 384 kbps RAB , DCCH)= (TF0, TF0, TF0, TF0, TF0), (TF1, TF0, TF0, TF0, TF0), (TF2, TF1, TF1, TF0, TF0), (TF0, TF0, TF0, TF1, TF0), (TF1, TF0, TF0, TF0, TF0), (TF2, TF1, TF1, TF1, TF0), (TF0, TF0, TF0, TF2, TF0), (TF1, TF0, TF0, TF2, TF0), (TF2, TF1, TF1, TF2, TF0), (TF0, TF0, TF0, TF3, TF0), (TF1, TF0, TF0, TF3, TF0), (TF2, TF1, TF1, TF3, TF0), (TF0, TF0, TF0, TF4, TF0), (TF1, TF0, TF0, TF4, TF0), (TF2, TF1, TF1, TF4, TF0), (TF0, TF0, TF0, TF5, TF0), (TF1, TF0, TF0, TF5, TF0), (TF2, TF1, TF1, TF5, TF0), (TF0, TF0, TF0, TF6, TF0), (TF1, TF0, TF0, TF6, TF0), (TF2, TF1, TF1, TF6, TF0), (TF0, TF0, TF0, TF7, TF0), (TF1, TF0, TF0, TF7, TF0), (TF2, TF1, TF1, TF7, TF0), (TF0, TF0, TF0, TF0, TF1), (TF1, TF0, TF0, TF0, TF1), (TF2, TF1, TF1, TF0, TF1), (TF0, TF0, TF0, TF1, TF1), (TF1, TF0, TF0, TF1, TF1), (TF2, TF1, TF1, TF1, TF1), (TF0, TF0, TF0, TF2, TF1), (TF1, TF0, TF0, TF2, TF1), (TF2, TF1, TF1, TF2, TF1), (TF0, TF0, TF0, TF3, TF1), (TF1, TF0, TF0, TF3, TF1), (TF2, TF1, TF1, TF3, TF1), (TF0, TF0, TF0, TF4, TF1), (TF1, TF0, TF0, TF4, TF1), (TF2, TF1, TF1, TF4, TF1), (TF0, TF0, TF0, TF5, TF1), (TF1, TF0, TF0, TF5, TF1), (TF2, TF1, TF1, TF5, TF1), (TF0, TF0, TF0, TF6, TF1), (TF1, TF0, TF0, TF6, TF1), (TF2, TF1, TF1, TF6, TF1), (TF0, TF0, TF0, TF7, TF1), (TF1, TF0, TF0, TF7, TF1), (TF2, TF1, TF1, TF7, TF1)

6.10.3.4.1.48.2.2 Physical channel parameters

DPCH Downlink	Midamble	256 chips
	Codes and time slots	SF16 x 10 codes x 3 time slots
	Max. Number of data bits/radio frame	8248 bits
	TFCI code word	32 bits
	Puncturing limit	0,64

6.10.3.4.1.49 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

6.10.3.4.1.49.1 Uplink

6.10.3.4.1.49.1.1 Transport channel parameters

6.10.3.4.1.49.1.1.1 Transport channel parameters for Conversational / speech / UL:12.2 kbps / CS RAB

See 6.10.3.4.1.4.1.1.1

6.10.3.4.1.49.1.1.2 Transport channel parameters for Conversational / unknown / UL:64 kbps / CS RAB

See 6.10.3.4.1.13.1.1.1

6.10.3.4.1.49.1.1.3 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.1.1.1

6.10.3.4.1.49.1.1.4 TFCS

TFCS size	12
TFCS	(RAB subflow#1, RAB subflow#2, RAB subflow#3, 64 kbps RAB , DCCH)= (TF0, TF0, TF0, TF0, TF0), (TF1, TF0, TF0, TF0, TF0), (TF2, TF1, TF1, TF0, TF0), (TF0, TF0, TF0, TF1, TF0), (TF1, TF0, TF0, TF1, TF0), (TF2, TF1, TF1, TF1, TF0), (TF0, TF0, TF0, TF0, TF1), (TF1, TF0, TF0, TF0, TF1), (TF2, TF1, TF1, TF0, TF1), (TF0, TF0, TF0, TF1, TF1), (TF1, TF0, TF0, TF1, TF1), (TF2, TF1, TF1, TF1, TF1)

6.10.3.4.1.49.1.2 Physical channel parameters

DPCH Uplink	Midamble	256 chips
	Codes and time slots	SF2 x 1 code x 1 time slot
	Max. Number of data bits/radio frame	2064 bits
	TFCI code word	16 bits
	TPC	2 bits
	Puncturing Limit	0.72

6.10.3.4.1.49.2 Downlink

6.10.3.4.1.49.2.1 Transport channel parameters

6.10.3.4.1.49.2.1.1 Transport channel parameters for Conversational / speech / DL:12.2 kbps / CS RAB

See 6.10.3.4.1.4.2.1.1

6.10.3.4.1.49.2.1.2 Transport channel parameters for Conversational / unknown / DL:64 kbps / CS RAB

See 6.10.3.4.1.13.2.1.1

6.10.3.4.1.49.2.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.2.11

6.10.3.4.1.49.2.1.4 TFCS

TFCS size	12
TFCS	(RAB subflow#1, RAB subflow#2, RAB subflow#3, 64 kbps RAB , DCCH)= (TF0, TF0, TF0, TF0, TF0), (TF1, TF0, TF0, TF0, TF0), (TF2, TF1, TF1, TF0, TF0), (TF0, TF0, TF0, TF1, TF0), (TF1, TF0, TF0, TF1, TF0), (TF2, TF1, TF1, TF1, TF0), (TF0, TF0, TF0, TF0, TF1), (TF1, TF0, TF0, TF0, TF1), (TF2, TF1, TF1, TF0, TF1), (TF0, TF0, TF0, TF1, TF1), (TF1, TF0, TF0, TF1, TF1), (TF2, TF1, TF1, TF1, TF1)

6.10.3.4.1.49.2.2 Physical channel parameters

DPCH Downlink	Midamble	256 chips
	Codes and time slots	SF16 x 8 codes x 1 time slot
	Max. Number of data bits/radio frame	2192 bits
	TFCI code word	16 bits
	Puncturing limit	0,88

6.10.3.4.1.50 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

6.10.3.4.1.50.1 Uplink

6.10.3.4.1.50.1.1 Transport channel parameters

6.10.3.4.1.50.1.1.1 Transport channel parameters for Conversational / unknown / UL:64 kbps / CS RAB

See 6.10.3.5.4.1.13.1.1.1

6.10.3.4.1.50.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.1.1.1

6.10.3.4.1.50.1.1.3 TFCS

TFCS size	8
TFCS	(64 kbps RAB, 64 kbps RAB, DCCH)= (TF0, TF0, TF0), (TF1, TF0, TF0), (TF0, TF1, TF0), (TF1, TF1, TF0) (TF0, TF0, TF1), (TF1, TF0, TF1), (TF0, TF1, TF1), (TF1, TF1, TF1)

6.10.3.4.1.50.1.2 Physical channel parameters

DPCH Uplink	Midamble	512 chips
	Codes and time slots	{SF16 x 1 code + SF4 x 1 code} x 1 time slot SF1 x 1 code x 1 time slot
	Max. Number of data bits/radio frame	1202 3616 bits
	TFCI code word	16 bits
	TPC	2 bits
	Puncturing Limit	0.560 0.88

6.10.3.4.1.50.2 Downlink

6.10.3.4.1.50.2.1 Transport channel parameters

6.10.3.4.1.50.2.1.1 Transport channel parameters for Conversational / unknown / DL:64 kbps / CS RAB

See 6.10.3.4.1.13.2.1.1

6.10.3.4.1.50.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.2.1.1

6.10.3.4.1.50.2.1.3 TFCS

TFCS size	8
TFCS	(64 kbps RAB, 64 kbps RAB, DCCH)= (TF0, TF0, TF0), (TF1, TF0, TF0), (TF0, TF1, TF0), (TF1, TF1, TF0) (TF0, TF0, TF1), (TF1, TF0, TF1), (TF0, TF1, TF1), (TF1, TF1, TF1)

6.10.3.4.1.50.2.2 Physical channel parameters

DPCH Downlink	Midamble	512 chips
	Codes and time slots	SF16 x 5 11 codes x 1 time slot
	Max. Number of data bits/radio frame	1204 2668 bits
	TFCI code word	16 bits
	Puncturing limit	0.560 .64

6.10.3.4.1.51 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

6.10.3.4.1.51.1 Uplink

6.10.3.4.1.51.1.1 Transport channel parameters

6.10.3.4.1.51.1.1.1 Transport channel parameters for Conversational / unknown / UL:64 kbps / CS RAB

See 6.10.3.4.1.13.1.1.1

6.10.3.4.1.51.1.1.2 Transport channel parameters for Interactive or background / UL:64 kbps / PS RAB

See 6.10.3.4.1.24.1.1.1

6.10.3.4.1.51.1.1.3 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.1.1.1

6.10.3.4.1.51.1.1.4 TFCS

TFCS size	20
TFCS	(Conv. 64 kbps RAB, I/B 64 kbps RAB, DCCH)= (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), (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)

6.10.3.4.1.51.1.2 Physical channel parameters

DPCH Uplink	Midamble	256 chips
	Codes and time slots	SF2 x 1 code x 1 time slot
	Max. Number of data bits/radio frame	2064 bits
	TFCI code word	16 bits
	TPC	2 bits
	Puncturing Limit	0.44

6.10.3.4.1.51.2 Downlink

6.10.3.4.1.51.2.1 Transport channel parameters

6.10.3.4.1.51.2.1.1 Transport channel parameters for Conversational / unknown / DL:64 kbps / CS RAB

See 6.10.3.4.1.13.2.1.1

6.10.3.4.1.51.2.1.2 Transport channel parameters for Interactive or background / DL:64 kbps / PS RAB

See 6.10.3.4.1.25.2.1.1

6.10.3.4.1.51.2.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.2.1.1

6.10.3.4.1.51.2.1.4 TFCS

TFCS size	20
TFCS	(Conv. 64 kbps RAB, I/B 64 kbps RAB, DCCH)= (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), (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)

6.10.3.4.1.51.2.2 Physical channel parameters

DPCH Downlink	Midamble	256 chips
	Codes and time slots	SF16 x 8 codes x 1 time slot
	Max. Number of data bits/radio frame	2192 bits
	TFCI code word	16 bits
	Puncturing limit	0,48

6.10.3.4.1.52 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

6.10.3.4.1.52.1 Uplink

See 6.10.3.4.1.51.1.

6.10.3.4.1.52.2 Downlink

6.10.3.4.1.52.2.1 Transport channel parameters

6.10.3.4.1.52.2.1.1 Transport channel parameters for Conversational / unknown / DL:64 kbps / CS RAB

See 6.10.3.4.1.13.2.1.1.

6.10.3.4.1.52.2.1.2 Transport channel parameters for Interactive or background / DL:128 kbps / PS RAB

See 6.10.3.4.1.27.2.1.1

6.10.3.4.1.52.2.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.2.1.1

6.10.3.4.1.52.2.1.4 TFCS

TFCS size	20
TFCS	(Conv. 64 kbps RAB, I/B 128 kbps RAB, DCCH)= (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), (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)

6.10.3.4.1.52.2.2 Physical channel parameters

DPCH Downlink	Midamble	512 chips
	Codes and time slots	{SF16 x 8 codes x 1 time slot} + {SF16 x 5 codes x 1 time slot}
	Max. Number of data bits/radio frame	3156 bits
	TFCI code word	16 bits
	Puncturing limit	0,44

6.10.3.4.1.53 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

6.10.3.4.1.53.1 Uplink

6.10.3.4.1.53.1.1 Transport channel parameters

6.10.3.4.1.53.1.1.1 Transport channel parameters for Conversational / unknown / UL:64 kbps / CS RAB

See 6.10.3.4.1.13.1.1.1

6.10.3.4.1.53.1.1.2 Transport channel parameters for Interactive or background / UL:128 kbps / PS RAB

See 6.10.3.4.1.28.1.1.1

6.10.3.4.1.53.1.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.1.1.1

6.10.3.4.1.53.1.1.4 TFCS

TFCS size	20
TFCS	(Conv. 64 kbps RAB, I/B 128kbps RAB, DCCH)= (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), (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)

6.10.3.4.1.53.1.2 Physical channel parameters

DPCH Uplink	Midamble	512 chips
	Codes and time slots	{SF2 x 1 code x 1 time slot} + {SF16 x 1 code + SF4 x 1 code} x 1 time slot
	Max. Number of data bits/radio frame	3154 bits
	TFCI code word	16 bits
	TPC	2 bits
	Puncturing Limit	0.48

6.10.3.4.1.53.2 Downlink

See 6.10.3.4.1.52.2.

6.10.3.4.1.54 Interactive or background / UL:64 DL:128 kbps / PS RAB
+ Streaming / unknown / UL:0 DL:64 kbps / CS or PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH

6.10.3.4.1.54.1 Uplink

See 6.10.3.4.1.24.1.

6.10.3.4.1.54.2 Downlink

6.10.3.4.1.54.2.1 Transport channel parameters

6.10.3.4.1.54.2.1.1 Transport channel parameters for Interactive or background / DL:128 kbps / PS RAB

See 6.10.3.4.1.27.2.1.1

6.10.3.4.1.54.2.1.2 Transport channel parameters for Streaming / unknown / DL:64 kbps / CS or PS RAB

See 6.10.3.4.1.18.2.1.1

6.10.3.4.1.54.2.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.2.1.1

6.10.3.4.1.54.2.1.4 TFCS

TFCS size	50
TFCS	(I/B 128 kbps RAB, Str. 64 kbps RAB, DCCH)= (TF0, TF0, TF0), (TF1, TF0, TF0), (TF2, TF0, TF0), (TF3, TF0, TF0), (TF4, TF0, TF0), (TF0, TF1, TF0), (TF1, TF1, TF0), (TF2, TF1, TF0), (TF3, TF1, TF0), (TF4, TF1, TF0), (TF0, TF2, TF0), (TF1, TF2, TF0), (TF2, TF2, TF0), (TF3, TF2, TF0), (TF4, TF2, TF0), (TF0, TF3, TF0), (TF1, TF3, TF0), (TF2, TF3, TF0), (TF3, TF3, TF0), (TF4, TF3, TF0), (TF0, TF4, TF0), (TF1, TF4, TF0), (TF2, TF4, TF0), (TF3, TF4, TF0), (TF4, TF4, TF0), (TF0, TF0, TF1), (TF1, TF0, TF1), (TF2, TF0, TF1), (TF3, TF0, TF1), (TF4, TF0, TF1), (TF0, TF1, TF1), (TF1, TF1, TF1), (TF2, TF1, TF1), (TF3, TF1, TF1), (TF4, TF1, TF1), (TF0, TF2, TF1), (TF1, TF2, TF1), (TF2, TF2, TF1), (TF3, TF2, TF1), (TF4, TF2, TF1), (TF0, TF3, TF1), (TF1, TF3, TF1), (TF2, TF3, TF1), (TF3, TF3, TF1), (TF4, TF3, TF1), (TF0, TF4, TF1), (TF1, TF4, TF1), (TF2, TF4, TF1), (TF3, TF4, TF1), (TF4, TF4, TF1)

6.10.3.4.1.54.2.4 Physical channel parameters

DPCH Downlink	Midamble	512 chips
	Codes and time slots	{SF16 x 8 codes x 1 time slot} + {SF16 x 5 codes x 1 time slot}
	Max. Number of data bits/radio frame	3140 bits
	TFCI code word	32 bits
	Puncturing limit	0,68

6.10.3.4.1.55 Interactive or background / UL:64 DL:128 kbps / PS RAB
 + Streaming / unknown / UL:0 DL:128 kbps / CS or PS RAB
 + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.10.3.4.1.55.1 Uplink

See 6.10.3.4.1.24.1.

6.10.3.4.1.55.2 Downlink

6.10.3.4.1.55.2.1 Transport channel parameters

6.10.3.4.1.55.2.1.1 Transport channel parameters for Interactive or background / DL:128 kbps / PS RAB

See 6.10.3.4.1.27.2.1.1

6.10.3.4.1.55.2.1.2 Transport channel parameters for Streaming / unknown / DL:128 kbps / CS or PS RAB

See 6.10.3.4.1.20.2.1.1

6.10.3.4.1.55.2.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See 6.10.3.4.1.2.2.1.1

6.10.3.4.1.55.2.1.4 TFCS

TFCS size	60
TFCS	(I/B 128 kbps RAB, Str. 128 kbps RAB, DCCH)= (TF0, TF0, TF0), (TF1, TF0, TF0), (TF2, TF0, TF0), (TF3, TF0, TF0), (TF4, TF0, TF0), (TF0, TF1, TF0), (TF1, TF1, TF0), (TF2, TF1, TF0), (TF3, TF1, TF0), (TF4, TF1, TF0), (TF0, TF2, TF0), (TF1, TF2, TF0), (TF2, TF2, TF0), (TF3, TF2, TF0), (TF4, TF2, TF0), (TF0, TF3, TF0), (TF1, TF3, TF0), (TF2, TF3, TF0), (TF3, TF3, TF0), (TF4, TF3, TF0), (TF0, TF4, TF0), (TF1, TF4, TF0), (TF2, TF4, TF0), (TF3, TF4, TF0), (TF4, TF4, TF0), (TF0, TF5, TF0), (TF1, TF5, TF0), (TF2, TF5, TF0), (TF3, TF5, TF0), (TF4, TF5, TF0), (TF0, TF0, TF1), (TF1, TF0, TF1), (TF2, TF0, TF1), (TF3, TF0, TF1), (TF4, TF0, TF1), (TF0, TF1, TF1), (TF1, TF1, TF1), (TF2, TF1, TF1), (TF3, TF1, TF1), (TF4, TF1, TF1), (TF0, TF2, TF1), (TF1, TF2, TF1), (TF2, TF2, TF1), (TF3, TF2, TF1), (TF4, TF2, TF1), (TF0, TF3, TF1), (TF1, TF3, TF1), (TF2, TF3, TF1), (TF3, TF3, TF1), (TF4, TF3, TF1), (TF0, TF4, TF1), (TF1, TF4, TF1), (TF2, TF4, TF1), (TF3, TF4, TF1), (TF4, TF4, TF1), (TF0, TF5, TF1), (TF1, TF5, TF1), (TF2, TF5, TF1), (TF3, TF5, TF1), (TF4, TF5, TF1)

6.10.3.4.1.55.2.2 Physical channel parameters

DPCH Downlink	Midamble	256 chips
	Codes and time slots	SF16 x 8 codes x 1 time slot
	Max. Number of data bits/radio frame	2176 bits
	TFCI code word	32 bits
	Puncturing limit	0,48

6.10.3.4.2 Combinations on PDSCH, SCCPCH, PUSCH and PRACH

6.10.3.4.2.1 Interactive or background / UL: 64 DL: 256 kbps / PS RAB
 + UL: 16.8 DL: 33.6 kbps SRBs for DCCH, CCCH and BCCH
 + UL: 16.8 DL: 16 kbps SRBs for SHCCH

6.10.3.4.2.1.1 Uplink

6.10.3.4.2.1.1.1 Transport channel parameters

6.10.3.4.2.1.1.1.1 Transport channel parameters for Interactive or background / UL: 64 kbps / PS RAB and UL SRB for SHCCH mapped on USCH

Higher Layer	RAB/Signalling RB	RAB	SRB#5	
RLC	Logical channel type	DTCH	SHCCH	
	RLC mode	AM	TM	
	Payload sizes, bit	320	168	
	Max data rate, bps	64000	16800	
	RLC header, bit	16	0	
MAC	MAC header, bit	0	0	
	MAC multiplexing	N/A	N/A	
Layer 1	TrCH type	USCH	USCH	
	TB sizes, bit	336	168	
	TFS	TF0, bits	0x336	0x168
		TF1, bits	1x336	1x168
		TF2, bits	2x336	N/A
		TF3, bits	3x336	N/A
		TF4, bits	4x336	N/A
	TTI, ms	20	10	
	Coding type	TC	CC 1/2	
	CRC, bit	16	16	
	Max number of bits/TTI after channel coding	4236	384	
	Uplink Max number of bits/radio frame before rate matching	2118	384	
	RM attribute	135-175	180-220	

6.10.3.4.2.1.1.1.2 TFCS for USCH

TFCS size	10
TFCS	(64 kbps RAB, SHCCH)= (TF0, TF0), (TF1, TF0), (TF2, TF0), (TF3, TF0), (TF4, TF0), (TF0, TF1), (TF1, TF1), (TF2, TF1), (TF3, TF1), (TF4, TF1)

6.10.3.4.2.1.1.1.3 Transport channel parameters for SRB for CCCH and UL SRBs for DCCH and UL SRB for SHCCH mapped on RACH

Higher layer	RAB/signalling RB	SRB#0	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	RRC
RLC	Logical channel type	CCCH	DCCH	DCCH	DCCH	DCCH	SHCCH
	RLC mode	TM	UM	AM	AM	AM	TM
	Payload sizes, bit	168	136	128	128	128	168
	Max data rate, bps	16800	13600	12800	12800	12800	16800
	RLC header, bit	0	8	16	16	16	0
MAC	MAC header, bit	2	26	26	26	26	2

	MAC multiplexing	6 logical channel multiplexing					
Layer 1	TrCH type	RACH					
	TB sizes, bit	170	170	170	170	170	170
	TFS	1x170					
	TF0, bits						
	TTI, ms	10					
	Coding type	CC 1/2					
	CRC, bit	16					
Max number of bits/TTI after channel coding	388	388	388	388	388	388	

6.10.3.4.2.1.1.2 Physical channel parameters

PUSCH	Midamble	512 chips
	Codes and time slots	{SF16 x 1 code + SF4 x 1 code} x 1 time slot
	Max. Number of data bits/radio frame	1202 bits
	TFCI code word	16 bits
	TPC	2 bits
	Puncturing Limit	0.48

PRACH	Midamble	512 chips
	Codes and time slots	SF8 (alt. SF16) x 1 code x 1 time slot
	Max. Number of data bits/radio frame	464 (alt. 232)
	Puncturing Limit	1.0 (alt. 0.56)

6.10.3.4.2.1.2 Downlink

6.10.3.4.2.1.2.1 Transport channel parameters

6.10.3.4.2.1.2.1.1 Transport channel parameters for Interactive or background / DL: 256 kbps / PS RAB and DL SRB for SHCCH mapped on DSCH

Higher Layer	RAB/Signalling RB	RAB	SRB#5	
RLC	Logical channel type	DTCH	SHCCH	
	RLC mode	AM	UM	
	Payload sizes, bit	320	160	
	Max data rate, bps	256000	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	336	168	
	TFS	TF0, bits	0x336	0x168
		TF1, bits	1x336	1x168
		TF2, bits	2x336	N/A
		TF3, bits	4x336	N/A
		TF4, bits	8x336	N/A
		TF5, bits	N/A (alt. 12x336)	N/A
		TF6, bits	N/A (alt. 16x336)	N/A
	TTI, ms	10 (alt. 20)	10	
	Coding type	TC	CC 1/2	
	CRC, bit	16	16	
	Max number of bits/TTI after channel coding	8460 (alt. 16908)	384	
Downlink: Max number of bits/radio frame before rate matching	8460 (alt. 8454)	384		
RM attribute	135-175	180-220		

6.10.3.4.2.1.2.1.2 TFCS for DSCH

TFCS size	10 (alt. 14)
TFCS	(256 kbps RAB, SHCCH)= (TF0, TF0), (TF1, TF0), (TF2, TF0), (TF3, TF0), (TF4, 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), (TF1, TF1), (TF2, TF1), (TF3, TF1), (TF4, TF1), (TF5, TF1), (TF6, TF1))

6.10.3.4.2.1.2.1.3 Transport channel parameters for DL SRBs for DCCH and SRB for CCCH and SRB for BCCH and DL SRB for SHCCH mapped on FACH

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)	27200 or 24000 (alt. 40800 or 36000)	25600 (alt. 38400)	25600 (alt. 38400)	25600 (alt. 38400)	32000 (alt. 48000)	33600 (alt. 50400)	
	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	N/A (alt. 3x171)						
		TF4, bits	4x171						
		TF5, bits	N/A (alt. 5x171)						
	TF6, bits	N/A (alt. 6x171)							
	TTI, ms	4020							
	Coding type	CC 1/2							
	CRC, bit	16							
	Max number of bits/TTI after channel coding	764 (alt. 1138) 1528 (alt. 2292)	764 (alt. 1138) 1528 (alt. 2292)	1528 (alt. 2292) 764 (alt. 1138)	1528 (alt. 2292) 764 (alt. 1138)	1528 (alt. 2292) 764 (alt. 1138)	1528 (alt. 2292) 764 (alt. 1138)	1528 (alt. 2292) 764 (alt. 1138)	1528 (alt. 2292) 764 (alt. 1138)
	Max number of bits/radio frame before rate matching	764 (alt. 1146)	764 (alt. 1146)	764 (alt. 1146)	764 (alt. 1146)	764 (alt. 1146)	764 (alt. 1146)	764 (alt. 1146)	764 (alt. 1146)

* MAC header size and RLC payload size depend on use of U-RNTI or C-RNTI.

6.10.3.4.2.1.2.1.4 TFCS for FACH

TFCS size	3-5 (alt. 47)
TFCS	FACH = TF0, TF1, TF2, TF3, TF4 (alt. FACH = TF0, TF1, TF2, TF3, TF4, TF5, TF6)

6.10.3.4.2.1.2.2 Physical channel parameters

PDSCH	Midamble	256 chips
	Codes and time slots	SF16 x 8 codes x 2 time slots
	Max. Number of data bits/radio frame	4400 bits
	TFCI code word	16 bits
	Puncturing Limit	0.48

SCCPCH (burst type 1)	Midamble	512 chips
	Codes and time slots	SF16 x 5 codes x 1 time slot
	Max. Number of data bits/radio frame	1204 bits
	TFCI code word	16 bits
	Puncturing Limit	1

SCCPCH (burst type 2)	Midamble	256 chips
	Codes and time slots	SF16 x 5 codes x 1 time slot
	Max. Number of data bits/radio frame	1364 bits
	TFCI code word	16 bits
	Puncturing Limit	1

6.10.3.4.2.2 Interactive or background / UL: 64 DL: 384 kbps / PS RAB
+ UL: 16.8 DL: 33.6 kbps SRBs for DCCH, CCCH and BCCH
+ UL: 16.8 DL: 16 kbps SRBs for SHCCH

6.10.3.4.2.2.1 Uplink

See 6.10.3.4.2.1.1

6.10.3.4.2.2.2 Downlink

6.10.3.4.2.2.2.1 Transport channel parameters

6.10.3.4.2.2.2.1.1 Transport channel parameters for Interactive or background / DL: 384 kbps / PS RAB and DL SRB for SHCCH mapped on DSCH

Higher Layer	RAB/Signalling RB	RAB	SRB#5	
RLC	Logical channel type	DTCH	SHCCH	
	RLC mode	AM	UM	
	Payload sizes, bit	320	160	
	Max data rate, bps	384000	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	336	168	
	TFS	TF0, bits	0x336	0x168
		TF1, bits	1x336	1x168
		TF2, bits	2x336	N/A
		TF3, bits	4x336	N/A
		TF4, bits	8x336	N/A
		TF5, bits	12x336	N/A
		TF6, bits	N/A (alt. 16x336)	N/A
		TF7, bits	N/A (alt. 20x336)	N/A
	TF8, bits	N/A (alt. 24x336)	N/A	
	TTI, ms	10 (alt. 20)	10	
	Coding type	TC	CC 1/2	
	CRC, bit	16	16	
Max number of bits/TTI after channel coding	12684 (alt. 25356)	384		
Downlink: Max number of bits/radio frame before rate matching	12684 (alt. 12678)	384		
RM attribute	135-175	180-220		

6.10.3.4.2.2.1.2 TFCS for DSCH

TFCS size	12 (alt. 18)
TFCS	(384 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), (TF5, TF1) (alt. (TF0, TF0), (TF1, TF0), (TF2, TF0), (TF3, TF0), (TF4, TF0), (TF5, TF0), (TF6, TF0), (TF7, TF0), (TF8, TF0), (TF1, TF1), (TF2, TF1), (TF3, TF1), (TF4, TF1), (TF5, TF1), (TF6, TF1), (TF7, TF0), (TF8, TF0))

6.10.3.4.2.2.1.3 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 6.10.3.4.2.1.2.1.3

6.10.3.4.2.2.1.4 TFCS for FACH

See 6.10.3.4.2.1.2.1.4

6.10.3.4.2.2.2 Physical channel parameters

PDSCH	Midamble	256 chips
	Codes and time slots	SF16 x 8 codes x 3 time slots
	Max. Number of data bits/radio frame	6608 bits
	TFCI code word	16 bits
	Puncturing Limit	0.48

SCCPCH (burst type 1)	Midamble	512 chips
	Codes and time slots	SF16 x 5 codes x 1 time slot
	Max. Number of data bits/radio frame	1204 bits
	TFCI code word	16 bits
	Puncturing Limit	1

SCCPCH (burst type 2)	Midamble	256 chips
	Codes and time slots	SF16 x 5 codes x 1 time slot
	Max. Number of data bits/radio frame	1364 bits
	TFCI code word	16 bits
	Puncturing Limit	1

6.10.3.4.2.3 Interactive or background / UL: 64 DL: 2048 kbps / PS RAB
+ UL: 16.8 DL: 33.6 kbps SRBs for DCCH, CCCH and BCCH
+ UL: 16.8 DL: 16 kbps SRBs for SHCCH

6.10.3.4.2.3.1 Uplink

See 6.10.3.4.2.1.1

6.10.3.4.2.3.2 Downlink

6.10.3.4.2.3.2.1 Transport channel parameters

6.10.3.4.2.3.2.1.1 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	640	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	656	168	
	TFS	TF0, bits	0x656	0x168
		TF1, bits	1x656	1x168
		TF2, bits	2x656	N/A
		TF3, bits	4x656	N/A
		TF4, bits	8x656	N/A
		TF5, bits	12x656	N/A
		TF6, bits	16x656	N/A
		TF7, bits	20x656	N/A
		TF8, bits	24x656	N/A
		TF9, bits	28x656	N/A
		TF10, bits	32x656	N/A
		TF11, bits	N/A (alt. 36x656)	N/A
		TF12, bits	N/A (alt. 40x656)	N/A
		TF13, bits	N/A (alt. 44x656)	N/A
		TF14, bits	N/A (alt. 48x656)	N/A
		TF15, bits	N/A (alt. 52x656)	N/A
		TF16, bits	N/A (alt. 56x656)	N/A
		TF17, bits	N/A (alt. 60x656)	N/A
	TF18, bits	N/A (alt. 64x656)	N/A	
TTI, ms	10 (alt. 20)	10		
Coding type	TC	CC ½		
CRC, bit	16	16		
Max number of bits/TTI after channel coding	64524 (alt. 129036)	384		
Downlink: Max number of bits/radio frame before rate matching	64524 (alt. 64518)	384		
RM attribute	135-175	180-220		

6.10.3.4.2.3.2.1.2 TFCS for DSCH

TFCS size	22 (alt. 38)
TFCS	(2048 kbps RAB, SHCCH)= (TF0, TF0), (TF1, TF0), (TF2, TF0), (TF3, TF0), (TF4, TF0), (TF5, TF0), (TF6, TF0), (TF7, TF0), (TF8, TF0), (TF9, TF0), (TF10, TF0), (TF0, TF1), (TF1, TF1), (TF2, TF1), (TF3, TF1), (TF4, TF1), (TF5, TF1), (TF6, TF1), (TF7, TF1), (TF8, TF1), (TF9, TF1), (TF10, TF1) (alt. (TF0, TF0), (TF1, TF0), (TF2, TF0), (TF3, TF0), (TF4, TF0), (TF5, TF0), (TF6, TF0), (TF7, TF0), (TF8, TF0), (TF9, TF0), (TF10, TF0),(TF11, TF0), (TF12, TF0), (TF13, TF0), (TF14, TF0), (TF15, TF0), (TF16, TF0), (TF17, TF0), (TF18, TF0), (TF0, TF1), (TF1, TF1), (TF2, TF1), (TF3, TF1), (TF4, TF1), (TF5, TF1), (TF6, TF1), (TF7, TF1), (TF8, TF1), (TF9, TF1), (TF10, TF1),(TF11, TF1), (TF12, TF1), (TF13, TF1), (TF14, TF1), (TF15, TF1), (TF16, TF1), (TF17, TF1), (TF18, TF1))

6.10.3.4.2.3.2.1.3 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 6.10.3.4.2.1.2.1.3

6.10.3.4.2.3.2.1.4 TFCS for FACH

See 6.10.3.4.2.1.2.1.4

6.10.3.4.2.3.2.2 Physical channel parameters

PDSCH	Midamble	256 chips
	Codes and time slots	SF16 x 12 codes x 11 time slots
	Max. Number of data bits/radio frame	36416 bits (alt. 36400 bits)
	TFCI code word	16 bits (alt. 32 bits)
	Puncturing Limit	0.56

SCCPCH (burst type 1)	Midamble	512 chips
	Codes and time slots	SF16 x 5 codes x 1 time slot
	Max. Number of data bits/radio frame	1204 bits
	TFCI code word	16 bits
	Puncturing Limit	1

SCCPCH (burst type 2)	Midamble	256 chips
	Codes and time slots	SF16 x 5 codes x 1 time slot
	Max. Number of data bits/radio frame	1364 bits
	TFCI code word	16 bits
	Puncturing Limit	1

6.10.3.4.3 Combinations on PDSCH, SCCPCH, DPCH, PUSCH and PRACH

- 6.10.3.4.3.1 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 ~~DL: 33.6~~ kbps SRBs for ~~DCCH~~, CCCH and ~~BCCH~~ [SHCCH](#)
+ ~~UL: 16.8~~ DL: [33.6](#) ~~16~~ kbps SRBs for [CCCH](#), [SHCCH](#) and [BCCH](#)
- 6.10.3.4.3.1.1 Uplink
- 6.10.3.4.3.1.1.1 Transport channel parameters
- 6.10.3.4.3.1.1.1.1 Transport channel parameters for Conversational / speech / UL:12.2 / CS RAB
See 6.10.3.4.1.4.1.1.1
- 6.10.3.4.3.1.1.1.2 Transport channel parameters for UL SRBs for DCCH
See 6.10.3.4.1.2.1.1.1
- 6.10.3.4.3.1.1.1.3 TFCS for DCH
See 6.10.3.4.1.4.1.1.3
- 6.10.3.4.3.1.1.1.4 Transport channel parameters for Interactive or background / UL: 64 kbps / PS RAB and UL SRB for SHCCH mapped on USCH
See 6.10.3.4.2.1.1.1.1
- 6.10.3.4.3.1.1.1.5 TFCS for USCH
See 6.10.3.4.2.1.1.1.2
- 6.10.3.4.3.1.1.1.6 Transport channel parameters for SRB for CCCH and UL SRB for SHCCH mapped on RACH

Higher layer	RAB/signalling RB	SRB#0	SRB#5	
	User of Radio Bearer	RRC	RRC	
RLC	Logical channel type	CCCH	SHCCH	
	RLC mode	TM	TM	
	Payload sizes, bit	168	168	
	Max data rate, bps	16800	16800	
	RLC header, bit	0	0	
MAC	MAC header, bit	2	2	
	MAC multiplexing	2 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		

6.10.3.4.3.1.1.2 Physical channel parameters

Physical channel parameters for uplink DPCH see 6.10.3.4.1.4.1.2

Physical channel parameters for PUSCH see 6.10.3.4.2.1.1.2

Physical channel parameters for PRACH see 6.10.3.4.2.1.1.2

6.10.3.4.3.1.2 Downlink

6.10.3.4.3.1.2.1 Transport channel parameters

6.10.3.4.3.1.2.1.1 Transport channel parameters for Conversational / speech / DL:12.2 kbps / CS RAB

See 6.10.3.4.1.4.2.1.1

6.10.3.4.3.1.2.1.2 Transport channel parameters for DL SRBs for DCCH

See 6.10.3.4.1.2.2.1.1

6.10.3.4.3.1.2.1.3 TFCS for DCH

See 6.10.3.4.1.4.2.1.3

6.10.3.4.3.1.2.1.4 Transport channel parameters for Interactive or background / DL: 256 kbps / PS RAB and DL SRB for SHCCH mapped on DSCH

See 6.10.3.4.2.1.2.1.1

6.10.3.4.3.1.2.1.5 TFCS for DSCH

See 6.10.3.4.2.1.2.1.2

6.10.3.4.3.1.2.1.6 Transport channel parameters for SRB for CCCH and SRB for BCCH and DL SRB for SHCCH mapped on FACH

Higher layer	RAB/Signalling RB	SRB#0	SRB#5	SRB#6	
	User of Radio Bearer	RRC	RRC	RRC	
RLC	Logical channel type	CCCH	SHCCH	BCCH	
	RLC mode	UM	UM	TM	
	Payload sizes, bit	160	160	168	
	Max data rate, bps	32000 (alt-48000)	32000 (alt-48000)	33600 (alt-50400)	
	RLC header, bit	8	8	0	
MAC	MAC header, bit	3			
	MAC multiplexing	3 logical channel multiplexing			
Layer 1	TrCH type	FACH			
	TB sizes, bit	171			
	TFS* ⁴	TF0, bits	0x171		
		TF1, bits	1x171		
		TF2, bits	2x171		
		TF3, bits	3x171		
		TF4, bits	4x171		
	TTI, ms	10 20			
	Coding type	CC 1/2			
	CRC, bit	16			
Max number of bits/TTI after channel coding	390 1528				
Max number of bits/radio frame before rate matching	764				

6.10.3.4.3.1.2.1.7 TFCS for FACH

TFCS size	25
TFCS	FACH = TF0, TF1, TF2, TF3, TF4

6.10.3.4.3.1.2.2 Physical channel parameters

Physical channel parameters for downlink DPCH see 6.10.3.4.1.4.2.2

[Physical channel parameters for downlink PDSCH see 6.10.3.4.2.1.2.2](#)

PDSCH	Midamble	512 chips
	Codes and time slots	SF16 x 5 codes x 1 time slot
	Max. Number of data bits/radio frame	1204 bits
	TFPI code word	16 bits
	Puncturing Limit	0.48

Physical channel parameters for SCCPCH see 6.10.3.4.2.1.2.2

6.10.3.4.3.2 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 DL: 33.6 kbps SRBs for DCCH, CCCH and BCCH SHCCH
+ UL: 16.8 DL: 33.6 kbps SRBs for CCCH, SHCCH and BCCH

6.10.3.4.3.2.1 Uplink

See 6.10.3.4.3.1.1

6.10.3.4.3.2.2 Downlink

6.10.3.4.3.2.2.1 Transport channel parameters

6.10.3.4.3.2.2.1.1 Transport channel parameters for Conversational / speech / DL:12.2 kbps / CS RAB

See 6.10.3.4.1.4.2.1.1

6.10.3.4.3.2.2.1.2 Transport channel parameters for DL SRBs for DCCH

See 6.10.3.4.1.2.2.1.1

6.10.3.4.3.2.2.1.3 TFCS for DCH

See 6.10.3.4.1.4.2.1.3

6.10.3.4.3.2.2.1.4 Transport channel parameters for Interactive or background / DL: 384 kbps / PS RAB
and DL SRB for SHCCH mapped on DSCH

See 6.10.3.4.2.2.2.1.1

6.10.3.4.3.2.2.1.5 TFCS for DSCH

See 6.10.3.4.2.2.2.1.2

6.10.3.4.3.2.2.1.6 Transport channel parameters for SRB for CCCH and SRB for BCCH and DL SRB for SHCCH mapped on FACH

See 6.10.3.4.3.1.2.1.6

6.10.3.4.3.2.2.1.7 TFCS for FACH

See 6.10.3.4.3.1.2.1.7

6.10.3.4.3.2.2.2 Physical channel parameters

Physical channel parameters for downlink DPCH see 6.10.3.4.1.4.2.2

Physical channel parameters for PDSCH see 6.10.3.4.2.2.2.2

Physical channel parameters for SCCPCH see 6.10.3.4.2.1.2.2

- 6.10.3.4.3.3 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 ~~DL: 33.6~~ kbps SRBs for ~~DCCH~~, CCCH and ~~BCCH~~ [SHCCH](#)
+ ~~UL: 16.8~~ DL: [33.6](#) kbps SRBs for [CCCH](#), SHCCH [and BCCH](#)
- 6.10.3.4.3.3.1 Uplink
- See 6.10.3.4.3.1.1
- 6.10.3.4.3.3.2 Downlink
- 6.10.3.4.3.3.2.1 Transport channel parameters
- 6.10.3.4.3.3.2.1.1 Transport channel parameters for Conversational / speech / DL:12.2 kbps / CS RAB
- See 6.10.3.4.1.4.2.1.1
- 6.10.3.4.3.3.2.1.2 Transport channel parameters for DL SRBs for DCCH
- See 6.10.3.4.1.2.2.1.1
- 6.10.3.4.3.3.2.1.3 TFCS for DCH
- See 6.10.3.4.1.4.2.1.3
- 6.10.3.4.3.3.2.1.4 Transport channel parameters for Interactive or background / DL: 2048 kbps / PS RAB and DL SRB for SHCCH mapped on DSCH
- See 6.10.3.4.2.3.2.1.1
- 6.10.3.4.3.3.2.1.5 TFCS for DSCH
- See 6.10.3.4.2.3.2.1.2
- 6.10.3.4.3.3.2.1.6 Transport channel parameters for SRB for CCCH and SRB for BCCH and DL SRB for SHCCH mapped on FACH
- See 6.10.3.4.3.1.2.1.6
- 6.10.3.4.3.3.2.1.7 TFCS for FACH
- See 6.10.3.4.3.1.2.1.7
- 6.10.3.4.3.3.2.2 Physical channel parameters
- Physical channel parameters for downlink DPCH see 6.10.3.4.1.4.2.2
- Physical channel parameters for PDSCH see 6.10.3.4.2.3.2.2
- Physical channel parameters for SCCPCH see 6.10.3.4.2.1.2.2

6.10.3.4.4 Combinations on SCCPCH

6.10.3.4.4.1 Stand-alone signalling RB for PCCH

6.10.3.4.4.1.1 Transport channel parameters

6.10.3.4.4.1.1.1 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, bts	0x240 (alt. 0x80)
		TF1, bits	1x240 (alt. 1x80)
		<u>TF2, bits</u>	<u>2x240 (alt. 2x80)</u>
	TTI, ms		40 ²⁰
	Coding type		CC 1/2
	CRC, bit		16
	Max number of bits/TTI before rate matching		528-1056 (alt. 208 400)
	<u>Max number of bits/radio frame before rate matching</u>		<u>528</u> (alt. <u>200</u>)
RM attribute		210-250	

*1: This parameter will be changed to 20 ms.

6.10.3.4.4.1.1.2 TFCS

TFCS size	23
TFCS	SRBs for PCCH = TF0, TF1, <u>TF2</u>

6.10.3.4.2.1.2 Physical channel parameters

S-CCPCH	Midamble	512 chips
	Codes and time slots	SF16 x 2 codes x 1 time slot
	Max. Number of data bits/radio frame	472 bits
	TFCI code word	16 bits
	Puncturing limit	0,88

6.10.3.4.4.2 Interactive/Background 32 kbps PS RAB + SRBs for CCCH + SRB for DCCH + SRB for BCCH

6.10.3.4.4.2.1 Transport channel parameters

6.10.3.4.34.2.1.1 Transport channel parameters for Interactive/Background 32 kbps PS RAB

Higher layer	RAB/signalling RB User of Radio Bearer	RAB 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	2x 363	
	TTI, ms	4020		
	Coding type	TC		
	CRC, bit	16		
	Max number of bits/TTI before rate matching	1149 2286		
	Max number of bits/radio frame before rate matching	1143		
	RM attribute	110-150		

6.10.3.4.4.2.1.2 Transport channel parameters of SRBs for CCCH, SRB for DCCH, and SRB for BCCH

Higher layer	RAB/signalling RB User of Radio Bearer	SRB#1	SRB#2	SRB#3	SRB#4	SRB#5	SRB#6	
		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	<u>160</u>	<u>136</u> or <u>120</u>	<u>128</u>	<u>128</u>	<u>128</u>	<u>168</u>	
	Max data rate, bps	32000 (alt. 48000)	27200 or 2400 (alt. 40800 or 36000)	25600 (alt. 38400)	25600 (alt. 38400)	25600 (alt. 38400)	33600 (alt. 50400)	
	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	N/A (alt. 3x171)					
		TF4, bits	4x171					
		TF5, bits	N/A (alt. 5x171)					
	TF6, bits	N/A (alt. 6x171)						
	TTI, ms	4020						
	Coding type	CC 1/2 ^{1/2}						
	CRC, bit	16						
Max number of bits/TTI before rate matching	764 1528 (alt. 1154 2292)							
Max number of bits/radio frame before rate matching	764 (alt. 1146)							
RM attribute	200-240							

* MAC header size and RLC payload size depend on use of U-RNTI or C-RNTI.

6.10.3.4.4.2.1.3 TFCS

TFCS size	4, 5, or 6 15 (alt. 21)
TFCS	(32kbps RAB, SRBs for CCCH/DCCH/BCCH) = (TF0, TF0), (TF0, TF1), (TF0, TF2), (TF0, TF3)*, (TF1, TF0), (TF1, TF1)* (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))

* These TFCs are available only if SCGPCH can be allocated bigger Tx power than required Tx power for TFC of (TF0, TF2).

6.10.3.4.4.2.2 Physical channel parameters

(burst type 1):

S-CCPCH	Midamble	512 chips
	Codes and time slots	SF16 x 5 6 codes x 1 time slot
	Max. Number of data bits/radio frame	1204 1448 bits
	TFCl code word	16 bits
	Puncturing limit	0,6

(burst type 2):

S-CCPCH	Midamble	256 chips
	Codes and time slots	SF16 x 5 6 codes x 1 time slot
	Max. Number of data bits/radio frame	1364 1640 bits
	TFCl code word	16 bits
	Puncturing limit	0,68

6.10.3.4.4.3 Interactive/Background 32 kbps RAB + SRB for PCCH + SRB for CCCH + SRB for DCCH + SRB for BCCH

6.10.3.4.4.3.1 Transport channel parameters

6.10.3.4.4.3.1.1 Transport channel parameters of SRB for Interactive/Background 32 kbps RAB

See 6.10.3.4.4.2.1

6.10.3.4.4.3.1.2 Transport channel parameters of SRB for PCCH

See 6.10.3.4.4.1.1

6.10.3.4.4.3.1.3 Transport channel parameters of SRBs for CCCH, SRB for DCCH, and SRB for BCCH

See 6.10.3.4.4.2.1.2

6.10.3.4.4.3.1.4 TFCS

TFCS size	6 or 7 for 240 bits PCH TrBlk size (alt. 6, 7, 8, 9, 10, or 11 for 80 bits PCH TrBlk size) 45 (alt.63)
TFCS	<p>(32 kbps RAB, SRB for PCCH, SRBs for CCCH/ DCCH/ BCCH) =</p> <p>(TF0, TF0, TF0), (TF0, TF0, TF1), (TF0, TF0, TF2), (TF0, TF0, TF3)*, (TF0, TF1, TF0), (TF0, TF1, TF1), (TF0, TF1, TF2)*, (TF1, TF0, TF0), (TF1, TF0, TF1)*</p> <p>(alt. (TF0, TF0, TF0), (TF0, TF0, TF1), (TF0, TF0, TF2), (TF0, TF0, TF3)*, (TF0, TF1, TF0), (TF0, TF1, TF1), (TF0, TF1, TF2)*, (TF0, TF1, TF3)*, (TF1, TF0, TF0), (TF1, TF0, TF1)*, (TF1, TF1, TF0)*)</p> <p>(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)</p> <p>(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))</p>

* These TFCs are available only if SCCPCH can be allocated bigger Tx power than required Tx power for TFC of (TF0, TF0, TF2).

6.10.3.4.4.3.2 Physical channel parameters

(burst type 1):

S-CCPCH	Midamble	512 chips
	Codes and time slots	SF16 x 5-8 codes x 1 time slot
	Max. Number of data bits/radio frame	1204-1920 bits
	TFCl code word	16-32 bits
	Puncturing limit	0,6 8

(burst type 2):

S-CCPCH	Midamble	256 chips
	Codes and time slots	SF16 x 5-7 codes x 1 time slot
	Max. Number of data bits/radio frame	1364-1900 bits
	TFCl code word	16-32 bits
	Puncturing limit	0,6 8 0.64

6.10.3.4.5 Combinations on PRACH

6.10.3.4.5.1 SRB for CCCH + SRB for DCCH

6.10.3.4.5.1.1 Transport channel parameters

6.10.3.4.5.1.1.1 Transport channel parameter for SRB for CCCH, SRB 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				
	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	194 (alt. 388) 388	194 (alt. 388) 388	194 (alt. 388) 388	194 (alt. 388) 388	194 (alt. 388) 388

6.10.3.4.5.1.1.2 TFCS

TFCS size	1
TFCS	SRBs for CCCH/ DCCH = TF0

6.10.3.4.5.1.2 Physical channel parameters

PRACH	Midamble	512 chips
	Codes and time slots	SF8 (alt. SF16) x 1 code x 1 time slot
	Max. Number of data bits/radio frame	488 bits (alt. 244 bits)
	Puncturing Limit	1.0 (alt. 0.75)

<End of modified section>

CR-Form-v4	
CHANGE REQUEST	
⌘ 34.108 CR 057 ⌘ ev - ⌘ Current version: 3.4.0 ⌘	

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

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

Title:	⌘ Changes to Signalling Radio Bearer (SRB) numbering in 34.108 clause 6.10.		
Source:	⌘ Nokia		
Work item code:	⌘	Date:	⌘ 2001-08-28
Category:	⌘ F	Release:	⌘ R99
	Use <u>one</u> of the following categories:		Use <u>one</u> of the following releases:
	F (correction)	2 (GSM Phase 2)	
	A (corresponds to a correction in an earlier release)	R96 (Release 1996)	
	B (addition of feature),	R97 (Release 1997)	
	C (functional modification of feature)	R98 (Release 1998)	
	D (editorial modification)	R99 (Release 1999)	
	Detailed explanations of the above categories can be found in 3GPP TR 21.900 .		REL-4 (Release 4)
			REL-5 (Release 5)

Reason for change:	⌘ The numbering of some SRBs in 34.108 clause 6.10 is not in line with the numbering in core specification 25.331.
Summary of change:	⌘ The numbering of some SRBs in 34.108 clause 6.10 is changed to be as specified in 25.331 clause 6.3.
Consequences if not approved:	⌘ Mismatch between core specification and test specification.

Clauses affected:	⌘ 6.10.2.4.3.2, 6.10.2.4.4.1, 6.10.3.4.4.2 and 6.10.3.4.5.1		
Other specs affected:	⌘ <input type="checkbox"/> Other core specifications	⌘	
	<input type="checkbox"/> Test specifications		
	<input type="checkbox"/> O&M Specifications		
Other comments:	⌘		

How to create CRs using this form:

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

- 1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.
- 2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under <ftp://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>

6.10.2.4.3.2 Interactive/Background 32 kbps PS RAB + SRBs for CCCH + SRB for DCCH + SRB for BCCH

6.10.2.4.3.2.1 Transport channel parameters

6.10.2.4.3.2.1.1 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	
	AMD PDU header, bit	16	
MAC	MAC header, bit	24	
	MAC multiplexing	N/A	
Layer 1	TrCH type	FACH	
	TB sizes, bit	360	
	TFS	TF0, bits	0x360
		TF1, bits	1x360
	TTI, ms	10	
	Coding type	TC	
	CRC, bit	16	
	Max number of bits/TTI before rate matching	1140	
	RM attribute	110-150	

6.10.2.4.3.2.1.2 Transport channel parameters of SRBs for CCCH, SRB for DCCH, and SRB for BCCH

Higher layer	RAB/signalling RB	SRB# 40	SRB# 21	SRB# 32	SRB# 43	SRB# 54	SRB# 65	
	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	152	136 or 120*	128	128	128	166	
	Max data rate, bps	30400 (alt. 45600)	27200 or 2400 (alt. 40800 or 36000)	25600 (alt. 38400)	25600 (alt. 38400)	25600 (alt. 38400)	33200 (alt. 49800)	
	AMD/UMD/TrD PDU header, bit	8	8	16	16	16	0	
MAC	MAC header, bit	8	24 or 40	24	24	24	2	
	MAC multiplexing	6 logical channel multiplexing						
Layer 1	TrCH type	FACH						
	TB sizes, bit	168						
	TFS	TF0, bits	0x168					
		TF1, bits	1x168					
		TF2, bits	2x168					
		TF3, bits	N/A (alt. 3x168)					
	TTI, ms	10						
	Coding type	CC 1/2						
	CRC, bit	16						
Max number of bits/TTI before rate matching	752 (alt. 1136)							
RM attribute	200-240							

* MAC header size and PLC payload size depend on use of U-RNTI or C-RNTI.

6.10.2.4.3.2.1.3 TFCS

TFCS size	4, 5, or 6
TFCS	(32kbps RAB, SRBs for CCCH/DCCH/BCCH) = (TF0, TF0), (TF0, TF1), (TF0, TF2), [TF0, TF3]*, (TF1, TF0), [TF1, TF1]*

* These TFCs are available only if SCCPCH can be allocated bigger Tx power than required Tx power for TFC of (TF0, TF2).

6.10.2.4.3.2.2 Physical channel parameters

SCCPCH	DTX position	Flexible
	Spreading factor	64
	Number of TFCI bits/slot	8
	Number of Pilot bits/slot	0
	Number of data bits/slot	72
	Number of data bits/frame	1080

6.10.2.4.3.3 Interactive/Background 32 kbps RAB + SRB for PCCH + SRB for CCCH + SRB for DCCH + SRB for BCCH

6.10.2.4.3.3.1 Transport channel parameters

6.10.2.4.3.3.1.1 Transport channel parameters of SRB for Interactive/Background 32 kbps RAB

See 6.10.2.4.3.2.1

6.10.2.4.3.3.1.2 Transport channel parameters of SRB for PCCH

See 6.10.2.4.3.1.1

6.10.2.4.3.3.1.3 Transport channel parameters of SRBs for CCCH, SRB for DCCH, and SRB for BCCH

See 6.10.2.4.3.2.1.2

6.10.2.4.3.3.1.4 TFCS

TFCS size	6, 7, 8 or 9 for 240 bits PCH TrBlk size (alt. 6, 7, 8, 9, 10, or 11 for 80 bits PCH TrBlk size)
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, TF1, TF0), (TF0, TF1, TF1), [TF0, TF1, TF2]*, (TF1, TF0, TF0), [TF1, TF0, TF1]* (alt. (TF0, TF0, TF0), (TF0, TF0, TF1), (TF0, TF0, TF2), [TF0, TF0, TF3]*, (TF0, TF1, TF0), (TF0, TF1, TF1), [TF0, TF1, TF2]*, [TF0, TF1, TF3]*, (TF1, TF0, TF0), [TF1, TF0, TF1]*, [TF1, TF1, TF0]*)

* These TFCs are available only if SCCPCH can be allocated bigger Tx power than required Tx power for TFC of (TF0, TF2).

6.10.2.4.3.3.2 Physical channel parameters

SCCPCH	DTX position	Flexible
	Spreading factor	64
	Number of TFCI bits/slot	8
	Number of Pilot bits/slot	0
	Number of data bits/slot	72
	Number of data bits/frame	1080

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 User of Radio Bearer	RAB Interactive/ Background RAB	SRB#10 RRC	SRB#21 RRC	SRB#32 RRC	SRB#43 NAS_DT High prio	SRB#54 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					
	TTL, ms	20 (alt. 10)						
	Coding type	CC 1/2						
	CRC, bit	16						
	Max number of bits/TTL 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

<End of modified section>

<Start of modified section>

6.10.3.4.4.2 Interactive/Background 32 kbps PS RAB + SRBs for CCCH + SRB for DCCH + SRB for BCCH

6.10.3.4.4.2.1 Transport channel parameters

6.10.3.4.3.2.1.1 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
	TTI, ms	10	
	Coding type	TC	
	CRC, bit	16	
	Max number of bits/TTI before rate matching	1149	
	RM attribute	110-150	

6.10.3.4.4.2.1.2 Transport channel parameters of SRBs for CCCH, SRB for DCCH, and SRB for BCCH

Higher layer	RAB/signalling RB	SRB# 40	SRB# 21	SRB# 32	SRB# 43	SRB# 54	SRB# 65	
	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	<u>160</u>	<u>136</u> or <u>120</u>	<u>128</u>	<u>128</u>	<u>128</u>	<u>168</u>	
	Max data rate, bps	32000 (alt. 48000)	27200 or 2400 (alt. 40800 or 36000)	25600 (alt. 38400)	25600 (alt. 38400)	25600 (alt. 38400)	33600 (alt. 50400)	
	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	N/A (alt. 3x171)					
	TTI, ms	10						
	Coding type	CC 1/2						
	CRC, bit	16						
Max number of bits/TTI before rate matching	764 (alt. 1154)							
RM attribute	200-240							

* MAC header size and RLC payload size depend on use of U-RNTI or C-RNTI.

6.10.3.4.4.2.1.3 TFCS

TFCS size	4, 5, or 6
TFCS	(32kbps RAB, SRBs for CCCH/DCCH/BCCH) = (TF0, TF0), (TF0, TF1), (TF0, TF2), [TF0, TF3]*, (TF1, TF0), [TF1, TF1]*

* These TFCs are available only if SCCPCH can be allocated bigger Tx power than required Tx power for TFC of (TF0, TF2).

6.10.3.4.4.2.2 Physical channel parameters

(burst type 1):

S-CCPCH	Midamble	512 chips
	Codes and time slots	SF16 x 5 codes x 1 time slot
	Max. Number of data bits/radio frame	1204 bits
	TFCI code word	16 bits
	Puncturing limit	0,6

(burst type 2):

S-CCPCH	Midamble	256 chips
	Codes and time slots	SF16 x 5 codes x 1 time slot
	Max. Number of data bits/radio frame	1364 bits
	TFCI code word	16 bits
	Puncturing limit	0,68

6.10.3.4.4.3 Interactive/Background 32 kbps RAB + SRB for PCCH + SRB for CCCH + SRB for DCCH + SRB for BCCH

6.10.3.4.4.3.1 Transport channel parameters

6.10.3.4.4.3.1.1 Transport channel parameters of SRB for Interactive/Background 32 kbps RAB

See 6.10.3.4.4.2.1

6.10.3.4.4.3.1.2 Transport channel parameters of SRB for PCCH

See 6.10.3.4.4.1.1

6.10.3.4.4.3.1.3 Transport channel parameters of SRBs for CCCH, SRB for DCCH, and SRB for BCCH

See 6.10.3.4.4.2.1.2

6.10.3.4.4.3.1.4 TFCS

TFCS size	6 or 7 for 240 bits PCH TrBlk size (alt. 6, 7, 8, 9, 10, or 11 for 80 bits PCH TrBlk size)
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, TF1, TF0), (TF0, TF1, TF1), [TF0, TF1, TF2]*, (TF1, TF0, TF0), [TF1, TF0, TF1]* (alt. (TF0, TF0, TF0), (TF0, TF0, TF1), (TF0, TF0, TF2), [TF0,TF0, TF3]*, (TF0, TF1, TF0), (TF0, TF1, TF1), [TF0, TF1, TF2]*, [TF0, TF1, TF3]*, (TF1, TF0, TF0), [TF1, TF0, TF1]*, [TF1, TF1, TF0]*)

* These TFCs are available only if SCCPCH can be allocated bigger Tx power than required Tx power for TFC of (TF0, TF0, TF2).

6.10.3.4.4.3.2 Physical channel parameters

(burst type 1):

S-CCPCH	Midamble	512 chips
	Codes and time slots	SF16 x 5 codes x 1 time slot
	Max. Number of data bits/radio frame	1204 bits
	TFCI code word	16 bits
	Puncturing limit	0,6

(burst type 2):

S-CCPCH	Midamble	256 chips
	Codes and time slots	SF16 x 5 codes x 1 time slot
	Max. Number of data bits/radio frame	1364 bits
	TFCI code word	16 bits
	Puncturing limit	0,68

6.10.3.4.5 Combinations on PRACH

6.10.3.4.5.1 SRB for CCCH + SRB for DCCH

6.10.3.4.5.1.1 Transport channel parameters

6.10.3.4.5.1.1.1 Transport channel parameter for SRB for CCCH, SRB for DCCH

Higher layer	RAB/signalling RB	SRB#10	SRB#21	SRB#32	SRB#43	SRB#54
	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				
	TFS	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	194 (alt. 388)	194 (alt. 388)	194 (alt. 388)	194 (alt. 388)	194 (alt. 388)	

6.10.3.4.5.1.1.2 TFCS

TFCS size	1
TFCS	SRBs for CCCH/ DCCH = TF0

6.10.3.4.5.1.2 Physical channel parameters

PRACH	Midamble	512 chips
	Codes and time slots	SF8 (alt. SF16) x 1 code x 1 time slot
	Max. Number of data bits/radio frame	488 bits (alt. 244 bits)
	Puncturing Limit	1.0 (alt. 0.75)

<End of modified section>

CR-Form-v4

CHANGE REQUEST

⌘ **34.108 CR 058** ⌘ ev **-** ⌘ Current version: **3.4.0** ⌘

For [HELP](#) on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.

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

Title: ⌘ Missing bearers in 34.108 tables 6.10.2.1.1 and 6.10.3.1.1

Source: ⌘ Nokia

Work item code: ⌘ **Date:** ⌘ 2001-09-02

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)

Reason for change: ⌘ FDD: In clause 6.10.2.2 Combinations of RABs and Signalling RBs some bearers are mentioned that are not listed in Table 6.10.2.1.1: Prioritised RABs. These are added to make the table complete. In the same clause 6.10.2.2 under Combinations on SCCPCH one editorial correction is made.

TDD: In clause 6.10.3.2 Combinations of RABs and Signalling RBs some bearers are mentioned that are not listed in Table 6.10.3.1.1: Prioritised RABs. These are added to make the table complete. In the same clause 6.10.3.2 under Combinations on SCCPCH one editorial correction is made.

Summary of change: ⌘ FDD changes:

- 1) "Interactive or background / DL:32 kbps" added in table 6.10.2.1.1
- 2) "Interactive or background / UL:32 kbps" added in table 6.10.2.1.1

- 3) "Interactive or background / UL:64 DL:144 kbps" added in table 6.10.2.1.1
- 4) "Interactive or background / UL:144 DL:144 kbps" added in table 6.10.2.1.1
- 5) "Interactive or background / UL:64 DL:256 kbps" added in table 6.10.2.1.1
- 6) Stand-alone 32 kbps SRB for PCCH Is changed to 24 kbps in clause 6.10.2.2

TDD changes:

- 1) "Interactive or background / DL:32 kbps" added in table 6.10.3.1.1
- 2) "Interactive or background / UL:32 kbps" added in table 6.10.3.1.1
- 3) "Interactive or background / UL:64 DL:144 kbps" added in table 6.10.3.1.1
- 4) "Interactive or background / UL:144 DL:144 kbps" added in table 6.10.3.1.1
- 5) Stand-alone 32 kbps SRB for PCCH Is changed to 24 kbps in 6.10.3.2

Consequences if not approved: ⌘ Mismatches between clause 6.10.2.2 and table 6.10.2.1.1. Mismatches between clause 6.10.3.2 and table 6.10.3.1.1.

Clauses affected: ⌘ 6.10.2.1, 6.10.2.2, 6.10.3.1 and 6.10.3.2

Other specs affected:

⌘		Other core specifications	⌘	
		Test specifications		
		O&M Specifications		

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>

6.10.2 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
2	Conversational	Speech	UL:10.2 DL:10.2	CS
3	Conversational	Speech	UL:7.95 DL:7.95	CS
4	Conversational	Speech	UL:7.4 DL:7.4	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
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	Streaming	Unknown	UL:0 DL:64	CS
16	Streaming	Unknown	UL:64 DL:0	CS
17	Streaming	Unknown	UL:0 DL:128	CS
18	Streaming	Unknown	UL:128 DL:0	CS
19	Streaming	Unknown	UL:0 DL:384	CS
20	Interactive or Background	N/A	UL:32 DL:8	PS
21	Interactive or Background	N/A	UL:64 DL:8	PS
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	Interactive or Background	N/A	UL:384 DL:2048	PS
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

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 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
- 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
- 5) Conversational / speech / UL:10.2 DL:10.2 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
- 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) Streaming / unknown / UL:0 DL:64 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH
- 19) Streaming / unknown / UL:64 DL:0 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH
- 20) Streaming / unknown / UL:0 DL:128 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH
- 21) Streaming / unknown / UL:128 DL:0 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH
- 22) Streaming / unknown / UL:0 DL:384 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH
- 23) Interactive or background / UL:32 DL:8 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH
- 24) Interactive or background / UL:64 DL:8 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH
- 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) Interactive or background / UL:128 DL:2048 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH

- 37) Interactive or background / UL:384 DL:2048 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH
- 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
- 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) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ Streaming / unknown / UL:0 DL:64 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH
- 47) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ Streaming / unknown / UL:0 DL:128 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH
- 48) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ Streaming / unknown / UL:0 DL:384 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH
- 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
- 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
- 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) Interactive or /background / UL:64 kbps DL:128 kbps / PS RAB
+ Streaming / unknown / UL:0 DL:64 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH
- 55) Interactive or /background / UL:64 kbps DL:128 kbps / PS RAB
+ Streaming / unknown / UL:0 DL:128 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH

Combinations on DSCH and DPCH

- 1) Interactive or background / UL:64 DL:256 kbps / PS RAB
+ UL:3.4 DL: 3.4 kbps SRBs for DCCH
- 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) 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
- 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 ~~32~~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

Combinations on PRACH

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

<End of modified section>

<Start of modified section>

6.10.3 RAB and signalling RB for TDD

6.10.3.1 RABs and signalling RBs

In the following sections, 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 6.10.3.1.1: Prioritised RABs.

#	Traffic class ^[3]	SSD ^[3]	Max. rate, kbps	CS/PS
1	Conversational	Speech	UL:12.2 DL:12.2	CS
2	Conversational	Speech	UL:10.2 DL:10.2	CS
3	Conversational	Speech	UL:7.95 DL:7.95	CS
4	Conversational	Speech	UL:7.4 DL:7.4	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
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	Streaming	Unknown	UL:0 DL:64	CS
16	Streaming	Unknown	UL:64 DL:0	CS
17	Streaming	Unknown	UL:0 DL:128	CS
18	Streaming	Unknown	UL:128 DL:0	CS
19	Streaming	Unknown	UL:0 DL:384	CS
20	Interactive or Background	N/A	UL:32 DL:8	PS
21	Interactive or Background	N/A	UL:64 DL:8	PS
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	Interactive or Background	N/A	UL:384 DL:2048	PS
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

Table 6.10.3.1.2: 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
9	UL:16.8	SHCCH	PRACH
10	UL:16.8	SHCCH	PRACH or PUSCH
11	DL:16	SHCCH	SCCPCH
12	DL:16	SHCCH	SCCPCH or PDSCH

6.10.3.2 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
- 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
- 5) Conversational / speech / UL:10.2 DL:10.2 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
- 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) Streaming / unknown / UL:0 DL:64 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH
- 19) Streaming / unknown / UL:64 DL:0 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH
- 20) Streaming / unknown / UL:0 DL:128 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH
- 21) Streaming / unknown / UL:128 DL:0 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH
- 22) Streaming / unknown / UL:0 DL:384 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH
- 23) Interactive or background / UL:32 DL:8 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH
- 24) Interactive or background / UL:64 DL:8 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH
- 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) Interactive or background / UL:128 DL:2048 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH
- 37) Interactive or background / UL:384 DL:2048 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH
- 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
- 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) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ Streaming / unknown / UL:0 DL:64 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH
- 47) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ Streaming / unknown / UL:0 DL:128 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH
- 48) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ Streaming / unknown / UL:0 DL:384 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH
- 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
- 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

- 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) Interactive or /background / UL:64 kbps DL:128 kbps / PS RAB
 - + Streaming / unknown / UL:0 DL:64 kbps / CS RAB
 - + UL:3.4 DL:3.4 kbps SRBs for DCCH
- 55) Interactive or /background / UL:64 kbps DL:128 kbps / PS RAB
 - + Streaming / unknown / UL:0 DL:128 kbps / CS 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: 16.8 DL: 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: 16.8 DL: 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 DL: 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
 - + Interactive or background / UL:64 DL:256 kbps / PS RAB
 - + UL:16.8 DL: 33.6 kbps SRBs for DCCH, CCCH and BCCH
 - + UL: 16.8 DL: 16 kbps SRBs for SHCCH
- 2) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
 - + Interactive or background / UL:64 DL:384 kbps / PS RAB
 - + UL:16.8 DL: 33.6 kbps SRBs for DCCH, CCCH and BCCH
 - + UL: 16.8 DL: 16 kbps SRBs for SHCCH
- 3) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
 - + Interactive or background / UL:64 DL:2048 kbps / PS RAB
 - + UL:16.8 DL: 33.6 kbps SRBs for DCCH, CCCH and BCCH
 - + UL: 16.8 DL: 16 kbps SRBs for SHCCH

Combinations on SCCPCH

- 1) Stand-alone ~~32~~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

Combinations on PRACH

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

<End of modified section>

3GPP TSG-T1 Meeting #12
Busan, Korea, 6-7 September, 2001

Tdoc T1-010286

3GPP TSG-T1/SIG Meeting #19
Busan, Korea, 3-5 September, 2001

Tdoc T1S-010234

CR-Form-v3

CHANGE REQUEST

⌘ **34.108 CR 059** ⌘ rev **-** ⌘ Current version: **3.4.0** ⌘

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

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

Title:	⌘ Correction of system information block 5		
Source:	⌘ Ericsson		
Work item code:	⌘	Date:	⌘ 2001-09-04
Category:	⌘ F	Release:	⌘ R99
<p>Use <u>one</u> of the following categories:</p> <p>F (essential correction) A (corresponds to a correction in an earlier release) B (Addition of feature), C (Functional modification of feature) D (Editorial modification)</p> <p>Detailed explanations of the above categories can be found in 3GPP TR 21.900.</p>		<p>Use <u>one</u> of the following releases:</p> <p>2 (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) REL-4 (Release 4) REL-5 (Release 5)</p>	

Reason for change:	⌘ Conflict between System Information Block Type 5 / System Information Block type 6 in connected mode and Default Radio Conditions for Multi cell environment
Summary of change:	⌘ "AICH power offset" is set to 0 dB in System Information Block Type 5 and also in System Information Block type 6 in connected mode. "AICH power offset" should be equal to AICH_Ec/Ior - CPICH_Ec/Ior. However, in Default Radio Conditions, AICH_Ec/Ior = -15 dB and CPICH_Ec/Ior = -10 dB giving a difference of -5 dB. Therefore, to comply with Default Radio Conditions, "AICH power offset" should be changed to -5 dB.
Consequences if not approved:	⌘ Inconsistencies between System information Blocks and Default radio Conditions.

Clauses affected:	⌘ 6.1
Other specs affected:	⌘ <input type="checkbox"/> Other core specifications ⌘ <input type="checkbox"/> <input type="checkbox"/> Test specifications ⌘ <input type="checkbox"/> <input type="checkbox"/> O&M Specifications ⌘ <input type="checkbox"/>
Other comments:	⌘

Contents of System Information Block type 5 (FDD)

- SIB6 indicator	TRUE
- PICH Power offset	-5 dB
- CHOICE Mode	FDD
- AICH Power offset	0-5 dB
- Primary CCPCH info	
- TX Diversity indicator	FALSE
- PRACH system information list	
- PRACH system information	
- PRACH info	
- CHOICE mode	FDD
- Available Signature	'0000 0000 1111 1111'B
- Available SF	Reference to clause 6.10 Parameter Set
- Preamble scrambling code number	0
- Puncturing Limit	Reference to clause 6.10 Parameter Set
- Available Sub Channel number	'1111 1111 1111'B
- Transport Channel Identity	15
- RACH TFS	
- CHOICE Transport channel type	Common transport channels
- Dynamic Transport format information	(This IE is repeated for TFI number)
- RLC size	Reference to clause 6.10 Parameter Set
- Number of TB and TTI List	Reference to clause 6.10 Parameter Set
- Number of Transport blocks	Reference to clause 6.10 Parameter Set
- CHOICE Mode	FDD
- CHOICE Logical Channel List	ALL
- Semi-static Transport Format information	
- Transmission time interval	Reference to clause 6.10 Parameter Set
- Type of channel coding	Reference to clause 6.10 Parameter Set
- Coding Rate	Reference to clause 6.10 Parameter Set
- Rate matching attribute	Reference to clause 6.10 Parameter Set
- CRC size	Reference to clause 6.10 Parameter Set
- RACH TFCS	(This IE is repeated for TFC number.)
- Normal	
- TFCI Field 1 information	
- CHOICE TFCS representation	Addition
- TFCS addition information	
- CHOICE CTFC Size	Number of bits used must be enough to cover all combinations of CTFC from clause 6.10. Refer to clause 6.10 Parameter Set
- CTFC information	
- Power offset information	
- CHOICE Gain Factors	Signalled Gain Factor
- Gain factor β_c	0
- Gain factor β_d	0
- Reference TFC ID	Not Present
- Power offset Pp-m	0dB
- PRACH partitioning	
- Access Service Class	
- ASC Setting	
- CHOICE mode	FDD
- Available signature Start Index	0 (ASC#0)
- Available signature End Index	7 (ASC#0)
- Assigned Sub-channel Number	'1111'B
- ASC Setting	
- CHOICE mode	FDD
- Available signature Start Index	0 (ASC#1)
- Available signature End Index	7 (ASC#1)
- Assigned Sub-channel Number	'1111'B
- Available signature Start Index	0 (ASC#2)
- Available signature End Index	7 (ASC#2)
- Assigned Sub-channel Number	'1111'B
- Available signature Start Index	0 (ASC#3)
- Available signature End Index	7 (ASC#3)
- Assigned Sub-channel Number	'1111'B
- Available signature Start Index	0 (ASC#4)
- Available signature End Index	7 (ASC#4)
- Assigned Sub-channel Number	'1111'B
- Available signature Start Index	0 (ASC#5)

- Available signature End Index	7 (ASC#5)
- Assigned Sub-channel Number	'1111'B
- Available signature Start Index	0 (ASC#6)
- Available signature End Index	7 (ASC#6)
- Assigned Sub-channel Number	'1111'B
- Available signature Start Index	0 (ASC#7)
- Available signature End Index	7 (ASC#7)
- Assigned Sub-channel Number	'1111'B
- Persistence scaling factor	
- Persistence scaling factor	0.9 (for ASC#2)
- Persistence scaling factor	0.9 (for ASC#3)
- Persistence scaling factor	0.9 (for ASC#4)
- Persistence scaling factor	0.9 (for ASC#5)
- Persistence scaling factor	0.9 (for ASC#6)
- Persistence scaling factor	0.9 (for ASC#7)
- AC-to-ASC mapping table	
- AC-to-ASC mapping	6 (AC0-9)
- AC-to-ASC mapping	5 (AC10)
- AC-to-ASC mapping	4 (AC11)
- AC-to-ASC mapping	3 (AC12)
- AC-to-ASC mapping	2 (AC13)
- AC-to-ASC mapping	1 (AC14)
- AC-to-ASC mapping	0 (AC15)
- Primary CPICH DL TX power	Reference to clause 6.10 Parameter Set
- Constant value	Reference to clause 6.10 Parameter Set
- PRACH power offset	
- Power Ramp Step	3dB
- Preamble Retrans Max	2
- RACH transmission parameters	
- Mmax	2
- NB01min	3 slot
- NB01max	10 slot
- AICH info	
- Channelisation code	SF-1(SF is reference to clause 6.10 Parameter Set)
- STTD indicator	FALSE
- AICH transmission timing	0
- Secondary CCPCH system info	
- Secondary CCPCH info	
- Primary CPICH usage for channel estimation	Primary CPICH may be used
- Secondary CPICH info	Not Present
- Secondary scrambling code	Not Present
- STTD indicator	FALSE
- Spreading factor	Reference to clause 6.10 Parameter Set
- Code number	SF-1(SF is reference to clause 6.10 Parameter Set)
- Pilot symbol existence	FALSE
- TFCI existence	TRUE
- Fixed or Flexible position	Flexible
- Timing offset	0
- TFCS	(This IE is repeated for TFC number for PCH and FACH.)
- Normal	
- TFCI Field 1 information	
- CHOICE TFCS representation	Addition
- TFCS addition information	
- CHOICE CTFC Size	Number of bits used must be enough to cover all combinations of CTFC from clause 6.10.
- CTFC information	Refer to clause 6.10 Parameter Set
- Power offset information	Not Present
- FACH/PCH information	
- Transport Channel Identity	12 (for PCH)
- TFS	(PCH)
- CHOICE Transport channel type	Common transport channels
- Dynamic Transport format information	(This IE is repeated for TFI number.)
- RLC Size	Reference to clause 6.10 Parameter Set
- Number of TB and TTI List	Reference to clause 6.10 Parameter Set
- Number of Transport blocks	Reference to clause 6.10 Parameter Set
- CHOICE Mode	FDD
- CHOICE Logical Channel List	ALL
- Semi-static Transport Format information	
- Transmission time interval	Reference to clause 6.10 Parameter Set

- Type of channel coding	Reference to clause 6.10 Parameter Set
- Coding Rate	Reference to clause 6.10 Parameter Set
- Rate matching attribute	Reference to clause 6.10 Parameter Set
- CRC size	Reference to clause 6.10 Parameter Set
- Transport Channel Identity	13 (for FACH)
- TFS	(FACH)
- CHOICE Transport channel type	Common transport channels
- Dynamic Transport format information	(This IE is repeated for TFI number.)
- RLC Size	Reference to clause 6.10 Parameter Set
- Number of TB and TTI List	Reference to clause 6.10 Parameter Set
- Number of Transport blocks	Reference to clause 6.10 Parameter Set
- CHOICE Mode	FDD
- CHOICE Logical Channel List	ALL
- Semi-static Transport Format information	
- Transmission time interval	Reference to clause 6.10 Parameter Set
- Type of channel coding	Reference to clause 6.10 Parameter Set
- Coding Rate	Reference to clause 6.10 Parameter Set
- Rate matching attribute	Reference to clause 6.10 Parameter Set
- CRC size	Reference to clause 6.10 Parameter Set
- CTCH indicator	FALSE
- PICH info	
- Channelisation code	SF-1(SF is reference to clause 6.10 Parameter Set)
- Number of PI per frame	18
- STTD indicator	FALSE
- CBS DRX Level 1 information	Not Present

<Next change>

Contents of System Information Block type 6 in connected mode (FDD)

- PICH power offset	-5 dB
- CHOICE Mode	FDD
- AICH power offset	0-5 dB
- CSICH Power offset	Not Present
- Primary CCPCH info	
- TX Diversity indicator	FALSE
- PRACH system information list	
- PRACH system information	
- PRACH info	
- CHOICE mode	FDD
- Available Signature	'0000 0000 1111 1111'B
- Available SF	Reference to clause 6.10 Parameter Set
- Preamble scrambling code number	0
- Puncturing Limit	Reference to clause 6.10 Parameter Set
- Available Sub Channel number	'1111 1111 1111'B
- Transport Channel Identity	15
- RACH TFS	
- CHOICE Transport channel type	Common transport channels
- Dynamic Transport format information	(This IE is repeated for TFI number)
- RLC size	Reference to clause 6.10 Parameter Set
- Number of TB and TTI List	Reference to clause 6.10 Parameter Set
- Number of Transport blocks	Reference to clause 6.10 Parameter Set
- CHOICE Mode	FDD
- CHOICE Logical Channel List	ALL
- Semi-static Transport Format information	
- Transmission time interval	Reference to clause 6.10 Parameter Set
- Type of channel coding	Reference to clause 6.10 Parameter Set
- Coding Rate	Reference to clause 6.10 Parameter Set
- Rate matching attribute	Reference to clause 6.10 Parameter Set
- CRC size	Reference to clause 6.10 Parameter Set
- RACH TFCS	(This IE is repeated for TFC number.)
- Normal	
- TFCI Field 1 information	
- CHOICE TFCS representation	Addition
- TFCS addition information	
- CHOICE CTFC Size	Number of bits used must be enough to cover all combinations of CTFC from clause 6.10.
- CTFC information	Refer to clause 6.10 Parameter Set
- Power offset information	
- CHOICE Gain Factors	Signalled Gain Factor
- Gain factor β_c	0
- Gain factor β_d	0
- Reference TFC ID	Not Present
- Power offset Pp-m	0dB
- PRACH partitioning	
- Access Service Class	
- ASC Setting	
- CHOICE mode	FDD
- Available signature Start Index	0 (ASC#0)
- Available signature End Index	7 (ASC#0)
- Assigned Sub-channel Number	'1111'B
- ASC Setting	
- CHOICE mode	FDD
- Available signature Start Index	0 (ASC#1)
- Available signature End Index	7 (ASC#1)
- Assigned Sub-channel Number	'1111'B
- ASC Setting	
- CHOICE mode	FDD
- Available signature Start Index	0 (ASC#2)
- Available signature End Index	7 (ASC#2)
- Assigned Sub-channel Number	'1111'B
- ASC Setting	
- CHOICE mode	FDD

- Available signature Start Index	0 (ASC#3)
- Available signature End Index	7 (ASC#3)
- Assigned Sub-channel Number	'1111'B
- ASC Setting	
- CHOICE mode	FDD
- Available signature Start Index	0 (ASC#4)
- Available signature End Index	7 (ASC#4)
- Assigned Sub-channel Number	'1111'B
- ASC Setting	
- CHOICE mode	FDD
- Available signature Start Index	0 (ASC#5)
- Available signature End Index	7 (ASC#5)
- Assigned Sub-channel Number	'1111'B
- ASC Setting	
- CHOICE mode	FDD
- Available signature Start Index	0 (ASC#6)
- Available signature End Index	7 (ASC#6)
- Assigned Sub-channel Number	'1111'B
- ASC Setting	
- CHOICE mode	FDD
- Available signature Start Index	0 (ASC#7)
- Available signature End Index	7 (ASC#7)
- Assigned Sub-channel Number	'1111'B
- Persistence scaling factor	
- Persistence scaling factor	0.9 (for ASC#2)
- Persistence scaling factor	0.9 (for ASC#3)
- Persistence scaling factor	0.9 (for ASC#4)
- Persistence scaling factor	0.9 (for ASC#5)
- Persistence scaling factor	0.9 (for ASC#6)
- Persistence scaling factor	0.9 (for ASC#7)
- AC-to-ASC mapping	Not Present
- Primary CPICH DL TX power	Reference to clause 6.10 Parameter Set
- Constant value	Reference to clause 6.10 Parameter Set
- PRACH power offset	
- Power Ramp Step	3dB
- Preamble Retrans Max	2
- RACH transmission parameters	
- Mmax	2
- NB01min	3 slot
- NB01max	10 slot
- AICH info	
- Channelisation code	SF-1(SF is reference to clause 6.10 Parameter Set)
- STTD indicator	FALSE
- AICH transmission timing	0
- Secondary CCPCH system info	
- Secondary CCPCH info	
- Primary CPICH usage for channel estimation	Primary CPICH may be used
- Secondary CPICH info	Not Present
- Secondary scrambling code	Not Present
- STTD indicator	FALSE
- Spreading factor	Reference to clause 6.10 Parameter Set
- Code number	Reference to clause 6.10 Parameter Set
- Pilot symbol existence	FALSE
- TFCI existence	TRUE
- Fixed or Flexible position	Flexible
- Timing offset	0
- TFCS	(This IE is repeated for TFC number for PCH and FACH.)
- Normal	
- TFCI Field 1 information	
- CHOICE TFCS representation	Addition
- TFCS addition information	
- CHOICE CTFC Size	Number of bits used must be enough to cover all combinations of CTFC from clause 6.10.
- CTFC information	Refer to clause 6.10 Parameter Set
- Power offset information	Not Present
- FACH/PCH information	
- Transport Channel Identity	12 (for PCH)
- TFS	(PCH)
- CHOICE Transport channel type	Common transport channels

- Dynamic Transport format information	(This IE is repeated for TFI number.)
- RLC Size	Reference to clause 6.10 Parameter Set
- Number of TB and TTI List	Reference to clause 6.10 Parameter Set
- Number of Transport blocks	Reference to clause 6.10 Parameter Set
- CHOICE Mode	FDD
- CHOICE Logical Channel List	ALL
- Semi-static Transport Format information	
- Transmission time interval	Reference to clause 6.10 Parameter Set
- Type of channel coding	Reference to clause 6.10 Parameter Set
- Coding Rate	Reference to clause 6.10 Parameter Set
- Rate matching attribute	Reference to clause 6.10 Parameter Set
- CRC size	Reference to clause 6.10 Parameter Set
- Transport Channel Identity	13 (for FACH)
- TFS	(FACH)
- CHOICE Transport channel type	Common transport channels
- Dynamic Transport format information	(This IE is repeated for TFI number.)
- RLC Size	Reference to clause 6.10 Parameter Set
- Number of TB and TTI List	Reference to clause 6.10 Parameter Set
- Number of Transport blocks	Reference to clause 6.10 Parameter Set
- CHOICE Mode	FDD
- CHOICE Logical Channel List	ALL
- Semi-static Transport Format information	
- Transmission time interval	Reference to clause 6.10 Parameter Set
- Type of channel coding	Reference to clause 6.10 Parameter Set
- Coding Rate	Reference to clause 6.10 Parameter Set
- Rate matching attribute	Reference to clause 6.10 Parameter Set
- CRC size	Reference to clause 6.10 Parameter Set
- CTCH indicator	FALSE
- PICH info	
- Channelisation code	SF-1(SF is reference to clause 6.10 Parameter Set)
- Number of PI per frame	18
- STTD indicator	FALSE
- CBS DRX Level 1 information	Not Present

CHANGE REQUEST

⌘ **TS 34.108 CR 063** ⌘ ev **-** ⌘ Current version: **3.4.0** ⌘

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

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

Title:	⌘ RBs for RLC and PDCP testing		
Source:	⌘ MCI		
Work item code:	⌘	Date:	⌘ 5 th September 2001
Category:	⌘ B	Release:	⌘ R99
	Use <u>one</u> 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 <u>one</u> of the following releases: 2 (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) REL-4 (Release 4) REL-5 (Release 5)

Reason for change:	⌘ To have a generic set of RBs for RLC and PDCP testing.		
Summary of change:	⌘ RBs for RLC and PDCP testing to be included in TS 34.108 clause 6.11		
Consequences if not approved:	⌘		

Clauses affected:	⌘		
Other specs affected:	<input type="checkbox"/> Other core specifications <input checked="" type="checkbox"/> Test specifications <input type="checkbox"/> O&M Specifications	⌘	TS 34.123-1 (Concerning the change in PDU size)
Other comments:	⌘		

How to create CRs using this form:

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

- 1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.
- 2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under <ftp://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 Modifications

6.11.1 Unacknowledged Mode Radio Bearer configuration (7 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

<u>Higher layer</u>	<u>RAB/Signalling RB</u>	<u>RAB</u>	
<u>RLC</u>	<u>Logical channel type</u>	<u>DTCH</u>	
	<u>RLC mode</u>	<u>UM</u>	
	<u>Payload sizes, bit</u>	<u>328</u>	
	<u>Max data rate, bps</u>	<u>65600</u>	
	<u>UMD PDU header, bit</u>	<u>8</u>	
<u>MAC</u>	<u>MAC header, bit</u>	<u>0</u>	
	<u>MAC multiplexing</u>	<u>N/A</u>	
<u>Layer 1</u>	<u>TrCH type</u>	<u>DCH</u>	
	<u>TB sizes, bit</u>	<u>336</u>	
	<u>TFS</u>	<u>TF0, bits</u>	<u>0x336</u>
		<u>TF1, bits</u>	<u>1x336</u>
		<u>TF2, bits</u>	<u>2x336(Note1)</u>
		<u>TF3, bits</u>	<u>3x336(Note1)</u>
		<u>TF4, bits</u>	<u>4x336(Note1)</u>
	<u>TTI, ms</u>	<u>20</u>	
	<u>Coding type</u>	<u>TC</u>	
	<u>CRC, bit</u>	<u>16</u>	
	<u>Max number of bits/TTI after channel coding</u>	<u>4236</u>	
	<u>Uplink: Max number of bits/radio frame before rate matching</u>	<u>2118</u>	
	<u>RM attribute</u>	<u>130-170</u>	

Transport channel parameters for the Downlink RAB

<u>Higher layer</u>	<u>RAB/Signalling RB</u>	<u>RAB</u>	
<u>RLC</u>	<u>Logical channel type</u>	<u>DTCH</u>	
	<u>RLC mode</u>	<u>UM</u>	
	<u>Payload sizes, bit</u>	<u>328</u>	
	<u>Max data rate, bps</u>	<u>65600</u>	
	<u>UMD PDU header, bit</u>	<u>8</u>	
<u>MAC</u>	<u>MAC header, bit</u>	<u>0</u>	
	<u>MAC multiplexing</u>	<u>N/A</u>	
<u>Layer 1</u>	<u>TrCH type</u>	<u>DCH</u>	
	<u>TB sizes, bit</u>	<u>336</u>	
	<u>TFS</u>	<u>TF0, bits</u>	<u>0x336</u>
		<u>TF1, bits</u>	<u>1x336</u>
		<u>TF2, bits</u>	<u>2x3368(Note1)</u>
		<u>TF3, bits</u>	<u>3x336(Note1)</u>
		<u>TF4, bits</u>	<u>4x336(Note1)</u>
	<u>TTI, ms</u>	<u>20</u>	
	<u>Coding type</u>	<u>TC</u>	
	<u>CRC, bit</u>	<u>16</u>	
	<u>Max number of bits/TTI after channel coding</u>	<u>4236</u>	
	<u>RM attribute</u>	<u>130-170</u>	

Note 1: This TFI is not applied to TFS for RLC test cases.

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	4236	
	Uplink: Max number of bits/radio frame before rate matching	2118	
	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	4236	
	RM attribute	130-170	

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

Transport channel parameters for the Uplink RAB

See 6.10.2.4.1.24.1

Transport channel parameters for the Downlink RAB

See 6.10.2.4.1.25.2

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	4236	
	Uplink: Max number of bits/radio frame before rate matching	2118	
	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	4236	
	RM attribute	130-170	

End of Modifications

3GPP TSG-T1 Meeting #12
Busan, Korea, 6th – 7th September 2001

Tdoc T1-010287

3GPP TSG-T1/SIG SWG Meeting #18
Munich, Germany, 31 July - 2 August, 2001

Tdoc TSG T1S-010138

CR-Form-v3

CHANGE REQUEST

⌘ **34.108 CR 060** ⌘ rev **-** ⌘ Current version: **3.4.0** ⌘

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

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

Title:	⌘ Inclusion of 1.28 Mcps TDD in TS 34.108
Source:	⌘ Siemens AG
Work item code:	⌘ LCRTDD Date: ⌘ 31.July.2001
Category:	⌘ B Release: ⌘ REL-4
<p>Use <u>one</u> of the following categories:</p> <p>F (essential correction) A (corresponds to a correction in an earlier release) B (Addition of feature), C (Functional modification of feature) D (Editorial modification)</p> <p>Detailed explanations of the above categories can be found in 3GPP TR 21.900.</p> <p>Use <u>one</u> of the following releases:</p> <p>2 (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) REL-4 (Release 4) REL-5 (Release 5)</p>	

Reason for change:	⌘ Including 1.28 Mcps TDD option into UE conformance test specifications: 1.Clause 4.2 Different physical channels for 3.84 Mcps and 1.28 Mcps TDD. Reference to TS 25.221 v4.1.0 clause 6 2.Clause 5.1:width of channel,offset and test frequencies are differents for 3.84 Mcps and 1.28Mcps. Reference to TS 25.102 v 4.1.0 3.Clause 6.7.2 Diverse Operation(TDD mode) different for 3.84 Mcps and 1.28 Mcps Reference to TS 25.221 v4.1.0 clause 6.4
Summary of change:	⌘ Test case descriptions for 1.28 Mcps TDD option
Consequences if not approved:	⌘ 1.28 Mcps TDD option is not tested properly

Clauses affected:	⌘ 4.2, 5, 6.7
Other specs affected:	⌘ <input type="checkbox"/> Other core specifications ⌘ <input type="checkbox"/> <input type="checkbox"/> Test specifications <input type="checkbox"/> O&M Specifications
Other comments:	⌘

<Start of modified section>

4.2.1.2 Supported Channels for TDD Mode

4.2.1.2.1 Logical Channels

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

4.2.1.2.2 Transport Channels

Transport Channel	Minimum Number	Comments
BCH	1	
FACH	1	
PCH	1	
DCH	n <FFS>	
DSCH	1	
USCH	1	
RACH	1	

4.2.1.2.3 Physical Channels [\(3.84 Mcps\)](#)

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

4.2.1.2.4 Physical Channels (1.28 Mcps)

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

<End of modified section>

<Start of modified section>

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.](#) ~~and~~ The raster spacing is 200KHz. Similarly the highest test frequency (downlink and uplink) needs to be offset downwardly by at least 2.6 MHz [for FDD and 3.84 Mcps TDD option, and 0.8 MHz for 1.28 Mcps TDD option.](#)

NB: Additional regulations concerning interferences to frequency bands used by different systems may also exist. Those regulations are specific to the country where the test equipment is used and need to be taken into account if they require a higher offset than 2.6 MHz from the edge frequencies [for FDD and 3.84 Mcps TDD option, and 0.8 MHz for 1.28 Mcps TDD option.](#)

<End of modified section>

<Start of modified section>

5.1.2 TDD Mode Test frequencies

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

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

5.1.2.1 Standard TDD reference test frequencies ([3.84 Mcps option](#))

Test Frequency ID	Band 1		Band 2	
	UARFCN	Frequency (UL and DL)	UARFCN	Frequency (UL and DL)
Low Range	9513	1902.6 MHz	10063	2012.6 MHz
Mid Range	9550	1910 MHz	10087	2017.4 MHz
High Range	9587	1917.4 MHz	10112 7	2022 3 .4 MHz

[5.1.2.1A Standard TDD reference test frequencies \(1.28 Mcps option\)](#)

Test Frequency ID	Band 1		Band 2	
	UARFCN	Frequency (UL and DL)	UARFCN	Frequency (UL and DL)
Low Range	9504	1900.8 MHz	10054	2010.8 MHz
Mid Range	9550	1910 MHz	10087	2017.4 MHz
High Range	9596	1919.2 MHz	10121	2024.2 MHz

5.1.2.2 TDD reference test frequencies for ITU Region 2 ([3.84 Mcps option](#))

a)

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

b)

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

[5.1.2.2A TDD reference test frequencies for ITU Region 2 \(1.28 Mcps option\)](#)

a)

Test Frequency ID	Band 1		Band 2	
	UARFCN	Frequency (UL and DL)	UARFCN	Frequency (UL and DL)
Low Range	9254	1850.8 MHz	9654	1930.8 MHz
Mid Range	9400	1880 MHz	9800	1960 MHz
High Range	9546	1909.2 MHz	9946	1989.2 MHz

b)

<u>Test Frequency ID</u>	<u>UARFCN</u>	<u>Frequency (UL and DL)</u>
<u>Low Range</u>	<u>9554</u>	<u>1910.8 MHz</u>
<u>Mid Range</u>	<u>9600</u>	<u>1920 MHz</u>
<u>High Range</u>	<u>9646</u>	<u>1929.2 MHz</u>

5.2 Radio conditions

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

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

5.2.1 Normal Propagation Condition

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

5.2.2 Static Propagation Condition

See [2] Annex-D for FDD.

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

~~and [5] Annex D for TDD.~~

5.2.3 Multi-Path Fading Propagation Conditions

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

5.2.4 Moving Propagation Conditions

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

5.2.5 Birth-Death propagation conditions

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

5.3 Standard test signals

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

5.4 Signal levels

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

5.4.1 Downlink Signal Levels

<FFS>

5.4.2 Uplink Signal Levels

<FFS>

<End of modified section>

<Start of modified section>

6.7 Tx Diversity modes

The reference settings for Tx Diversity Mode shall be

6.7.1 Non-Diverse Operation

DL Transmit Diversity shall be disabled on all cells in the simulated network

6.7.2 Diverse Operation

6.7.2.1 Diverse Operation (FDD mode)

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

Channel	Open loop mode		Closed loop Mode
	TSTD	STTD	
P-CCPCH	–	X	–
SCH	X	–	–
S-CCPCH	–	X	–
DPCH	–	X	–
PICH	–	X	–
AICH	–	X	–

6.7.2.2 Diverse Operation (TDD mode)

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

6.7.2.2.1 [3.84 Mcps option](#)

Physical channel type	Open loop TxDiversity		Closed loop TxDiversity
	TSTD	Block STTD	
P-CCPCH	–	X	–
SCH	X	–	–
DPCH	–	–	X

6.7.2.2.2 [1.28 Mcps option](#)

Physical channel type	Open loop TxDiversity		Closed loop TxDiversity
	TSTD	Block STTD	
P-CCPCH	X	X	=
DwPCH	X	=	=
DPCH	X	=	X

<End of modified section>

CR-Form-v3	
CHANGE REQUEST	
⌘ 34.108	⌘ 061 ⌘ rev 3 ⌘ Current version: 3.4.0 ⌘

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

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

Title:	⌘ Introduction of System Information Blocks for 1.28 Mcps TDD Mode		
Source:	⌘ Siemens AG		
Work item code:	⌘ LCRTDD-L23	Date:	⌘ 30.8.2001
Category:	⌘ B	Release:	⌘ REL-4
<i>Use <u>one</u> of the following categories:</i>		<i>Use <u>one</u> of the following releases:</i>	
<i>F (essential correction)</i>		<i>2 (GSM Phase 2)</i>	
<i>A (corresponds to a correction in an earlier release)</i>		<i>R96 (Release 1996)</i>	
<i>B (Addition of feature),</i>		<i>R97 (Release 1997)</i>	
<i>C (Functional modification of feature)</i>		<i>R98 (Release 1998)</i>	
<i>D (Editorial modification)</i>		<i>R99 (Release 1999)</i>	
Detailed explanations of the above categories can be found in 3GPP TR 21.900.		<i>REL-4 (Release 4)</i>	
		<i>REL-5 (Release 5)</i>	

Reason for change:	⌘ Within RAN specifications 1.28 Mcps TDD is already included. Ensues from this that, different SIBs for 1.28 Mcps TDD have to be included according TS 25.331.
Summary of change:	⌘ Since SIB 14 is not sent in 1.28 Mcps TDD the same SB1 is used as for FDD SIB5/6 -- for many TDD mode CHOICES additional CHOICES are added for 3.84 Mcps or 1.28 Mcps TDD Options are added according to TS 25.331 REL4 -- “ UE positioning related parameters” is added -- new SIBs are defined for 1.28 Mcps TDD -- PRACH info is adapted for 1.28 Mcps TDD containing FPACH info -- S-CCPCH info is adapted for 1.28 Mcps TDD -- PICH info is adapted for 1.28 Mcps TDD Differences to T1S-10139r1: - Changes within the SIB3, SIB4 and SIB12 (TDD) concerning only R99 points are deleted. (E.g. Mapping Info) For that R99 SIBs it is only necessary to distinguish between 3.84 Mcps TDD and 1.28 Mcps TDD in this CR. Remark: It is assumed that the changes for R99 SIBs (e.g. T1S-010136r1) will be included just before the creation of the Release 4 Version.
Consequences if not approved:	⌘

Clauses affected:	⌘ Clause 6.1
--------------------------	--------------

**Other specs
affected:**

⌘ Other core specifications
 Test specifications
 O&M Specifications

⌘

Other comments:

⌘

6.1 Simulated network environments

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

It is <ffs> whether a reference environment needs to be defined for multi-mode networks (eg: the environment could be created by combining two appropriate reference environments from the single mode cases).

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

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

- MIB value tag	1
- Supported PLMN types	GSM-MAP
- PLMN type	
- PLMN identity	Set to the same Mobile Country Codes stored in the test USIM card.
- MCC digit	Set to the same Mobile Network Codes stored in the test USIM card.
- MNC digit	Not Present
- ANSI-41 Core Network information	
- References to other system information blocks and scheduling blocks	
- References to other system information blocks	
- Scheduling information	
- CHOICE Value tag	1
- Cell Value tag	2
- Scheduling	16
- SEG_COUNT	2
- SIB_REP	
- SIB_POS	2
- SIB_POS offset info	
- SIB_OFF	2
- SIB type	Scheduling Block 1
- Scheduling information	
- CHOICE Value tag	PLMN Value tag
- PLMN Value tag	1
- SEG_COUNT	2
- SIB_REP	128
- SIB_POS	10
- SIB_POS offset info	
- SIB_OFF	2
- SIB type SIBs only	System Information Type 1
- Scheduling information	
- CHOICE Value tag	Cell Value tag
- Cell Value tag	1
- SEG_COUNT	1
- SIB_REP	128
- SIB_POS	14
- SIB_POS offset info	Not Present – use default
- SIB type SIBs only	System Information Type 2
- Scheduling information	
- CHOICE Value tag	Cell Value tag
- Cell Value tag	1
- SEG_COUNT	1
- SIB_REP	64
- SIB_POS	6
- SIB_POS offset info	Not Present – use default
- SIB type SIBs only	System Information Type 3
- Scheduling information	
- CHOICE Value tag	Cell Value tag
- Cell Value tag	1
- SEG_COUNT	1
- SIB_REP	64
- SIB_POS	38
- SIB_POS offset info	Not Present – use default
- SIB type SIBs only	System Information Type 4

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	3
- SIB_REP	128
- SIB_POS	26
- SIB_POS offset info	
- SIB_OFF	2
- SIB_OFF	2
- SIB type SIBs only	System Information Type 5
- Scheduling information	
- CHOICE Value tag	Cell Value tag
- Cell Value tag	1
- SEG_COUNT	3
- SIB_REP	128
- SIB_POS	42
- SIB_POS offset info	
- SIB_OFF	2
- SIB_OFF	2
- SIB type SIBs only	System Information Type 6
- Scheduling information	
- CHOICE Value tag	Cell Value tag
- Cell Value tag	1
- SEG_COUNT	1
- SIB_REP	128
- SIB_POS	22
- SIB_POS offset info	Not Present – use default
- SIB type SIBs only	System Information Type 7
- Scheduling information	
- CHOICE Value tag	Cell Value tag
- Cell Value tag	1
- SEG_COUNT	2
- SIB_REP	128
- SIB_POS	58
- SIB_POS offset info	
- 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	2
- SIB_REP	128
- SIB_POS	106
- SIB_POS offset info	
- 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	6
- SIB_REP	128
- SIB_POS	74
- SIB_POS offset info	
- SIB_OFF	2
- SIB_OFF	2
- SIB_OFF	8
- SIB_OFF	4
- SIB_OFF	2
- SIB type SIBs only	System Information Type 16

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	3
- SIB_REP	128
- SIB_POS	26
- SIB_POS offset info	
- SIB_OFF	2
- SIB_OFF	2
- SIB type SIBs only	System Information Type 5
- Scheduling information	
- CHOICE Value tag	Cell Value tag
- Cell Value tag	1
- SEG_COUNT	3
- SIB_REP	128
- SIB_POS	42
- SIB_POS offset info	
- SIB_OFF	2
- SIB_OFF	2
- SIB type SIBs only	System Information Type 6
- Scheduling information	
- CHOICE Value tag	Cell Value tag
- Cell Value tag	1
- SEG_COUNT	1
- SIB_REP	128
- SIB_POS	22
- SIB_POS offset info	Not Present – use default
- SIB type SIBs only	System Information Type 7
- Scheduling information	
- CHOICE Value tag	Cell Value tag
- Cell Value tag	1
- SEG_COUNT	2
- SIB_REP	128
- SIB_POS	58
- SIB_POS offset info	
- 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	2
- SIB_REP	128
- SIB_POS	106
- SIB_POS offset info	
- 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	6
- SIB_REP	128
- SIB_POS	74
- SIB_POS offset info	
- SIB_OFF	2
- SIB_OFF	2
- SIB_OFF	8
- SIB_OFF	4
- SIB_OFF	2

Contents of System Information Block type1 (supported PLMN type is GSM-MAP)

<ul style="list-style-type: none"> - CN common GSM-MAP NAS system information - GSM-MAP NAS system information - MCC digit - MNC digit - Location area code - CN domain system information - CN domain identity - CHOICE CN Type - CN domain specific NAS system information - GSM-MAP NAS system information - CN domain specific DRX cycle length coefficient - CN domain identity - CHOICE CN Type - CN domain specific NAS system information - GSM-MAP NAS system information - CN domain specific DRX cycle length coefficient - UE Timers and constants in idle mode - T300 - N300 - T312 - N312 - UE Timers and constants in connected mode - T301 - N301 - T302 - N302 - T304 - N304 - T305 - T307 - T308 - T309 - T310 - N310 - T311 - T312 - N312 - T313 - N313 - T314 - T315 - N315 - T316 - T317 	<p>Contains the PLMN Identity and Location Area Code Set to the same Mobile Country Code stored in test USIM card.</p> <p>Set to the same Mobile Network Code stored in test USIM card. 0001H</p> <p>PS GSM-MAP</p> <p>T.B.D 7</p> <p>CS GSM-MAP</p> <p>T.B.D 7</p> <p>400 milliseconds 7 10 seconds 200</p> <p>2000 milliseconds 2 4000 milliseconds 3 1000 milliseconds 3 60 minutes 50 seconds 320 milliseconds 8 seconds 320 milliseconds 5 500 milliseconds 5 seconds 200 10 seconds 20 20 seconds 30 seconds 200 50 seconds 1800 seconds</p>
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Contents of System Information Block type2

- URA identity list - URA identity	Only 1 URA identity broadcasted 0000 0000 0000 0001B
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Contents of System Information Block type3 (FDD)

- SIB4 indicator	TRUE
- Cell identity	0000 0000 0000 0000 0000 0000 0001B
- Cell selection and re-selection info	
- Mapping info	
- Mapping List	
- RAT	UTRA FDD
- Mapping Function Parameter List	1
- Function type	Linear
- Map_parameter_1	1
- Map_parameter_2	1
- Upper_limit	1
- Cell selection_and_reselection_quality_measure	CPICH Ec/N0
- CHOICE mode	FDD
- Sintrasearch	16 dB
- Sintersearch	16 dB
- SsearchHCS	10 dB
- RAT List	For conformance testing in Japan, this IE is omitted. For conformance testing in European countries, this IE is present with the following values.
- RAT identifier	GSM
- Ssearch,RAT	-105 dB
- SHCS,RAT	Not Present
- Slimit,SsearchRAT	Not Present
- Qhyst1s	0 dB
- Qhyst2s	0 dB
- Treselections	0 seconds
- HCS Serving cell information	
- HCS_PRIO	0
- QHCS	0
- TCRMAX	Not used
- NCR	Not Present
- TCMAXHyst	Not Present
- Maximum allowed UL TX power	33dBm
- CHOICE mode	FDD
- Qqualmin	-20 dB
- Qrxlevmin	-115 dBm
- Cell Access Restriction	
- Cell barred	Not barred
- Cell Reserved for operator use	Not reserved
- Cell Reserved for SoLSA exclusive use	Not reserved
- Access Class Barred0	Not barred
- Access Class Barred1	Not barred
- Access Class Barred2	Not barred
- Access Class Barred3	Not barred
- Access Class Barred4	Not barred
- Access Class Barred5	Not barred
- Access Class Barred6	Not barred
- Access Class Barred7	Not barred
- Access Class Barred8	Not barred
- Access Class Barred9	Not barred
- Access Class Barred10	Not barred
- Access Class Barred11	Not barred
- Access Class Barred12	Not barred
- Access Class Barred13	Not barred
- Access Class Barred14	Not barred
- Access Class Barred15	Not barred

Contents of System Information Block type3 ([3.84 Mcps TDD](#) and [1.28 Mcps TDD](#))

- SIB4 Indicator	TRUE
- Cell identity	0000 0000 0000 0000 0000 0000 0001B
- Cell selection and re-selection info	
- Mapping info	
- RAT	UTRA TDD
- Mapping Function Parameter List	1
- Function type	Linear
- Map_parameter_1	1
- Map_parameter_2	1
- Upper_limit	1
- Cell selection_and_reselection_quality_measure	Not present
- CHOICE mode	TDD
- Sintrasearch	10 dB
- Sintersearch	10 dB
- SsearchHCS	10 dB
- RAT List	For conformance testing in Japan, this IE is omitted. For conformance testing in European countries, this IE is present with the following values.
- RAT identifier	
- Ssearch,RAT	
- SHCS,RAT	Not present
- Slimit,SsearchRAT	Not Present
- Qhyst1s	0 dB
- Treselections	0 seconds
- HCS Serving cell information	
- HCS_PRIO	0
- QHCS	0
- TCRMAX	Not used
- NCR	Not Present
- TCMAXHyst	Not Present
- Maximum allowed UL TX power	30dBm
- CHOICE mode	TDD
- Qrxlevmin	-103 dBm
- Cell Access Restriction	
- Cell barred	Not barred
- Cell Reserved for operator use	Not reserved
- Cell Reserved for SoLSA exclusive use	Not reserved
- Access Class Barred0	Not barred
- Access Class Barred1	Not barred
- Access Class Barred2	Not barred
- Access Class Barred3	Not barred
- Access Class Barred4	Not barred
- Access Class Barred5	Not barred
- Access Class Barred6	Not barred
- Access Class Barred7	Not barred
- Access Class Barred8	Not barred
- Access Class Barred9	Not barred
- Access Class Barred10	Not barred
- Access Class Barred11	Not barred
- Access Class Barred12	Not barred
- Access Class Barred13	Not barred
- Access Class Barred14	Not barred
- Access Class Barred15	Not barred

Contents of System Information Block type4 In connected mode (similar to SIB type3)
 (3.84 Mcps TDD and 1.28 Mcps TDD)

- Cell identity	0000 0000 0000 0000 0000 0000 0001B
- Cell selection and re-selection info	
- Mapping info	
- Mapping list	
- RAT	UTRA TDD
- Mapping Function Parameter List	
- Function type	Linear
- Map_parameter_1	1
- Map_parameter_2	1
- Upper_limit	1
- Cell selection and reselection quality measure	Not present
- CHOICE mode	TDD
- Sintrasearch	10 dB
- Sintersearch	10 dB
- SsearchHCS	10 dB
- RAT List	For conformance testing in Japan, this IE is omitted. For conformance testing in European countries, this IE is present with the following values
- RAT identifier	
- Ssearch,RAT	
- SHCS,RAT	
- S _{limit} ,SsearchRAT	Not Present
- Qhyst1s	0 dB
- Treselections	0 seconds
- HCS Serving cell information	
- HCS_PRIO	0
- QHCS	0
- TCR _{MAX}	Not used
- NCR	Not Present
- TCMAX _{Hyst}	Not Present
- Maximum allowed UL TX power	30dBm
- CHOICE mode	TDD
- Qrxlevmin	-103 dBm
- Cell Access Restriction	
- Cell barred	Not barred
- Access Class Barred	Not barred
- Cell Reserved for operator use	Not reserved
- Cell Reserved for SoLSA exclusive use	Not reserved
- Access Class Barred0	Not barred
- Access Class Barred1	Not barred
- Access Class Barred2	Not barred
- Access Class Barred3	Not barred
- Access Class Barred4	Not barred
- Access Class Barred5	Not barred
- Access Class Barred6	Not barred
- Access Class Barred7	Not barred
- Access Class Barred8	Not barred
- Access Class Barred9	Not barred
- Access Class Barred10	Not barred
- Access Class Barred11	Not barred
- Access Class Barred12	Not barred
- Access Class Barred13	Not barred
- Access Class Barred14	Not barred
- Access Class Barred15	Not barred

Contents of System Information Block type5 (FDD)

- SIB6 indicator	TRUE
- PICH Power offset	-5 dB
- CHOICE Mode	FDD
- AICH Power offset	0dB
- Primary CCPCH info	
- TX Diversity indicator	FALSE
- PRACH system information list	
- PRACH system information	
- PRACH info	
- CHOICE mode	FDD
- Available Signature	'0000 0000 1111 1111'B
- Available SF	Reference to clause 6.10 Parameter Set
- Preamble scrambling code number	0
- Puncturing Limit	Reference to clause 6.10 Parameter Set
- Available Sub Channel number	'1111 1111 1111'B
- Transport Channel Identity	15
- RACH TFS	
- CHOICE Transport channel type	Common transport channels
- Dynamic Transport format information	(This IE is repeated for TFI number)
- RLC size	Reference to clause 6.10 Parameter Set
- Number of TB and TTI List	Reference to clause 6.10 Parameter Set
- Number of Transport blocks	Reference to clause 6.10 Parameter Set
- CHOICE Mode	FDD
- CHOICE Logical Channel List	ALL
- Semi-static Transport Format information	
- Transmission time interval	Reference to clause 6.10 Parameter Set
- Type of channel coding	Reference to clause 6.10 Parameter Set
- Coding Rate	Reference to clause 6.10 Parameter Set
- Rate matching attribute	Reference to clause 6.10 Parameter Set
- CRC size	Reference to clause 6.10 Parameter Set
- RACH TFCS	(This IE is repeated for TFC number.)
- Normal	
- TFCI Field 1 information	
- CHOICE TFCS representation	Addition
- TFCS addition information	
- CHOICE CTFC Size	Number of bits used must be enough to cover all combinations of CTFC from clause 6.10. Refer to clause 6.10 Parameter Set
- CTFC information	
- Power offset information	
- CHOICE Gain Factors	Signalled Gain Factor
- Gain factor β_c	0
- Gain factor β_d	0
- Reference TFC ID	Not Present
- Power offset Pp-m	0dB
- PRACH partitioning	
- Access Service Class	
- ASC Settings	
- Available signature Start Index	0 (ASC#0)
- Available signature End Index	7 (ASC#0)
- Assigned Sub-channel Number	'1111'B
- Available signature Start Index	0 (ASC#1)
- Available signature End Index	7 (ASC#1)
- Assigned Sub-channel Number	'1111'B
- Available signature Start Index	0 (ASC#2)
- Available signature End Index	7 (ASC#2)
- Assigned Sub-channel Number	'1111'B
- Available signature Start Index	0 (ASC#3)
- Available signature End Index	7 (ASC#3)
- Assigned Sub-channel Number	'1111'B
- Available signature Start Index	0 (ASC#4)
- Available signature End Index	7 (ASC#4)
- Assigned Sub-channel Number	'1111'B
- Available signature Start Index	0 (ASC#5)
- Available signature End Index	7 (ASC#5)
- Assigned Sub-channel Number	'1111'B
- Available signature Start Index	0 (ASC#6)
- Available signature End Index	7 (ASC#6)

- Assigned Sub-channel Number	'1111'B
- Available signature Start Index	0 (ASC#7)
- Available signature End Index	7 (ASC#7)
- Assigned Sub-channel Number	'1111'B
- Persistence scaling factor	
- Persistence scaling factor	0.9 (for ASC#2)
- Persistence scaling factor	0.9 (for ASC#3)
- Persistence scaling factor	0.9 (for ASC#4)
- Persistence scaling factor	0.9 (for ASC#5)
- Persistence scaling factor	0.9 (for ASC#6)
- Persistence scaling factor	0.9 (for ASC#7)
- AC-to-ASC mapping table	
- AC-to-ASC mapping	6 (AC0-9)
- AC-to-ASC mapping	5 (AC10)
- AC-to-ASC mapping	4 (AC11)
- AC-to-ASC mapping	3 (AC12)
- AC-to-ASC mapping	2 (AC13)
- AC-to-ASC mapping	1 (AC14)
- AC-to-ASC mapping	0 (AC15)
- Primary CPICH DL TX power	Reference to clause 6.10 Parameter Set
- Constant value	Reference to clause 6.10 Parameter Set
- PRACH power offset	
- Power Ramp Step	3dB
- Preamble Retrans Max	2
- RACH transmission parameters	
- Mmax	2
- NB01min	3 slot
- NB01max	10 slot
- AICH info	
- Channelisation code	SF-1(SF is reference to clause 6.10 Parameter Set)
- STTD indicator	FALSE
- AICH transmission timing	0
- Secondary CCPCH system info	
- Secondary CCPCH info	
- Primary CPICH usage for channel estimation	Primary CPICH may be used
- Secondary CPICH info	Not Present
- Secondary scrambling code	Not Present
- STTD indicator	FALSE
- Spreading factor	Reference to clause 6.10 Parameter Set
- Code number	SF-1(SF is reference to clause 6.10 Parameter Set)
- Pilot symbol existence	FALSE
- TFCI existence	TRUE
- Fixed or Flexible position	Flexible
- Timing offset	0
- TFCS	(This IE is repeated for TFC number for PCH and FACH.)
- Normal	
- TFCI Field 1 information	
- CHOICE TFCS representation	Addition
- TFCS addition information	
- CHOICE CTFC Size	Number of bits used must be enough to cover all combinations of CTFC from clause 6.10.
- CTFC information	Refer to clause 6.10 Parameter Set
- Power offset information	Not Present
- FACH/PCH information	
- Transport Channel Identity	12 (for PCH)
- TFS	(PCH)
- CHOICE Transport channel type	Common transport channels
- Dynamic Transport format information	(This IE is repeated for TFI number.)
- RLC Size	Reference to clause 6.10 Parameter Set
- Number of TB and TTI List	Reference to clause 6.10 Parameter Set
- Number of Transport blocks	Reference to clause 6.10 Parameter Set
- CHOICE Mode	FDD
- CHOICE Logical Channel List	ALL
- Semi-static Transport Format information	
- Transmission time interval	Reference to clause 6.10 Parameter Set
- Type of channel coding	Reference to clause 6.10 Parameter Set
- Coding Rate	Reference to clause 6.10 Parameter Set
- Rate matching attribute	Reference to clause 6.10 Parameter Set
- CRC size	Reference to clause 6.10 Parameter Set

<ul style="list-style-type: none"> - Transport Channel Identity - TFS - CHOICE Transport channel type - Dynamic Transport format information - RLC Size - Number of TB and TTI List - Number of Transport blocks - CHOICE Mode - CHOICE Logical Channel List - Semi-static Transport Format information - Transmission time interval - Type of channel coding - Coding Rate - Rate matching attribute - CRC size - CTCH indicator - PICH info - Channelisation code - Number of PI per frame - STTD indicator - CBS DRX Level 1 information 	<p>13 (for FACH) (FACH) Common transport channels (This IE is repeated for TFI number.) Reference to clause 6.10 Parameter Set Reference to clause 6.10 Parameter Set Reference to clause 6.10 Parameter Set FDD ALL</p> <p>Reference to clause 6.10 Parameter Set Reference to clause 6.10 Parameter Set Reference to clause 6.10 Parameter Set Reference to clause 6.10 Parameter Set Reference to clause 6.10 Parameter Set FALSE</p> <p>SF-1(SF is reference to clause 6.10 Parameter Set) 18 FALSE Not Present</p>
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Contents of System Information Block type 5 ([3.84 Mcps TDD](#))

<ul style="list-style-type: none"> - SIB6 indicator - PICH Power offset - CHOICE Mode - PUSCH system information - PDSCH system information - TDD open loop power control - Primary CCPCH Tx Power - CHOICE TDD option - Alpha - PRACH Constant Value - DPCH Constant Value - PUSCH Constant Value - UE positioning related parameters - Primary CCPCH info - CHOICE mode - CHOICE TDD option - CHOICE SyncCase - Timeslot - Cell parameters ID - Block STTD indicator - PRACH system information list - PRACH system information - PRACH info - CHOICE mode - CHOICE TDD option - Timeslot number - PRACH Channelisation Code List - CHOICE SF - Channelisation Code List - Channelisation Code - Channelisation Code - Channelisation Code - Channelisation Code - PRACH Midamble - PNBSCH allocation - Transport Channel Identity - RACH TFS - CHOICE Transport channel type - Dynamic Transport format information - RLC size - Number of TB and TTI List - Number of Transport blocks - CHOICE Mode - Transmission Time Interval - CHOICE Logical Channel List 	<p>TRUE -5 dB TDD Not Present Not Present</p> <p>30 dbm 3.84 Mcps TDD /REL-4/ (1/8) -10 -10 -10 Not Present /REL-4/</p> <p>TDD 3.84 Mcps TDD /REL-4/ Sync Case 2 0 Not Present FALSE</p> <p>TDD 3.84 Mcps TDD /REL-4/ 14</p> <p>SF8 8/1 8/2 8/3 8/4 Direct Not Present /REL-4/ 15</p> <p>Common transport channels (This IE is repeated for TFI number) Reference to clause 6.10 Parameter Set Reference to clause 6.10 Parameter Set Reference to clause 6.10 Parameter Set TDD Not Present ALL</p>
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- Semi-static Transport Format information	Reference to clause 6.10 Parameter Set
- Transmission time interval	Reference to clause 6.10 Parameter Set
- Type of channel coding	Reference to clause 6.10 Parameter Set
- Coding Rate	Reference to clause 6.10 Parameter Set
- Rate matching attribute	Reference to clause 6.10 Parameter Set
- CRC size	Reference to clause 6.10 Parameter Set
- RACH TFCS	Not present
- PRACH partitioning	
- Access Service Class	
- ASC Settings	
- CHOICE mode	
- CHOICE TDD option	(ASC#0)
- Available Channelisation codes indices	TDD
- CHOICE subchannel size	3.84 Mcps TDD
- Available Subchannels	Not Present (Default all)
- ASC Settings	Size1
- CHOICE mode	null
- CHOICE TDD option	(ASC#1)
- Available Channelisation codes indices	TDD
- CHOICE subchannel size	3.84 Mcps TDD
- Available Subchannels	Not Present (Default all)
- ASC Settings	Size1
- CHOICE mode	null
- CHOICE TDD option	(ASC#2)
- Available Channelisation codes indices	TDD
- CHOICE subchannel size	3.84 Mcps TDD
- Available Subchannels	Not Present (Default all)
- ASC Settings	Size1
- CHOICE mode	null
- CHOICE TDD option	(ASC#3)
- Available Channelisation codes indices	TDD
- CHOICE subchannel size	3.84 Mcps TDD
- Available Subchannels	Not Present (Default all)
- ASC Settings	Size1
- CHOICE mode	null
- CHOICE TDD option	(ASC#4)
- Available Channelisation codes indices	TDD
- CHOICE subchannel size	3.84 Mcps TDD
- Available Subchannels	Not Present (Default all)
- ASC Settings	Size1
- CHOICE mode	null
- CHOICE TDD option	(ASC#5)
- Available Channelisation codes indices	TDD
- CHOICE subchannel size	3.84 Mcps TDD
- Available Subchannels	Not Present (Default all)
- ASC Settings	Size1
- CHOICE mode	null
- CHOICE TDD option	(ASC#6)
- Available Channelisation codes indices	TDD
- CHOICE subchannel size	3.84 Mcps TDD
- Available Subchannels	Not Present (Default all)
- Persistence scaling factors	Size1
- Access Service Class	null
- Persistence scaling factor	
- Persistence scaling factor	0.9 (for ASC#2)
- Persistence scaling factor	0.9 (for ASC#3)
- Persistence scaling factor	0.9 (for ASC#4)
- Persistence scaling factor	0.9 (for ASC#5)
- Persistence scaling factor	0.9 (for ASC#6)
- Persistence scaling factor	0.9 (for ASC#7)
- AC-to-ASC mapping	
- AC-to-ASC mapping table	
- AC-to-ASC mapping	6 (AC0-9)
- AC-to-ASC mapping	5 (AC10)
- AC-to-ASC mapping	4 (AC11)
- AC-to-ASC mapping	3 (AC12)
- AC-to-ASC mapping	2 (AC13)
- AC-to-ASC mapping	1 (AC14)
- AC-to-ASC mapping	0 (AC15)
- CHOICE mode	TDD (no data)

- Secondary CCPCH system information
- Secondary CCPCH system information
- Secondary CCPCH info
 - CHOICE *mode*
 - Offset
 - Common timeslot info
 - 2nd interleaving mode
 - TFCI coding
 - Puncturing limit
 - Repetition period
 - Repetition length
 - Individual timeslot info
 - CHOICE *TDD option*
 - Timeslot number
 - TFCI existence
 - Midamble Shift and burst type
 - CHOICE *TDD option*
 - CHOICE Burst Type
 - Midamble Allocation Mode
 - Midamble configuration burst type 1 and 3
 - Midamble Shift
 - CHOICE *TDD option*
 - no data
 - Code List
 - Channelisation Code
 - TFCS
 - Normal
 - TFCI Field 1 information
 - CHOICE TFCS representation
 - TFCS addition information
 - CHOICE CTFC Size
 - CTFC information
 - Power offset information
 - FACH/PCH information
 - Transport Channel Identity
 - TFS
 - CHOICE Transport channel type
 - Dynamic Transport format information
 - RLC Size
 - Number of TB and TTI List
 - Number of Transport blocks
 - CHOICE Mode
 - Transmission Time Interval
 - CHOICE Logical Channel List
 - Semi-static Transport Format information
 - Transmission time interval
 - Type of channel coding
 - Coding Rate
 - Rate matching attribute
 - CRC size
 - Transport Channel Identity
 - TFS
 - CHOICE Transport channel type
 - Dynamic Transport format information
 - RLC Size
 - Number of TB and TTI List
 - Number of Transport blocks
 - CHOICE Mode
 - Transmission Time Interval
 - CHOICE Logical Channel List
 - Semi-static Transport Format information
 - Transmission time interval
 - Type of channel coding
 - Coding Rate
 - Rate matching attribute
 - CRC size

TDD

~~Not Present~~0

Not Present (MD "Frame")

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

Reference to clause 6.10 Parameter Set

Not Present (MD "1")

~~Not Present (empty)~~4

3.84 Mcps TDD

1

Reference clause 6.10 Parameter Set TRUE

3.84 Mcps TDD

Type 1

Default midamble

4

Not Present

3.84 Mcps TDD

Reference to clause 6.10 Parameter Set

(This IE is repeated for Code number for PCH and FACH)

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

Addition

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

Refer to clause 6.10 Parameter Set

Not Present

12 (for PCH)

(PCH)

Common transport channels

(This IE is repeated for TFI number.)

Reference to clause 6.10 Parameter Set

Reference to clause 6.10 Parameter Set

Reference to clause 6.10 Parameter Set

TDD

Reference to clause 6.10 Parameter Set

ALL

Reference to clause 6.10 Parameter Set

Reference to clause 6.10 Parameter Set

Reference to clause 6.10 Parameter Set

Reference to clause 6.10 Parameter Set

Reference to clause 6.10 Parameter Set

13 (for FACH)

(FACH)

Common transport channels

(This IE is repeated for TFI number.)

Reference to clause 6.10 Parameter Set

Reference to clause 6.10 Parameter Set

Reference to clause 6.10 Parameter Set

TDD

Reference to clause 6.10 Parameter Set

ALL

Reference to clause 6.10 Parameter Set

Reference to clause 6.10 Parameter Set

Reference to clause 6.10 Parameter Set

Reference to clause 6.10 Parameter Set

Reference to clause 6.10 Parameter Set

- CTCH indicator	FALSE
- PICH info	TDD
- CHOICE <i>mode</i>	16/16
- Channelisation code	Not Present (MD)
- Timeslot number	<u>3.84 Mcps TDD</u>
- <u>CHOICE TDD option</u>	Type 1
- CHOICE Burst Type	0
- Midamble Shift	Not Present (MD "(64/2)")
- Repetition period/length	0
- Offset	Not Present (MD 4)
- Paging indicator length	Not Present (MD 4)
- N _{GAP}	Not Present (MD 2)
- N _{PCH}	18
- Number of PI per frame	FALSE
- STTD indicator	Not Present
- CBS DRX Level 1 information	

Contents of System Information Block type5 (1.28 Mcps TDD)

- SIB6 indicator	<u>TRUE</u>
- PICH Power offset	<u>-5 dB</u>
- CHOICE Mode	<u>TDD</u>
- PUSCH system information	<u>Not Present</u>
- PDSCH system information	<u>Not Present</u>
- TDD open loop power control	
- Primary CCPCH Tx Power	<u>30 dbm</u>
- CHOICE TDD option	<u>1.28 Mcps TDD /REL-4/</u>
- no data	
- Primary CCPCH info	
- CHOICE <i>mode</i>	<u>TDD</u>
- CHOICE TDD option	<u>1.28 Mcps TDD /REL-4/</u>
- TSTD indicator	<u>FALSE</u>
- Cell parameters ID	<u>Not Present</u>
- Block STTD indicator	<u>FALSE</u>
- PRACH system information list	
- PRACH system information	
- PRACH info	
- CHOICE mode	<u>TDD</u>
- CHOICE TDD option	<u>1.28 Mcps TDD /REL-4/</u>
- SYNC_UL info	
- SYNC_UL codes bitmap	<u>"11111111"</u>
- UL Target SIR	<u>10 dB</u>
- Power Ramping Step	<u>3 dB</u>
- Max SYNC_UL Transmissions	<u>8</u>
- Mmax	<u>32</u>
- PRACH definition	
- Timeslot number	
- CHOICE TDD option	<u>1.28 Mcps TDD /REL-4/</u>
- Timeslot number	<u>1</u>
- PRACH Channelisation Code List	
- Channelisation Code List	
- Channelisation Code	<u>(8/1)</u>
- Midamble Shift and burst type	
- CHOICE TDD option	<u>1.28 Mcps TDD /REL-4/</u>
- Midamble Allocation Mode	<u>Default midamble</u>
- Midamble configuration	<u>8</u>
- Midamble Shift	<u>Not present</u>
- FPACH info	
- Timeslot number	<u>6</u>
- Channelisation code	<u>(16/16)</u>
- Midamble Shift and burst type	
- CHOICE TDD option	<u>1.28 Mcps TDD /REL-4/</u>
- Midamble Allocation Mode	<u>Common Midamble</u>
- Midamble configuration	<u>8</u>
- Midamble Shift	<u>Not present</u>
- WT	<u>4</u>
- PNBSCH allocation	<u>Not Present /REL-4/</u>
- Transport Channel Identity	<u>15</u>
- RACH TFS	

- [CHOICE Transport channel type](#)
- [Dynamic Transport format information](#)
- [RLC size](#)
- [Number of TB and TTI List](#)
- [Number of Transport blocks](#)
- [CHOICE Mode](#)
- [Transmission Time Interval](#)
- [CHOICE Logical Channel List](#)
- [Semi-static Transport Format information](#)
- [Transmission time interval](#)
- [Type of channel coding](#)
- [Coding Rate](#)
- [Rate matching attribute](#)
- [CRC size](#)
- [RACH TFCS](#)
- [PRACH partitioning](#)
- [Access Service Class](#)
- [ASC Settings](#)
- [CHOICE mode](#)
- [CHOICE TDD option](#)
- [Available SYNC_UL codes indices](#)
- [CHOICE subchannel size](#)
- [Available Subchannels](#)
- [ASC Settings](#)
- [CHOICE mode](#)
- [CHOICE TDD option](#)
- [Available SYNC_UL codes indices](#)
- [CHOICE subchannel size](#)
- [Available Subchannels](#)
- [ASC Settings](#)
- [CHOICE mode](#)
- [CHOICE TDD option](#)
- [Available SYNC_UL codes indices](#)
- [CHOICE subchannel size](#)
- [Available Subchannels](#)
- [ASC Settings](#)
- [CHOICE mode](#)
- [CHOICE TDD option](#)
- [Available SYNC_UL codes indices](#)
- [CHOICE subchannel size](#)
- [Available Subchannels](#)
- [ASC Settings](#)
- [CHOICE mode](#)
- [CHOICE TDD option](#)
- [Available SYNC_UL codes indices](#)
- [CHOICE subchannel size](#)
- [Available Subchannels](#)
- [Access Service Class](#)
- [Persistence scaling factor](#)
- [Persistence scaling factor](#)
- [Persistence scaling factor](#)
- [Persistence scaling factor](#)
- [Persistence scaling factor](#)
- [AC-to-ASC mapping](#)
- [AC-to-ASC mapping table](#)
- [AC-to-ASC mapping](#)
- [AC-to-ASC mapping](#)

Common transport channels

[Reference clause 6.10 Parameter Set](#)
[Reference clause 6.10 Parameter Set](#)
[Reference clause 6.10 Parameter Set](#)
TDD
Not Present
ALL

[Reference clause 6.10 Parameter Set](#)
[Reference clause 6.10 Parameter Set](#)
[Reference clause 6.10 Parameter Set](#)
[Reference clause 6.10 Parameter Set](#)
[Reference clause 6.10 Parameter Set](#)
Not present

[\(ASC#0\)](#)
TDD
1.28 Mcps TDD
"111111111"

[Size1](#)
Null
[\(ASC#1\)](#)
TDD

1.28 Mcps TDD
"111111111"
[Size1](#)
Null

[\(ASC#2\)](#)
TDD
1.28 Mcps TDD
"111111111"

[Size1](#)
Null
[\(ASC#3\)](#)
TDD

1.28 Mcps TDD
"111111111"
[Size1](#)
Null

[\(ASC#4\)](#)
TDD
1.28 Mcps TDD
"111111111"

[Size1](#)
Null
[\(ASC#5\)](#)
TDD

1.28 Mcps TDD
"111111111"
[Size1](#)
Null

[\(ASC#6\)](#)
TDD
1.28 Mcps TDD
"111111111"

[Size1](#)
Null

[0.9 \(for ASC#2\)](#)
[0.9 \(for ASC#3\)](#)
[0.9 \(for ASC#4\)](#)
[0.9 \(for ASC#5\)](#)
[0.9 \(for ASC#6\)](#)

[6 \(AC0-9\)](#)
[5 \(AC10\)](#)

- [AC-to-ASC mapping](#)
- [AC-to-ASC mapping](#)
- [AC-to-ASC mapping](#)
- [AC-to-ASC mapping](#)
- [AC-to-ASC mapping](#)
- [CHOICE mode](#)
- [Secondary CCPCH system information](#)
- [Secondary CCPCH system information](#)
- [Secondary CCPCH info](#)
- [CHOICE mode](#)
- [Offset](#)
- [Common timeslot info](#)
- [2nd interleaving mode](#)
- [TFCI coding](#)
- [Puncturing limit](#)
- [Repetition period](#)
- [Repetition length](#)
- [Individual timeslot info](#)
- [CHOICE TDD option](#)
- [Timeslot number](#)
- [TFCI existence](#)
- [Midamble Shift and burst type](#)
- [CHOICE TDD option](#)
- [Midamble Allocation Mode](#)
- [Midamble configuration](#)
- [Midamble Shift](#)
- [CHOICE TDD option](#)
- [Modulation](#)
- [SS-TPC Symbols](#)
- [Code List](#)
- [Channelisation Code](#)
- [TFCS](#)
- [Normal](#)
- [TFCI Field 1 information](#)
- [CHOICE TFCS representation](#)
- [TFCS addition information](#)
- [CHOICE CTFC Size](#)
- [CTFC information](#)
- [Power offset information](#)
- [FACH/PCH information](#)
- [Transport Channel Identity](#)
- [TFS](#)
- [CHOICE Transport channel type](#)
- [Dynamic Transport format information](#)
- [RLC Size](#)
- [Number of TB and TTI List](#)
- [Number of Transport blocks](#)
- [CHOICE Mode](#)
- [Transmission Time Interval](#)
- [CHOICE Logical Channel List](#)
- [Semi-static Transport Format information](#)
- [Transmission time interval](#)
- [Type of channel coding](#)
- [Coding Rate](#)
- [Rate matching attribute](#)
- [CRC size](#)
- [Transport Channel Identity](#)
- [TFS](#)
- [CHOICE Transport channel type](#)
- [Dynamic Transport format information](#)
- [RLC Size](#)
- [Number of TB and TTI List](#)
- [Number of Transport blocks](#)
- [CHOICE Mode](#)
- [Transmission Time Interval](#)
- [CHOICE Logical Channel List](#)
- [Semi-static Transport Format information](#)
- [Transmission time interval](#)

[4 \(AC11\)](#)
[3 \(AC12\)](#)
[2 \(AC13\)](#)
[1 \(AC14\)](#)
[0 \(AC15\)](#)
[TDD \(no data\)](#)

[TDD](#)
[0](#)

[Frame](#)
[Reference clause 6.10 Parameter Set](#)
[Reference clause 6.10 Parameter Set](#)
[1](#)
[0](#)

[1.28 Mcps TDD](#)
[0](#)
[Reference clause 6.10 Parameter Set](#)

[1.28 Mcps TDD](#)
[Default midamble](#)
[4](#)
[Not Present](#)
[1.28 Mcps TDD](#)
[Reference clause 6.10 Parameter Set](#)
[Reference clause 6.10 Parameter Set](#)

[Reference clause 6.10 Parameter Set](#)
[Reference clause 6.10 Parameter Set](#)

[Addition](#)

[Number of bits used must be enough to cover all combinations of CTFC from clause 6.10.](#)
[Reference clause 6.10 Parameter Set](#)
[Not Present](#)

[12 \(for PCH\)](#)
[\(PCH\)](#)
[Common transport channels](#)
[\(This IE is repeated for TFI number.\)](#)
[Reference clause 6.10 Parameter Set](#)
[Reference clause 6.10 Parameter Set](#)
[Reference clause 6.10 Parameter Set](#)
[TDD](#)
[Not Present](#)
[ALL](#)

[Reference clause 6.10 Parameter Set](#)
[Reference clause 6.10 Parameter Set](#)
[Reference clause 6.10 Parameter Set](#)
[Reference clause 6.10 Parameter Set](#)
[Reference clause 6.10 Parameter Set](#)
[13 \(for FACH\)](#)
[\(FACH\)](#)

[Common transport channels](#)
[\(This IE is repeated for TFI number.\)](#)
[Reference clause 6.10 Parameter Set](#)
[Reference clause 6.10 Parameter Set](#)
[Reference clause 6.10 Parameter Set](#)
[TDD](#)
[Not Present](#)
[ALL](#)

[Reference clause 6.10 Parameter Set](#)

- Type of channel coding	Reference clause 6.10 Parameter Set
- Coding Rate	Reference clause 6.10 Parameter Set
- Rate matching attribute	Reference clause 6.10 Parameter Set
- CRC size	Reference clause 6.10 Parameter Set
- CTCH indicator	FALSE
- PICH info	TDD
- CHOICE mode	(16/1)
- Channelisation code list	(16/2)
- Channelisation code	0
- Timeslot number	1.28 Mcps TDD
- CHOICE TDD option	0
- Midamble shift and burst type	1.28 Mcps TDD
- CHOICE TDD option	Default midamble
- Midamble Allocation Mode	8
- Midamble configuration	Not Present
- Midamble Shift	64/2
- Repetition period/length	0
- Offset	4
- Paging indicator length	4
- N_{GAP}	4
- N_{PCH}	2
- CBS DRX Level 1 information	Not Present

Contents of System Information Block type6 In connected mode (FDD)

- PICH power offset	-5 dB
- CHOICE Mode	FDD
- AICH power offset	0 dB
- CSICH Power offset	Not Present
- Primary CCPCH info	
- TX Diversity indicator	FALSE
- PRACH system information list	
- PRACH system information	
- PRACH info	
- CHOICE mode	FDD
- Available Signature	'0000 0000 1111 1111'B
- Available SF	Reference to clause 6.10 Parameter Set
- Preamble scrambling code number	0
- Puncturing Limit	Reference to clause 6.10 Parameter Set
- Available Sub Channel number	'1111 1111 1111'B
- Transport Channel Identity	15
- RACH TFS	
- CHOICE Transport channel type	Common transport channels
- Dynamic Transport format information	(This IE is repeated for TFI number)
- RLC size	Reference to clause 6.10 Parameter Set
- Number of TB and TTI List	Reference to clause 6.10 Parameter Set
- Number of Transport blocks	Reference to clause 6.10 Parameter Set
- CHOICE Mode	FDD
- CHOICE Logical Channel List	ALL
- Semi-static Transport Format information	
- Transmission time interval	Reference to clause 6.10 Parameter Set
- Type of channel coding	Reference to clause 6.10 Parameter Set
- Coding Rate	Reference to clause 6.10 Parameter Set
- Rate matching attribute	Reference to clause 6.10 Parameter Set
- CRC size	Reference to clause 6.10 Parameter Set
- RACH TFCS	(This IE is repeated for TFC number.)
- Normal	
- TFCI Field 1 information	
- CHOICE TFCS representation	Addition
- TFCS addition information	
- CHOICE CTFC Size	Number of bits used must be enough to cover all combinations of CTFC from clause 6.10. Refer to clause 6.10 Parameter Set
- CTFC information	
- Power offset information	
- CHOICE Gain Factors	Signalled Gain Factor
- Gain factor β_c	0
- Gain factor β_d	0
- Reference TFC ID	Not Present
- Power offset Pp-m	0dB
- PRACH partitioning	
- Access Service Class	
- ASC Settings	
- Available signature Start Index	0 (ASC#0)
- Available signature End Index	7 (ASC#0)
- Assigned Sub-channel Number	'1111'B
- Available signature Start Index	0 (ASC#1)
- Available signature End Index	7 (ASC#1)
- Assigned Sub-channel Number	'1111'B
- Available signature Start Index	0 (ASC#2)
- Available signature End Index	7 (ASC#2)
- Assigned Sub-channel Number	'1111'B
- Available signature Start Index	0 (ASC#3)
- Available signature End Index	7 (ASC#3)
- Assigned Sub-channel Number	'1111'B
- Available signature Start Index	0 (ASC#4)
- Available signature End Index	7 (ASC#4)
- Assigned Sub-channel Number	'1111'B
- Available signature Start Index	0 (ASC#5)
- Available signature End Index	7 (ASC#5)
- Assigned Sub-channel Number	'1111'B
- Available signature Start Index	0 (ASC#6)
- Available signature End Index	7 (ASC#6)

- Assigned Sub-channel Number	'1111'B
- Available signature Start Index	0 (ASC#7)
- Available signature End Index	7 (ASC#7)
- Assigned Sub-channel Number	'1111'B
- Persistence scaling factor	
- Persistence scaling factor	0.9 (for ASC#2)
- Persistence scaling factor	0.9 (for ASC#3)
- Persistence scaling factor	0.9 (for ASC#4)
- Persistence scaling factor	0.9 (for ASC#5)
- Persistence scaling factor	0.9 (for ASC#6)
- Persistence scaling factor	0.9 (for ASC#7)
- AC-to-ASC mapping	Not Present
- Primary CPICH DL TX power	Reference to clause 6.10 Parameter Set
- Constant value	Reference to clause 6.10 Parameter Set
- PRACH power offset	
- Power Ramp Step	3dB
- Preamble Retrans Max	2
- RACH transmission parameters	
- Mmax	2
- NB01min	3 slot
- NB01max	10 slot
- AICH info	
- Channelisation code	SF-1(SF is reference to clause 6.10 Parameter Set)
- STTD indicator	FALSE
- AICH transmission timing	0
- Secondary CCPCH system info	
- Secondary CCPCH info	
- Primary CPICH usage for channel estimation	Primary CPICH may be used
- Secondary CPICH info	Not Present
- Secondary scrambling code	Not Present
- STTD indicator	FALSE
- Spreading factor	Reference to clause 6.10 Parameter Set
- Code number	Reference to clause 6.10 Parameter Set
- Pilot symbol existence	FALSE
- TFCI existence	TRUE
- Fixed or Flexible position	Flexible
- Timing offset	0
- TFCS	(This IE is repeated for TFC number for PCH and FACH.)
- Normal	
- TFCI Field 1 information	
- CHOICE TFCS representation	
- TFCS addition information	Addition
- CHOICE CTFC Size	Number of bits used must be enough to cover all combinations of CTFC from clause 6.10.
- CTFC information	Refer to clause 6.10 Parameter Set
- Power offset information	Not Present
- FACH/PCH information	
- Transport Channel Identity	12 (for PCH)
- TFS	(PCH)
- CHOICE Transport channel type	Common transport channels
- Dynamic Transport format information	(This IE is repeated for TFI number.)
- RLC Size	Reference to clause 6.10 Parameter Set
- Number of TB and TTI List	Reference to clause 6.10 Parameter Set
- Number of Transport blocks	Reference to clause 6.10 Parameter Set
- CHOICE Mode	FDD
- CHOICE Logical Channel List	ALL
- Semi-static Transport Format information	
- Transmission time interval	Reference to clause 6.10 Parameter Set
- Type of channel coding	Reference to clause 6.10 Parameter Set
- Coding Rate	Reference to clause 6.10 Parameter Set
- Rate matching attribute	Reference to clause 6.10 Parameter Set
- CRC size	Reference to clause 6.10 Parameter Set
- Transport Channel Identity	13 (for FACH)
- TFS	(FACH)
- CHOICE Transport channel type	Common transport channels
- Dynamic Transport format information	(This IE is repeated for TFI number.)
- RLC Size	Reference to clause 6.10 Parameter Set
- Number of TB and TTI List	Reference to clause 6.10 Parameter Set
- Number of Transport blocks	Reference to clause 6.10 Parameter Set

- CHOICE Mode	FDD
- CHOICE Logical Channel List	ALL
- Semi-static Transport Format information	Reference to clause 6.10 Parameter Set
- Transmission time interval	Reference to clause 6.10 Parameter Set
- Type of channel coding	Reference to clause 6.10 Parameter Set
- Coding Rate	Reference to clause 6.10 Parameter Set
- Rate matching attribute	Reference to clause 6.10 Parameter Set
- CRC size	Reference to clause 6.10 Parameter Set
- CTCH indicator	FALSE
- PICH info	FALSE
- Channelisation code	SF-1(SF is reference to clause 6.10 Parameter Set)
- Number of PI per frame	18
- STTD indicator	FALSE
- CBS DRX Level 1 information	Not Present

Contents of System Information Block type6 In connected mode (similar to SIB type5) ([3.84 Mcps TDD](#))

- PICH Power offset	-5 dB
- CHOICE Mode	TDD
- PUSCH system information	Not Present
- PDSCH system information	Not Present
- TDD open loop power control	
- Primary CCPCH Tx Power	30 dbm
- Alpha	(1/8)
- PRACH Constant Value	-10
- DPCH Constant Value	-10
- PUSCH Constant Value	-10
- Primary CCPCH info	
- CHOICE <i>mode</i>	TDD
- CHOICE SyncCase	Sync Case 2
- Timeslot	0
- Cell parameters ID	Not Present
- Block STTD indicator	FALSE
- PRACH system information list	
- PRACH system information	
- PRACH info	
- CHOICE mode	TDD
- Timeslot number	14
- PRACH Channelisation Code List	
- CHOICE SF	SF8
- Channelisation Code List	
- Channelisation Code	8/1
- Channelisation Code	8/2
- Channelisation Code	8/3
- Channelisation Code	8/4
- PRACH Midamble	Direct
- Transport Channel Identity	15
- RACH TFS	
- CHOICE Transport channel type	Common transport channels
- Dynamic Transport format information	(This IE is repeated for TFI number)
- RLC size	Reference to clause 6.10 Parameter Set
- Number of TB and TTI List	Reference to clause 6.10 Parameter Set
- Number of Transport blocks	Reference to clause 6.10 Parameter Set
- CHOICE Mode	TDD
- Transmission Time Interval	Not Present
- CHOICE Logical Channel List	ALL
- Semi-static Transport Format information	
- Transmission time interval	Reference to clause 6.10 Parameter Set
- Type of channel coding	Reference to clause 6.10 Parameter Set
- Coding Rate	Reference to clause 6.10 Parameter Set
- Rate matching attribute	Reference to clause 6.10 Parameter Set
- CRC size	Reference to clause 6.10 Parameter Set
- RACH TFCS	Not present
- PRACH partitioning	
- Access Service Class	
- ASC Settings	
- CHOICE mode	TDD
- Available Channelisation codes indices	Not Present (Default all)
- CHOICE subchannel size	Size1
- Available Subchannels	Null
- ASC Settings	
- CHOICE mode	TDD
- Available Channelisation codes indices	Not Present (Default all)
- CHOICE subchannel size	Size1
- Available Subchannels	Null
- ASC Settings	
- CHOICE mode	TDD
- Available Channelisation codes indices	Not Present (Default all)
- CHOICE subchannel size	Size1
- Available Subchannels	Null
- ASC Settings	
- CHOICE mode	TDD

- Available Channelisation codes indices	Not Present (Default all)
- CHOICE subchannel size	Size1
- Available Subchannels	Null
- ASC Settings	
- CHOICE mode	TDD
- Available Channelisation codes indices	Not Present (Default all)
- CHOICE subchannel size	Size1
- Available Subchannels	Null
- ASC Settings	
- CHOICE mode	TDD
- Available Channelisation codes indices	Not Present (Default all)
- CHOICE subchannel size	Size1
- Available Subchannels	Null
- ASC Settings	
- CHOICE mode	TDD
- Available Channelisation codes indices	Not Present (Default all)
- CHOICE subchannel size	Size1
- Available Subchannels	Null
- Persistence scaling factors	
- Access Service Class	
- Persistence scaling factor	0.9 (for ASC#2)
- Persistence scaling factor	0.9 (for ASC#3)
- Persistence scaling factor	0.9 (for ASC#4)
- Persistence scaling factor	0.9 (for ASC#5)
- Persistence scaling factor	0.9 (for ASC#6)
- Persistence scaling factor	0.9 (for ASC#7)
- AC-to-ASC mapping	
- AC-to-ASC mapping table	
- AC-to-ASC mapping	6 (AC0-9)
- AC-to-ASC mapping	5 (AC10)
- AC-to-ASC mapping	4 (AC11)
- AC-to-ASC mapping	3 (AC12)
- AC-to-ASC mapping	2 (AC13)
- AC-to-ASC mapping	1 (AC14)
- AC-to-ASC mapping	0 (AC15)
- CHOICE <i>mode</i>	TDD (no data)
- Secondary CCPCH system information	
- Secondary CCPCH system information	
- Secondary CCPCH info	
- CHOICE <i>mode</i>	TDD
- Offset	Not Present
- Common timeslot info	
- 2 nd interleaving mode	Not Present (MD "Frame")
- TFCI coding	Number of bits used must be enough to cover all combinations of CTFC from clause 6.10.
	Reference to clause 6.10 Parameter Set
- Puncturing limit	Not Present (MD "1")
- Repetition period	1
- Repetition length	1
- Individual timeslot info	TRUE
- Timeslot number	1
- TFCI existence	TRUE
- Midamble Shift and burst type	
- CHOICE Burst Type	Type 1
- Midamble Allocation Mode	Default midamble
- Midamble configuration burst type 1 and 3	4
- Midamble Shift	Not Present
- Code List	Reference to clause 6.10 Parameter Set
- TFCS	(This IE is repeated for TFC number for PCH and FACH.)
- Normal	
- TFCI Field 1 information	
- CHOICE TFCS representation	Addition
- TFCS addition information	
- CHOICE CTFC Size	
	Number of bits used must be enough to cover all combinations of CTFC from clause 6.10.
- CTFC information	Refer to clause 6.10 Parameter Set
- Power offset information	Not Present
- FACH/PCH information	
- Transport Channel Identity	12 (for PCH)
- TFS	(PCH)

<ul style="list-style-type: none"> - CHOICE Transport channel type - Dynamic Transport format information <ul style="list-style-type: none"> - RLC Size - Number of TB and TTI List - Number of Transport blocks - CHOICE Mode <ul style="list-style-type: none"> - Transmission Time Interval - CHOICE Logical Channel List - Semi-static Transport Format information <ul style="list-style-type: none"> - Transmission time interval - Type of channel coding - Coding Rate - Rate matching attribute - CRC size - Transport Channel Identity - TFS - CHOICE Transport channel type - Dynamic Transport format information <ul style="list-style-type: none"> - RLC Size - Number of TB and TTI List - Number of Transport blocks - CHOICE Mode <ul style="list-style-type: none"> - Transmission Time Interval - CHOICE Logical Channel List - Semi-static Transport Format information <ul style="list-style-type: none"> - Transmission time interval - Type of channel coding - Coding Rate - Rate matching attribute - CRC size - CTCH indicator - PICH info - CHOICE <i>mode</i> - Channelisation code - Timeslot number - CHOICE Burst Type <ul style="list-style-type: none"> - Midamble Shift - Repetition period/length - Offset - Paging indicator length - N_{GAP} - N_{PCH} - Number of PI per frame - STTD indicator - CBS DRX Level 1 information 	<p>Common transport channels (This IE is repeated for TFI number.) Reference to clause 6.10 Parameter Set Reference to clause 6.10 Parameter Set Reference to clause 6.10 Parameter Set TDD Reference to clause 6.10 Parameter Set ALL</p> <p>Reference to clause 6.10 Parameter Set Reference to clause 6.10 Parameter Set Reference to clause 6.10 Parameter Set Reference to clause 6.10 Parameter Set Reference to clause 6.10 Parameter Set 13 (for FACH) (FACH) Common transport channels (This IE is repeated for TFI number.) Reference to clause 6.10 Parameter Set Reference to clause 6.10 Parameter Set Reference to clause 6.10 Parameter Set TDD Reference to clause 6.10 Parameter Set ALL</p> <p>Reference to clause 6.10 Parameter Set Reference to clause 6.10 Parameter Set Reference to clause 6.10 Parameter Set Reference to clause 6.10 Parameter Set Reference to clause 6.10 Parameter Set FALSE</p> <p>TDD 16/16 Not Present (MD) Type 1 0 Not Present (MD "(64/2)") 0 Not Present (MD 4) Not Present (MD 4) Not Present (MD 2) 18 FALSE Not Present</p>
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Contents of System Information Block type6 In connected mode (similar to SIB type5) (1.28 Mcps TDD)

<ul style="list-style-type: none"> - SIB6 indicator - PICH Power offset - CHOICE Mode - PUSCH system information - PDSCH system information - TDD open loop power control - Primary CCPCH Tx Power - CHOICE TDD option - no data - Primary CCPCH info - CHOICE mode - CHOICE TDD option - TSTD indicator - Cell parameters ID - Block STTD indicator - PRACH system information list - PRACH system information - PRACH info - CHOICE mode - CHOICE TDD option 	<p>TRUE -5 dB TDD Not Present Not Present</p> <p>30 dbm 1.28 Mcps TDD /REL-4/</p> <p>TDD 1.28 Mcps TDD /REL-4/ FALSE Not Present FALSE</p> <p>TDD 1.28 Mcps TDD /REL-4/</p>
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- SYNC_UL info	"11111111"
- SYNC_UL codes bitmap	10 dB
- UL Target SIR	3 dB
- Power Ramping Step	8
- Max SYNC_UL Transmissions	32
- Mmax	
- PRACH definition	
- Timeslot number	
- CHOICE TDD option	1.28 Mcps TDD /REL-4/
- Timeslot number	1
- PRACH Channelisation Code List	
- Channelisation Code List	
- Channelisation Code	(8/1)
- Midamble Shift and burst type	
- CHOICE TDD option	1.28 Mcps TDD /REL-4/
- Midamble Allocation Mode	Default midamble
- Midamble configuration	8
- Midamble Shift	Not present
- FPACH info	
- Timeslot number	6
- Channelisation code	(16/16)
- Midamble Shift and burst type	
- CHOICE TDD option	1.28 Mcps TDD /REL-4/
- Midamble Allocation Mode	Common Midamble
- Midamble configuration	8
- Midamble Shift	Not present
- WT	4
- PNBSCH allocation	Not Present /REL-4/
- Transport Channel Identity	15
- RACH TFS	
- CHOICE Transport channel type	Common transport channels
- Dynamic Transport format information	
- RLC size	Reference clause 6.10 Parameter Set
- Number of TB and TTI List	Reference clause 6.10 Parameter Set
- Number of Transport blocks	Reference clause 6.10 Parameter Set
- CHOICE Mode	TDD
- Transmission Time Interval	Not Present
- CHOICE Logical Channel List	ALL
- Semi-static Transport Format information	
- Transmission time interval	Reference clause 6.10 Parameter Set
- Type of channel coding	Reference clause 6.10 Parameter Set
- Coding Rate	Reference clause 6.10 Parameter Set
- Rate matching attribute	Reference clause 6.10 Parameter Set
- CRC size	Reference clause 6.10 Parameter Set
- RACH TFCS	Not present
- PRACH partitioning	
- Access Service Class	
- ASC Settings	(ASC#0)
- CHOICE mode	TDD
- CHOICE TDD option	1.28 Mcps TDD
- Available SYNC_UL codes indices	"11111111"
- CHOICE subchannel size	Size1
- Available Subchannels	Null
- ASC Settings	(ASC#1)
- CHOICE mode	TDD
- CHOICE TDD option	1.28 Mcps TDD
- Available SYNC_UL codes indices	"11111111"
- CHOICE subchannel size	Size1
- Available Subchannels	Null
- ASC Settings	(ASC#2)
- CHOICE mode	TDD
- CHOICE TDD option	1.28 Mcps TDD
- Available SYNC_UL codes indices	"11111111"
- CHOICE subchannel size	Size1
- Available Subchannels	Null
- ASC Settings	(ASC#3)
- CHOICE mode	TDD
- CHOICE TDD option	1.28 Mcps TDD
- Available SYNC_UL codes indices	"11111111"

- [CHOICE subchannel size](#)
- [Available Subchannels](#)
- [ASC Settings](#)
- [CHOICE mode](#)
- [CHOICE TDD option](#)
- [Available SYNC_UL codes indices](#)
- [CHOICE subchannel size](#)
- [Available Subchannels](#)
- [ASC Settings](#)
- [CHOICE mode](#)
- [CHOICE TDD option](#)
- [Available SYNC_UL codes indices](#)
- [CHOICE subchannel size](#)
- [Available Subchannels](#)
- [ASC Settings](#)
- [CHOICE mode](#)
- [CHOICE TDD option](#)
- [Available SYNC_UL codes indices](#)
- [CHOICE subchannel size](#)
- [Available Subchannels](#)
- [Access Service Class](#)
- [Persistence scaling factor](#)
- [Persistence scaling factor](#)
- [Persistence scaling factor](#)
- [Persistence scaling factor](#)
- [Persistence scaling factor](#)
- [AC-to-ASC mapping](#)
- [AC-to-ASC mapping table](#)
- [AC-to-ASC mapping](#)
- [AC-to-ASC mapping](#)
- [AC-to-ASC mapping](#)
- [AC-to-ASC mapping](#)
- [AC-to-ASC mapping](#)
- [AC-to-ASC mapping](#)
- [AC-to-ASC mapping](#)
- [CHOICE mode](#)
- [Secondary CCPCH system information](#)
- [Secondary CCPCH system information](#)
- [Secondary CCPCH info](#)
- [CHOICE mode](#)
- [Offset](#)
- [Common timeslot info](#)
- [2nd interleaving mode](#)
- [TFCI coding](#)
- [Puncturing limit](#)
- [Repetition period](#)
- [Repetition length](#)
- [Individual timeslot info](#)
- [CHOICE TDD option](#)
- [Timeslot number](#)
- [TFCI existence](#)
- [Midamble Shift and burst type](#)
- [CHOICE TDD option](#)
- [Midamble Allocation Mode](#)
- [Midamble configuration](#)
- [Midamble Shift](#)
- [CHOICE TDD option](#)
- [Modulation](#)
- [SS-TPC Symbols](#)
- [Code List](#)
- [Channelisation Code](#)
- [TFCS](#)
- [Normal](#)
- [TFCI Field 1 information](#)
- [CHOICE TFCS representation](#)
- [TFCS addition information](#)
- [CHOICE CTFC Size](#)
- [CTFC information](#)

- [Size1](#)
- [Null](#)
- [\(ASC#4\)](#)
- [TDD](#)
- [1.28 Mcps TDD](#)
- ["111111111"](#)
- [Size1](#)
- [Null](#)
- [\(ASC#5\)](#)
- [TDD](#)
- [1.28 Mcps TDD](#)
- ["111111111"](#)
- [Size1](#)
- [Null](#)
- [\(ASC#6\)](#)
- [TDD](#)
- [1.28 Mcps TDD](#)
- ["111111111"](#)
- [Size1](#)
- [Null](#)
- [0.9 \(for ASC#2\)](#)
- [0.9 \(for ASC#3\)](#)
- [0.9 \(for ASC#4\)](#)
- [0.9 \(for ASC#5\)](#)
- [0.9 \(for ASC#6\)](#)
- [6 \(AC0-9\)](#)
- [5 \(AC10\)](#)
- [4 \(AC11\)](#)
- [3 \(AC12\)](#)
- [2 \(AC13\)](#)
- [1 \(AC14\)](#)
- [0 \(AC15\)](#)
- [TDD \(no data\)](#)
- [TDD](#)
- [0](#)
- [Frame](#)
- [Reference clause 6.10 Parameter Set](#)
- [Reference clause 6.10 Parameter Set](#)
- [1](#)
- [0](#)
- [1.28 Mcps TDD](#)
- [0](#)
- [Reference clause 6.10 Parameter Set](#)
- [1.28 Mcps TDD](#)
- [Default midamble](#)
- [4](#)
- [Not Present](#)
- [1.28 Mcps TDD](#)
- [Reference clause 6.10 Parameter Set](#)
- [Reference clause 6.10 Parameter Set](#)
- [Reference clause 6.10 Parameter Set](#)
- [Reference clause 6.10 Parameter Set](#)
- [Addition](#)
- [Number of bits used must be enough to cover all combinations of CTFC from clause 6.10.](#)
- [Reference clause 6.10 Parameter Set](#)

- Power offset information	Not Present
- FACH/PCH information	12 (for PCH)
- Transport Channel Identity	(PCH)
- TFS	Common transport channels
- CHOICE Transport channel type	(This IE is repeated for TFI number.)
- Dynamic Transport format information	Reference clause 6.10 Parameter Set
- RLC Size	Reference clause 6.10 Parameter Set
- Number of TB and TTI List	Reference clause 6.10 Parameter Set
- Number of Transport blocks	Reference clause 6.10 Parameter Set
- CHOICE Mode	TDD
- Transmission Time Interval	Not Present
- CHOICE Logical Channel List	ALL
- Semi-static Transport Format information	Reference clause 6.10 Parameter Set
- Transmission time interval	Reference clause 6.10 Parameter Set
- Type of channel coding	Reference clause 6.10 Parameter Set
- Coding Rate	Reference clause 6.10 Parameter Set
- Rate matching attribute	Reference clause 6.10 Parameter Set
- CRC size	Reference clause 6.10 Parameter Set
- Transport Channel Identity	13 (for FACH)
- TFS	(FACH)
- CHOICE Transport channel type	Common transport channels
- Dynamic Transport format information	(This IE is repeated for TFI number.)
- RLC Size	Reference clause 6.10 Parameter Set
- Number of TB and TTI List	Reference clause 6.10 Parameter Set
- Number of Transport blocks	Reference clause 6.10 Parameter Set
- CHOICE Mode	TDD
- Transmission Time Interval	Not Present
- CHOICE Logical Channel List	ALL
- Semi-static Transport Format information	Reference clause 6.10 Parameter Set
- Transmission time interval	Reference clause 6.10 Parameter Set
- Type of channel coding	Reference clause 6.10 Parameter Set
- Coding Rate	Reference clause 6.10 Parameter Set
- Rate matching attribute	Reference clause 6.10 Parameter Set
- CRC size	Reference clause 6.10 Parameter Set
- CTCH indicator	FALSE
- PICH info	TDD
- CHOICE mode	(16/1)
- Channelisation code list	(16/2)
- Channelisation code	0
- Channelisation code	1.28 Mcps TDD
- Timeslot number	0
- CHOICE TDD option	1.28 Mcps TDD
- Midamble shift and burst type	Default midamble
- CHOICE TDD option	8
- Midamble Allocation Mode	Not Present
- Midamble configuration	64/2
- Midamble Shift	0
- Repetition period/length	4
- Offset	4
- Paging indicator length	2
- N _{GAP}	2
- N _{PCH}	Not Present
- CBS DRX Level 1 information	Not Present

Contents of System Information Block type7 (FDD)

CHOICE Mode	FDD
- UL interference	-100dBm
- PRACHs listed in system information block type5	2
- Dynamic persistence level	2
- PRACHs listed in system information block type6	Not Present – use default value of 1
- Dynamic persistence level	
- Expiration Time Factor	

Contents of System Information Block type7 (TDD)

- PRACHs listed in system information block type5	
- Dynamic persistence level	2
- PRACHs listed in system information block type6	
- Dynamic persistence level	2
-Expiration Time Factor	Not Present – use default value of 1

Contents of System Information Block type8,9 (only for FDD)

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

Contents of System Information Block type10 (only for FDD)

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

Contents of System Information Block type11 (FDD)

- SIB12 indicator	TRUE
- FACH measurement occasion info	Not Present
- Measurement control system information	
- Use of HCS	Not used
- Cell_selection_and_reselection_quality_measure	CPICH Ec/N0
- Intra-frequency measurement system information	
- Intra-frequency measurement identity	0
- Intra-frequency cell info list	
- CHOICE intra-frequency cell removal	Remove no intra-frequency cells
- New intra-frequency cells	
- Intra-frequency cell id	0
- Cell info	
- Cell individual offset	0dB
- Reference time difference to cell	Not Present
- Primary CPICH info	
- Primary scrambling code	The current value plus 50(When the current cell is cell No.8 then minus 50)
- Primary CPICH TX power	Not Present
- Read SFN indicator	TRUE
- TX Diversity indicator	FALSE
- Cell Selection and Re-selection info	
- Qoffset1 _{s,n}	0 dB
- Qoffset2 _{s,n}	0 dB
- Maximum allowed UL TX power	33 dBm
- HCS neighbouring cell information	Not Present
- CHOICE mode	
- Qqualmin	
- Qrxlevmin	
- Intra-frequency measurement quantity	
- Filter coefficient	0
- Measurement quantity	CPICH RSCP
- Intra-frequency reporting quantity for RACH Reporting	
-SFN-SFN observed time difference	No report
- Reporting quantity	No report
- Maximum number of reported cells on RACH	No report
- Reporting information for state CELL_DCH	
- Measurement Report Transfer	Acknowledged mode RLC
- Periodic Reporting / Event Trigger Reporting Mode	Event trigger
- Intra-frequency reporting quantity	
- Reporting quantities for active set cells	
- SFN-SFN observed time difference reporting indicator	No report
- Cell synchronisation information reporting indicator	FALSE
- Cell identity reporting indicator	TRUE
- CHOICE mode	FDD
- CPICH Ec/N0 reporting indicator	FALSE
- CPICH RSCP reporting indicator	TRUE
- Pathloss reporting indicator	FALSE
- Reporting quantities for monitored set cells	
- SFN-SFN observed time difference reporting indicator	No report
- Cell synchronisation information reporting indicator	FALSE
- Cell identity reporting indicator	TRUE
- CHOICE mode	FDD
- CPICH Ec/N0 reporting indicator	FALSE
- CPICH RSCP reporting indicator	TRUE
- Pathloss reporting indicator	FALSE
- Reporting quantities for detected set cells	Not Present
- Intra-frequency measurement reporting criteria	
- parameters required for each event	

- intra-frequency event identity	1a
- Triggering condition	monitored set cells
- Reporting Range	5dB
- cells forbidden to affect reporting range	Not Present
- Primary CPICH info	
- Primary scrambling code	
- W	1.0
- Hysteresis	0.0
- Threshold used frequency	T.B.D(-125..165)
- Reporting deactivation threshold	1
- Replacement activation threshold	Not Present
- Time to trigger	640
- Amount of reporting	Infinity
- Reporting interval	0
- Reporting cell status	
- CHOICE reporting cell	Report cell within active set and/or monitored cells on used frequency
- Maximum number of reported cells	2
- Inter-frequency measurement system information	Not Present
- Inter-RAT measurement system information	Not Present
- Traffic volume measurement system information	Not Present
- UE internal measurement system information	Not Present

Contents of System Information Block type11 ([3.84 Mcps](#) and [1.28 Mcps](#) TDD)

- SIB 12 Indicator	TRUE
- FACH measurement occasion info	Not Present
- Measurement control system information	
- Use of HCS	Not used
- Cell_selection_and_reselection_quality_measure	CPICH-RSCP
- Intra-frequency measurement system information	
- Intra-frequency measurement identity	0
- Intra-frequency cell info list	
- CHOICE intra-frequency cell removal	Remove no intra-frequency cells
- New intra-frequency cells	
- Intra-frequency cell id	0
- Cell info	
- Cell individual offset	0dB
- Reference time difference to cell	Not Present
- Read SFN Indicator	False
- CHOICE mode	TDD
- Primary CCPCH info	
- Cell parameters ID	Reference to clause 6.1 Default settings for cell
- Primary CCPCH TX power	Not Present
- Timeslot list	Not Present
- Burst type	Not Present
- Cell Selection and Re-selection info	Not Present
- Cell for measurement	
- Intra-frequency cell id	0
- Intra-frequency measurement quantity	
- Filter coefficient	0
- CHOICE mode	TDD
- Measurement quantity list	
- Measurement quantity	P-CCPCH RSCP
- Intra-frequency reporting quantity for RACH Reporting	
-SFN-SFN observed time difference	No report
- CHOICE mode	TDD
- Reporting quantity list	
- Reporting quantity	No report
- Maximum number of reported cells on RACH	No report
- Reporting information for state CELL_DCH	
- Intra-frequency reporting quantity	
- Reporting quantities for active set cells	
- SFN-SFN observed time difference reporting indicator	No report
- Cell synchronisation information reporting indicator	FALSE
- Cell identity reporting indicator	TRUE
- CHOICE mode	TDD
- Timeslot ISCP reporting indicator	FALSE
- Proposal TSGN reporting required	FALSE
- P-CCPCH RSCP reporting indicator	FALSE
- Pathloss reporting indicator	FALSE
- Reporting quantities for monitored set cells	
- SFN-SFN observed time difference reporting indicator	No report
- Cell synchronisation information reporting indicator	FALSE
- Cell identity reporting indicator	TRUE
- CHOICE mode	TDD
- Timeslot ISCP reporting indicator	FALSE
- Proposal TSGN reporting required	FALSE
- P-CCPCH RSCP reporting indicator	FALSE
- Pathloss reporting indicator	FALSE
- Reporting quantities for detected set cells	Not Present
- Measurement reporting mode	
- Measurement Report Transfer Mode	Acknowledged mode RLC

- Periodical Reporting / Event Trigger Reporting Mode	Event trigger
- Intra-frequency measurement reporting criteria	
- Parameters required for each event	1g
- Intra-frequency event identity	Not Present
- Triggering condition1	Not Present
- Triggering condition2	Not Present
- Reporting Range	Not Present
- cells forbidden to affect reporting range	Not Present
- W(optional in case of 1a,1b)	Not Present
- Hysteresis	0
- Threshold used frequency	Not Present
- Reporting deactivation threshold	Not Present
- Replacement activation threshold	Not Present
- Time to trigger	640
- Amount of reporting	Infinity
- Reporting interval	0
- Reporting cell status	
- CHOICE reported cells	Report cell within active set and/or monitored cells on used frequency
- Maximum number of reported cells	2
- Inter-frequency measurement system information	Not Present
- Inter-RAT measurement system information	Not Present
- Traffic volume measurement system information	Not Present
- UE internal measurement system information	Not Present

Contents of System Information Block type12 in connected mode (FDD)

- FACH measurement occasion info	Not Present
- Measurement control system information	
- Use of HCS	Not used
- Cell_selection_and_reselection_quality_measure	CPICH Ec/NO
- Intra-frequency measurement system information	
- Intra-frequency measurement identity	0
- Intra-frequency cell info list	
- CHOICE intra-frequency cell removal	Remove no intra-frequency cells
- New intra-frequency cells	
- Intra-frequency cell id	0
- Cell info	
- Cell individual offset	0dB
- Reference time difference to cell	Not Present
- Primary CPICH info	
- Primary scrambling code	The current value plus 50(When the current cell is cell No.8 then minus 50)
- Primary CPICH TX power	Not Present
- Read SFN indicator	TRUE
- TX Diversity indicator	FALSE
- Cell Selection and Re-selection info	
- Qoffset1 _{s,n}	0 dB
- Qoffset2 _{s,n}	0 dB
- Maximum allowed UL TX power	33dBm
- HCS neighbouring cell information	Not Present
- Intra-frequency measurement quantity	
- Filter coefficient	0
- Measurement quantity	CPICH RSCP
- Intra-frequency reporting quantity for RACH Reporting	
-SFN-SFN observed time difference	No report
- Reporting quantity	No report
- Maximum number of reported cells on RACH	No report
- Reporting information for state CELL_DCH	
- Measurement Report Transfer	Acknowledged mode RLC

- Periodic Reporting / Event Trigger Reporting Mode	Event trigger
- Intra-frequency reporting quantity	
- Reporting quantities for active set cells	
- SFN-SFN observed time difference reporting indicator	No report
- Cell synchronisation information reporting indicator	FALSE
- Cell identity reporting indicator	TRUE
- CHOICE mode	FDD
- CPICH Ec/N0 reporting indicator	FALSE
- CPICH RSCP reporting indicator	TRUE
- Pathloss reporting indicator	FALSE
- Reporting quantities for monitored set cells	
- SFN-SFN observed time difference reporting indicator	No report
- Cell identity reporting indicator	TRUE
- CHOICE mode	FDD
- CPICH Ec/N0 reporting indicator	FALSE
- CPICH RSCP reporting indicator	TRUE
- Pathloss reporting indicator	FALSE
- Reporting quantities for detected set cells	Not Present
- Intra-frequency measurement reporting criteria	
- parameters required for each event	
- intra-frequency event identity	1a
- Triggering condition	monitored set cells
- Reporting Range	5dB
- cells forbidden to affect reporting range	Not Present
- Primary CPICH info	
- Primary scrambling code	
- W	1.0
- Hysteresis	0.0
- Threshold used frequency	T.B.D(-125..165)
- Reporting deactivation threshold	1
- Replacement activation threshold	Not Present
- Time to trigger	0
- Amount of reporting	Infinity
- Reporting interval	0
- Reporting cell status	
- CHOICE reporting cell	Report cell Within active set and/or monitored cells on used frequency
- Maximum number of reported cells	2
- Inter-frequency measurement system information	Not Present
- Inter-RAT measurement system information	Not Present
- Traffic volume measurement system information	Not Present
- UE internal measurement system information	Not Present

Contents of System Information Block type12 in connected mode (similar to SIB type11) ([3.84 Mcps](#) and [1.28 Mcps](#) TDD)

- FACH measurement occasion info	Not Present
- Measurement control system information	
- Use of HCS	Not used
- Cell selection and reselection quality measure	CPICH-RSCP
- Intra-frequency measurement system information	
- Intra-frequency measurement identity	0
- Intra-frequency cell info list	
- CHOICE intra-frequency cell removal	Remove no intra-frequency cells
- New intra-frequency cells	
- Intra-frequency cell id	0
- Cell info	
- Cell individual offset	0dB
- Reference time difference to cell	Not Present
- Read SFN Indicator	False
- CHOICE mode	TDD
- Primary CCPCH info	
- Cell parameters ID	Reference to clause 6.1 Default settings for cell
- Primary CCPCH TX power	Not Present
- Timeslot list	Not Present
- Burst type	
- Cell Selection and Re-selection info	Not Present
- Intra-frequency measurement quantity	
- Filter coefficient	0
- CHOICE mode	TDD
- Measurement list	
- Measurement quantity	P-CCPCH RSCP
- Intra-frequency reporting quantity for RACH Reporting	
- SFN-SFN observed time difference	No report
- CHOICE mode	TDD
- Reporting quantity list	
- Reporting quantity	No report
- Maximum number of reported cells on RACH	No report
- Reporting information for state CELL_DCH	
- Intra-frequency reporting quantity	
- Reporting quantities for active set cells	
- SFN-SFN observed time difference reporting indicator	No report
- Cell synchronisation information reporting indicator	FALSE
- Cell identity reporting indicator	TRUE
- CHOICE mode	TDD
- Timeslot ISCP reporting indicator	FALSE
- Proposal TSGN reporting required	FALSE
- P-CCPCH RSCP reporting indicator	FALSE
- Pathloss reporting indicator	FALSE
- Reporting quantities for monitored set cells	
- SFN-SFN observed time difference reporting indicator	No report
- Cell synchronisation information reporting indicator	FALSE
- Cell identity reporting indicator	TRUE
- CHOICE mode	TDD
- Timeslot ISCP reporting indicator	FALSE
- Proposal TSGN reporting required	FALSE
- P-CCPCH RSCP reporting indicator	FALSE
- Pathloss reporting indicator	FALSE
- Reporting quantities for detected set cells	Not Present
- Measurement reporting mode	
- Measurement Report Transfer Mode	Acknowledged mode RLC
- Periodical Reporting / Event Trigger	Event trigger
Reporting Mode	
- Intra-frequency measurement reporting criteria	

- Parameters required for each event	1g
- Intra-frequency event identity	Not Present
- Triggering condition1	Not Present
- Triggering condition2	Not Present
- Reporting Range	Not Present
- cells forbidden to affect reporting range	Not Present
- W(optional in case of 1a,1b)	Not Present
- Hysteresis	0
- Threshold used frequency	Not Present
- Reporting deactivation threshold	Not Present
- Replacement activation threshold	Not Present
- Time to trigger	640
- Amount of reporting	Infinity
- Reporting interval	0
- Reporting cell status	
- CHOICE reported cells	Report cell within active set and/or monitored cells on used frequency
- Maximum number of reported cells	2
- Inter-frequency measurement system information	Not Present
- Inter-RAT measurement system information	Not Present
- Traffic volume measurement system information	Not Present
- UE internal measurement system information	Not Present

Contents of System Information Block type 13 (used when supported PLMN type is ANSI-41)

- CN Domain system information list	
- CN Domain system information	<i>For Packet-Switched domain</i>
- CN domain identity	PS
- CHOICE CN Type	ANSI-41
- CN domain specific NAS system information	
- NAS (ANSI-41) system information	T.B.D
- CN domain specific DRX cycle length coefficient	7
- CN Domain system information	<i>For Circuit-Switched domain</i>
- CN domain identity	CS
- CHOICE CN Type	ANSI-41
- CN domain specific NAS system information	
- NAS (ANSI-41) system information	T.B.D
- CN domain specific DRX cycle length coefficient	7
- UE timers and constants in idle mode	
- T300	400 milliseconds
- N300	7
- T312	10 seconds
- N312	200
- 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	Not Present

Contents of System Information Block type14 ([3.84 Mcps TDD](#))

- Individual Timeslot interference list	
- Individual Timeslot interference	
- Timeslot number	2
- UL Timeslot Interference	-90 dbm
- Individual Timeslot interference	
- Timeslot number	3
- UL Timeslot Interference	-90 dbm
- Individual Timeslot interference	
- Timeslot number	4
- UL Timeslot Interference	-90 dbm
- Individual Timeslot interference	
- Timeslot number	5
- UL Timeslot Interference	-90 dbm
- Individual Timeslot interference	
- Timeslot number	6
- UL Timeslot Interference	-90 dbm
- Individual Timeslot interference	
- Timeslot number	7
- UL Timeslot Interference	-90 dbm
- Individual Timeslot interference	
- Timeslot number	9
- UL Timeslot Interference	-90 dbm
- Individual Timeslot interference	
- Timeslot number	10
- UL Timeslot Interference	-90 dbm
- Individual Timeslot interference	
- Timeslot number	11
- UL Timeslot Interference	-90 dbm
- Individual Timeslot interference	
- Timeslot number	12
- UL Timeslot Interference	-90 dbm
- Individual Timeslot interference	
- Timeslot number	13
- UL Timeslot Interference	-90 dbm
- Individual Timeslot interference	
- Timeslot number	14
- UL Timeslot Interference	-90 dbm
- Expiration Time Factor	Not Present (MD "1")

Contents of System Information Block type 16

- Re-establishment timer	[FFS]
- Predefined RB configuration	[FFS]
- Predefined TrCh configuration	[FFS]
- Predefined Phy configuration	[FFS]

Contents of System Information Block type17 ([3.84 Mcsps TDD](#) and [1.28 Mcps TDD](#))

This system information block contains fast changing parameters for the configuration of the shared physical channels to be used in connected mode, so this is not present.

Default settings for cell No.1 (FDD):

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

Default settings for cell No.1 ([3.84 Mcps TDD](#) [and 1.28 Mcps TDD](#)):

Downlink input level Uplink output power PCCPCH/PCPICH carrier number Cell Channel Description - Primary CCPCH info - Cell parameters ID	Reference to clause 6.10 Parameter Set Minimum supported by the UE's power class. Reference to clause 6.10 Parameter Set 0
---------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------

Cell No.2

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

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

Default settings for cell No.2 (FDD):

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

Default settings for cell No.2 ([3.84 Mcps TDD](#) [and 1.28 Mcps TDD](#)):

Downlink input level Uplink output power PCCPCH/PCPICH carrier number Cell Channel Description - Primary CCPCH info - Cell parameters ID	Reference to clause 6.10 Parameter Set Minimum supported by the UE's power class. Reference to clause 6.10 Parameter Set 4
---------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------

Cell No.3

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

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

Default settings for cell No.3 (FDD):

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

Default settings for cell No.3 ([3.84 Mcps TDD](#) [and 1.28 Mcps TDD](#)):

Downlink input level Uplink output power PCCPCH/PCPICH carrier number Cell Channel Description - Primary CCPCH info - Cell parameters ID	Reference to clause 6.10 Parameter Set Minimum supported by the UE's power class. Reference to clause 6.10 Parameter Set 8
---------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------

Cell No.4

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

Cell identity	0000 0000 0000 0000 0000 0000 0100B
URA identity	0000 0000 0000 0010B

Default settings for cell No.4 (FDD):

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

Default settings for cell No.4 ([3.84 Mcps TDD and 1.28 Mcps TDD](#)):

Downlink input level Uplink output power PCCPCH/PCPICH carrier number Cell Channel Description - Primary CCPCH info - Cell parameters ID	Reference to clause 6.10 Parameter Set Minimum supported by the UE's power class. Reference to clause 6.10 Parameter Set 12
---------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------

Cell No.5

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

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

Default settings for cell No.5 (FDD):

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

Default settings for cell No.5 ([3.84 Mcps TDD and 1.28 Mcps TDD](#)):

Downlink input level Uplink output power PCCPCH/PCPICH carrier number Cell Channel Description - Primary CCPCH info - Cell parameters ID	Reference to clause 6.10 Parameter Set Minimum supported by the UE's power class. Reference to clause 6.10 Parameter Set 114
---------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------

Cell No.6

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

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

Default settings for cell No.6 (FDD):

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

Default settings for cell No.6 ([3.84 Mcps TDD and 1.28 Mcps TDD](#)):

Downlink input level Uplink output power PCCPCH/PCPICH carrier number Cell Channel Description - Primary CCPCH info - Cell parameters ID	Reference to clause 6.10 Parameter Set Minimum supported by the UE's power class. Reference to clause 6.10 Parameter Set 119
---------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------

Cell No.7

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

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

Default settings for cell No.7 (FDD):

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

Default settings for cell No.7 ([3.84 Mcps TDD and 1.28 Mcps TDD](#)):

Downlink input level Uplink output power PCCPCH/PCPICH carrier number Cell Channel Description - Primary CCPCH info - Cell parameters ID	Reference to clause 6.10 Parameter Set Minimum supported by the UE's power class. Reference to clause 6.10 Parameter Set 123
---------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------

Cell No.8

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

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

Default settings for cell No.8 (FDD):

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

Table 6.1.3 Default radio conditions in Connected mode

Parameter	Unit	Cell 1	Cell 2	Cell 3	Cell 4	Cell 5	Cell 6
CPICH_Ec/Ior	dB	-10	-10	-10	-10	-10	-10
PCCPCH_Ec/Ior	dB	-12	-12	-12	-12	-12	-12
SCCPCH_Ec/Ior	dB	-12	-12	-12	-12	-12	-12
AICH_Ec/Ior	dB	-15	-15	-15	-15	-15	-15
SCH_Ec/Ior	dB	-12	-12	-12	-12	-12	-12
PICH_Ec/Ior	dB	-15	-15	-15	-15	-15	-15
DPCH_Ec/Ior	dB	-15	-15	-15	-15	-15	-15
OCNS_Ec/Ior	dB	-2.106	-2.106	-2.106	-2.106	-2.106	-2.106
I_{oc}	dBm/ 3.84 MHz	-70					
Propagation Condition		AWGN					
UE_TXPWR_MAX _RACH	dBm	Max. RF Output of UE	Max. RF Output of UE	Max. RF Output of UE	Max. RF Output of UE	Max. RF Output of UE	Max. RF Output of UE

Default Radio Conditions for Multi-Cell Environment (TDD)

<FFS>

3GPP TSG-T1 Meeting #12
 Pusan, Korea, 6th – 7th September 2001

T1-010289

3GPP TSG-T1/SIG SWG Meeting #19
 Busan, Korea, 3rd-5th September 2001

T1S-010140r2

CR-Form-v3
CHANGE REQUEST
⌘ TS 34.108 CR 062 ⌘ rev ⌘ Current version: 3.4.0 ⌘

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

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

Title:	⌘ Introduction of typical radio parameters for 1.28 McpsTDD		
Source:	⌘ Siemens AG		
Work item code:	⌘ LCRTDD-L23 Date: ⌘ 7.June.2001		
Category:	⌘ B Release: ⌘ REL-4		
Use <u>one</u> of the following categories: <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top;"> F (essential correction) A (corresponds to a correction in an earlier release) B (Addition of feature), C (Functional modification of feature) D (Editorial modification) </td> <td style="width: 50%; vertical-align: top;"> Use <u>one</u> 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) </td> </tr> </table> Detailed explanations of the above categories can be found in 3GPP TR 21.900.		F (essential correction) A (corresponds to a correction in an earlier release) B (Addition of feature), C (Functional modification of feature) D (Editorial modification)	Use <u>one</u> 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)
F (essential correction) A (corresponds to a correction in an earlier release) B (Addition of feature), C (Functional modification of feature) D (Editorial modification)	Use <u>one</u> of the following releases: 2 (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) REL-4 (Release 4) REL-5 (Release 5)		

Reason for change:	⌘ Within RAN specifications 1.28 Mcps TDD is already included. Ensues from this that, 1.28 Mcps TDD Radio Bearers are needed to be introduced.
Summary of change:	⌘ New section 6.11.1 Reference Radio Bearer configurations used in Radio Bearer testing for 1.28 Mcps TDD are introduced.
Consequences if not approved:	⌘ There are no Reference Radio Bearer configurations used in Radio Bearer testing for 1.28 Mcps TDD specified.

Clauses affected:	⌘ New section 6.11.1
Other specs Affected:	⌘ <input type="checkbox"/> Other core specifications ⌘ <input type="checkbox"/> Test specifications <input type="checkbox"/> O&M Specifications
Other comments:	⌘

6.11.1 Reference Radio Bearer configurations used in Radio Bearer interoperability-testing for 1.28 Mcps TDD

6.11.1.1 RABs and signalling RBs

See 6.10.3.1

6.11.1.2 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
- 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
- 5) Conversational / speech / UL:10.2 DL:10.2 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
- 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) Streaming / unknown / UL:0 DL:64 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH
- 19) Streaming / unknown / UL:64 DL:0 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH
- 20) Streaming / unknown / UL:0 DL:128 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH
- 21) Streaming / unknown / UL:128 DL:0 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH
- 22) Streaming / unknown / UL:0 DL:384 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH
- 23) Interactive or background / UL:32 DL:8 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH
- 24) Interactive or background / UL:64 DL:8 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH
- 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) Interactive or background / UL:128 DL:2048 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH
- 37) Interactive or background / UL:384 DL:2048 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH
- 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

- 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) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ Streaming / unknown / UL:0 DL:64 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH
- 47) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ Streaming / unknown / UL:0 DL:128 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH
- 48) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ Streaming / unknown / UL:0 DL:384 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH
- 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
- 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
- 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) Interactive or /background / UL:64 kbps DL:128 kbps / PS RAB
+ Streaming / unknown / UL:0 DL:64 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH

- 5) Interactive or /background / UL:64 kbps DL:128 kbps / PS RAB
 + Streaming / unknown / UL:0 DL:128 kbps / CS 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: 16.8 DL: 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: 16.8 DL: 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 DL: 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
- 3) Interactive or background / DL:32 kbps / PS RAB
 + SRB for PCCH
 + SRB for CCCH
 + SRBs for DCCH
 + SRB for BCCH

Combinations on PRACH

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

[6.11.1.3 Example of linkage between RABs and services](#)

[See 6.10.3.3](#)

[6.11.1.4 Typical radio parameter sets](#)

[6.11.1.4.1 Combinations on DPCH](#)

[6.11.1.4.1.1 Stand-alone UL:1.7 DL:1.7 kbps SRBs for DCCH](#)

[6.11.1.4.1.1.1 Uplink](#)

[6.11.1.4.1.1.1.1 Transport channel parameters](#)

[6.11.1.4.1.1.1.1.1 Transport channel parameters for UL:1.7 kbps SRBs for DCCH](#)

[See 6.10.3.4.1.1.1.1.1](#)

[6.11.1.4.1.1.1.2 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	164 bits
	TFCI code word / radio frame	4 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	1

[6.11.1.4.1.1.2 Downlink](#)

[6.11.1.4.1.1.2.1 Transport channel parameters](#)

[6.11.1.4.1.1.2.1.1 Transport channel parameters for DL:1.7 kbps SRBs for DCCH](#)

[See 6.10.3.4.1.1.2.1.1](#)

[6.11.1.4.1.1.2.1.2 TFCS](#)

[See 6.10.3.4.1.1.2.1.2](#)

[6.11.1.4.1.1.2.2 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	164 bits
	TFCI code word / radio frame	4 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	1

[6.11.1.4.1.2 Stand-alone UL:3.4 DL:3.4 kbps SRBs for DCCH](#)

[6.11.1.4.1.2.1 Uplink](#)

[6.11.1.4.1.2.1.1 Transport channel parameters](#)

[6.11.1.4.1.2.1.1.1 Transport channel parameters for UL:3.4 kbps SRBs for DCCH](#)

[See 6.10.3.4.1.2.1.1.1](#)

[6.11.1.4.1.2.1.1.2 TFCS](#)

[See 6.10.3.4.1.2.1.1.2](#)

[6.11.1.4.1.2.1.2 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	164 bits
	TFCI code word / radio frame	4 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
Puncturing Limit	1	

[6.11.1.4.1.2.2 Downlink](#)

[6.11.1.4.1.2.2.1 Transport channel parameters](#)

[6.11.1.4.1.2.2.1.1 Transport channel parameters for DL:3.4 kbps SRBs for DCCH](#)

[See 6.10.3.4.1.2.2.1.1](#)

[6.11.1.4.1.2.2.1.2 TFCS](#)

[See 6.10.3.4.1.2.2.1.2](#)

[6.11.1.4.1.2.2.2 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	164 bits
	TFCI code word / radio frame	4 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
Puncturing Limit	1	

[6.11.1.4.1.3 Stand-alone UL:13.6 DL:13.6 kbps SRBs for DCCH](#)

[6.11.1.4.1.3.1 Uplink](#)

[6.11.1.4.1.3.1.1 Transport channel parameters](#)

[6.11.1.4.1.3.1.1.1 Transport channel parameters for UL:13.6 kbps SRBs for DCCH](#)

[See 6.10.3.4.1.3.1.1.1](#)

[6.11.1.4.1.3.1.1.2](#) [TFCS](#)[See 6.10.3.4.1.3.1.1.2](#)[6.11.1.4.1.3.1.2](#) [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	340 bits
	TFCI code word / radio frame	4 bits
	TPC / radio frame	2x 2 bit
	SS / radio frame	2x 2 bit
	Puncturing Limit	0.64

[6.11.1.4.1.3.2](#) [Downlink](#)[6.11.1.4.1.3.2.1](#) [Transport channel parameters](#)[6.11.1.4.1.3.2.1.1](#) [Transport channel parameters for DL:13.6 kbps SRBs for DCCH](#)[See 6.10.3.4.1.3.2.1.1](#)[6.11.1.4.1.3.2.1.2](#) [TFCS](#)[See 6.10.3.4.1.3.2.1.2](#)[6.11.1.4.1.3.2.2](#) [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	340 bits
	TFCI code word / radio frame	4 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	0.64

[6.11.1.4.1.4](#) [Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH](#)[6.11.1.4.1.4.1](#) [Uplink](#)[6.11.1.4.1.4.1.1](#) [Transport channel parameters](#)[6.11.1.4.1.4.1.1.1](#) [Transport channel parameters for Conversational / speech / UL:12.2 kbps / CS RAB](#)[See 6.10.3.4.1.4.1.1.1](#)[6.11.1.4.1.4.1.1.2](#) [Transport channel parameters for UL:3.4 kbps SRBs for DCCH](#)[See 6.10.3.4.1.2.1.1](#)[6.11.1.4.1.4.1.1.3](#) [TFCS](#)[See 6.10.3.4.1.4.1.1.3](#)

[6.11.1.4.1.4.1.2](#) 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
	TFCl code word / radio frame	16 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	0.60

[6.11.1.4.1.4.2](#) Downlink

[6.11.1.4.1.4.2.1](#) Transport channel parameters

[6.11.1.4.1.4.2.1.1](#) Transport channel parameters for Conversational / speech / DL:12.2 kbps / CS RAB

[See 6.10.3.4.1.4.2.1.1](#)

[6.11.1.4.1.4.2.1.2](#) Transport channel parameters for DL:3.4 kbps SRBs for DCCH

[See 6.10.3.4.1.2.2.1.1](#)

[6.11.1.4.1.4.2.1.3](#) TFCS

[See 6.10.3.4.1.4.2.1.3](#)

[6.11.1.4.1.4.2.2](#) 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
	TFCl code word / radio frame	16 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	0.60

[6.11.1.4.1.5](#) Conversational / speech / UL:10.2 DL:10.2 kbps / CS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

[6.11.1.4.1.5.1](#) Uplink

[6.11.1.4.1.5.1.1](#) Transport channel parameters

[6.11.1.4.1.5.1.1.1](#) Transport channel parameters for Conversational / speech / UL:10.2 kbps / CS RAB

[See 6.10.3.4.1.5.1.1.1](#)

[6.11.1.4.1.5.1.1.2](#) Transport channel parameters for UL:3.4 kbps SRBs for DCCH

[See 6.10.3.4.1.2.1.1.1](#)

[6.11.1.4.1.5.1.1.3](#) TFCS

[See 6.10.3.4.1.5.1.1.3](#)

[6.11.1.4.1.5.1.2 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

[6.11.1.4.1.5.2 Downlink](#)

[6.11.1.4.1.5.2.1 Transport channel parameters](#)

[6.11.1.4.1.5.2.1.1 Transport channel parameters for Conversational / speech / DL:10.2 kbps / CS RAB](#)

[See 6.10.3.4.1.5.2.1.1](#)

[6.11.1.4.1.5.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCH](#)

[See 6.10.3.4.1.2.2.1.1](#)

[6.11.1.4.1.5.2.1.3 TFCS](#)

[See 6.10.3.4.1.5.2.1.3](#)

[6.11.1.4.1.5.2.2 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

[6.11.1.4.1.6 Conversational / speech / UL:7.95 DL:7.95 kbps / CS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH](#)

[6.11.1.4.1.6.1 Uplink](#)

[6.11.1.4.1.6.1.1 Transport channel parameters](#)

[6.11.1.4.1.6.1.1.1 Transport channel parameters for Conversational / speech / UL:7.95 kbps / CS RAB](#)

[See 6.10.3.4.1.6.1.1.1](#)

[6.11.1.4.1.6.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH](#)

[See 6.10.3.4.1.2.1.1.1](#)

[6.11.1.4.1.6.1.1.3 TFCS](#)

[See 6.10.3.4.1.6.1.1.3](#)

[6.11.1.4.1.6.1.2](#) 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	0.80

[6.11.1.4.1.6.2](#) Downlink

[6.11.1.4.1.6.2.1](#) Transport channel parameters

[6.11.1.4.1.6.2.1.1](#) Transport channel parameters for Conversational / speech / DL:7.95 kbps / CS RAB

[See 6.10.3.4.1.6.2.1.1](#)

[6.11.1.4.1.6.2.1.2](#) Transport channel parameters for DL:3.4 kbps SRBs for DCCH

[See 6.10.3.4.1.2.2.1.1](#)

[6.11.1.4.1.6.2.1.3](#) TFCS

[See 6.10.3.4.1.6.2.1.3](#)

[6.11.1.4.1.6.2.2](#) 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	0.80

[6.11.1.4.1.7](#) Conversational / speech / UL:7.4 DL:7.4 kbps / CS RAB+ UL:3.4 DL:3.4 kbps SRBs for DCCH

[6.11.1.4.1.7.1](#) Uplink

[6.11.1.4.1.7.1.1](#) Transport channel parameters

[6.11.1.4.1.7.1.1.1](#) Transport channel parameters for Conversational / speech / UL:7.4 kbps / CS RAB

[See 6.10.3.4.1.7.1.1.1](#)

[6.11.1.4.1.7.1.1.2](#) Transport channel parameters for UL:3.4 kbps SRBs for DCCH

[See 6.10.3.4.1.2.1.1.1](#)

[6.11.1.4.1.7.1.1.3](#) TFCS

[See 6.10.3.4.1.7.1.1.3](#)

[6.11.1.4.1.7.1.2 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
	TFCL code word / radio frame	16 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	0.80

[6.11.1.4.1.7.2 Downlink](#)

[6.11.1.4.1.7.2.1 Transport channel parameters](#)

[6.11.1.4.1.7.2.1.1 Transport channel parameters for Conversational / speech / DL:7.4 kbps / CS RAB](#)

[See 6.10.3.4.1.7.2.1.1](#)

[6.11.1.4.1.7.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCH](#)

[See 6.10.3.4.1.2.2.1.1](#)

[6.11.1.4.1.7.2.1.3 TFCS](#)

[See 6.10.3.4.1.7.2.1.3](#)

[6.11.1.4.1.7.2.2 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
	TFCL code word / radio frame	16 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	0.80

[6.11.1.4.1.8 Conversational / speech / UL:6.7 DL:6.7 kbps / CS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH](#)

[6.11.1.4.1.8.1 Uplink](#)

[6.11.1.4.1.8.1.1 Transport channel parameters](#)

[6.11.1.4.1.8.1.1.1 Transport channel parameters for Conversational / speech / UL:6.7 kbps / CS RAB](#)

[See 6.10.3.4.1.8.1.1.1](#)

[6.11.1.4.1.8.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH](#)

[See 6.10.3.4.1.2.1.1.1](#)

[6.11.1.4.1.8.1.1.3 TFCS](#)

[See 6.10.3.4.1.8.1.1.3](#)

[6.11.1.4.1.8.1.2](#) 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	0.88

[6.11.1.4.1.8.2](#) Downlink

[6.11.1.4.1.8.2.1](#) Transport channel parameters

[6.11.1.4.1.8.2.1.1](#) Transport channel parameters for Conversational / speech / DL:6.7 kbps / CS RAB

[See 6.10.3.4.1.8.2.1.1](#)

[6.11.1.4.1.8.2.1.2](#) Transport channel parameters for DL:3.4 kbps SRBs for DCCH

[See 6.10.3.4.1.2.2.1.1](#)

[6.11.1.4.1.8.2.1.3](#) TFCS

[See 6.10.3.4.1.8.2.1.3](#)

[6.11.1.4.1.8.2.2](#) 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	0.88

[6.11.1.4.1.9](#) Conversational / speech / UL:5.9 DL:5.9 kbps / CS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

[6.11.1.4.1.9.1](#) Uplink

[6.11.1.4.1.9.1.1](#) Transport channel parameters

[6.11.1.4.1.9.1.1.1](#) Transport channel parameters for Conversational / speech / UL:5.9 kbps / CS RAB

[See 6.10.3.4.1.9.1.1.1](#)

[6.11.1.4.1.9.1.1.2](#) Transport channel parameters for UL:3.4 kbps SRBs for DCCH

[See 6.10.3.4.1.2.1.1.1](#)

[6.11.1.4.1.9.1.1.3](#) TFCS

[See 6.10.3.4.1.9.1.1.3](#)

[6.11.1.4.1.9.1.2](#) 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	0.92

[6.11.1.4.1.9.2](#) Downlink

[6.11.1.4.1.9.2.1](#) Transport channel parameters

[6.11.1.4.1.9.2.1.1](#) Transport channel parameters for Conversational / speech / DL:5.9 kbps / CS RAB

[See 6.10.3.4.1.9.2.1.1](#)

[6.11.1.4.1.9.2.1.2](#) Transport channel parameters for DL:3.4 kbps SRBs for DCCH

[See 6.10.3.4.1.2.2.1.1](#)

[6.11.1.4.1.9.2.1.3](#) TFCS

[See 6.10.3.4.1.9.2.1.3](#)

[6.11.1.4.1.9.2.2](#) 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	0.92

[6.11.1.4.1.10](#) Conversational / speech / UL:5.15 DL:5.15 kbps / CS RAB + UL:1.7 DL:1.7 kbps SRBs for DCCH

[6.11.1.4.1.10.1](#) Uplink

[6.11.1.4.1.10.1.1](#) Transport channel parameters

[6.11.1.4.1.10.1.1.1](#) Transport channel parameters for Conversational / speech / UL:5.15 kbps / CS RAB

[See 6.10.3.4.1.10.1.1.1](#)

[6.11.1.4.1.10.1.1.2](#) Transport channel parameters for UL:3.4 kbps SRBs for DCCH

[See 6.10.3.4.1.2.1.1.1](#)

[6.11.1.4.1.10.1.1.3](#) TFCS

[See 6.10.3.4.1.10.1.1.3](#)

[6.11.1.4.1.10.1.2](#) 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	0.96

[6.11.1.4.1.10.2](#) Downlink

[6.11.1.4.1.10.2.1](#) Transport channel parameters

[6.11.1.4.1.10.2.1.1](#) Transport channel parameters for Conversational / speech / DL:5.15 kbps / CS RAB

[See 6.10.3.4.1.10.2.1.1](#)

[6.11.1.4.1.10.2.1.2](#) Transport channel parameters for DL:3.4 kbps SRBs for DCCH

[See 6.10.3.4.1.2.2.1.1](#)

[6.11.1.4.1.10.2.1.3](#) TFCS

[See 6.10.3.4.1.10.2.1.3](#)

[6.11.1.4.1.10.2.2](#) 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	0.96

[6.11.1.4.1.11](#) Conversational / speech / UL:4.75 DL:4.75 kbps / CS RAB + UL:1.7 DL:1.7 kbps SRBs for DCCH

[6.11.1.4.1.11.1](#) Uplink

[6.11.1.4.1.11.1.1](#) Transport channel parameters

[6.11.1.4.1.11.1.1.1](#) Transport channel parameters for Conversational / speech / UL:4.75 kbps / CS RAB

[See 6.10.3.4.1.11.1.1.1](#)

[6.11.1.4.1.11.1.1.2](#) Transport channel parameters for UL:3.4 kbps SRBs for DCCH

[See 6.10.3.4.1.2.1.1.1](#)

[6.11.1.4.1.11.1.1.3](#) TFCS

[See 6.10.3.4.1.11.1.1.3](#)

[6.11.1.4.1.11.1.2](#) Physical channel parameters

DPCCH 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
	TFCl code word / radio frame	16 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	1

[6.11.1.4.1.11.2](#) Downlink

[6.11.1.4.1.11.2.1](#) Transport channel parameters

[6.11.1.4.1.11.2.1.1](#) Transport channel parameters for Conversational / speech / DL:4.75 kbps / CS RAB

[See 6.10.3.4.1.11.2.1.1](#)

[6.11.1.4.1.11.2.1.2](#) Transport channel parameters for DL:3.4 kbps SRBs for DCCH

[See 6.10.3.4.1.2.2.1.1](#)

[6.11.1.4.1.11.2.1.3](#) TFCS

[See 6.10.3.4.1.11.2.1.3](#)

[6.11.1.4.1.11.2.2](#) Physical channel parameters

DPCCH 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
	TFCl code word / radio frame	16 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	1

[6.11.1.4.1.12](#) Conversational / unknown / UL:28.8/DL:28.8 kbps / CS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

[6.11.1.4.1.12.1](#) Uplink

[6.11.1.4.1.12.1.1](#) Transport channel parameters

[6.11.1.4.1.12.1.1.1](#) Transport channel parameters for conversational / unknown / UL:28.8 kbps / CS RAB

[See 6.10.3.4.1.12.1.1.1](#)

[6.11.1.4.1.12.1.1.2](#) Transport channel parameters for UL:3.4 kbps SRBs for DCCH

[See 6.10.3.4.1.2.1.1.1](#)

[6.11.1.4.1.12.1.1.3](#) TFCS

[See 6.10.3.4.1.12.1.1.3](#)

[6.11.1.4.1.12.1.2](#) Physical channel parameters

DPCCH 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	0.64

[6.11.1.4.1.12.2](#) Downlink

[6.11.1.4.1.12.2.1](#) Transport channel parameters

[6.11.1.4.1.12.2.1.1](#) Transport channel parameters for conversational / unknown / DL:28.8 kbps / CS RAB

[See 6.10.3.4.1.12.2.1.1](#)

[6.11.1.4.1.12.2.1.2](#) Transport channel parameters for DL:3.4 kbps SRBs for DCCH

[See 6.10.3.4.1.2.2.1.1](#)

[6.11.1.4.1.12.2.1.3](#) TFCS

[See 6.10.3.4.1.12.2.1.3](#)

[6.11.1.4.1.12.2.2](#) Physical channel parameters

DPCCH 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	0.64

[6.11.1.4.1.13](#) Conversational / unknown / UL:64 DL:64 kbps / CS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

[6.11.1.4.1.13.1](#) Uplink

[6.11.1.4.1.13.1.1](#) Transport channel parameters

[6.11.1.4.1.13.1.1.1](#) Transport channel parameters for Conversational / unknown / UL:64 kbps / CS RAB

[See 6.10.3.4.1.13.1.1.1](#)

[6.11.1.4.1.13.1.1.2](#) Transport channel parameters for UL:3.4 kbps SRBs for DCCH

[See 6.10.3.4.1.2.1.1.1](#)

[6.11.1.4.1.13.1.1.3](#) TFCS

[See 6.10.3.4.1.13.1.1.3](#)

[6.11.1.4.1.13.1.2](#) Physical channel parameters

DPCCH Uplink	Modulation	QPSK
	Codes and time slots / radio frame	SF2 x 1 code x 2 time slots
	Max. Number of data bits / radio frame	1392 bits
	TFCI code word / radio frame	8 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	0.64

[6.11.1.4.1.13.2](#) Downlink

[6.11.1.4.1.13.2.1](#) Transport channel parameters

[6.11.1.4.1.13.2.1.1](#) Transport channel parameters for Conversational / unknown / DL:64 kbps / CS RAB

[See 6.10.3.4.1.13.2.1.1](#)

[6.11.1.4.1.13.2.1.2](#) Transport channel parameters for DL:3.4 kbps SRBs for DCCH

[See 6.10.3.4.1.2.2.1.1](#)

[6.11.1.4.1.13.2.1.3](#) TFCS

[See 6.10.3.4.1.13.2.1.3](#)

[6.11.1.4.1.13.2.2](#) Physical channel parameters

DPCCH Downlink	Modulation	QPSK
	Codes and time slots / radio frame	SF 16 x 8 code x 2 time slots
	Max. Number of data bits / radio frame	1392 bits
	TFCI code word / radio frame	8 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	0.64

[6.11.1.4.1.14](#) Conversational / unknown / UL:32 DL:32 kbps / CS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

[6.11.1.4.1.14.1](#) Uplink

[6.11.1.4.1.14.1.1](#) Transport channel parameters

[6.11.1.4.1.14.1.1.1](#) Transport channel parameters for Conversational / unknown / UL:32 kbps / CS RAB

[See 6.10.3.4.1.14.1.1.1](#)

[6.11.1.4.1.14.1.1.2](#) Transport channel parameters for UL:3.4 kbps SRBs for DCCH

[See 6.10.3.4.1.2.1.1.1](#)

[6.11.1.4.1.14.1.1.3](#) TFCS

[See 6.10.3.4.1.14.1.1.3](#)

[6.11.1.4.1.14.1.2](#) 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
	TFCl code word / radio frame	8 bits
	TPC / radio frame	2x 2 bits
	SS/ radio frame	2x 2 bits
	Puncturing Limit	0.60

[6.11.1.4.1.14.2](#) Downlink

[6.11.1.4.1.14.2.1](#) Transport channel parameters

[6.11.1.4.1.14.2.1.1](#) Transport channel parameters for Conversational / unknown / DL:32 kbps / CS RAB

[See 6.10.3.4.1.14.2.1.1](#)

[6.11.1.4.1.14.2.1.2](#) Transport channel parameters for DL:3.4 kbps SRBs for DCCH

[See 6.10.3.4.1.2.2.1.1](#)

[6.11.1.4.1.14.2.1.3](#) TFCS

[See 6.10.3.4.1.14.2.1.3](#)

[6.11.1.4.1.14.2.2](#) 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	699 bits
	TFCl code word / radio frame	8 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	0.60

[6.11.1.4.1.15](#) Streaming / unknown / UL:14.4/DL:14.4 kbps / CS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

[6.11.1.4.1.15.1](#) Uplink

[6.11.1.4.1.15.1.1](#) Transport channel parameters

[6.11.1.4.1.15.1.1.1](#) Transport channel parameters for Streaming / unknown / UL: 14.4 kbps / CS RAB

[See 6.10.3.4.1.15.1.1.1](#)

[6.11.1.4.1.15.1.1.2](#) Transport channel parameters for UL:3.4 kbps SRBs for DCCH

[See 6.10.3.4.1.2.1.1.1](#)

[6.11.1.4.1.15.1.1.3](#) [TFCS](#)[See 6.10.3.4.1.15.1.1.3](#)[6.11.1.4.1.15.1.2](#) [Physical channel parameters](#)

DPCCH 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	8 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	1

[6.11.1.4.1.15.2](#) [Downlink](#)[6.11.1.4.1.15.2.1](#) [Transport channel parameters](#)[6.11.1.4.1.15.2.1.1](#) [Transport channel parameters for Streaming / unknown / DL:14.4 kbps / CS RAB](#)[See 6.10.3.4.1.15.2.1.1](#)[6.11.1.4.1.15.2.1.2](#) [Transport channel parameters for DL:3.4 kbps SRBs for DCCH](#)[See 6.10.3.4.1.2.2.1.1](#)[6.11.1.4.1.15.2.1.3](#) [TFCS](#)[See 6.10.3.4.1.15.2.1.3](#)[6.11.1.4.1.15.2.2](#) [Physical channel parameters](#)

DPCCH Downlink	Modulation	QPSK
	Codes and time slots/ radio frame	SF16 x 3 code x 2 time slots
	Max. Number of data bits / radio frame	512 bits
	TFCI code word / radio frame	8 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	0.88

[6.11.1.4.1.16](#) [Streaming / unknown / UL:28.8/DL:28.8 kbps / CS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH](#)[6.11.1.4.1.16.1](#) [Uplink](#)[6.11.1.4.1.16.1.1](#) [Transport channel parameters](#)[6.11.1.4.1.16.1.1.1](#) [Transport channel parameters for Streaming / unknown / UL:28.8 kbps / CS RAB](#)[See 6.10.3.4.1.16.1.1.1](#)[6.11.1.4.1.16.1.1.2](#) [Transport channel parameters for UL:3.4 kbps SRBs for DCCH](#)[See 6.10.3.4.1.2.1.1.1](#)

[6.11.1.4.1.16.1.1.3](#) TFCS[See 6.10.3.4.1.16.1.1.3](#)[6.11.1.4.1.16.1.2](#) Physical channel parameters

DPCCH 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

[6.11.1.4.1.16.2](#) Downlink[6.11.1.4.1.16.2.1](#) Transport channel parameters[6.11.1.4.1.16.2.1.1](#) Transport channel parameters for Streaming / unknown / DL:28.8 kbps / CS RAB[See 6.10.3.4.1.16.2.1.1](#)[6.11.1.4.1.16.2.1.2](#) Transport channel parameters for DL:3.4 kbps SRBs for DCCH[See 6.10.3.4.1.2.2.1.1](#)[6.11.1.4.1.16.2.1.3](#) TFCS[See 6.10.3.4.1.16.2.1.3](#)[6.11.1.4.1.16.2.2](#) Physical channel parameters

DPCCH 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

[6.11.1.4.1.17](#) Streaming / unknown / UL:57.6/DL:57.6 kbps / CS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH[6.11.1.4.1.17.1](#) Uplink[6.11.1.4.1.17.1.1](#) Transport channel parameters[6.11.1.4.1.17.1.1.1](#) Transport channel parameters for Streaming / unknown / UL:57.6 kbps / CS RAB[See 6.10.3.4.1.17.1.1.1](#)

[6.11.1.4.1.17.1.1.2](#) [Transport channel parameters for UL:3.4 kbps SRBs for DCCH](#)

[See 6.10.3.4.1.2.1.1.1](#)

[6.11.1.4.1.17.1.1.3](#) [TFCS](#)

[See 6.10.3.4.1.17.1.1.3](#)

[6.11.1.4.1.17.1.2](#) [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

[6.11.1.4.1.17.2](#) [Downlink](#)

[6.11.1.4.1.17.2.1](#) [Transport channel parameters](#)

[6.11.1.4.1.17.2.1.1](#) [Transport channel parameters for Streaming / unknown / DL:57.6 kbps / CS RAB](#)

[See 6.10.3.4.1.17.2.1.1](#)

[6.11.1.4.1.17.2.1.2](#) [Transport channel parameters for DL:3.4 kbps SRBs for DCCH](#)

[See 6.10.3.4.1.2.2.1.1](#)

[6.11.1.4.1.17.2.1.3](#) [TFCS](#)

[See 6.10.3.4.1.17.2.1.3](#)

[6.11.1.4.1.17.2.2](#) [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

[6.11.1.4.1.18](#) [Streaming / unknown / UL:0 DL:64 kbps / CS or PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH](#)

[6.11.1.4.1.18.1](#) [Uplink](#)

[6.11.1.4.1.18.1.1](#) [Transport channel parameters](#)

[6.11.1.4.1.18.1.1.1](#) [Transport channel parameters for Streaming / unknown / UL:0 kbps / CS or PS RAB](#)

[N/A](#)

[6.11.1.4.1.18.1.1.2](#) [Transport channel parameters for UL:3.4 kbps SRBs for DCCH](#)

[See 6.10.3.4.1.2.1.1.1](#)

[6.11.1.4.1.18.1.1.3](#) [TFCS](#)

[See 6.10.3.4.1.2.1.1.2](#)

[6.11.1.4.1.18.1.2](#) [Physical channel parameters](#)

[See 6.11.1.4.1.2.1.2](#)

[6.11.1.4.1.18.2](#) [Downlink](#)

[6.11.1.4.1.18.2.1](#) [Transport channel parameters](#)

[6.11.1.4.1.18.2.1.1](#) [Transport channel parameters for Streaming / unknown / DL:64 kbps / CS or PS RAB](#)

[See 6.10.3.4.1.18.2.1.1](#)

[6.11.1.4.1.18.2.1.2](#) [Transport channel parameters for DL:3.4 kbps SRBs for DCCH](#)

[See 6.10.3.4.1.2.2.1.1](#)

[6.11.1.4.1.18.2.1.3](#) [TFCS](#)

[See 6.10.3.4.1.18.2.1.3](#)

[6.11.1.4.1.18.2.2](#) [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	0.64

[6.11.1.4.1.19](#) [Streaming / unknown / UL:64 DL:0 kbps / CS or PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH](#)

[6.11.1.4.1.19.1](#) [Uplink](#)

[6.11.1.4.1.19.1.1](#) [Transport channel parameters](#)

[6.11.1.4.1.19.1.1.1](#) [Transport channel parameters for Streaming / unknown / UL:64 kbps / CS or PS RAB](#)

[See 6.10.3.4.1.19.1.1.1](#)

[6.11.1.4.1.19.1.1.2](#) [Transport channel parameters for UL:3.4 kbps SRBs for DCCH](#)

[See 6.10.3.4.1.2.1.1.1](#)

[6.11.1.4.1.19.1.1.3](#) [TFCS](#)

[See 6.10.3.4.1.19.1.1.3](#)

[6.11.1.4.1.19.1.2 Physical channel parameters](#)

DPCCH 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	0.64

[6.11.1.4.1.19.2 Downlink](#)[6.11.1.4.1.19.2.1 Transport channel parameters](#)[6.11.1.4.1.19.2.1.1 Transport channel parameters for Streaming / unknown / DL:0 kbps / CS or PS RAB](#)[N/A](#)[6.11.1.4.1.19.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCH](#)[See 6.10.3.4.1.2.2.1.1](#)[6.11.1.4.1.19.2.1.3 TFCS](#)[See 6.10.3.4.1.2.2.1.2](#)[6.11.1.4.1.19.2.2 Physical channel parameters](#)[See 6.11.1.4.1.2.1.2](#)[6.11.1.4.1.20 Streaming / unknown / UL:0 DL:128 kbps / CS or PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH](#)[6.11.1.4.1.20.1 Uplink](#)[6.11.1.4.1.20.1.1 Transport channel parameters](#)[6.11.1.4.1.20.1.1.1 Transport channel parameters for Streaming / unknown / UL:0 kbps / CS or PS RAB](#)[N/A](#)[6.11.1.4.1.20.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH](#)[See 6.10.3.4.1.2.1.1.1](#)[6.11.1.4.1.20.1.1.3 TFCS](#)[See 6.10.3.4.1.2.1.1.2](#)[6.11.1.4.1.20.1.2 Physical channel parameters](#)[See 6.11.1.4.1.2.1.2](#)

[6.11.1.4.1.20.2 Downlink](#)[6.11.1.4.1.20.2.1 Transport channel parameters](#)[6.11.1.4.1.20.2.1.1 Transport channel parameters for Streaming / unknown / DL:128 kbps / CS or PS RAB](#)[See 6.10.3.4.1.20.2.1.1](#)[6.11.1.4.1.20.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCH](#)[See 6.10.3.4.1.2.2.1.1](#)[6.11.1.4.1.20.2.1.3 TFCS](#)[See 6.10.3.4.1.20.2.1.3](#)[6.11.1.4.1.20.2.2 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	2x 2 bits
	SS/ radio frame	2x 2 bits
	Puncturing Limit	0.64

[6.11.1.4.1.21 Streaming / unknown / UL:128 DL:0 kbps / CS or PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH](#)[6.11.1.4.1.21.1 Uplink](#)[6.11.1.4.1.21.1.1 Transport channel parameters](#)[6.11.1.4.1.21.1.1.1 Transport channel parameters for Streaming / unknown / UL:128 kbps / CS or PS RAB](#)[See 6.10.3.4.1.21.1.1.1](#)[6.11.1.4.1.21.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH](#)[See 6.10.3.4.1.2.1.1.1](#)[6.11.1.4.1.21.1.1.3 TFCS](#)[See 6.10.3.4.1.21.1.1.3](#)[6.11.1.4.1.21.1.2 Physical channel parameters](#)

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	2x 2 bits
	SS/ radio frame	2x 2 bits
	Puncturing Limit	0.64

[6.11.1.4.1.21.2 Downlink](#)

[6.11.1.4.1.21.2.1 Transport channel parameters](#)

[6.11.1.4.1.21.2.1.1 Transport channel parameters for Streaming / unknown / DL:0 kbps / CS or PS RAB](#)

[N/A](#)

[6.11.1.4.1.21.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCH](#)

[See 6.10.3.4.1.2.2.1.1](#)

[6.11.1.4.1.21.2.1.3 TFCS](#)

[See 6.10.3.4.1.2.2.1.1](#)

[6.11.1.4.1.21.2.2 Physical channel parameters](#)

[See 6.11.1.4.1.2.2.2](#)

[6.11.1.4.1.22 Streaming / unknown / UL:0 DL:384 kbps / CS or PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH](#)

[6.11.1.4.1.22.1 Uplink](#)

[6.11.1.4.1.22.1.1 Transport channel parameters](#)

[6.11.1.4.1.22.1.1.1 Transport channel parameters for Streaming / unknown / UL:0 kbps / CS or PS RAB](#)

[N/A](#)

[6.11.1.4.1.22.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH](#)

[See 6.10.3.4.1.2.1.1.1](#)

[6.11.1.4.1.22.1.1.3 TFCS](#)

[See 6.10.3.4.1.2.1.1.2](#)

[6.11.1.4.1.22.1.2 Physical channel parameters](#)

[See 6.11.1.4.1.2.1.2](#)

[6.11.1.4.1.22.2 Downlink](#)

[6.11.1.4.1.22.2.1 Transport channel parameters](#)

[6.11.1.4.1.22.2.1.1 Transport channel parameters for Streaming / unknown / DL:384 kbps / CS or PS RAB](#)

[See 6.10.3.4.1.22.2.1.1](#)

[6.11.1.4.1.22.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCH](#)

[See 6.10.3.4.1.2.2.1.1](#)

[6.11.1.4.1.22.2.1.3 TFCS](#)[See 6.10.3.4.1.22.2.1.3](#)[6.11.1.4.1.22.2.2 Physical channel parameters](#)

DPCH Downlink	Modulation	QPSK	8PSK
	Codes and time slots/ radio frame	SF 1 x 1 code x 6 time slots	SF1 x 1 code x 4 time slots
Max. Number of data bits / radio frame	8424 bits	8212 bits	
TFCl code word / radio frame	16 bits	16 bits	
TPC / radio frame	2x 2 bits	2x 3 bits	
SS/ radio frame	2x 2 bits	2x 3 bits	
Puncturing Limit	0.68	0.68	

[6.11.1.4.1.23 Interactive or background / UL:32 DL:8 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH](#)[6.11.1.4.1.23.1 Uplink](#)[6.11.1.4.1.23.1.1 Transport channel parameters](#)[6.11.1.4.1.23.1.1.1 Transport channel parameters for Interactive or background / UL:32 kbps / PS RAB](#)[See 6.10.3.4.1.23.1.1.1](#)[6.11.1.4.1.23.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH](#)[See 6.10.3.4.1.2.1.1.1](#)[6.11.1.4.1.23.1.1.3 TFCS](#)[See 6.10.3.4.1.23.1.1.3](#)[6.11.1.4.1.23.1.2 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	
TFCl code word/ radio frame	16 bits	
TPC / radio frame	2 * 2 bits	
SS / radio frame	2 * 2 bits	
Puncturing Limit	1	

[6.11.1.4.1.23.2 Downlink](#)[6.11.1.4.1.23.2.1 Transport channel parameters](#)[6.11.1.4.1.23.2.1.1 Transport channel parameters for Interactive or background / DL:8 kbps / PS RAB](#)[See 6.10.3.4.1.23.2.1.1](#)[6.11.1.4.1.23.2.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH](#)[See 6.10.3.4.1.2.2.1.1](#)

[6.11.1.4.1.23.2.1.3 TFCS](#)[See 6.10.3.4.1.23.2.1.3](#)[6.11.1.4.1.23.2.2 Physical channel parameters](#)

DPCCH 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	0.84

[6.11.1.4.1.24 Interactive or background / UL:64 DL:8 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH](#)[6.11.1.4.1.24.1 Uplink](#)[6.11.1.4.1.24.1.1 Transport channel parameters](#)[6.11.1.4.1.24.1.1.1 Transport channel parameters for Interactive or background / UL:64 kbps / PS RAB](#)[See 6.10.3.4.1.24.1.1.1](#)[6.11.1.4.1.24.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH](#)[See 6.10.3.4.1.2.1.1.1](#)[6.11.1.4.1.24.1.1.3 TFCS](#)[See 6.10.3.4.1.24.1.1.3](#)[6.11.1.4.1.24.1.2 Physical channel parameters](#)

DPCCH 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	0.6

[6.11.1.4.1.24.2 Downlink](#)[See 6.11.1.4.1.23.2](#)[6.11.1.4.1.25 Interactive or background / UL:32 DL: 64 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH](#)[6.11.1.4.1.25.1 Uplink](#)[See 6.11.1.4.1.23.1](#)

[6.11.1.4.1.25.2 Downlink](#)[6.11.1.4.1.25.2.1 Transport channel parameters](#)[6.11.1.4.1.25.2.1.1 Transport channel parameters for Interactive or background / DL:64 kbps / PS RAB](#)[See 6.10.3.4.1.25.2.1.1](#)[6.11.1.4.1.25.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCH](#)[See 6.10.3.4.1.2.2.1.1](#)[6.11.1.4.1.25.2.1.3 TFCS](#)[See 6.10.3.4.1.25.2.1.3](#)[6.11.1.4.1.25.2.2 Physical channel parameters](#)

DPCH	Modulation	QPSK
Downlink	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/ radio frame	0.6

[6.11.1.4.1.26 Interactive or background / UL:64 DL: 64 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH](#)[6.11.1.4.1.26.1 Uplink](#)[See 6.11.1.4.1.24.1](#)[6.11.1.4.1.26.2 Downlink](#)[See 6.11.1.4.1.25.2](#)[6.11.1.4.1.27 Interactive or background / UL:64 DL:128 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH](#)[6.11.1.4.1.27.1 Uplink](#)[See 6.11.1.4.1.24.1](#)[6.11.1.4.1.27.2 Downlink](#)[6.11.1.4.1.27.2.1 Transport channel parameters](#)[6.11.1.4.1.27.2.1.1 Transport channel parameters for Interactive or background / DL:128 kbps / PS RAB](#)[See 6.10.3.4.1.27.2.1.1](#)[6.11.1.4.1.27.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCH](#)[See 6.10.3.4.1.2.2.1.1](#)

[6.11.1.4.1.27.2.1.3 TFCS](#)[See 6.10.3.4.1.27.2.1.3](#)[6.11.1.4.1.27.2.2 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	0.72

[6.11.1.4.1.28 Interactive or background / UL:128 DL:128 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH](#)[6.11.1.4.1.28.1 Uplink](#)[6.11.1.4.1.28.1.1 Transport channel parameters](#)[6.11.1.4.1.28.1.1.1 Transport channel parameters for Interactive or background / UL:128 kbps / PS RAB](#)[See 6.10.3.4.1.28.1.1.1](#)[6.11.1.4.1.28.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH](#)[See 6.10.3.4.1.2.1.1.1](#)[6.11.1.4.1.28.1.1.3 TFCS](#)[See 6.10.3.4.1.28.1.1.3](#)[6.11.1.4.1.28.1.2 Physical channel parameters](#)

DPCH Uplink	Modulation	QPSK
	Codes and time slots/ radio frame	SF1 x 1 codes 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	0.64

[6.11.1.4.1.28.2 Downlink](#)[See 6.11.1.4.1.27.2](#)[6.11.1.4.1.29 Interactive or background / UL:64 DL:144 kbps / PS RAB + UL:3.4 DL: 3.4 kbps SRBs for DCCH](#)[6.11.1.4.1.29.1 Uplink](#)[See 6.11.1.4.1.24.1](#)

[6.11.1.4.1.29.2 Downlink](#)[6.11.1.4.1.29.2.1 Transport channel parameters](#)[6.11.1.4.1.29.2.1.1 Transport channel parameters for Interactive or background / DL:144 kbps / PS RAB](#)[See 6.10.3.4.1.29.2.1.1](#)[6.11.1.4.1.29.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCH](#)[See 6.10.3.4.1.2.2.1.1](#)[6.11.1.4.1.29.2.1.3 TFCS](#)[See 6.10.3.4.1.29.2.1.3](#)[6.11.1.4.1.29.2.2 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	0.64

[6.11.1.4.1.30 Interactive or background / UL:144 DL:144 kbps / PS RAB + UL:3.4 DL: 3.4 kbps SRBs for DCCH](#)[6.11.1.4.1.30.1 Uplink](#)[6.11.1.4.1.30.1.1 Transport channel parameters](#)[6.11.1.4.1.30.1.1.1 Transport channel parameters for Interactive or background / UL:144 kbps / PS RAB](#)[See 6.10.3.4.1.30.1.1.1](#)[6.11.1.4.1.30.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH](#)[See 6.10.3.4.1.2.1.1.1](#)[6.11.1.4.1.30.1.1.3 TFCS](#)[See 6.10.3.4.1.30.1.1.3](#)[6.11.1.4.1.30.1.2 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	0.88	0.84

[6.11.1.4.1.30.2](#) [Downlink](#)

[See 6.11.1.4.1.29.2](#)

[6.11.1.4.1.31](#) [Interactive or background / UL:64 DL:256 kbps / PS RAB
+ UL:3.4 DL: 3.4 kbps SRBs for DCCH](#)

[6.11.1.4.1.31.1](#) [Uplink](#)

[See 6.11.1.4.1.24.1](#)

[6.11.1.4.1.31.2](#) [Downlink](#)

[6.11.1.4.1.31.2.1](#) [Transport channel parameters](#)

[6.11.1.4.1.31.2.1.1](#) [Transport channel parameters for Interactive or background / DL:256 kbps / PS RAB](#)

[See 6.10.3.4.1.31.2.1.1](#)

[6.11.1.4.1.31.2.1.2](#) [Transport channel parameters for UL:3.4 kbps SRBs for DCCH](#)

[See 6.10.3.4.1.2.2.1.1](#)

[6.11.1.4.1.31.2.1.3](#) [TFCS](#)

[See 6.10.3.4.1.31.2.1.3](#)

[6.11.1.4.1.31.2.2](#) [Physical channel parameters](#)

DPCH Downlink	Modulation	QPSK
	Codes and time slots/ radio frame	SF 1 x 1 code x 4 time slots
	Max. Number of data bits/radio frame	5608 bits
	TFCI code word/ radio frame	16 bits
	TPC / radio frame	2 * 2 bits
	SS / radio frame	2 * 2 bits
	Puncturing Limit	0.64

[6.11.1.4.1.32](#) [Interactive or background / UL:64 DL:384 kbps / PS RAB + UL:3.4 DL: 3.4 kbps SRBs
for DCCH](#)

[6.11.1.4.1.32.1](#) [Uplink](#)

[See 6.11.1.4.1.24.1](#)

[6.11.1.4.1.32.2](#) [Downlink](#)

[6.11.1.4.1.32.2.1](#) [Transport channel parameters](#)

[6.11.1.4.1.32.2.1.1](#) [Transport channel parameters for Interactive or background / DL:384 kbps / PS RAB](#)

[See 6.10.3.4.1.32.2.1.1](#)

[6.11.1.4.1.32.2.1.2](#) [Transport channel parameters for UL:3.4 kbps SRBs for DCCH](#)

[See 6.10.3.4.1.2.2.1.1](#)

[6.11.1.4.1.32.2.1.3](#) [TFCS](#)

[See 6.10.3.4.1.32.2.1.3](#)

[6.11.1.4.1.32.2.2](#) [Physical channel parameters](#)

DPCH	Modulation	QPSK	8PSK
Downlink	Codes and time slots/ radio frame	SF1 x 1 code x 6 time slots	SF1 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

[6.11.1.4.1.33](#) [Interactive or background / UL:128 DL:384 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH](#)

[6.11.1.4.1.33.1](#) [Uplink](#)

[See 6.11.1.4.1.28.1](#)

[6.11.1.4.1.33.2](#) [Downlink](#)

[See 6.11.1.4.1.32.2](#)

[6.11.1.4.1.34](#) [Interactive or background / UL:384 DL:384 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH](#)

[6.11.1.4.1.34.1](#) [Uplink](#)

[6.11.1.4.1.34.1.1](#) [Transport channel parameters](#)

[6.11.1.4.1.34.1.1.1](#) [Transport channel parameters for Interactive or background / UL:384 kbps / PS RAB](#)

[See 6.10.3.4.1.34.1.1.1](#)

[6.11.1.4.1.34.1.1.2](#) [Transport channel parameters for UL:3.4 kbps SRBs for DCCH](#)

[See 6.10.3.4.1.2.1.1.1](#)

[6.11.1.4.1.34.1.1.3](#) [TFCS](#)

[See 6.10.3.4.1.34.1.1.3](#)

6.11.1.4.1.34.1.2 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
	TFCL code word / radio frame	16 bits	24 bits
	TPC / radio frame	2 * 2 bits	3 * 3 bits
	SS / radio frame	2 * 2 bits	3 * 3 bits
	Puncturing Limit	0.64	0.64

6.11.1.4.1.34.2 Downlink

See 6.11.1.4.1.32.2

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

6.11.1.4.1.35.1 Uplink

See 6.11.1.4.1.24.1

6.11.1.4.1.35.2 Downlink

6.11.1.4.1.35.2.1 Transport channel parameters

6.11.1.4.1.35.2.1.1 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		

[6.11.1.4.1.35.2.1.2](#) [Transport channel parameters for DL:3.4 kbps SRBs for DCCH](#)

[See 6.10.3.4.1.2.2.1.1](#)

[6.11.1.4.1.35.2.1.3](#) [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))

[6.11.1.4.1.35.2.2](#) [Physical channel parameters](#)

DPCH	Modulation	8PSK
Downlink	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

[6.11.1.4.1.36](#) [Interactive or background / UL:128 DL:2048 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH](#)

[6.11.1.4.1.36.1](#) [Uplink](#)

[See 6.11.1.4.1.28.1](#)

[6.11.1.4.1.36.2](#) [Downlink](#)

[See 6.11.1.4.1.35.2](#)

[6.11.1.4.1.37](#) [Interactive or background / UL:384 DL:2048 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH](#)

[6.11.1.4.1.37.1](#) [Uplink](#)

[See 6.11.1.4.1.34.1](#)

[6.11.1.4.1.37.2](#) [Downlink](#)

[See 6.11.1.4.1.35.2](#)

[6.10.2.4.1.38](#) [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](#)

[6.11.1.4.1.38.1](#) [Uplink](#)

[6.11.1.4.1.38.1.1](#) [Transport channel parameters](#)

[6.11.1.4.1.38.1.1.1](#) [Transport channel parameters for Conversational / speech / UL:12.2 kbps / CS RAB](#)
[See 6.10.3.4.1.4.1.1.1](#)

[6.11.1.4.1.38.1.1.2](#) [Transport channel parameters for Interactive or background / UL:32 kbps / PS RAB](#)
[See 6.10.3.4.1.23.1.1.1](#)

[6.11.1.4.1.38.1.1.3](#) [Transport channel parameters for UL:3.4 kbps SRBs for DCCH](#)
[See 6.10.3.4.1.2.1.1.1](#)

[6.11.1.4.1.38.1.1.4](#) [TFCS](#)
[See 6.10.3.4.1.38.1.1.4](#)

[6.11.1.4.1.38.1.2](#) [Physical channel parameters](#)

DPCH	Modulation	QPSK
Uplink	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	0.84

[6.11.1.4.1.38.2](#) [Downlink](#)

[6.11.1.4.1.38.2.1](#) [Transport channel parameters](#)

[6.11.1.4.1.38.2.1.1](#) [Transport channel parameters for Conversational / speech / DL:12.2 kbps / CS RAB](#)
[See 6.10.3.4.1.4.2.1.1](#)

[6.11.1.4.1.38.2.1.2](#) [Transport channel parameters for Interactive or background / DL:8 kbps / PS RAB](#)
[See 6.10.3.4.1.23.2.1.1](#)

[6.11.1.4.1.38.2.1.3](#) [Transport channel parameters for DL:3.4 kbps SRBs for DCCH](#)
[See 6.10.3.4.1.2.2.1](#)

[6.11.1.4.1.38.2.1.4](#) [TFCS](#)
[See 6.10.3.4.1.38.2.1.4](#)

[6.11.1.4.1.38.2.2](#) [Physical channel parameters](#)

DPCH	Modulation	QPSK
Downlink	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	0.64

[6.11.1.4.1.39](#) [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](#)

[6.11.1.4.1.39.1](#) [Uplink](#)

[See 6.11.1.4.1.38.1](#)

[6.11.1.4.1.39.2](#) [Downlink](#)

[6.11.1.4.1.39.2.1](#) [Transport channel parameters](#)

[6.11.1.4.1.39.2.1.1](#) [Transport channel parameters for Conversational / speech / DL:12.2 kbps / CS RAB](#)

[See 6.10.3.4.1.4.2.1.1](#)

[6.11.1.4.1.39.2.1.2](#) [Transport channel parameters for Interactive or background / DL:64 kbps / PS RAB](#)

[See 6.10.3.4.1.25.2.1.1](#)

[6.11.1.4.1.39.2.1.3](#) [Transport channel parameters for DL:3.4 kbps SRBs for DCCH](#)

[See 6.10.3.4.1.2.2.1.1](#)

[6.11.1.4.1.39.2.1.4](#) [TFCS](#)

[See 6.10.3.4.1.39.2.1.4](#)

[6.11.1.4.1.39.2.2](#) [Physical channel parameters](#)

DPCH	Modulation	QPSK
Downlink	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	0.64

[6.11.1.4.1.40](#) [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](#)

[6.11.1.4.1.40.1](#) [Uplink](#)

[6.11.1.4.1.40.1.1](#) [Transport channel parameters](#)

[6.11.1.4.1.40.1.1.1](#) [Transport channel parameters for Conversational / speech / UL:12.2 kbps / CS RAB](#)

[See 6.10.3.4.1.4.1.1.1](#)

[6.11.1.4.1.40.1.1.2](#) [Transport channel parameters for Interactive or background / UL:64 kbps / PS RAB](#)

[See 6.10.3.4.1.24.1.1.1](#)

[6.11.1.4.1.40.1.1.3](#) [Transport channel parameters for UL:3.4 kbps SRBs for DCCH](#)

[See 6.10.3.4.1.2.1.1.1](#)

[6.11.1.4.1.40.1.1.4](#) [TFCS](#)

[See 6.10.3.4.1.40.1.1.4](#)

[6.11.1.4.1.40.1.2](#) [Physical channel parameters](#)

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	2784 bits
	TFCI code word/ radio frame	16 bits
	TPC/ radio frame	2*2 bits
	SS/ radio frame	2*2 bits
	Puncturing Limit	1

[6.11.1.4.1.40.2](#) [Downlink](#)

[See 6.11.1.4.1.39.2](#)

[6.11.1.4.1.41](#) [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](#)

[6.11.1.4.1.41.1](#) [Uplink](#)

[See 6.11.1.4.1.40.1](#)

[6.11.1.4.1.41.2 Downlink](#)[6.11.1.4.1.41.2.1 Transport channel parameters](#)[6.11.1.4.1.41.2.1.1 Transport channel parameters for Conversational / speech / DL:12.2 kbps / CS RAB](#)[See 6.10.3.4.1.4.2.1.1](#)[6.11.1.4.1.41.2.1.2 Transport channel parameters for Interactive or background / DL:128 kbps / PS RAB](#)[See 6.10.3.4.1.27.2.1.1](#)[6.11.1.4.1.41.2.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCH](#)[See 6.10.3.4.1.2.2.1.1](#)[6.11.1.4.1.41.2.1.4 TFCS](#)[See 6.10.3.4.1.41.2.1.4](#)[6.11.1.4.1.41.2.2 Physical channel parameters](#)

DPCH	Modulation	QPSK	8PSK
Downlink	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	3 x 3 bits
	SS / radio frame	2 * 2 bits	3 x 3 bits
	Puncturing Limit	0.64	0.64

[6.11.1.4.1.42 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](#)[6.11.1.4.1.42.1 Uplink](#)[See 6.11.1.4.1.40.1](#)[6.11.1.4.1.42.2 Downlink](#)[6.11.1.4.1.42.2.1 Transport channel parameters](#)[6.11.1.4.1.42.2.1.1 Transport channel parameters for Conversational / speech / DL:12.2 kbps / CS RAB](#)[See 6.10.3.4.1.4.2.1.1](#)[6.11.1.4.1.42.2.1.2 Transport channel parameters for Interactive or background / DL:256 kbps / PS RAB](#)[See 6.10.3.4.1.31.2.1.1](#)[6.11.1.4.1.42.2.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCH](#)[See 6.10.3.4.1.2.2.1.1](#)

[6.11.1.4.1.42.2.1.4 TFCS](#)[See 6.10.3.4.1.42.2.1.4](#)[6.11.1.4.1.42.2.2 Physical channel parameters](#)

DPCH Downlink	Modulation	QPSK	8PSK
	Codes and time slots/ radio frame	SF1 x 1 code x 6 time slots	SF1 x 1 code x 4 time slots
Max. Number of data bits/radio frame	8400 bits	8376 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	0.88	0.88	

[6.11.1.4.1.43 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](#)

[6.11.1.4.1.43.1 Uplink](#)[See 6.11.1.4.1.40.1](#)[6.11.1.4.1.43.2 Downlink](#)[6.11.1.4.1.43.2.1 Transport channel parameters](#)[6.11.1.4.1.43.2.1.1 Transport channel parameters for Conversational / speech / DL:12.2 kbps / CS RAB](#)[See 6.10.3.4.1.4.2.1.1](#)[6.11.1.4.1.43.2.1.2 Transport channel parameters for Interactive or background / DL:384 kbps / PS RAB](#)[See 6.10.3.4.1.32.2.1.1](#)[6.11.1.4.1.43.2.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCH](#)[See 6.10.3.4.1.2.2.1.1](#)[6.11.1.4.1.43.2.1.4 TFCS](#)[See 6.10.3.4.1.43.2.1.4](#)[6.11.1.4.1.43.2.2 Physical channel parameters](#)

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	3 x 3 bits	
SS / radio frame	2 * 2 bits	3 x 3 bits	
Puncturing Limit	0.60	0.60	

[6.11.1.4.1.44](#) [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](#)

[6.11.1.4.1.44.1](#) [Uplink](#)

[6.11.1.4.1.44.1.1](#) [Transport channel parameters](#)

[6.11.1.4.1.44.1.1.1](#) [Transport channel parameters for Conversational / speech / UL:12.2 kbps / CS RAB](#)
[See 6.10.3.4.1.4.1.1.1](#)

[6.11.1.4.1.44.1.1.2](#) [Transport channel parameters for Interactive or background / UL:128 kbps / PS RAB](#)
[See 6.10.3.4.1.28.1.1.1](#)

[6.11.1.4.1.44.1.1.3](#) [Transport channel parameters for UL:3.4 kbps SRBs for DCCH](#)
[See 6.10.3.4.1.2.1.1.1](#)

[6.11.1.4.1.44.1.1.4](#) [TFCS](#)
[See 6.10.3.4.1.44.1.1.4](#)

[6.11.1.4.1.44.1.2](#) [Physical channel parameters](#)

DPCCH Uplink	Modulation	8PSK
	Codes and time slots/ radio frame	SF1 x 1 code x 2 time slots
	Max. Number of data bits/radio frame	4188 bits
	TFCI code word/ radio frame	24 bits
	TPC/ radio frame	2*3 bits
	SS/ radio frame	2*3 bits
	Puncturing Limit	0.88

[6.11.1.4.1.44.2](#) [Downlink](#)

[6.11.1.4.1.44.2.1](#) [Transport channel parameters](#)

[6.11.1.4.1.44.2.1.1](#) [Transport channel parameters for Conversational / speech / DL:12.2 kbps / CS RAB](#)
[See 6.10.3.4.1.4.2.1.1](#)

[6.11.1.4.1.44.2.1.2](#) [Transport channel parameters for Interactive or background / DL:2048 kbps / PS RAB](#)
[See 6.11.1.4.1.35.2.1.1](#)

[6.11.1.4.1.44.2.1.3](#) [Transport channel parameters for DL:3.4 kbps SRBs for DCCH](#)
[See 6.10.3.4.1.2.2.1.1](#)

6.11.1.4.1.44.2.1.4 TFCS

TFCS size	33 (alt. 51)
TFCS	<p>(RAB subflow#1, RAB subflow#2, RAB subflow#3, 2048 kbps RAB, DCCH)=</p> <p>((TF0, TF0, TF0, TF0, TF0), (TF1, TF0, TF0, TF0, TF0), (TF2, TF1, TF1, TF0, TF0), (TF0, TF0, TF0, TF1, TF0), (TF1, TF0, TF0, TF1, TF0), (TF2, TF1, TF1, TF1, TF0), (TF0, TF0, TF0, TF2, TF0), (TF1, TF0, TF0, TF2, TF0), (TF2, TF1, TF1, TF2, TF0), (TF0, TF0, TF0, TF3, TF0), (TF1, TF0, TF0, TF3, TF0), (TF2, TF1, TF1, TF3, TF0), (TF0, TF0, TF0, TF4, TF0), (TF1, TF0, TF0, TF4, TF0), (TF2, TF1, TF1, TF4, TF0), (TF0, TF0, TF0, TF5, TF0), (TF1, TF0, TF0, TF5, TF0), (TF0, TF0, TF0, TF0, TF1), (TF1, TF0, TF0, TF0, TF1), (TF2, TF1, TF1, TF0, TF1), (TF0, TF0, TF0, TF1, TF1), (TF1, TF0, TF0, TF1, TF1), (TF2, TF1, TF1, TF1, TF1), (TF0, TF0, TF0, TF2, TF1), (TF1, TF0, TF0, TF2, TF1), (TF2, TF1, TF1, TF2, TF1), (TF0, TF0, TF0, TF3, TF1), (TF1, TF0, TF0, TF3, TF1), (TF2, TF1, TF1, TF3, TF1), (TF0, TF0, TF0, TF4, TF1), (TF1, TF0, TF0, TF4, TF1), (TF2, TF1, TF1, TF4, TF1), (TF0, TF0, TF0, TF5, TF1))</p> <p>(alt. (TF0, TF0, TF0, TF0, TF0), (TF1, TF0, TF0, TF0, TF0), (TF2, TF1, TF1, TF0, TF0), (TF0, TF0, TF0, TF1, TF0), (TF1, TF0, TF0, TF1, TF0), (TF2, TF1, TF1, TF1, TF0), (TF0, TF0, TF0, TF2, TF0), (TF1, TF0, TF0, TF2, TF0), (TF2, TF1, TF1, TF2, TF0), (TF0, TF0, TF0, TF3, TF0), (TF1, TF0, TF0, TF3, TF0), (TF2, TF1, TF1, TF3, TF0), (TF0, TF0, TF0, TF4, TF0), (TF1, TF0, TF0, TF4, TF0), (TF2, TF1, TF1, TF4, TF0), (TF0, TF0, TF0, TF5, TF0), (TF1, TF0, TF0, TF5, TF0), (TF2, TF1, TF1, TF5, TF0), (TF0, TF0, TF0, TF6, TF0), (TF1, TF0, TF0, TF6, TF0), (TF2, TF1, TF1, TF6, TF0), (TF0, TF0, TF0, TF7, TF0), (TF1, TF0, TF0, TF7, TF0), (TF2, TF1, TF1, TF7, TF0), (TF0, TF0, TF0, TF8, TF0), (TF1, TF0, TF0, TF8, TF0), (TF0, TF0, TF0, TF0, TF1), (TF1, TF0, TF0, TF0, TF1), (TF2, TF1, TF1, TF0, TF1), (TF0, TF0, TF0, TF1, TF1), (TF1, TF0, TF0, TF1, TF1), (TF2, TF1, TF1, TF1, TF1), (TF0, TF0, TF0, TF2, TF1), (TF1, TF0, TF0, TF2, TF1), (TF2, TF1, TF1, TF2, TF1), (TF0, TF0, TF0, TF3, TF1), (TF1, TF0, TF0, TF3, TF1), (TF2, TF1, TF1, TF3, TF1), (TF0, TF0, TF0, TF4, TF1), (TF1, TF0, TF0, TF4, TF1), (TF2, TF1, TF1, TF4, TF1), (TF0, TF0, TF0, TF5, TF1), (TF1, TF0, TF0, TF5, TF1), (TF2, TF1, TF1, TF5, TF1), (TF0, TF0, TF0, TF6, TF1), (TF1, TF0, TF0, TF6, TF1), (TF2, TF1, TF1, TF6, TF1), (TF0, TF0, TF0, TF7, TF1), (TF1, TF0, TF0, TF7, TF1), (TF2, TF1, TF1, TF7, TF1), (TF0, TF0, TF0, TF8, TF1))</p>

For better understanding of the TFCS please note that the following combinations are not included in the table above: (TF2, TF1, TF1, TF5, TF0), (TF1, TF0, TF0, TF5, TF1), (TF2, TF1, TF1, TF5, TF1), (TF2, TF1, TF1, TF8, TF0), (TF1, TF0, TF0, TF8, TF1), (TF2, TF1, TF1, TF8, TF1)

6.11.1.4.1.44.2.2 Physical channel parameters

DPCH Downlink	Modulation	8PSK
	Codes and time slots/ radio frame	SF 1 x 1 code x 10 time slots
	Max. Number of data bits/radio frame	21060 bits
	TFCI code word / radio frame	48 bits
	TPC / radio frame	3 * 3 bits
	SS / radio frame	3 * 3 bits
	Puncturing Limit	1

6.11.1.4.1.45 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

6.11.1.4.1.45.1 Uplink

6.11.1.4.1.45.1.1 Transport channel parameters

6.11.1.4.1.45.1.1.1 Transport channel parameters for Conversational / speech / UL:12.2 kbps / CS RAB

See 6.10.3.4.1.4.1.1.1

[6.11.1.4.1.45.1.1.2](#) [Transport channel parameters for Streaming / unknown / UL:57.6 kbps / CS RAB](#)

[See 6.10.3.4.1.17.1.1.1](#)

[6.11.1.4.1.45.1.1.3](#) [Transport channel parameters for UL:3.4 kbps SRBs for DCCH](#)

[See 6.10.3.4.1.2.1.1.1](#)

[6.11.1.4.1.45.1.1.4](#) [TFCS](#)

[See 6.10.3.4.1.45.1.1.4](#)

[6.11.1.4.1.45.1.2](#) [Physical channel parameters](#)

DPCH Uplink	Modulation	QPSK
	Codes and time slots/ radio frame	SF2 x 1code 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

[6.11.1.4.1.45.2](#) [Downlink](#)

[6.11.1.4.1.45.2.1](#) [Transport channel parameters](#)

[6.11.1.4.1.45.2.1.1](#) [Transport channel parameters for Conversational / speech / DL:12.2 kbps / CS RAB](#)

[See 6.10.3.4.1.4.2.1.1](#)

[6.11.1.4.1.45.2.1.2](#) [Transport channel parameters for Streaming / unknown / DL:57.6 kbps / CS RAB](#)

[See 6.10.3.4.1.17.2.1.1](#)

[6.11.1.4.1.45.2.1.3](#) [Transport channel parameters for UL:3.4 kbps SRBs for DCCH](#)

[See 6.10.3.4.1.2.2.11](#)

[6.11.1.4.1.45.2.1.4](#) [TFCS](#)

[See 6.10.3.4.1.45.2.1.4](#)

[6.11.1.4.1.45.2.2](#) [Physical channel parameters](#)

DPCH Downlink	Modulation	QPSK
	Codes and time slots/ radio frame	SF 16 x 9 codes x 2 time slots
	Max. Number of data bits/radio frame	1560 bits
	TFCI code word / radio frame	16 bits
	TPC / radio frame	2 * 2 bits
	SS / radio frame	2 * 2 bits
	Puncturing Limit	0.64

[6.11.1.4.1.46](#) [Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB](#)
[+ Streaming / unknown / UL:0 DL:64 kbps / CS or PS RAB](#)
[+ UL:3.4 DL:3.4 kbps SRBs for DCCH](#)

[6.11.1.4.1.46.1](#) [Uplink](#)

[See 6.11.1.4.1.4.1](#)

[6.11.1.4.1.46.2](#) [Downlink](#)

[6.11.1.4.1.46.2.1](#) [Transport channel parameters](#)

[6.11.1.4.1.46.2.1.1](#) [Transport channel parameters for Conversational / speech / DL:12.2 kbps / CS RAB](#)

[See 6.10.3.4.1.4.2.1.1](#)

[6.11.1.4.1.46.2.1.2](#) [Transport channel parameters for Streaming / unknown / DL:64 kbps / CS or PS RAB](#)

[See 6.10.3.4.1.18.2.1.1](#)

[6.11.1.4.1.46.2.1.3](#) [Transport channel parameters for DL:3.4 kbps SRBs for DCCH](#)

[See 6.10.3.4.1.2.2.1.1](#)

[6.11.1.4.1.46.2.1.4](#) [TFCS](#)

[See 6.10.3.4.1.46.2.1.4](#)

[6.11.1.4.1.46.2.2](#) [Physical channel parameters](#)

DPCH	Modulation	QPSK
Downlink	Codes and time slots/ radio frame	SF16 x 11 codes x 2 time slots
	Max. Number of data bits/radio frame	1912 bits
	TFCI code word/ radio frame	16 bits
	TPC/ radio frame	2*2 bits
	SS/ radio frame	2*2 bits
	Puncturing Limit	0.64

[6.11.1.4.1.47](#) [Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB](#)
[+ Streaming / unknown / UL:0 DL:128 kbps / CS RAB](#)
[+ UL:3.4 DL:3.4 kbps SRBs for DCCH](#)

[6.11.1.4.1.47.1](#) [Uplink](#)

[See 6.11.1.4.1.4.1](#)

[6.11.1.4.1.47.2](#) [Downlink](#)

[6.11.1.4.1.47.2.1](#) [Transport channel parameters](#)

[6.11.1.4.1.47.2.1.1](#) [Transport channel parameters for Conversational / speech / DL:12.2 kbps / CS RAB](#)

[See 6.10.3.4.1.4.2.1.1](#)

[6.11.1.4.1.47.2.1.2](#) [Transport channel parameters for Streaming / unknown / DL:128 kbps / CS or PS RAB](#)

[See 6.10.3.4.1.20.2.1.1](#)

[6.11.1.4.1.47.2.1.3](#) [Transport channel parameters for DL:3.4 kbps SRBs for DCCH](#)

[See 6.10.3.4.1.2.2.1.1](#)

[6.11.1.4.1.47.2.1.4](#) [TFCS](#)

[See 6.10.3.4.1.47.2.1.4](#)

[6.11.1.4.1.47.2.2](#) [Physical channel parameters](#)

DPCCH 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	3128 bits	3108 bits	
TFCI code word / radio frame	32 bits	48 bits	
TPC / radio frame	2 * 2 bits	3 x 3 bits	
SS / radio frame	2 * 2 bits	3 x 3 bits	
Puncturing Limit	0.68	0.68	

[6.11.1.4.1.48](#) [Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB](#)
[+ Streaming / unknown / UL:0 DL:384 kbps / CS RAB](#)
[+ UL:3.4 DL:3.4 kbps SRBs for DCCH](#)

[6.11.1.4.1.48.1](#) [Uplink](#)

[See 6.11.1.4.1.4.1](#)

[6.11.1.4.1.48.2](#) [Downlink](#)

[6.11.1.4.1.48.2.1](#) [Transport channel parameters](#)

[6.11.1.4.1.48.2.1.1](#) [Transport channel parameters for Conversational / speech / DL:12.2 kbps / CS RAB](#)

[See 6.10.3.4.1.4.2.1.1](#)

[6.11.1.4.1.48.2.1.2](#) [Transport channel parameters for Streaming / unknown / DL:384 kbps / CS or PS RAB](#)

[See 6.10.3.4.1.22.2.1.1](#)

[6.11.1.4.1.48.2.1.3](#) [Transport channel parameters for DL:3.4 kbps SRBs for DCCH](#)

[See 6.10.3.4.1.2.2.1.1](#)

[6.11.1.4.1.48.2.1.4](#) [TFCS](#)

[See 6.10.3.4.1.48.2.1.4](#)

[6.11.1.4.1.48.2.2](#) [Physical channel parameters](#)

<u>DPCH</u> <u>Downlink</u>	<u>Modulation</u>	<u>QPSK</u>	<u>8PSK</u>
	<u>Codes and time slots/ radio frame</u>	<u>SF1 x 1code x 6 time slots</u>	<u>SF1 x 1 code x 4 time slots</u>
	<u>Max. Number of data bits/radio frame</u>	<u>8408 bits</u>	<u>8388 bits</u>
	<u>TFCI code word/ radio frame</u>	<u>32 bits</u>	<u>48 bits</u>
	<u>TPC/ radio frame</u>	<u>2*2 bits</u>	<u>2*3 bits</u>
	<u>SS/ radio frame</u>	<u>2*2 bits</u>	<u>2*3 bits</u>
	<u>Puncturing Limit</u>	<u>0.64</u>	<u>0.64</u>

[6.11.1.4.1.49](#) [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](#)

[6.11.1.4.1.49.1](#) [Uplink](#)

[6.11.1.4.1.49.1.1](#) [Transport channel parameters](#)

[6.11.1.4.1.49.1.1.1](#) [Transport channel parameters for Conversational / speech / UL:12.2 kbps / CS RAB](#)

[See 6.10.3.4.1.4.1.1.1](#)

[6.11.1.4.1.49.1.1.2](#) [Transport channel parameters for Conversational / unknown / UL:64 kbps / CS RAB](#)

[See 6.10.3.4.1.13.1.1.1](#)

[6.11.1.4.1.49.1.1.3](#) [Transport channel parameters for UL:3.4 kbps SRBs for DCCH](#)

[See 6.10.3.4.1.2.1.1.1](#)

[6.11.1.4.1.49.1.1.4](#) [TFCS](#)

[See 6.10.3.4.1.49.1.1.4](#)

[6.11.1.4.1.49.1.2](#) [Physical channel parameters](#)

<u>DPCH</u> <u>Uplink</u>	<u>Modulation</u>	<u>QPSK</u>
	<u>Codes and time slots/ radio frame</u>	<u>SF 1 x 1 code x 2 time slots</u>
	<u>Max. Number of data bits/radio frame</u>	<u>2792 bits</u>
	<u>TFCI code word / radio frame</u>	<u>16 bits</u>
	<u>TPC / radio frame</u>	<u>2 * 2 bits</u>
	<u>SS / radio frame</u>	<u>2 * 2 bits</u>
	<u>Puncturing Limit</u>	<u>1</u>

[6.11.1.4.1.49.2](#) [Downlink](#)

[6.11.1.4.1.49.2.1](#) [Transport channel parameters](#)

[6.11.1.4.1.49.2.1.1](#) [Transport channel parameters for Conversational / speech / DL:12.2 kbps / CS RAB](#)

[See 6.10.3.4.1.4.2.1.1](#)

[6.11.1.4.1.49.2.1.2](#) [Transport channel parameters for Conversational / unknown / DL:64 kbps / CS RAB](#)

[See 6.10.3.4.1.13.2.1.1](#)

[6.11.1.4.1.49.2.1.3](#) [Transport channel parameters for DL:3.4 kbps SRBs for DCCH](#)

[See 6.10.3.4.1.2.2.11](#)

[6.11.1.4.1.49.2.1.4](#) [TFCS](#)

[See 6.10.3.4.1.49.2.1.4](#)

[6.11.1.4.1.49.2.2](#) [Physical channel parameters](#)

DPCH	Modulation	QPSK
Downlink	Codes and time slots/ radio frame	SF16 x 11 codes x 2 time slots
	Max. Number of data bits/radio frame	1912 bits
	TFCI code word/ radio frame	16 bits
	TPC/ radio frame	2*2 bits
	SS/ radio frame	2*2 bits
	Puncturing Limit	0.64

[6.11.1.4.1.50](#) [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](#)

[6.11.1.4.1.50.1](#) [Uplink](#)

[6.11.1.4.1.50.1.1](#) [Transport channel parameters](#)

[6.11.1.4.1.50.1.1.1](#) [Transport channel parameters for Conversational / unknown / UL:64 kbps / CS RAB](#)

[See 6.10.3.5.4.1.13.1.1.1](#)

[6.11.1.4.1.50.1.1.2](#) [Transport channel parameters for UL:3.4 kbps SRBs for DCCH](#)

[See 6.10.3.4.1.2.1.1.1](#)

[6.11.1.4.1.50.1.1.3](#) [TFCS](#)

[See 6.10.3.4.1.50.1.1.3](#)

[6.11.1.4.1.50.1.2](#) [Physical channel parameters](#)

DPCH	Modulation	QPSK
Uplink	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	0.68

[6.11.1.4.1.50.2](#) [Downlink](#)

[6.11.1.4.1.50.2.1](#) [Transport channel parameters](#)

[6.11.1.4.1.50.2.1.1](#) [Transport channel parameters for Conversational / unknown / DL:64 kbps / CS RAB](#)

[See 6.10.3.4.1.13.2.1.1](#)

[6.11.1.4.1.50.2.1.2](#) [Transport channel parameters for DL:3.4 kbps SRBs for DCCH](#)

[See 6.10.3.4.1.2.2.1.1](#)

[6.11.1.4.1.50.2.1.3](#) [TFCS](#)

[See 6.10.3.4.1.50.2.1.3](#)

[6.11.1.4.1.50.2.2](#) [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	0.64

[6.11.1.4.1.51](#) [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](#)

[6.11.1.4.1.51.1](#) [Uplink](#)

[6.11.1.4.1.51.1.1](#) [Transport channel parameters](#)

[6.11.1.4.1.51.1.1.1](#) [Transport channel parameters for Conversational / unknown / UL:64 kbps / CS RAB](#)

[See 6.10.3.4.1.13.1.1.1](#)

[6.11.1.4.1.51.1.1.2](#) [Transport channel parameters for Interactive or background / UL:64 kbps / PS RAB](#)

[See 6.10.3.4.1.24.1.1.1](#)

[6.11.1.4.1.51.1.1.3](#) [Transport channel parameters for UL:3.4 kbps SRBs for DCCH](#)

[See 6.10.3.4.1.2.1.1.1](#)

[6.11.1.4.1.51.1.1.4](#) [TFCS](#)

[See 6.10.3.4.1.51.1.1.4](#)

[6.11.1.4.1.51.1.2](#) [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	0.64

[6.11.1.4.1.51.2 Downlink](#)

[6.11.1.4.1.51.2.1 Transport channel parameters](#)

[6.11.1.4.1.51.2.1.1 Transport channel parameters for Conversational / unknown / DL:64 kbps / CS RAB](#)

[See 6.10.3.4.1.13.2.1.1](#)

[6.11.1.4.1.51.2.1.2 Transport channel parameters for Interactive or background / DL:64 kbps / PS RAB](#)

[See 6.10.3.4.1.25.2.1.1](#)

[6.11.1.4.1.51.2.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCH](#)

[See 6.10.3.4.1.2.2.1.1](#)

[6.11.1.4.1.51.2.1.4 TFCS](#)

[See 6.10.3.4.1.51.2.1.4](#)

[6.11.1.4.1.51.2.2 Physical channel parameters](#)

DPCH	Modulation	QPSK
Downlink	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	0.64

[6.11.1.4.1.52 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](#)

[6.11.1.4.1.52.1 Uplink](#)

[See 6.11.1.4.1.51.1](#)

[6.11.1.4.1.52.2 Downlink](#)

[6.11.1.4.1.52.2.1 Transport channel parameters](#)

[6.11.1.4.1.52.2.1.1 Transport channel parameters for Conversational / unknown / DL:64 kbps / CS RAB](#)

[See 6.10.3.4.1.13.2.1.1](#)

[6.11.1.4.1.52.2.1.2 Transport channel parameters for Interactive or background / DL:128 kbps / PS RAB](#)

[See 6.10.3.4.1.27.2.1.1](#)

[6.11.1.4.1.52.2.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCH](#)

[See 6.10.3.4.1.2.2.1.1](#)

[6.11.1.4.1.52.2.1.4 TFCS](#)[See 6.10.3.4.1.52.2.1.4](#)[6.11.1.4.1.52.2.2 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	0.64

[6.11.1.4.1.53](#) [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](#)

[6.11.1.4.1.53.1 Uplink](#)[6.11.1.4.1.53.1.1 Transport channel parameters](#)[6.11.1.4.1.53.1.1.1 Transport channel parameters for Conversational / unknown / UL:64 kbps / CS RAB](#)[See 6.10.3.4.1.13.1.1.1](#)[6.11.1.4.1.53.1.1.2 Transport channel parameters for Interactive or background / UL:128 kbps / PS RAB](#)[See 6.10.3.4.1.28.1.1.1](#)[6.11.1.4.1.53.1.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCH](#)[See 6.10.3.4.1.2.1.1.1](#)[6.11.1.4.1.53.1.1.4 TFCS](#)[See 6.10.3.4.1.53.1.1.4](#)[6.11.1.4.1.53.1.2 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	0.88	0.68

[6.11.1.4.1.53.2 Downlink](#)[See 6.11.1.4.1.52.2](#)

[6.11.1.4.1.54](#) [Interactive or background / UL:64 DL:128 kbps / PS RAB
+ Streaming / unknown / UL:0 DL:64 kbps / CS or PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH](#)

[6.11.1.4.1.54.1](#) [Uplink](#)

[See 6.11.1.4.1.24.1](#)

[6.11.1.4.1.54.2](#) [Downlink](#)

[6.11.1.4.1.54.2.1](#) [Transport channel parameters](#)

[6.11.1.4.1.54.2.1.1](#) [Transport channel parameters for Interactive or background / DL:128 kbps / PS RAB](#)

[See 6.10.3.4.1.27.2.1.1](#)

[6.11.1.4.1.54.2.1.2](#) [Transport channel parameters for Streaming / unknown / DL:64 kbps / CS or PS RAB](#)

[See 6.10.3.4.1.18.2.1.1](#)

[6.11.1.4.1.54.2.1.3](#) [Transport channel parameters for DL:3.4 kbps SRBs for DCCH](#)

[See 6.10.3.4.1.2.2.1.1](#)

[6.11.1.4.1.54.2.1.4](#) [TFCS](#)

[See 6.10.3.4.1.54.2.1.4](#)

[6.11.1.4.1.54.2.2](#) [Physical channel parameters](#)

DPCH	Modulation	QPSK
Downlink	Codes and time slots/ radio frame	SF 16 x 12 codes x 4 time slots
	Max. Number of data bits/radio frame	4184 bits
	TFCI code word / radio frame	32 bits
	TPC / radio frame	2 * 2 bits
	SS / radio frame	2 * 2 bits
	Puncturing Limit	0.64

[6.11.1.4.1.55](#) [Interactive or background / UL:64 DL:128 kbps / PS RAB](#)
[+ Streaming / unknown / UL:0 DL:128 kbps / CS or PS RAB](#)
[+ UL:3.4 DL:3.4 kbps SRBs for DCCH](#)

[6.11.1.4.1.55.1](#) [Uplink](#)

[See 6.11.1.4.1.24.1](#)

[6.11.1.4.1.55.2](#) [Downlink](#)

[6.11.1.4.1.55.2.1](#) [Transport channel parameters](#)

[6.11.1.4.1.55.2.1.1](#) [Transport channel parameters for Interactive or background / DL:128 kbps / PS RAB](#)

[See 6.10.3.4.1.27.2.1.1](#)

[6.11.1.4.1.55.2.1.2](#) [Transport channel parameters for Streaming / unknown / DL:128 kbps / CS or PS RAB](#)

[See 6.10.3.4.1.20.2.1.1](#)

[6.11.1.4.1.55.2.1.3](#) [Transport channel parameters for DL:3.4 kbps SRBs for DCCH](#)

[See 6.10.3.4.1.2.2.1.1](#)

[6.11.1.4.1.55.2.1.4](#) [TFCS](#)

[See 6.10.3.4.1.55.2.1.4](#)

[6.11.1.4.1.55.2.2](#) [Physical channel parameters](#)

DPCH	Modulation	QPSK
Downlink	Codes and time slots/ radio frame	SF1 x 1 code x 4 time slots
	Max. Number of data bits/radio frame	5592 bits
	TFCI code word/ radio frame	24 bits
	TPC/ radio frame	2*2 bits
	SS/ radio frame	2*2 bits
	Puncturing Limit	0.64

[6.11.1.4.2](#) [Combinations on PDSCH, SCCPCH, PUSCH and PRACH](#)

[6.11.1.4.2.1](#) [Interactive or background / UL: 64 DL: 256 kbps / PS RAB](#)
[+ UL: 16.8 DL: 33.6 kbps SRBs for DCCH, CCCH and BCCH](#)
[+ UL: 16.8 DL: 16 kbps SRBs for SHCCH](#)

[6.11.1.4.2.1.1](#) [Uplink](#)

[6.11.1.4.2.1.1.1](#) [Transport channel parameters](#)

[6.11.1.4.2.1.1.1.1](#) [Transport channel parameters for Interactive or background / UL: 64 kbps / PS RAB and UL SRB for SHCCH mapped on USCH](#)

[See 6.10.3.4.2.1.1.1.1](#)

[6.11.1.4.2.1.1.1.2 TFCS for USCH](#)[See 6.10.3.4.2.1.1.1.2.](#)[6.11.1.4.2.1.1.1.3 Transport channel parameters for SRB for CCCH and UL SRBs for DCCH and UL SRB for SHCCH mapped on RACH](#)[See 6.10.3.4.2.1.1.1.3](#)[6.11.1.4.2.1.1.2 Physical channel parameters](#)

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

[Physical channel parameter for PRACH](#)[See 6.11.1.4.5.1.2](#)[6.11.1.4.2.1.2 Downlink](#)[6.11.1.4.2.1.2.1 Transport channel parameters](#)[6.11.1.4.2.1.2.1.1 Transport channel parameters for Interactive or background / DL: 256 kbps / PS RAB and DL SRB for SHCCH mapped on DSCH](#)[See 6.10.3.4.2.1.2.1.1](#)[6.11.1.4.2.1.2.1.2 TFCS for DSCH](#)[See 6.10.3.4.2.1.2.1.2](#)[6.11.1.4.2.1.2.1.3 Transport channel parameters for DL SRBs for DCCH and SRB for CCCH and SRB for BCCH and DL SRB for SHCCH mapped on FACH](#)

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)	27200 or 24000 (alt. 40800 or 36000)	25600 (alt. 38400)	25600 (alt. 38400)	25600 (alt. 38400)	32000 (alt. 48000)	33600 (alt. 50400)
	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						
		TF1, bits						
		TF2, bits						
		TF3, bits						
		TF4, bits						

	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)	1528 (alt. 2292)	1528 (alt. 2292)	1528 (alt. 2292)	1528 (alt. 2292)	1528 (alt. 2292)	1528 (alt. 2292)

* MAC header size and RLC payload size depend on use of U-RNTI or C-RNTI.

6.11.1.4.2.1.2.1.4 TFCS for FACH

TFCS size	5 (alt. 7)
TFCS	FACH = TF0, TF1, TF2, TF3, TF4 (alt. FACH = TF0, TF1, TF2, TF3, TF4, TF5, TF6)

6.11.1.4.2.1.2.2 Physical channel parameters

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	0.64	0.72

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

6.11.1.4.2.2 Interactive or background / UL: 64 DL: 384 kbps / PS RAB
+ UL: 16.8 DL: 33.6 kbps SRBs for DCCH, CCCH and BCCH
+ UL: 16.8 DL: 16 kbps SRBs for SHCCH

6.11.1.4.2.2.1 Uplink

See 6.11.1.4.2.1.1

6.11.1.4.2.2.2 Downlink

6.11.1.4.2.2.2.1 Transport channel parameters

6.11.1.4.2.2.2.1.1 Transport channel parameters for Interactive or background / DL: 384 kbps / PS RAB
and DL SRB for SHCCH mapped on DSCH

See 6.10.3.4.2.2.2.1.1

[6.11.1.4.2.2.1.2 TFCS for DSCH](#)[See 6.10.3.4.2.2.1.2](#)[6.11.1.4.2.2.1.3 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 6.11.1.4.2.1.2.1.3](#)[6.11.1.4.2.2.1.4 TFCS for FACH](#)[See 6.11.1.4.2.1.2.1.4](#)[6.11.1.4.2.2.2 Physical channel parameters](#)

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	0.64

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

[6.11.1.4.2.3 Interactive or background / UL: 64 DL: 2048 kbps / PS RAB
+ UL: 16.8 DL: 33.6 kbps SRBs for DCCH, CCCH and BCCH
+ UL: 16.8 DL: 16 kbps SRBs for SHCCH](#)[6.11.1.4.2.3.1 Uplink](#)[See 6.11.1.4.2.1.1](#)[6.11.1.4.2.3.2 Downlink](#)[6.11.1.4.2.3.2.1 Transport channel parameters](#)[6.11.1.4.2.3.2.1.1 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 1/2	
	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		

6.11.1.4.2.3.2.1.2 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))

For better understanding of the TFCS please note that the following combinations are not included in the table above: (TF5, TF1), (TF8, TF1)

6.11.1.4.2.3.2.1.3 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 6.11.1.4.2.1.2.1.3

6.11.1.4.2.3.2.1.4 TFCS for FACH

See 6.11.1.4.2.1.2.1.4

6.11.1.4.2.3.2.2 Physical channel parameters

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

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

[6.11.1.4.3 Combinations on PDSCH, SCCPCH, DPCH, PUSCH and PRACH](#)

[6.11.1.4.3.1 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](#)

[6.11.1.4.3.1.1 Uplink](#)

[6.11.1.4.3.1.1.1 Transport channel parameters](#)

[6.11.1.4.3.1.1.1.1 Transport channel parameters for Conversational / speech / UL:12.2 / CS RAB](#)

[See 6.10.3.4.1.4.1.1.1](#)

[6.11.1.4.3.1.1.1.2 Transport channel parameters for UL SRBs for DCCH](#)

[See 6.10.3.4.1.2.1.1.1](#)

[6.11.1.4.3.1.1.1.3 TFCS for DCH](#)

[See 6.10.3.4.1.4.1.1.3](#)

[6.11.1.4.3.1.1.1.4 Transport channel parameters for Interactive or background / UL: 64 kbps / PS RAB and UL SRB for SHCCH mapped on USCH](#)

[See 6.10.3.4.2.1.1.1.1](#)

[6.11.1.4.3.1.1.1.5 TFCS for USCH](#)

[See 6.10.3.4.2.1.1.1.2](#)

[6.11.1.4.3.1.1.1.6 Transport channel parameters for SRB for CCCH and UL SRB for SHCCH mapped on RACH](#)

[See 6.10.3.4.3.1.1.1.6](#)

[6.11.1.4.3.1.1.2 Physical channel parameters](#)

[Physical channel parameters for uplink DPCH see 6.11.1.4.1.4.1.2](#)

[Physical channel parameters for PUSCH see 6.11.1.4.2.1.1.2](#)

[Physical channel parameters for PRACH see 6.11.1.4.2.1.1.2](#)

[6.11.1.4.3.1.2 Downlink](#)

[6.11.1.4.3.1.2.1 Transport channel parameters](#)

[6.11.1.4.3.1.2.1.1 Transport channel parameters for Conversational / speech / DL:12.2 kbps / CS RAB](#)

[See 6.10.3.4.1.4.2.1.1](#)

[6.11.1.4.3.1.2.1.2 Transport channel parameters for DL SRBs for DCCH](#)

[See 6.10.3.4.1.2.2.1.1](#)

[6.11.1.4.3.1.2.1.3 TFCS for DCH](#)

[See 6.10.3.4.1.4.2.1.3](#)

[6.11.1.4.3.1.2.1.4 Transport channel parameters for Interactive or background / DL: 256 kbps / PS RAB and DL SRB for SHCCH mapped on DSCH](#)

[See 6.10.3.4.2.1.2.1.1](#)

[6.11.1.4.3.1.2.1.5 TFCS for DSCH](#)

[See 6.10.3.4.2.1.2.1.2](#)

[6.11.1.4.3.1.2.1.6 Transport channel parameters for SRB for CCCH and SRB for BCCH and DL SRB for SHCCH mapped on FACH](#)

Higher layer	RAB/Signalling RB	SRB#0	SRB#5	SRB#6	
	User of Radio Bearer	RRC	RRC	RRC	
RLC	Logical channel type	CCCH	SHCCH	BCCH	
	RLC mode	UM	UM	TM	
	Payload sizes, bit	160	160	168	
	Max data rate, bps	32000	32000	33600	
	RLC header, bit	8	8	0	
MAC	MAC header, bit	3			
	MAC multiplexing	3 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		
		TF4, bits	4x171		
	TTI, ms	20			
	Coding type	CC 1/2			
	CRC, bit	16			
	Max number of bits/TTI after channel coding	1528			
Max number of bits/radio frame before rate matching	764				

[6.11.1.4.3.1.2.1.7 TFCS for FACH](#)

TFCS size	5
TFCS	FACH = TF0, TF1, TF2, TF3, TF4

[6.11.1.4.3.1.2.2 Physical channel parameters](#)

[Physical channel parameters for downlink for DPCH see 6.11.1.4.1.4.2.2](#)

[Physical channel parameters for downlink for PDSCH see 6.11.1.4.2.1.2.2](#)

[Physical channel parameters for SCCPCH see 6.11.1.4.2.1.2.2](#)

[6.11.1.4.3.2 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](#)

[6.11.1.4.3.2.1 Uplink](#)

[See 6.11.1.4.3.1.1](#)

[6.11.1.4.3.2.2 Downlink](#)

[6.11.1.4.3.2.2.1 Transport channel parameters](#)

[6.11.1.4.3.2.2.1.1 Transport channel parameters for Conversational / speech / DL:12.2 kbps / CS RAB](#)

[See 6.10.3.1.4.1.4.2.1.1](#)

[6.11.1.4.3.2.2.1.2 Transport channel parameters for DL SRBs for DCCH](#)

[See 6.10.3.4.1.2.2.1.1](#)

[6.11.1.4.3.2.2.1.3 TFCS for DCH](#)

[See 6.10.3.4.1.4.2.1.3](#)

[6.11.1.4.3.2.2.1.4 Transport channel parameters for Interactive or background / DL: 384 kbps / PS RAB and DL SRB for SHCCH mapped on DSCH](#)

[See 6.10.3.4.2.2.2.1.1](#)

[6.11.1.4.3.2.2.1.5 TFCS for DSCH](#)

[See 6.10.3.4.2.2.2.1.2](#)

[6.11.1.4.3.2.2.1.6 Transport channel parameters for SRB for CCCH and SRB for BCCH and DL SRB for SHCCH mapped on FACH](#)

[See 6.11.1.4.3.1.2.1.6](#)

[6.11.1.4.3.2.2.1.7 TFCS for FACH](#)

[See 6.11.1.4.3.1.2.1.7](#)

[6.11.1.4.3.2.2.2 Physical channel parameters](#)

[Physical channel parameters for downlink for DPCH see 6.11.1.4.1.4.2.2](#)

[Physical channel parameters for downlink for PDSCH see 6.11.1.4.2.2.2.2](#)

[Physical channel parameters for downlink for SCCPCH see 6.11.1.4.2.1.2.2](#)

[6.11.1.4.3.3 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](#)

[6.11.1.4.3.3.1 Uplink](#)

[See 6.11.1.4.3.1.1](#)

[6.11.1.4.3.3.2 Downlink](#)[6.11.1.4.3.3.2.1 Transport channel parameters](#)[6.11.1.4.3.3.2.1.1 Transport channel parameters for Conversational / speech / DL:12.2 kbps / CS RAB](#)

[See 6.10.3.4.1.4.2.1.1](#)

[6.11.1.4.3.3.2.1.2 Transport channel parameters for DL SRBs for DCCH](#)

[See 6.10.3.4.1.2.2.1.1](#)

[6.11.1.4.3.3.2.1.3 TFCS for DCH](#)

[See 6.10.3.4.1.4.2.1.3](#)

[6.11.1.4.3.3.2.1.4 Transport channel parameters for Interactive or background / DL: 2048 kbps / PS RAB and DL SRB for SHCCH mapped on DSCH](#)

[See 6.11.1.4.2.3.2.1.2](#)

[6.11.1.4.3.3.2.1.5 TFCS for DSCH](#)

[See 6.11.1.4.2.3.2.1.4](#)

[6.11.1.4.3.3.2.1.6 Transport channel parameters for SRB for CCCH and SRB for BCCH and DL SRB for SHCCH mapped on FACH](#)

[See 6.11.1.4.3.1.2.1.6](#)

[6.11.1.4.3.3.2.1.7 TFCS for FACH](#)

[See 6.11.1.4.3.1.2.1.7](#)

[6.11.1.4.3.3.2.2 Physical channel parameters](#)

[Physical channel parameters for downlink DPCH see 6.11.1.4.1.4.2.2](#)

[Physical channel parameters for PDSCH see 6.11.1.4.2.3.2.2](#)

[Physical channel parameters for SCCPCH see 6.11.1.4.2.1.2.2](#)

[6.11.1.4.4 Combinations on SCCPCH](#)

[6.11.1.4.4.1 Stand-alone signalling RB for PCCH](#)

[6.11.1.4.4.1.1 Transport channel parameters](#)

[6.11.1.4.4.1.1.1 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	

[6.11.1.4.4.1.1.2 TFCS](#)

TFCS size	3
TFCS	SRBs for PCCH = TF0, TF1, TF2

[6.11.1.4.4.1.2 Physical channel parameters](#)

S-CCPCH	Modulation	QPSK
	Codes and time slots/ radio frame	SF16 x 2 codes x 2 time slots
	Max. Number of data bits/radio frame	344 bits
	TFCl code word/ radio frame	8 bits
	TPC/ radio frame	0 bits
	SS/ radio frame	0 bits
	Puncturing Limit	0.64

[6.11.1.4.4.2](#) [Interactive/Background 32 kbps PS RAB + SRBs for CCCH + SRB for DCCH + SRB for BCCH](#)

[6.11.1.4.4.2.1](#) [Transport channel parameters](#)

[6.11.1.4.4.2.1.1](#) [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	

[6.11.1.4.4.2.1.2](#) [Transport channel parameters of SRBs for CCCH, SRB for DCCH, and SRB for BCCH](#)

Higher layer	RAB/signalling RB	SRB#1	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	
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)	27200 or 2400 (alt. 40800 or 36000)	25600 (alt. 38400)	25600 (alt. 38400)	25600 (alt. 38400)	33600 (alt. 50400)	
	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					
		TF4, bits	4x171					
		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 before rate matching	1528 (alt. 2292)							
RM attribute	200-240							

* [MAC header size and RLC payload size depend on use of U-RNTI or C-RNTI.](#)

[6.11.1.4.4.2.1.3 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))

[6.11.1.4.4.2.2 Physical channel parameters](#)

SCCPCH	Modulation	QPSK
	Codes and time slots/ radio frame	SF 16 x 9 codes x 2 time slots
	Max. Number of data bits/radio frame	1560 bits
	TFCI code word / radio frame	16 bits
	TPC / radio frame	2 * 2 bits
	SS / radio frame	2 * 2 bits
	Puncturing Limit	0.68

[6.11.1.4.4.3 Interactive/Background 32 kbps RAB + SRB for PCCH + SRB for CCCH + SRB for DCCH + SRB for BCCH](#)[6.11.1.4.4.3.1 Transport channel parameters](#)[6.11.1.4.4.3.1.1 Transport channel parameters of SRB for Interactive/Background 32 kbps RAB](#)[See 6.11.1.4.4.2.1](#)[6.11.1.4.4.3.1.2 Transport channel parameters of SRB for PCCH](#)[See 6.11.1.4.4.1.1](#)[6.11.1.4.4.3.1.3 Transport channel parameters of SRBs for CCCH, SRB for DCCH, and SRB for BCCH](#)[See 6.11.1.4.4.2.1.2](#)

6.11.1.4.4.3.1.4 TFCS

TFCS size	45 (alt. 63)
TFCS	<p>(32 kbps RAB, SRB for PCCH, SRBs for CCCH/ DCCH/ BCCH) =</p> <p>(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))</p>

6.11.1.4.4.3.2 Physical channel parameters

S-CCPCH	Modulation	QPSK
	Codes and time slots/ radio frame	SF16 x 10 codes x 2 time slots
	Max. Number of data bits/radio frame	1728 bits
	TFCI code word/ radio frame	32 bits
	TPC/ radio frame	0 bits
	SS/ radio frame	0 bits
	Puncturing Limit	0.64

6.11.1.4.5 Combinations on PRACH

6.11.1.4.5.1 SRB for CCCH + SRBs for DCCH

6.11.1.4.5.1.1 Transport channel parameters

6.11.1.4.5.1.1.1 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

[6.11.1.4.5.1.1.2 TFCS](#)

[See 6.10.3.4.5.1.1.2](#)

[6.11.1.4.5.1.2 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

[6.11.1.4.5.2 Interactive/Background 32 kbps PS RAB + SRB for CCCH + SRBs for DCCH](#)

[6.11.1.4.5.2.1 Transport channel parameters](#)

[6.11.1.4.5.2.1.1 Transport channel parameters for Interactive or background / UL: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
	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

[6.11.1.4.5.2.1.2 Transport channel parameters for SRB for CCCH + SRBs for DCCH](#)

[See the Chapter 6.11.1.4.5.1.1.1](#)

[6.11.1.4.5.2.1.3 TFCS](#)

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

[6.11.1.4.5.2.2 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

[For physical channel parameters for SRB for CCCH + SRBs for DCCH see 6.11.1.4.5.1.2](#)