

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 | F | R99 | Correction to reference | F | 3.4.0 | 3.5.0 | T1-010275 | |
| 34.108 | 049 | D | R99 | Editorial modification for References | D | 3.4.0 | 3.5.0 | T1-010276 | |
| 34.108 | 050 | F | R99 | Some corrections in clause 5 | F | 3.4.0 | 3.5.0 | T1-010277 | |
| 34.108 | 051 | F | R99 | Update to Scope Statement | F | 3.4.0 | 3.5.0 | T1-010278 | |
| 34.108 | 052 | F | R99 | Clause 6.10 Definition of RB configurations, TDD parameters | F | 3.4.0 | 3.5.0 | T1-010279 | |
| 34.108 | 053 | F | R99 | Updates to clause 6.1, clause 7.4 and clause 9 | F | 3.4.0 | 3.5.0 | T1-010280 | |
| 34.108 | 054 | F | R99 | Clause 6.1: Default radio conditions for Signalling tests | F | 3.4.0 | 3.5.0 | T1-010281 | |
| 34.108 | 055 | F | R99 | Correction of Radio Bearer Configurations for FDD Mode | F | 3.4.0 | 3.5.0 | T1-010282 | |
| 34.108 | 056 | F | R99 | Correction of Radio Bearer Configurations for TDD Mode | F | 3.4.0 | 3.5.0 | T1-010283 | |
| 34.108 | 057 | F | R99 | Changes to Signalling Radio Bearer (SRB) numbering | F | 3.4.0 | 3.5.0 | T1-010284 | |
| 34.108 | 058 | F | 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 | F | R99 | Correction of system information block 5 | F | 3.4.0 | 3.5.0 | T1-010286 | |
| 34.108 | 063 | B | 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 | B | 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 | B | 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 | B | 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) | | 2 (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) REL-4 (Release 4) REL-5 (Release 5) | | |
| | Detailed explanations of the above categories can be found in 3GPP IR 21.900 . | | | | |

| | |
|--------------------------------------|---|
| 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: | ⌘ |

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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>

6.10.2.3 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 |
| | Use <u>one</u> of the following categories: | | Use <u>one</u> of the following releases: |
| | F (correction) | R96 | 2 (GSM Phase 2) |
| | A (corresponds to a correction in an earlier release) | R97 | (Release 1996) |
| | B (addition of feature), | R98 | (Release 1997) |
| | C (functional modification of feature) | R99 | (Release 1998) |
| | D (editorial modification) | REL-4 | (Release 1999) |
| | Detailed explanations of the above categories can | | REL-4 (Release 4) |
| | be found in 3GPP TR 21.900 . | | 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 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 |
| | <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: | ⌘ 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 | <u>UARFCN</u> | Frequency of Downlink |
|-------------------|--------|---------------------|---------------|-----------------------|
| Low Range | 9613 | 1922.6 MHz | <u>10563</u> | 2112.6 MHz |
| Mid Range | 9750 | 1950.0 MHz | <u>10700</u> | 2140.0 MHz |
| High Range | 9887 | 1977.4 MHz | <u>10837</u> | 2167.4 MHz |

5.1.1.2 FDD reference test frequencies for ITU region 2

| Test Frequency ID | UARFCN | Frequency of Uplink | <u>UARFCN</u> | Frequency of Downlink |
|-------------------|--------|---------------------|---------------|-----------------------|
| Low Range | 9263 | 1852.6 MHz | <u>9663</u> | 1932.6 MHz |
| Mid Range | 9400 | 1880 MHz | <u>9800</u> | 1960 MHz |
| High Range | 9537 | 1907.4 MHz | <u>9937</u> | 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 one of the following categories:

- F** (essential correction)
- A** (corresponds to a correction in an earlier release)
- B** (Addition of feature),
- C** (Functional modification of feature)
- D** (Editorial modification)

Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use one of the following releases:

- 2** (GSM Phase 2)
- R96** (Release 1996)
- R97** (Release 1997)
- R98** (Release 1998)
- R99** (Release 1999)
- REL-4** (Release 4)
- REL-5** (Release 5)

Reason for change: ⌘ 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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- 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.

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 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 . |
| Release: | ⌘ R99 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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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.

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 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 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 |
| | TFCl 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 TrD PDU 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 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, 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*) | 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 |
| | TFCl 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 |
| | TFCl 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 |
| | TFCI 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, 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 (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, 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 |
| | 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, 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 | 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 | |

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 / 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 | 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

6.10.3.4.2.2.1 Transport channel parameters

6.10.3.4.2.2.1.1 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 | 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

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, bts | 0x240 (alt. 0x80) |
| | | TF1, bits | 1x240 (alt. 1x80) |
| | TTI, ms | | 40 ¹ 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 | | |
|--------------|---|-----------------------------|--------|--|
| Higher layer | 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 | |
|---|--|--------------------------------|--|--------------------------|--------------------------|--------------------------|--------------------------|--|
| Higher layer | 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) |

3GPP TSG-T WG1 Meeting #12
Pusan, Korea, 6th – 7th September 2001

T1-010280

3GPP TSG-T SIG Meeting #19
Pusan, Korea, 3 September - 5 September 2001

T1S010134r2

CR-Form-v4

CHANGE REQUEST

⌘ **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: | | 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: | ⌘ 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 Informationelemnts 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 continous 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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4

Error! No text of specified style in document.

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 | 1 |
| - Cell Value tag | |
| - Scheduling | 2 |
| - SEG_COUNT | 16 |
| - SIB_REP | 2 |
| - SIB_POS | |
| - SIB_POS offset info | 2 |
| - SIB_OFF | Scheduling Block 1 |
| - SIB type | |
| - Scheduling information | PLMN Value tag |
| - CHOICE Value tag | 1 |
| - PLMN Value tag | 2 |
| - SEG_COUNT | 128 |
| - SIB_REP | 10 |
| - SIB_POS | |
| - SIB_POS offset info | 2 |
| - SIB_OFF | System Information Type 1 |
| - SIB type SIBs only | |
| - Scheduling information | Cell Value tag |
| - CHOICE Value tag | 42 |
| - Cell Value tag | 1 |
| - SEG_COUNT | 128 |
| - SIB_REP | 14 |
| - SIB_POS | Not Present – use default |
| - SIB_POS offset info | System Information Type 2 |
| - SIB type SIBs only | |
| - Scheduling information | Cell Value tag |
| - CHOICE Value tag | 42 |
| - Cell Value tag | 1 |
| - SEG_COUNT | 64 |
| - SIB_REP | 6 |
| - SIB_POS | Not Present – use default |
| - SIB_POS offset info | System Information Type 3 |
| - SIB type SIBs only | |
| - 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 |
|----------------------|----------------------------|

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 |
| - 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 |
| - TCRMAXH | 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 SCSA-exclusive useation | 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 | 1 |
| - Map-parameter-2 | 1 |
| - Upper-limit | 1 |
| - Cell selection_and_reselection_quality_measure | CPICH RSCP Not present |
| - CHOICE mode | TDD |
| - Sintrasearch | 10 dB |
| - Sintersearch | 10 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 | -10532 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 |
| - NCR | Not Present |
| - TCRmaxHcs | 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 |
| - Tbarred | Not present |
| - Cell Reserved for operator use | Not reserved |
| - Cell Reservation Extension Reserved for S-SSA 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 | 1 |
| - Map_parameter_2 | 1 |
| - Upper_limit | 1 |
| - Cell_selection_and_reselection_quality_measure | CPICH RSCP |
| - CHOICE mode | FDD |
| - Sintrasearch | 16 dB |
| - Sintersearch | 16 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 |
| - 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 |
| - TCMAXHcs | 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 | 1 |
| - Map parameter 2 | 1 |
| - Upper limit | 1 |
| - Cell selection and reselection quality measure | CPICH RSCP Not present |
| - CHOICE mode | TDD |
| - Sintrasearch | 10 dB |
| - Sintersearch | 10 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 | -10532 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 |
| - NCR | Not Present |
| - TCMAXHcs | 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 SCS 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 | 2bit Number of bits used must be enough to cover all combinations of CTFC from clause 6.10. |
| - TFCS addition information | 0 Refer to clause 6.10 Parameter Set |
| - CHOICE CTFC Size | |
| - CTFC information | Signalled Computed Gain Factor |
| - Power offset information | 0 |
| - CHOICE Gain Factors | 0 |
| - Gain factor β_c | Not Present |
| - Gain factor β_d | 0dB-5dB |
| - Reference TFC ID | 1 |
| - Power offset Pp-m | |
| - CTFC information | Signalled Gain Factor |
| - Power offset information | 10 |
| - CHOICE Gain Factors | 15 |
| - Gain factor β_c | 0 |
| - Gain factor β_d | -5dB |
| - Reference TFC ID | |
| - Power offset Pp-m | |
| - PRACH partitioning | |
| - Access Service Class | |
| - ASC Setting | FDD |
| - CHOICE mode | 0 (ASC#0) |
| - Available signature Start Index | 7 (ASC#0) |
| - Available signature End Index | '1111'B |
| - Assigned Sub-channel Number | |
| - ASC Setting | FDD |
| - CHOICE mode | 0 (ASC#1) |
| - Available signature Start Index | 7 (ASC#1) |
| - Available signature End Index | '1111'B |
| - Assigned Sub-channel Number | |
| - ASC Setting | FDD |
| - CHOICE mode | 0 (ASC#2) |
| - Available signature Start Index | 7 (ASC#2) |
| - Available signature End Index | '1111'B |
| - Assigned Sub-channel Number | |
| - ASC Setting | FDD |
| - CHOICE mode | 0 (ASC#3) |
| - Available signature Start Index | 7 (ASC#3) |
| - Available signature End Index | |
| - ASC Setting | FDD |
| - CHOICE mode | '1111'B |
| - Assigned Sub-channel Number | 0 (ASC#4) |
| - Available signature Start Index | 7 (ASC#4) |
| - Available signature End Index | '1111'B |
| - Assigned Sub-channel Number | |
| - ASC Setting | FDD |
| - CHOICE mode | 0 (ASC#5) |
| - Available signature Start Index | 7 (ASC#5) |
| - Available signature End Index | '1111'B |
| - Assigned Sub-channel Number | |
| - ASC Setting | FDD |
| - CHOICE mode | 0 (ASC#6) |
| - Available signature Start Index | 7 (ASC#6) |
| - Available signature End Index | '1111'B |
| - Assigned Sub-channel Number | |
| - ASC Setting | FDD |
| - CHOICE mode | 0 (ASC#7) |
| - Available signature Start Index | 7 (ASC#7) |
| - Available signature End Index | '1111'B |
| - Assigned Sub-channel Number | |
| - 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> | 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 |
| <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 Present0 |
| - 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 present1 |
| - 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 | |

| | |
|---|--|
| <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 <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>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</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</p> |
| <ul style="list-style-type: none"> - Transport Channel Identity - CTCH indicator | <p>12 (for PCH) FALSE</p> |
| <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 <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>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</p> |
| <ul style="list-style-type: none"> - Transport Channel Identity - CTCH indicator | <p>13 (for FACH) FALSE</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 - CHOICE Logical Channel List - Semi-static Transport Format information - Transmission time interval - Type of channel coding - Coding Rate - Rate matching attribute - CRC size | <p>(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 Reference clause 6.10 Parameter Set Reference clause 6.10 Parameter Set FDD ALL</p> <p>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</p> |
| <ul style="list-style-type: none"> - Transport Channel Identity - CTCH indicator | <p>14 (for FACH) FALSE</p> |
| <ul style="list-style-type: none"> - PICH info - CHOICE mode - Channelisation code - Timeslot number - CHOICE Burst Type - Midamble Shift - Repetition period/length - Offset - Paging indicator length - NGAP - NPCH | <p>TDD 16/16 Not Present (MD)0 Type 1 0 Not Present (MD="(64/2)")64/2 0 Not Present (MD=4)4 Not Present (MD=1)1 Not Present (MD=2)2</p> |
| <ul style="list-style-type: none"> - Number of PI per frame - STTD indicator | <p>18 FALSE</p> |
| <ul style="list-style-type: none"> - CBS DRX Level 1 information | <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 | 168Reference to clause 6.10 Parameter Set |
| - Number of TB and TTI List | Reference to clause 6.10 Parameter Set |
| - Number of Transport blocks | 1Reference 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 msReference to clause 6.10 Parameter Set |

| | |
|---|--|
| - Type of channel coding | Convolutional |
| - Coding Rate | 1/2 |
| - Rate matching attribute | 150 |
| - CRC size | 16 |
| - RACH TFCS | (This IE is repeated for TFC number.) |
| - Normal | |
| - TFCI Field 1 information | |
| - CHOICE TFCS representation | Complete |
| - TFCS addition information | Addition |
| - 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 | Signalled |
| - Power offset information | Computed |
| - CHOICE Gain Factors | Gain Factor |
| - Gain factor β_c | 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 β_c | Gain Factor |
| - Gain factor β_d | 10 |
| - Reference TFC ID | 15 |
| - Power offset Pp-m | 0 |
| | -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) |
| - 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 | 31Reference to clause 6.10 Parameter Set |
| - Constant value | -10Reference 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 | CompleteAddition |
| - TFCS addition information | |
| - CHOICE CTFC Size | 4bitNumber of bits used must be enough to cover all combinations of CTFC from clause 6.10. |
| - CTFC information | 0Refer 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 | 240Reference 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 | 1Reference 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 |
| - Transport Channel Identity | 12 (for PCH) |
| - CTCH indicator | 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 |
| - Number of Transport blocks | 0 |
| - Number of Transport blocks | 1 |
| - Number of Transport blocks | 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 |
| - Transport Channel Identity | 13 (for FACH) |
| - CTCH indicator | FALSE |
| - TFS | (FACH) |
| - CHOICE Transport channel type | Common transport channels |
| - Dynamic Transport format information | |
| - RLC Size | 360 |
| - Number of TB and TTI List | |
| - Number of Transport blocks | 0 |
| - Number of Transport blocks | 1 |
| - CHOICE Mode | FDD |
| - CHOICE Logical Channel List | ALL |
| - Semi-static Transport Format information | |
| - Transmission time interval | 10 ms |
| - Type of channel coding | Turbo |
| - Rate matching attribute | 130 |
| - CRC size | 16bit |
| - Transport Channel Identity | 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 Present0 |
| - 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 present1 |
| - 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 | |

| | |
|---|---|
| <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 <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>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</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</p> |
| <ul style="list-style-type: none"> - Transport Channel Identity - CTCH indicator | <p>12 (for PCH) FALSE</p> |
| <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 <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>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</p> |
| <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 <ul style="list-style-type: none"> - Transmission time interval - Type of channel coding - Coding Rate - Rate matching attribute - CRC size | <p>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 FDD ALL</p> <p>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</p> |
| <ul style="list-style-type: none"> - Transport Channel Identity - CTCH indicator - CTCH indicator - PICH info - CHOICE <i>mode</i> <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 - NGAP - NPCH - Number of PI per frame - STTD indicator | <p>14 (for FACH) FALSE FALSE</p> <p>TDD 16/16 Not Present (MD)0 Type 1 0 Not Present (MD="(64/2)")64/2 0 Not Present (MD=4)4 Not Present (MD=1)1 Not Present (MD=2)2 18 FALSE</p> |
| <ul style="list-style-type: none"> - CBS DRX Level 1 information | <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 | 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.3 then minus 50) |
| - Primary CPICH TX power | Not Present |
| - TX Diversity indicator | FALSE |
| - Cell Selection and Re-selection info | |
| - Qoffset1s,n | 0 dB |
| - Qoffset2s,n | 0 dBNot 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 | |
| - 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 | 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 | 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 |
| - CHOICE mode | TDD |
| - Primary CCPCH info | |
| - Cell parameters ID | Reference is 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.0 (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 | 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 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 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 |
| - 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- 34 clause 6.10 Parameter Set Minimum supported by the UE's power class. |
| Uplink output power | |
| PCCPCH/PCPICH carrier number | Reference- 34 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- 34 clause 6.10 Parameter Set Minimum supported by the UE's power class. |
| Uplink output power | |
| PCCPCH/PCPICH carrier number | Reference- 34 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- 34 clause 6.10 Parameter Set Minimum supported by the UE's power class. |
| Uplink output power | |
| PCCPCH/PCPICH carrier number | Reference- 34 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- 34 clause 6.10 Parameter Set Minimum supported by the UE's power class. |
| Uplink output power | |
| PCCPCH/PCPICH carrier number | Reference- 34 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- 34 clause 6.10 Parameter Set Minimum supported by the UE's power class. |
| Uplink output power | |
| PCCPCH/PCPICH carrier number | Reference- 34 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- 34 clause 6.10 Parameter Set Minimum supported by the UE's power class. |
| Uplink output power | |
| PCCPCH/PCPICH carrier number | Reference- 34 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- 34 clause 6.10 Parameter Set Minimum supported by the UE's power class. |
| Uplink output power | |
| PCCPCH/PCPICH carrier number | Reference- 34 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- 34 clause 6.10 Parameter Set Minimum supported by the UE's power class. |
| Uplink output power | |
| PCCPCH/PCPICH carrier number | Reference- 34 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 6.10 clause 6.10 Parameter Set Minimum supported by the UE's power class. |
| Uplink output power | |
| PCCPCH/PCPICH carrier number | Reference 6.10 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 6.10 clause 6.10 Parameter Set Minimum supported by the UE's power class. |
| Uplink output power | |
| PCCPCH/PCPICH carrier number | Reference 6.10 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 6.10 clause 6.10 Parameter Set Minimum supported by the UE's power class. |
| Uplink output power | |
| PCCPCH/PCPICH carrier number | Reference 6.10 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 6.10 clause 6.10 Parameter Set Minimum supported by the UE's power class. |
| Uplink output power | |
| PCCPCH/PCPICH carrier number | Reference 6.10 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- [6] clause 6.10 Parameter Set Minimum supported by the UE's power class. |
| Uplink output power | |
| PCCPCH/PCPICH carrier number | Reference- [6] 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- [6] clause 6.10 Parameter Set Minimum supported by the UE's power class. |
| Uplink output power | |
| PCCPCH/PCPICH carrier number | Reference- [6] 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- [6] clause 6.10 Parameter Set Minimum supported by the UE's power class. |
| Uplink output power | |
| PCCPCH/PCPICH carrier number | Reference- [6] 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- [6] clause 6.10 Parameter Set Minimum supported by the UE's power class. |
| Uplink output power | |
| PCCPCH/PCPICH carrier number | Reference- [6] 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

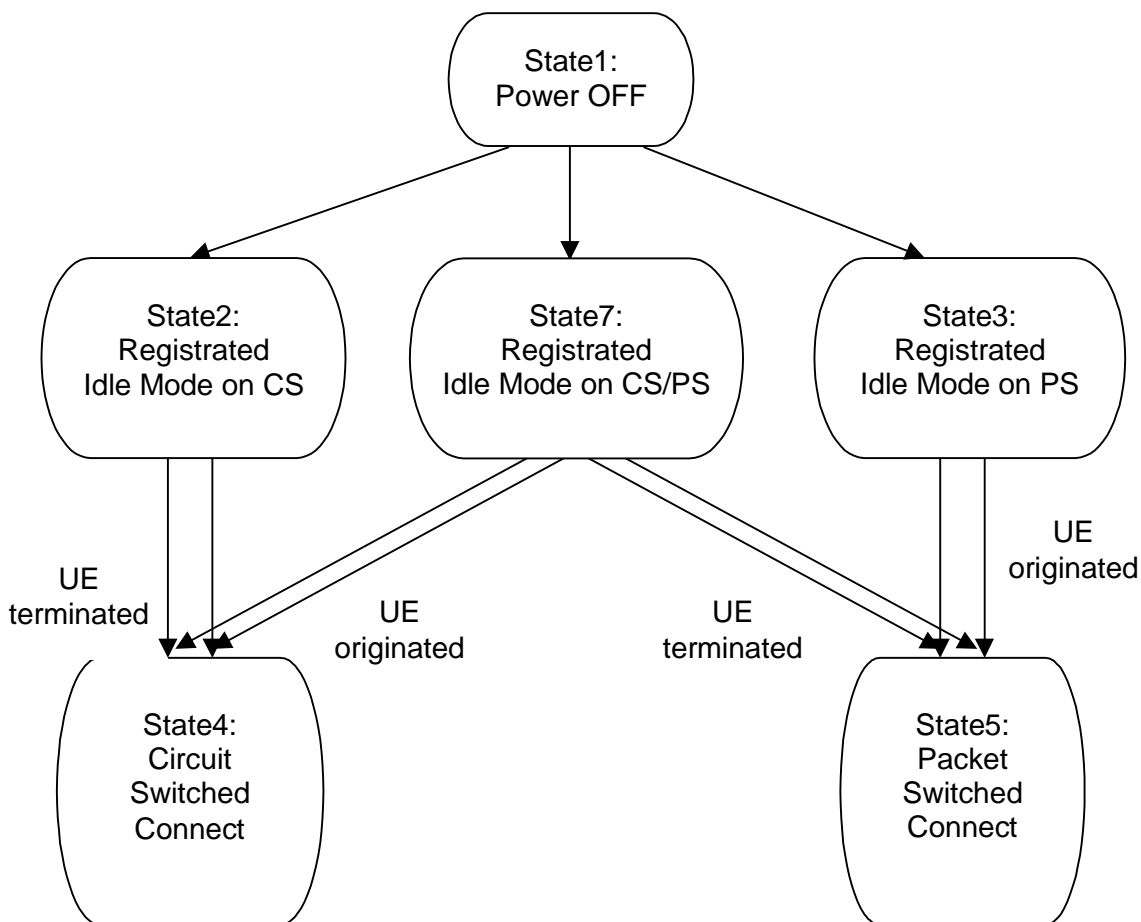


Figure 7.2.1.1: UE Test States for Generic setup procedures

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

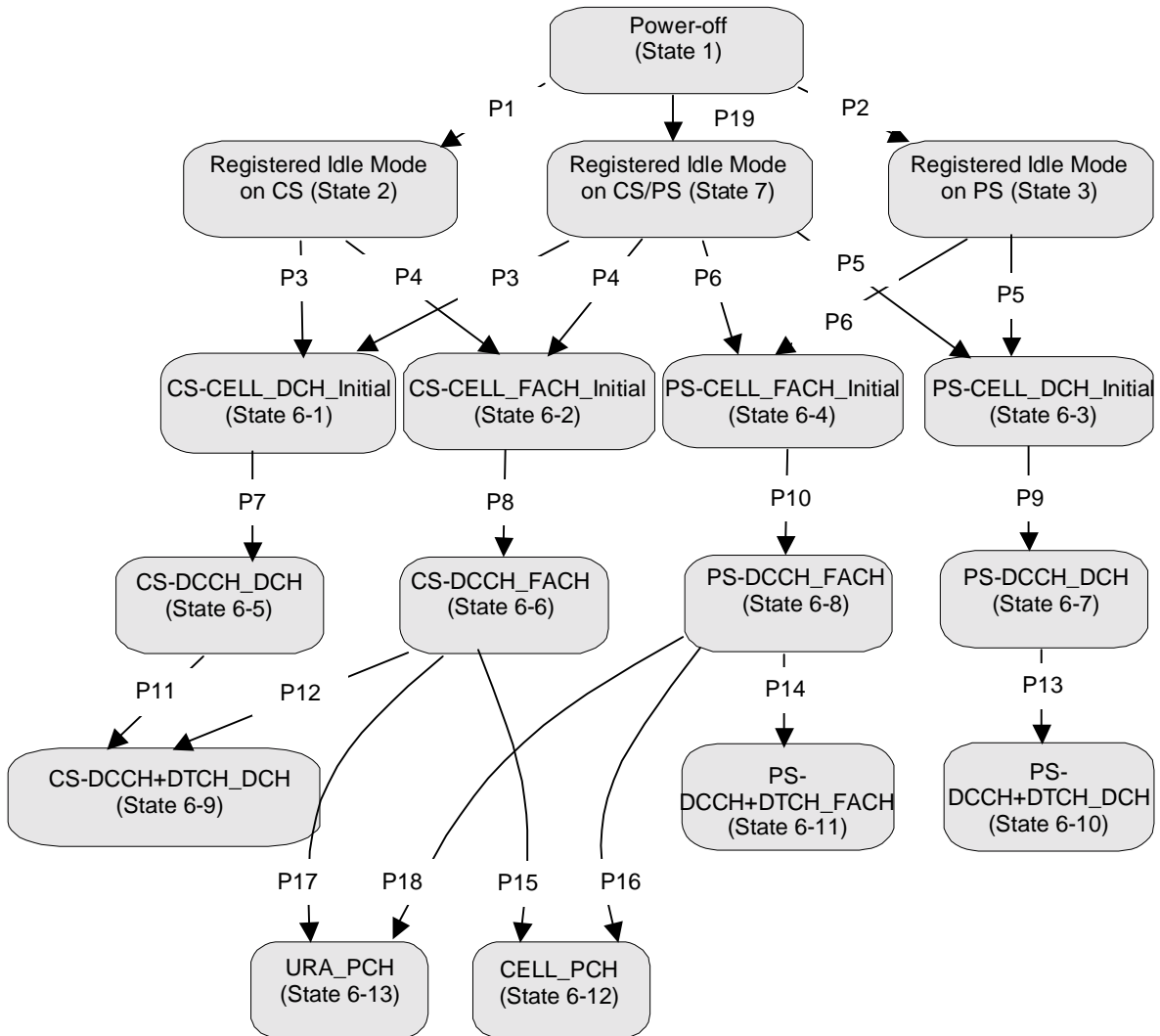


Figure 7.4.1.1: UE RRC test initial states and common procedures

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 | --> | | PAGING RESPONSE | RR |

7.4.2.1.1.4 Specific message contents

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

To execute procedure P4, all specific message contents with the exception of step 3 shall be referred to clause 9 of TS 34.108. For step 3, the message of the same type titled "Transition to CELL_FACH" in TS 34.123-1 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 | --> | | CM SERVICE REQUEST | MM |

7.4.2.1.2.4 Specific message contents

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

To execute procedure P4, all specific message contents with the exception of step 2 shall be referred to clause 9 of TS 34.108. For step 2, the message of the same type titled "Transition to CELL_FACH" in TS 34.123-1 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 | --> | | SERVICE REQUEST | GMM |

7.4.2.2.2.4 Specific message contents

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

To execute procedure P6, all specific message contents with the exception of step 2 shall be referred to clause 9 of TS 34.108. For step 2, the message of the same type titled "Transition to CELL_FACH" in TS 34.123-1 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 | | |
| 4 | | → | CM SERVICE REQUEST | MM |
| 21 | | <-- | AUTHENTICATION REQUEST | MM |
| 32 | | --> | AUTHENTICATION RESPONSE | MM |
| 43 | | <-- | SECURITY MODE COMMAND | RRC |
| 54 | | --> | SECURITY MODE COMPLETE | RRC |
| 65 | | --> | SET UP | CC |
| 76 | | <-- | 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 | 0 |
| RRC transaction identifier | 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 is present with the values of the sub IEs as stated below. Else, this IE and the sub-IEs are omitted. |
| Integrity check info | SS calculates the value of MAC-I for this message and writes to this IE. |
| - Message authentication code | SS provides the value of this IE, from its internal counter. |
| - RRC Message sequence number | CS domain |
| CN domain identity | See Specific Message Content for each test case |
| NAS message | |

Contents of INITIAL DIRECT TRANSFER message: AM

| Information Element | Value/remark |
|--------------------------------|--|
| Message Type | 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. |
| Integrity check info | This IE is checked to see if it is present. The value is compared against the XMAC-I value computed by SS. |
| - Message authentication code | This IE is checked to see if it is present. The value is used by SS to compute the XMAC-I value. |
| - RRC Message sequence number | Not checked |
| CN domain identity | Not checked |
| Intra Domain NAS Node Selector | Not checked |
| NAS message | Not checked |
| Measured results on RACH | Not checked |

Contents of PAGING TYPE 1 message: TM (Speech in CS)

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

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 |
|---|--|

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 |
|--|--|

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 | 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 | 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 | 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 | |
| - 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 | |
| <u>- TFC subset</u> | <u>(This IE is repeated for TFC number.)</u> |
| - 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 ListRB identity</u> | <u>Explicit List</u> |
| - <u>RB identityLogicalChannel</u> | Reference to TS34.108 clause 6.10 Parameter Set |
| - Semi-static Transport Format information | Reference to TS34.108 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 |
| 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 | |
| - CHOICE Gain Factor | 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 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 |
| - CHOICE mode | FDD |
| - Downlink DPCH power control information | |
| - DPC mode | 0 (single) |
| - Power offset P_{Pilot-DPCH} CHOICE mode | FDD0 |
| - 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 | |
| - Ciphering algorithm 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) |
| - UEA0 | If ciphering is not indicated to be active on IXIT statements in TS 34.123-2, set this IE to TRUE. |
| - UEA1 | If ciphering is indicated to be active on IXIT statements in TS 34.123-2, set this IE to TRUE. |
| - Spare | FALSE |
| - Integrity protection algorithm capability | 0000000000000010B (UIA1) |
| - UIA1 | TRUE |
| - Spare | FALSE |
| Ciphering mode info | This presence of this IE is dependent on IXIT statements in TS 34.123-2. If ciphering is indicated to be active, this IE present with the values of the sub IEs as stated below. Else, this IE is omitted. |
| - Ciphering mode command | Start/restart |
| - Ciphering algorithm | Use the same ciphering algorithm specified in "ciphering algorithm capability" IE in this message. |
| - Ciphering activation time for DPCH | Not Present |
| - Radio bearer downlink ciphering activation time info | |
| - Radio bearer activation time | 1 |
| - RB identity | Current RLC SN+2 |
| - RLC sequence number | 2 |
| - RB identity | Current RLC SN+2 |
| - RLC sequence number | 3 |
| - RB identity | Current RLC SN + 2 |
| - RLC sequence number | 4 |
| - RB identity | Current RLC SN + 2 |
| - RLC sequence number | Current RLC SN + 2 |
| Integrity protection mode info | The presence of this IE is dependent on IXIT statements in TS 34.123-32. If integrity protection is indicated to be active, this IE is present with the values of the sub IEs as stated below. Else, this IE and the sub-IEs are omitted. |
| - Integrity protection mode command | Start |
| - Downlink integrity protection activation info | Not Present |
| - Integrity protection algorithm | UIA1 |
| - Integrity protection initialisation number | SS selects an arbitrary 32 bits number for FRESH |
| CN domain identity | Supported domain |

Contents of SECURITY MODE COMPLETE message: AM

| Information Element | Value/remark |
|---|---|
| Message Type RRC transaction identifier Integrity check info - Message authentication code - RRC Message sequence number Uplink integrity protection activation info Radio bearer uplink ciphering activation time info | 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. 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. 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 - Message authentication code - RRC Message sequence number CN domain identity NAS message Measured results on RACH | 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. Checked to see if set to supported CN domain as specified in the IXIT statements Set according to that indicated in specific message content clause 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,  
}
```



```

    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
    }
  }
},
}
```

```
_____ {  
_____ 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
    },
    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,
            sttd-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  
____ }  
____ },  
____ tfcs 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,  
        tpci-Existence TRUE,  
        positionFixedOrFlexible flexible,  
        timingOffset 0  
      }  
    },  
    tpci normalTFPCI-Signalling : complete : {  
      ctpcSize ctpc4Bit : {  
        {  
          ctpc4 0  
        },  
        {  
          ctpc4 1  
        },  
        {  
          ctpc4 2  
        },  
        {  
          ctpc4 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
_____ }
_____ }
_____ }
_____ }
_____ }

```

SysInfoType7Analyzed 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
                    }
                  }
                }
              }
            }
          }
        }
      }
    }
  }
}

```

SysInfoType11

```

}
}
{
    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,
```



```

      {
      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: | ⌘ <input type="text"/> 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: ⌘

| | | |
|-------------------------------------|---------------------------|---|
| <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 ⌘ | |

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

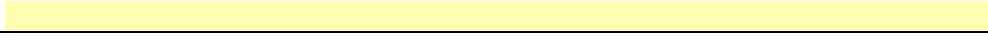
| | | | |
|------------------------|--|-----------------|--|
| Title: | ⌘ Correction of Radio Bearer Configurations for FDD Mode | | |
| Source: | ⌘ NTTDoCoMo, Siemens AG | | |
| Work item code: | ⌘ | Date: | ⌘ 21.8.2001 |
| Category: | ⌘ F | Release: | ⌘ R99 |
| | Use <u>one</u> of the following categories: 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 ⌘ |

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 Radio Bearer Configurations for TDD 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. 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 |
| <u>Uplink</u> : 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 | | | |
| <u>Max number of bits/radio frame before rate matching</u> | <u>516</u> | | | | |

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 | <u>0.880.84</u> |

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 | <u>0.920.88</u> |

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 |
| | TFCl 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 |
| | TFCI code word | 16 bits |
| | Puncturing limit | <u>0,560,52</u> |

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 |
| | TFCI 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 | | |
| <u>Max number of bits/radio frame before rate matching</u> | <u>117</u> | <u>126</u> | | |
| 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 |
| | TFCl 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 |
| | TFCl code word | 16 bits |
| | Puncturing limit | 0.70.68 |

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 |
| | TFCl code word | 16 bits |
| | TPC | 2 bits |
| | Puncturing Limit | 0.720.68 |

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 |
| | TFCl 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 | 0.560.52 |

- 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 | 0.520 48 |

- 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 |
| | 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 | 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. 429132129141) | | |
| Max number of bits/radio frame before rate matching | 64575 (alt. 64571) | | |
| 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 | 0.860.80 |

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, TF0, TF1), (TF1, TF0, TF0, TF0, 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, 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 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 <u>11</u> codes x 1 time slot |
| | Max. Number of data bits/radio frame | 4204 <u>2668</u> 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 User of Radio Bearer | SRB#0 | SRB#1 | SRB#2 | SRB#3 | SRB#4 | SRB#5 | SRB#6 | |
|--------------|---|---|---|---|---|---|---|---|---|
| | | 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) | |

* 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 | |
| | 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 User of Radio Bearer | SRB#0 RRC | SRB#5 RRC | SRB#6 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 | | |
| | | <u>TF2, bits</u> | <u>2x171</u> | | |
| | | <u>TF3, bits</u> | <u>3x171</u> | | |
| | | <u>TF4, bits</u> | <u>4x171</u> | | |
| | TTI, ms | <u>4020</u> | | | |
| | Coding type | CC 1/2 | | | |
| | CRC, bit | 16 | | | |
| Max number of bits/TTI after channel coding | <u>3901528</u> | | | | |
| <u>Max number of bits/radio frame before rate matching</u> | <u>764</u> | | | | |

6.10.3.4.3.1.2.1.7 TFCS for FACH

| | |
|-----------|---------------------------------------|
| TFCS size | <u>25</u> |
| TFCS | FACH = TF0, TF1, <u>TF2, TF3, TF4</u> |

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, bits | 0x240 (alt. 0x80) |
| | | TF1, bits | 1x240 (alt. 1x80) |
| | | TF2, bits | 2x240 (alt. 2x80) |
| | TTI, ms | 40 ⁺ 20 | |
| | Coding type | CC 1/2 | |
| | CRC, bit | 16 | |
| | Max number of bits/TTI before rate matching | 528-1056 (alt. 208400) | |
| | Max number of bits/radio frame before rate matching | 528 (alt. 200) | |
| 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, TF2 |

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 | RAB | | |
|--------------|---|-----------------------------|--------|--|
| Higher layer | 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 | 2x 363 | |
| | TTI, ms | 4020 | | |
| | Coding type | TC | | |
| | CRC, bit | 16 | | |
| | Max number of bits/TTI before rate matching | 4449 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 | SRB#1 | SRB#2 | SRB#3 | SRB#4 | SRB#5 | SRB#6 | |
|--------------|----------------------|--------------------------------|-------------------------------------|--------------------|--------------------|--------------------|--------------------|--|
| Higher layer | 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 | 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 $\frac{1}{2}$ |
| CRC, bit | 16 |
| Max number of bits/TTI before rate matching | 764 1528(alt.41542292) |
| 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 615 (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 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 65 codes x 1 time slot |
| | Max. Number of data bits/radio frame | 4204-1448 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 | 4364-1640 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)*, (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 | 4204-1920 bits |
| | TFCl code word | 46-32 bits |
| | Puncturing limit | 0,68 |

(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 |
| | TFCI code word | 16-32 bits |
| | Puncturing limit | 0,680,64 |

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 | 1x170 | | | | |
| | TTI, ms | 10 | | | | |
| | Coding type | CC 1/2 | | | | |
| | 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 | | | | |
| | TTI, ms | 20 (alt. 10) | | | | | |
| | Coding type | CC 1/2 | | | | | |
| | CRC, bit | 16 | | | | | |
| | Max number of bits/TTI after channel coding | 768 | 384 | 384 | 384 | 384 | 384 |
| | Max number of bits/Radio frame before rate matching | 384 (alt. 768) | 192 (alt. 384) | 192 (alt. 384) | 192 (alt. 384) | 192 (alt. 384) | 192 (alt. 384) |

6.10.2.4.4.1.1.2 TFCS

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

6.10.2.4.4.1.2 Physical channel parameters

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

<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# <u>40</u> | SRB# <u>21</u> | SRB# <u>32</u> | SRB# <u>43</u> | SRB# <u>54</u> | SRB# <u>65</u> | |
| | 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: | ⌘ <input type="text"/> | Date: | ⌘ 2001-09-02 |
| 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) | | 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) | |
| Detailed explanations of the above categories can be found in 3GPP TR 21.900 . | | | |

| | |
|---------------------------|--|
| 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 |

| | |
|--------------------------------------|--|
| | <ul style="list-style-type: none"> 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 <p>TDD changes:</p> <ul style="list-style-type: none"> 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: | <table border="0"> <tr> <td>⌘ <input type="checkbox"/></td> <td>Other core specifications</td> <td>⌘</td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/></td> <td>Test specifications</td> <td></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/></td> <td>O&M Specifications</td> <td></td> <td><input type="checkbox"/></td> </tr> </table> | ⌘ <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"/> |
| ⌘ <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: | ⌘ | | | | | | | | | | | | |

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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 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 | <u>Interactive or Background</u> | <u>N/A</u> | <u>UL:64 DL:256</u> | <u>PS</u> |
| 33 | <u>Interactive or Background</u> | <u>N/A</u> | <u>UL:0 DL:32</u> | <u>PS</u> |
| 34 | <u>Interactive or Background</u> | <u>N/A</u> | <u>UL:32 DL: 0</u> | <u>PS</u> |
| 35 | <u>Interactive or Background</u> | <u>N/A</u> | <u>UL:64 DL:144</u> | <u>PS</u> |
| 36 | <u>Interactive or Background</u> | <u>N/A</u> | <u>UL:144 DL:144</u> | <u>PS</u> |

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 | <u>Interactive or Background</u> | <u>N/A</u> | <u>UL:0 DL:32</u> | <u>PS</u> |
| 34 | <u>Interactive or Background</u> | <u>N/A</u> | <u>UL:32 DL:0</u> | <u>PS</u> |
| 35 | <u>Interactive or Background</u> | <u>N/A</u> | <u>UL:64 DL:144</u> | <u>PS</u> |
| 36 | <u>Interactive or Background</u> | <u>N/A</u> | <u>UL:144 DL:144</u> | <u>PS</u> |

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"/> Test specifications | | |
| | <input type="checkbox"/> O&M Specifications | | |
| 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 P_p-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

⌘ **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: | ⌘ 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 |

Use one of the following categories:

- F** (essential correction)
- A** (corresponds to a correction in an earlier release)
- B** (Addition of feature),
- C** (Functional modification of feature)
- D** (Editorial modification)

Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use one of the following releases:

- 2** (GSM Phase 2)
- R96** (Release 1996)
- R97** (Release 1997)
- R98** (Release 1998)
- R99** (Release 1999)
- REL-4** (Release 4)
- REL-5** (Release 5)

| | |
|--------------------------------------|---|
| Reason for change: | ⌘ 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: | ⌘ | <input type="checkbox"/> Other core specifications | ⌘ |
| | | <input type="checkbox"/> Test specifications | |
| | | <input type="checkbox"/> 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 | |
| - 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 | 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 <ul style="list-style-type: none"> - MCC digit - MNC digit - Location area code - CN domain system information - CN domain identity - CHOICE CN Type <ul style="list-style-type: none"> - CN domain specific NAS system information - GSM-MAP NAS system information - CN domain specific DRX cycle length coefficient - CN domain identity - CHOICE CN Type <ul style="list-style-type: none"> - 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 <ul style="list-style-type: none"> -T300 -N300 -T312 - N312 - UE Timers and constants in connected mode <ul style="list-style-type: none"> - 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> |
|--|--|

Contents of System Information Block type2

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

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/NO |
| - 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,ShearchRAT | Not Present |
| - Qhyst1s | 0 dB |
| - Qhyst2s | 0 dB |
| - Treselections | 0 seconds |
| - HCS Serving cell information | |
| - HCS_PRIO | 0 |
| - QHCS | 0 |
| - TCR _{MAX} | Not used |
| - NCR | Not Present |
| - TCMA _{Hyst} | 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 | Not present |
| - SHCS,RAT | Not Present |
| - Slimit,SsearchRAT | 0 dB |
| - Qhyst1s | 0 seconds |
| - Treselections | |
| - 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 | |
| - 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 |
| - 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 | |
| - TFCS addition information | |
| - CHOICE CTFC Size | |
| - CTFC information | |
| - Power offset information | |
| - 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> |
|--|---|

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/</p> <p>(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/</p> <p>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> |
|--|--|

| | |
|--|--|
| - 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 | |
| - <u>CHOICE TDD option</u> | <u>(ASC#0)</u> |
| - Available Channelisation codes indices | TDD |
| - CHOICE subchannel size | <u>3.84 Mcps TDD</u> |
| - Available Subchannels} | Not Present (Default all) |
| - ASC Settings | Size1 |
| - CHOICE mode | null |
| - <u>CHOICE TDD option</u> | <u>(ASC#1)</u> |
| - Available Channelisation codes indices | TDD |
| - CHOICE subchannel size | <u>3.84 Mcps TDD</u> |
| - Available Subchannels} | Not Present (Default all) |
| - ASC Settings | Size1 |
| - CHOICE mode | null |
| - <u>CHOICE TDD option</u> | <u>(ASC#2)</u> |
| - Available Channelisation codes indices | TDD |
| - CHOICE subchannel size | <u>3.84 Mcps TDD</u> |
| - Available Subchannels} | Not Present (Default all) |
| - ASC Settings | Size1 |
| - CHOICE mode | null |
| - <u>CHOICE TDD option</u> | <u>(ASC#3)</u> |
| - Available Channelisation codes indices | TDD |
| - CHOICE subchannel size | <u>3.84 Mcps TDD</u> |
| - Available Subchannels} | Not Present (Default all) |
| - ASC Settings | Size1 |
| - CHOICE mode | null |
| - <u>CHOICE TDD option</u> | <u>(ASC#4)</u> |
| - Available Channelisation codes indices | TDD |
| - CHOICE subchannel size | <u>3.84 Mcps TDD</u> |
| - Available Subchannels} | Not Present (Default all) |
| - ASC Settings | Size1 |
| - CHOICE mode | null |
| - <u>CHOICE TDD option</u> | <u>(ASC#5)</u> |
| - Available Channelisation codes indices | TDD |
| - CHOICE subchannel size | <u>3.84 Mcps TDD</u> |
| - Available Subchannels} | Not Present (Default all) |
| - ASC Settings | Size1 |
| - CHOICE mode | null |
| - <u>CHOICE TDD option</u> | <u>(ASC#6)</u> |
| - Available Channelisation codes indices | TDD |
| - CHOICE subchannel size | <u>3.84 Mcps TDD</u> |
| - 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) |
| - <u>Persistence scaling factor</u> | <u>0.9 (for ASC#7)</u> |
| - 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 | |
| - CHOICE <i>mode</i> | TDD |
| - Channelisation code | 16/16 |
| - Timeslot number | Not Present (MD) |
| - <u>CHOICE TDD option</u> | <u>3.84 Mcps TDD</u> |
| - CHOICE Burst Type | Type 1 |
| - Midamble Shift | 0 |
| - Repetition period/length | Not Present (MD "(64/2)") |
| - Offset | 0 |
| - Paging indicator length | Not Present (MD 4) |
| - N _{GAP} | Not Present (MD 4) |
| - N _{PCH} | Not Present (MD 2) |
| - <u>Number of PI per frame</u> | <u>18</u> |
| - <u>STTD indicator</u> | <u>FALSE</u> |
| - CBS DRX Level 1 information | Not Present |

Contents of System Information Block type5 (1.28 Mcps 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 |
| - CHOICE TDD option | <u>1.28 Mcps TDD /REL-4/</u> |
| - no data | |
| - Primary CCPCH info | |
| - CHOICE <i>mode</i> | TDD |
| - CHOICE TDD option | <u>1.28 Mcps TDD /REL-4/</u> |
| - TSTD indicator | FALSE |
| - Cell parameters ID | Not Present |
| - Block STTD indicator | FALSE |
| - PRACH system information list | |
| - PRACH system information | |
| - PRACH info | |
| - CHOICE <i>mode</i> | TDD |
| - CHOICE TDD option | <u>1.28 Mcps TDD /REL-4/</u> |
| - SYNC_UL info | |
| - SYNC_UL codes bitmap | "11111111" |
| - UL Target SIR | 10 dB |
| - Power Ramping Step | 3 dB |
| - Max SYNC_UL Transmissions | 8 |
| - Mmax | 32 |
| - PRACH definition | |
| - Timeslot number | |
| - CHOICE TDD option | <u>1.28 Mcps TDD /REL-4/</u> |
| - Timeslot number | 1 |
| - PRACH Channelisation Code List | |
| - Channelisation Code List | |
| - Channelisation Code | (8/1) |
| - Midamble Shift and burst type | |
| - CHOICE TDD option | <u>1.28 Mcps TDD /REL-4/</u> |
| - 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 | <u>1.28 Mcps TDD /REL-4/</u> |
| - 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](#)
- [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 \(for PCH\)](#)
(a 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 \(for FACH\)](#)
(a 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](#)

| | |
|--|--|
| - <u>Type of channel coding</u> | <u>Reference clause 6.10 Parameter Set</u> |
| - <u>Coding Rate</u> | <u>Reference clause 6.10 Parameter Set</u> |
| - <u>Rate matching attribute</u> | <u>Reference clause 6.10 Parameter Set</u> |
| - <u>CRC size</u> | <u>Reference clause 6.10 Parameter Set</u> |
| - <u>CTCH indicator</u> | <u>FALSE</u> |
| - <u>PICH info</u> | |
| - <u>CHOICE mode</u> | <u>TDD</u> |
| - <u>Channelisation code list</u> | |
| - <u>Channelisation code</u> | <u>(16/1)</u> |
| - <u>Channelisation code</u> | <u>(16/2)</u> |
| - <u>Timeslot number</u> | <u>0</u> |
| - <u>CHOICE TDD option</u> | <u>1.28 Mcps TDD</u> |
| - <u>Midamble shift and burst type</u> | <u>0</u> |
| - <u>CHOICE TDD option</u> | <u>1.28 Mcps TDD</u> |
| - <u>Midamble Allocation Mode</u> | <u>Default midamble</u> |
| - <u>Midamble configuration</u> | <u>8</u> |
| - <u>Midamble Shift</u> | <u>Not Present</u> |
| - <u>Repetition period/length</u> | <u>64/2</u> |
| - <u>Offset</u> | <u>0</u> |
| - <u>Paging indicator length</u> | <u>4</u> |
| - <u>N_{GAP}</u> | <u>4</u> |
| - <u>N_{PCH}</u> | <u>2</u> |
| - <u>CBS DRX Level 1 information</u> | <u>Not Present</u> |

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 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 | |
| - 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 | |
| - 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. |
| | Refer to clause 6.10 Parameter Set |
| - CTFC information | Not Present |
| - Power offset information | |
| - 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> <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} - 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> |
|---|--|

Contents of System Information Block type6 In connected mode (similar to SIB type5) (1.28 Mcps TDD)

| | |
|--|---|
| <ul style="list-style-type: none"> - <u>SIB6 indicator</u> - <u>PICH Power offset</u> - <u>CHOICE Mode</u> - <u>PUSCH system information</u> - <u>PDSCH system information</u> - <u>TDD open loop power control</u> - <u>Primary CCPCH Tx Power</u> - <u>CHOICE TDD option</u> - <u>no data</u> - <u>Primary CCPCH info</u> - <u>CHOICE mode</u> - <u>CHOICE TDD option</u> - <u>TSTD indicator</u> - <u>Cell parameters ID</u> - <u>Block STTD indicator</u> - <u>PRACH system information list</u> - <u>PRACH system information</u> - <u>PRACH info</u> - <u>CHOICE mode</u> - <u>CHOICE TDD option</u> | <p><u>TRUE</u> <u>-5 dB</u> <u>TDD</u> <u>Not Present</u> <u>Not Present</u></p> <p><u>30 dbm</u> <u>1.28 Mcps TDD /REL-4/</u></p> <p><u>TDD</u> <u>1.28 Mcps TDD /REL-4/</u> <u>FALSE</u> <u>Not Present</u> <u>FALSE</u></p> <p><u>TDD</u> <u>1.28 Mcps TDD /REL-4/</u></p> |
|--|---|

| | |
|--|-------------------------------------|
| - 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 | "111111111" |
| - 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 | "111111111" |
| - 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 | "111111111" |
| - 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 | "111111111" |

- [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 | |
| - 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 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 |
| - 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 | |
| - 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 | |
| - CHOICE mode | TDD |
| - Channelisation code list | |
| - Channelisation code | (16/1) |
| - Channelisation code | (16/2) |
| - Timeslot number | 0 |
| - CHOICE TDD option | 1.28 Mcps TDD |
| - Midamble shift and burst type | 0 |
| - CHOICE TDD option | 1.28 Mcps TDD |
| - Midamble Allocation Mode | Default midamble |
| - Midamble configuration | 8 |
| - Midamble Shift | Not Present |
| - Repetition period/length | 64/2 |
| - Offset | 0 |
| - Paging indicator length | 4 |
| - N _{GAP} | 4 |
| - N _{PCH} | 2 |
| - 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 | |
| - 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 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 | 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 | 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 | |
| - 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 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 Mcps 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 Minimum supported by the UE's power class. Reference to clause 6.10 Parameter Set |
| Uplink output power | |
| PCCPCH/PCPICH carrier number | |
| Cell Channel Description | |
| - 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>

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> | |
| F (essential 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: | ⌘ 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 | |
| - 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 | 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 <ul style="list-style-type: none"> - MCC digit - MNC digit - Location area code - CN domain system information <ul style="list-style-type: none"> - CN domain identity - CHOICE CN Type - CN domain specific NAS system information <ul style="list-style-type: none"> - GSM-MAP NAS system information - CN domain specific DRX cycle length coefficient - CN domain identity <ul style="list-style-type: none"> - CHOICE CN Type - CN domain specific NAS system information <ul style="list-style-type: none"> - GSM-MAP NAS system information - CN domain specific DRX cycle length coefficient - UE Timers and constants in idle mode <ul style="list-style-type: none"> -T300 -N300 -T312 - N312 - UE Timers and constants in connected mode <ul style="list-style-type: none"> - 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> |
|--|--|

Contents of System Information Block type2

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

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/NO |
| - 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,ShearchRAT | Not Present |
| - Qhyst1s | 0 dB |
| - Qhyst2s | 0 dB |
| - Treselections | 0 seconds |
| - HCS Serving cell information | |
| - HCS_PRIO | 0 |
| - QHCS | 0 |
| - TCR _{MAX} | Not used |
| - NCR | Not Present |
| - TCMA _X H _{yst} | 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 | Not present |
| - SHCS,RAT | Not Present |
| - Slimit,ShearchRAT | 0 dB |
| - Qhyst1s | 0 seconds |
| - Treselections | |
| - 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 (FDD)

| | |
|--|--|
| - 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 | |
| - Function type | Linear |
| - Map_parameter_1 | 1 |
| - Map_parameter_2 | 1 |
| - Upper_limit | 1 |
| - Cell_selection_and_reselection_quality_measure | CPICH Ec/NO |
| - 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 |
| - S _{limit} ,SsearchRAT | Not Present |
| - Qhyst1s | 0 dB |
| - Qhyst2s | 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 | 33dBm |
| - CHOICE mode | FDD |
| - Qqualmin | -20 dB |
| - Qrxlevmin | -115 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 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 | |
| - 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 |
| - 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 | |
| - 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 |

| | |
|--|---|
| <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> |
|--|---|

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/</p> <p>(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/</p> <p>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> |
|--|--|

| | |
|--|--|
| - 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 | |
| - <u>CHOICE TDD option</u> | <u>(ASC#0)</u> |
| - Available Channelisation codes indices | TDD |
| - CHOICE subchannel size | <u>3.84 Mcps TDD</u> |
| - Available Subchannels} | Not Present (Default all) |
| - ASC Settings | Size1 |
| - CHOICE mode | null |
| - <u>CHOICE TDD option</u> | <u>(ASC#1)</u> |
| - Available Channelisation codes indices | TDD |
| - CHOICE subchannel size | <u>3.84 Mcps TDD</u> |
| - Available Subchannels} | Not Present (Default all) |
| - ASC Settings | Size1 |
| - CHOICE mode | null |
| - <u>CHOICE TDD option</u> | <u>(ASC#2)</u> |
| - Available Channelisation codes indices | TDD |
| - CHOICE subchannel size | <u>3.84 Mcps TDD</u> |
| - Available Subchannels} | Not Present (Default all) |
| - ASC Settings | Size1 |
| - CHOICE mode | null |
| - <u>CHOICE TDD option</u> | <u>(ASC#3)</u> |
| - Available Channelisation codes indices | TDD |
| - CHOICE subchannel size | <u>3.84 Mcps TDD</u> |
| - Available Subchannels} | Not Present (Default all) |
| - ASC Settings | Size1 |
| - CHOICE mode | null |
| - <u>CHOICE TDD option</u> | <u>(ASC#4)</u> |
| - Available Channelisation codes indices | TDD |
| - CHOICE subchannel size | <u>3.84 Mcps TDD</u> |
| - Available Subchannels} | Not Present (Default all) |
| - ASC Settings | Size1 |
| - CHOICE mode | null |
| - <u>CHOICE TDD option</u> | <u>(ASC#5)</u> |
| - Available Channelisation codes indices | TDD |
| - CHOICE subchannel size | <u>3.84 Mcps TDD</u> |
| - Available Subchannels} | Not Present (Default all) |
| - ASC Settings | Size1 |
| - CHOICE mode | null |
| - <u>CHOICE TDD option</u> | <u>(ASC#6)</u> |
| - Available Channelisation codes indices | TDD |
| - CHOICE subchannel size | <u>3.84 Mcps TDD</u> |
| - 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) |
| - <u>Persistence scaling factor</u> | <u>0.9 (for ASC#7)</u> |
| - 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 Present0

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 | |
| - CHOICE <i>mode</i> | TDD |
| - Channelisation code | 16/16 |
| - Timeslot number | Not Present (MD) |
| - <u>CHOICE TDD option</u> | <u>3.84 Mcps TDD</u> |
| - CHOICE Burst Type | Type 1 |
| - Midamble Shift | 0 |
| - Repetition period/length | Not Present (MD "(64/2)") |
| - Offset | 0 |
| - Paging indicator length | Not Present (MD 4) |
| - N _{GAP} | Not Present (MD 4) |
| - N _{PCH} | Not Present (MD 2) |
| - <u>Number of PI per frame</u> | <u>18</u> |
| - <u>STTD indicator</u> | <u>FALSE</u> |
| - CBS DRX Level 1 information | Not Present |

Contents of System Information Block type5 (1.28 Mcps 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 |
| - CHOICE TDD option | <u>1.28 Mcps TDD /REL-4/</u> |
| - no data | |
| - Primary CCPCH info | |
| - CHOICE <i>mode</i> | TDD |
| - CHOICE TDD option | <u>1.28 Mcps TDD /REL-4/</u> |
| - TSTD indicator | FALSE |
| - Cell parameters ID | Not Present |
| - Block STTD indicator | FALSE |
| - PRACH system information list | |
| - PRACH system information | |
| - PRACH info | |
| - CHOICE <i>mode</i> | TDD |
| - CHOICE TDD option | <u>1.28 Mcps TDD /REL-4/</u> |
| - SYNC_UL info | |
| - SYNC_UL codes bitmap | "11111111" |
| - UL Target SIR | 10 dB |
| - Power Ramping Step | 3 dB |
| - Max SYNC_UL Transmissions | 8 |
| - Mmax | 32 |
| - PRACH definition | |
| - Timeslot number | |
| - CHOICE TDD option | <u>1.28 Mcps TDD /REL-4/</u> |
| - Timeslot number | 1 |
| - PRACH Channelisation Code List | |
| - Channelisation Code List | |
| - Channelisation Code | (8/1) |
| - Midamble Shift and burst type | |
| - CHOICE TDD option | <u>1.28 Mcps TDD /REL-4/</u> |
| - 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 | <u>1.28 Mcps TDD /REL-4/</u> |
| - 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](#)
- [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](#)
["11111111"](#)
[Size1](#)
[Null](#)

[\(ASC#1\)](#)
[TDD](#)
[1.28 Mcps TDD](#)
["11111111"](#)
[Size1](#)
[Null](#)

[\(ASC#2\)](#)
[TDD](#)
[1.28 Mcps TDD](#)
["11111111"](#)
[Size1](#)
[Null](#)

[\(ASC#3\)](#)
[TDD](#)
[1.28 Mcps TDD](#)
["11111111"](#)
[Size1](#)
[Null](#)

[\(ASC#4\)](#)
[TDD](#)
[1.28 Mcps TDD](#)
["11111111"](#)
[Size1](#)
[Null](#)

[\(ASC#5\)](#)
[TDD](#)
[1.28 Mcps TDD](#)
["11111111"](#)
[Size1](#)
[Null](#)

[\(ASC#6\)](#)
[TDD](#)
[1.28 Mcps TDD](#)
["11111111"](#)
[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 \(for PCH\)](#)
(a 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 \(for FACH\)](#)
(a 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](#)

| | |
|--|--|
| - <u>Type of channel coding</u> | <u>Reference clause 6.10 Parameter Set</u> |
| - <u>Coding Rate</u> | <u>Reference clause 6.10 Parameter Set</u> |
| - <u>Rate matching attribute</u> | <u>Reference clause 6.10 Parameter Set</u> |
| - <u>CRC size</u> | <u>Reference clause 6.10 Parameter Set</u> |
| - <u>CTCH indicator</u> | <u>FALSE</u> |
| - <u>PICH info</u> | |
| - <u>CHOICE mode</u> | <u>TDD</u> |
| - <u>Channelisation code list</u> | |
| - <u>Channelisation code</u> | <u>(16/1)</u> |
| - <u>Channelisation code</u> | <u>(16/2)</u> |
| - <u>Timeslot number</u> | <u>0</u> |
| - <u>CHOICE TDD option</u> | <u>1.28 Mcps TDD</u> |
| - <u>Midamble shift and burst type</u> | <u>0</u> |
| - <u>CHOICE TDD option</u> | <u>1.28 Mcps TDD</u> |
| - <u>Midamble Allocation Mode</u> | <u>Default midamble</u> |
| - <u>Midamble configuration</u> | <u>8</u> |
| - <u>Midamble Shift</u> | <u>Not Present</u> |
| - <u>Repetition period/length</u> | <u>64/2</u> |
| - <u>Offset</u> | <u>0</u> |
| - <u>Paging indicator length</u> | <u>4</u> |
| - <u>N_{GAP}</u> | <u>4</u> |
| - <u>N_{PCH}</u> | <u>2</u> |
| - <u>CBS DRX Level 1 information</u> | <u>Not Present</u> |

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 | |
| - CHOICE CTFC Size | |
| - CTFC information | |
| - Power offset information | |
| - 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 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 | |
| - 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 | |
| - 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. |
| | Refer to clause 6.10 Parameter Set |
| - CTFC information | Not Present |
| - Power offset information | |
| - 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> <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} - 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> |
|---|--|

Contents of System Information Block type6 In connected mode (similar to SIB type5) (1.28 Mcps TDD)

| | |
|--|---|
| <ul style="list-style-type: none"> - <u>SIB6 indicator</u> - <u>PICH Power offset</u> - <u>CHOICE Mode</u> - <u>PUSCH system information</u> - <u>PDSCH system information</u> - <u>TDD open loop power control</u> - <u>Primary CCPCH Tx Power</u> - <u>CHOICE TDD option</u> - <u>no data</u> - <u>Primary CCPCH info</u> - <u>CHOICE mode</u> - <u>CHOICE TDD option</u> - <u>TSTD indicator</u> - <u>Cell parameters ID</u> - <u>Block STTD indicator</u> - <u>PRACH system information list</u> - <u>PRACH system information</u> - <u>PRACH info</u> - <u>CHOICE mode</u> - <u>CHOICE TDD option</u> | <p><u>TRUE</u> <u>-5 dB</u> <u>TDD</u> <u>Not Present</u> <u>Not Present</u></p> <p><u>30 dbm</u> <u>1.28 Mcps TDD /REL-4/</u></p> <p><u>TDD</u> <u>1.28 Mcps TDD /REL-4/</u> <u>FALSE</u> <u>Not Present</u> <u>FALSE</u></p> <p><u>TDD</u> <u>1.28 Mcps TDD /REL-4/</u></p> |
|--|---|

| | |
|--|-------------------------------------|
| - 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" |

| | |
|--|---------------------------------------|
| - 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 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 |
| - 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 | |
| - 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 | |
| - CHOICE mode | TDD |
| - Channelisation code list | |
| - Channelisation code | (16/1) |
| - Channelisation code | (16/2) |
| - Timeslot number | 0 |
| - CHOICE TDD option | 1.28 Mcps TDD |
| - Midamble shift and burst type | 0 |
| - CHOICE TDD option | 1.28 Mcps TDD |
| - Midamble Allocation Mode | Default midamble |
| - Midamble configuration | 8 |
| - Midamble Shift | Not Present |
| - Repetition period/length | 64/2 |
| - Offset | 0 |
| - Paging indicator length | 4 |
| - N _{GAP} | 4 |
| - N _{PCH} | 2 |
| - 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 | |
| - 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 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 | 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 | 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 | |
| - 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 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 Mcps 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 Minimum supported by the UE's power class. Reference to clause 6.10 Parameter Set |
| Uplink output power | |
| PCCPCH/PCPICH carrier number | |
| Cell Channel Description | |
| - 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%; margin-top: 5px;"> <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

- 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 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

| | | |
|--------------------|---|-------------------------------------|
| <u>DPCH Uplink</u> | <u>Modulation</u> | <u>QPSK</u> |
| | <u>Codes and time slots / radio frame</u> | <u>SF16 x 1 code x 2 time slots</u> |
| | <u>Max. Number of data bits / radio frame</u> | <u>164 bits</u> |
| | <u>TFCI code word / radio frame</u> | <u>4 bits</u> |
| | <u>TPC / radio frame</u> | <u>2x 2 bits</u> |
| | <u>SS / radio frame</u> | <u>2x 2 bits</u> |
| | <u>Puncturing Limit</u> | <u>1</u> |

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

| | | |
|----------------------|---|-------------------------------------|
| <u>DPCH Downlink</u> | <u>Modulation</u> | <u>QPSK</u> |
| | <u>Codes and time slots / radio frame</u> | <u>SF16 x 1 code x 2 time slots</u> |
| | <u>Max. Number of data bits / radio frame</u> | <u>164 bits</u> |
| | <u>TFCI code word / radio frame</u> | <u>4 bits</u> |
| | <u>TPC / radio frame</u> | <u>2x 2 bits</u> |
| | <u>SS / radio frame</u> | <u>2x 2 bits</u> |
| | <u>Puncturing Limit</u> | <u>1</u> |

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 TFCSSee 6.10.3.4.1.3.1.1.26.11.1.4.1.3.1.2 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 Downlink6.11.1.4.1.3.2.1 Transport channel parameters6.11.1.4.1.3.2.1.1 Transport channel parameters for DL:13.6 kbps SRBs for DCCHSee 6.10.3.4.1.3.2.1.16.11.1.4.1.3.2.1.2 TFCSSee 6.10.3.4.1.3.2.1.26.11.1.4.1.3.2.2 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 DCCH6.11.1.4.1.4.1 Uplink6.11.1.4.1.4.1.1 Transport channel parameters6.11.1.4.1.4.1.1.1 Transport channel parameters for Conversational / speech / UL:12.2 kbps / CS RABSee 6.10.3.4.1.4.1.1.16.11.1.4.1.4.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCHSee 6.10.3.4.1.2.1.16.11.1.4.1.4.1.1.3 TFCSSee 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 |
| | TFCI 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 |
| | TFCI 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 |
| | TFCI code word / radio frame | 16 bits |
| | TPC / radio frame | 2x 2 bits |
| | SS / radio frame | 2x 2 bits |
| | Puncturing Limit | 0.80 |

6.11.1.4.1.7.2 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 |
| | TFCI code word / radio frame | 16 bits |
| | TPC / radio frame | 2x 2 bits |
| | SS / radio frame | 2x 2 bits |
| | Puncturing Limit | 0.80 |

6.11.1.4.1.8 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

| <u>DPCH Uplink</u> | <u>Modulation</u> | <u>QPSK</u> |
|--------------------|---|-------------------------------------|
| | <u>Codes and time slots / radio frame</u> | <u>SF 8 x 1 code x 2 time slots</u> |
| | <u>Max. Number of data bits / radio frame</u> | <u>328 bits</u> |
| | <u>TFCI code word / radio frame</u> | <u>16 bits</u> |
| | <u>TPC / radio frame</u> | <u>2x 2 bits</u> |
| | <u>SS / radio frame</u> | <u>2x 2 bits</u> |
| | <u>Puncturing Limit</u> | <u>0.88</u> |

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

| <u>DPCH Downlink</u> | <u>Modulation</u> | <u>QPSK</u> |
|----------------------|---|--------------------------------------|
| | <u>Codes and time slots / radio frame</u> | <u>SF 16 x 2 code x 2 time slots</u> |
| | <u>Max. Number of data bits / radio frame</u> | <u>328 bits</u> |
| | <u>TFCI code word / radio frame</u> | <u>16 bits</u> |
| | <u>TPC / radio frame</u> | <u>2x 2 bits</u> |
| | <u>SS / radio frame</u> | <u>2x 2 bits</u> |
| | <u>Puncturing Limit</u> | <u>0.88</u> |

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

| | | |
|-------------|--|------------------------------|
| 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 | 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

| | | |
|---------------|--|-------------------------------|
| 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 | 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

| | | |
|-------------|--|------------------------------|
| DPCH Uplink | Modulation | QPSK |
| | Codes and time slots / radio frame | SF 4 x 1 code x 2 time slots |
| | Max. Number of data bits / radio frame | 680 bits |
| | TFCI code word / radio frame | 16 bits |
| | TPC / radio frame | 2x 2 bits |
| | SS / radio frame | 2x 2 bits |
| | Puncturing Limit | 0.64 |

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

| | | |
|---------------|--|-------------------------------|
| DPCH Downlink | Modulation | QPSK |
| | Codes and time slots / radio frame | SF 16 x 4 code x 2 time slots |
| | Max. Number of data bits / radio frame | 680 bits |
| | TFCI code word / radio frame | 16 bits |
| | TPC / radio frame | 2x 2 bits |
| | SS / radio frame | 2x 2 bits |
| | Puncturing Limit | 0.64 |

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

| | | |
|--------------------|---|------------------------------------|
| <u>DPCH Uplink</u> | <u>Modulation</u> | <u>QPSK</u> |
| | <u>Codes and time slots / radio frame</u> | <u>SF4 x 1 code x 2 time slots</u> |
| | <u>Max. Number of data bits / radio frame</u> | <u>688 bits</u> |
| | <u>TFCI code word / radio frame</u> | <u>8 bits</u> |
| | <u>TPC / radio frame</u> | <u>2x 2 bits</u> |
| | <u>SS/ radio frame</u> | <u>2x 2 bits</u> |
| | <u>Puncturing Limit</u> | <u>0.60</u> |

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

| | | |
|----------------------|---|-------------------------------------|
| <u>DPCH Downlink</u> | <u>Modulation</u> | <u>QPSK</u> |
| | <u>Codes and time slots/ radio frame</u> | <u>SF16 x 4 code x 2 time slots</u> |
| | <u>Max. Number of data bits / radio frame</u> | <u>699 bits</u> |
| | <u>TFCI code word / radio frame</u> | <u>8 bits</u> |
| | <u>TPC / radio frame</u> | <u>2x 2 bits</u> |
| | <u>SS / radio frame</u> | <u>2x 2 bits</u> |
| | <u>Puncturing Limit</u> | <u>0.60</u> |

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 TFCSSee 6.10.3.4.1.15.1.1.36.11.1.4.1.15.1.2 Physical channel parameters

| <u>DPCH Uplink</u> | <u>Modulation</u> | <u>QPSK</u> |
|--------------------|---|------------------------------------|
| | <u>Codes and time slots / radio frame</u> | <u>SF4 x 1 code x 2 time slots</u> |
| | <u>Max. Number of data bits / radio frame</u> | <u>688 bits</u> |
| | <u>TFCI code word / radio frame</u> | <u>8 bits</u> |
| | <u>TPC / radio frame</u> | <u>2x 2 bits</u> |
| | <u>SS / radio frame</u> | <u>2x 2 bits</u> |
| | <u>Puncturing Limit</u> | <u>1</u> |

6.11.1.4.1.15.2 Downlink6.11.1.4.1.15.2.1 Transport channel parameters6.11.1.4.1.15.2.1.1 Transport channel parameters for Streaming / unknown / DL:14.4 kbps / CS RABSee 6.10.3.4.1.15.2.1.16.11.1.4.1.15.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCHSee 6.10.3.4.1.2.2.1.16.11.1.4.1.15.2.1.3 TFCSSee 6.10.3.4.1.15.2.1.36.11.1.4.1.15.2.2 Physical channel parameters

| <u>DPCH Downlink</u> | <u>Modulation</u> | <u>QPSK</u> |
|----------------------|--|-------------------------------------|
| | <u>Codes and time slots/ radio frame</u> | <u>SF16 x 3 code x 2 time slots</u> |
| | <u>Max. Number of data bits / radio</u> | <u>512 bits</u> |
| | <u>TFCI code word / radio frame</u> | <u>8 bits</u> |
| | <u>TPC / radio frame</u> | <u>2x 2 bits</u> |
| | <u>SS / radio frame</u> | <u>2x 2 bits</u> |
| | <u>Puncturing Limit</u> | <u>0.88</u> |

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 DCCH6.11.1.4.1.16.1 Uplink6.11.1.4.1.16.1.1 Transport channel parameters6.11.1.4.1.16.1.1.1 Transport channel parameters for Streaming / unknown / UL:28.8 kbps / CS RABSee 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

| <u>DPCH Uplink</u> | <u>Modulation</u> | <u>QPSK</u> |
|--------------------|---|------------------------------------|
| | <u>Codes and time slots/ frame</u> | <u>SF4 x 1 code x 2 time slots</u> |
| | <u>Max. Number of data bits / radio frame</u> | <u>680 bits</u> |
| | <u>TFCl code word / radio frame</u> | <u>16 bits</u> |
| | <u>TPC / radio frame</u> | <u>2x 2 bits</u> |
| | <u>SS / radio frame</u> | <u>2x 2 bits</u> |
| | <u>Puncturing Limit</u> | <u>0.64</u> |

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

| <u>DPCH Downlink</u> | <u>Modulation</u> | <u>QPSK</u> |
|----------------------|---|-------------------------------------|
| | <u>Codes and time slots/ radio frame</u> | <u>SF16 x 4 code x 2 time slots</u> |
| | <u>Max. Number of data bits / radio frame</u> | <u>680 bits</u> |
| | <u>TFCl code word / radio frame</u> | <u>16 bits</u> |
| | <u>TPC / radio frame</u> | <u>2x 2 bits</u> |
| | <u>SS / radio frame</u> | <u>2x 2 bits</u> |
| | <u>Puncturing Limit</u> | <u>0.64</u> |

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 DCCHSee 6.10.3.4.1.2.1.1.16.11.1.4.1.17.1.1.3 TFCSSee 6.10.3.4.1.17.1.1.36.11.1.4.1.17.1.2 Physical channel parameters

| | | |
|--------------------|---|------------------------------------|
| <u>DPCH Uplink</u> | <u>Modulation</u> | <u>QPSK</u> |
| | <u>Codes and time slots/ radio frame</u> | <u>SF2 x 1 code x 2 time slots</u> |
| | <u>Max. Number of data bits / radio frame</u> | <u>1384 bits</u> |
| | <u>TFCI code word / radio frame</u> | <u>16 bits</u> |
| | <u>TPC / radio frame</u> | <u>2x 2 bits</u> |
| | <u>SS / radio frame</u> | <u>2x 2 bits</u> |
| | <u>Puncturing Limit</u> | <u>0.72</u> |

6.11.1.4.1.17.2 Downlink6.11.1.4.1.17.2.1 Transport channel parameters6.11.1.4.1.17.2.1.1 Transport channel parameters for Streaming / unknown / DL:57.6 kbps / CS RABSee 6.10.3.4.1.17.2.1.16.11.1.4.1.17.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCHSee 6.10.3.4.1.2.2.1.16.11.1.4.1.17.2.1.3 TFCSSee 6.10.3.4.1.17.2.1.36.11.1.4.1.17.2.2 Physical channel parameters

| | | |
|----------------------|---|-------------------------------------|
| <u>DPCH Downlink</u> | <u>Modulation</u> | <u>QPSK</u> |
| | <u>Codes and time slots / radio frame</u> | <u>SF16 x 8 code x 2 time slots</u> |
| | <u>Max. Number of data bits / radio frame</u> | <u>1384 bits</u> |
| | <u>TFCI code word / radio frame</u> | <u>16 bits</u> |
| | <u>TPC / radio frame</u> | <u>2x 2 bits</u> |
| | <u>SS / radio frame</u> | <u>2x 2 bits</u> |
| | <u>Puncturing Limit</u> | <u>0.72</u> |

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 DCCH6.11.1.4.1.18.1 Uplink6.11.1.4.1.18.1.1 Transport channel parameters6.11.1.4.1.18.1.1.1 Transport channel parameters for Streaming / unknown / UL:0 kbps / CS or PS RABN/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

| | | |
|--------------------|---|------------------------------------|
| <u>DPCH Uplink</u> | <u>Modulation</u> | <u>QPSK</u> |
| | <u>Codes and time slots / radio frame</u> | <u>SF2 x 1 code x 2 time slots</u> |
| | <u>Max. Number of data bits/radio frame</u> | <u>1384 bits</u> |
| | <u>TFCI code word / radio frame</u> | <u>16 bits</u> |
| | <u>TPC / radio frame</u> | <u>2x 2 bits</u> |
| | <u>SS/ radio frame</u> | <u>2x 2 bits</u> |
| | <u>Puncturing Limit</u> | <u>0.64</u> |

6.11.1.4.1.19.2 Downlink6.11.1.4.1.19.2.1 Transport channel parameters6.11.1.4.1.19.2.1.1 Transport channel parameters for Streaming / unknown / DL:0 kbps / CS or PS RABN/A6.11.1.4.1.19.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCHSee 6.10.3.4.1.2.2.1.16.11.1.4.1.19.2.1.3 TFCSSee 6.10.3.4.1.2.2.1.26.11.1.4.1.19.2.2 Physical channel parametersSee 6.11.1.4.1.2.1.26.11.1.4.1.20 Streaming / unknown / UL:0 DL:128 kbps / CS or PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH6.11.1.4.1.20.1 Uplink6.11.1.4.1.20.1.1 Transport channel parameters6.11.1.4.1.20.1.1.1 Transport channel parameters for Streaming / unknown / UL:0 kbps / CS or PS RABN/A6.11.1.4.1.20.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCHSee 6.10.3.4.1.2.1.1.16.11.1.4.1.20.1.1.3 TFCSSee 6.10.3.4.1.2.1.1.26.11.1.4.1.20.1.2 Physical channel parametersSee 6.11.1.4.1.2.1.2

6.11.1.4.1.20.2 Downlink6.11.1.4.1.20.2.1 Transport channel parameters6.11.1.4.1.20.2.1.1 Transport channel parameters for Streaming / unknown / DL:128 kbps / CS or PS RABSee 6.10.3.4.1.20.2.1.16.11.1.4.1.20.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCHSee 6.10.3.4.1.2.2.1.16.11.1.4.1.20.2.1.3 TFCSSee 6.10.3.4.1.20.2.1.36.11.1.4.1.20.2.2 Physical channel parameters

| | | |
|--------------------------------|---|------------------------------------|
| <u>DPCH</u> <u>Downlink</u> | <u>Modulation</u> | <u>QPSK</u> |
| | <u>Codes and time slots/ radio frame</u> | <u>SF1 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>2x 2 bits</u> |
| | <u>SS/ radio frame</u> | <u>2x 2 bits</u> |
| | <u>Puncturing Limit</u> | <u>0.64</u> |

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 DCCH6.11.1.4.1.21.1 Uplink6.11.1.4.1.21.1.1 Transport channel parameters6.11.1.4.1.21.1.1.1 Transport channel parameters for Streaming / unknown / UL:128 kbps / CS or PS RABSee 6.10.3.4.1.21.1.1.16.11.1.4.1.21.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCHSee 6.10.3.4.1.2.1.1.16.11.1.4.1.21.1.1.3 TFCSSee 6.10.3.4.1.21.1.1.36.11.1.4.1.21.1.2 Physical channel parameters

| | | |
|------------------------------|---|------------------------------------|
| <u>DPCH</u> <u>Uplink</u> | <u>Modulation</u> | <u>QPSK</u> |
| | <u>Codes and time slots / radio frame</u> | <u>SF1 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>2x 2 bits</u> |
| | <u>SS/ radio frame</u> | <u>2x 2 bits</u> |
| | <u>Puncturing Limit</u> | <u>0.64</u> |

[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 TFCSSee 6.10.3.4.1.22.2.1.36.11.1.4.1.22.2.2 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 | |
| TFCI 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 DCCH6.11.1.4.1.23.1 Uplink6.11.1.4.1.23.1.1 Transport channel parameters6.11.1.4.1.23.1.1.1 Transport channel parameters for Interactive or background / UL:32 kbps / PS RABSee 6.10.3.4.1.23.1.1.16.11.1.4.1.23.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCHSee 6.10.3.4.1.2.1.1.16.11.1.4.1.23.1.1.3 TFCSSee 6.10.3.4.1.23.1.1.36.11.1.4.1.23.1.2 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 | |
| TFCI code word/ radio frame | 16 bits | |
| TPC / radio frame | 2 * 2 bits | |
| SS / radio frame | 2 * 2 bits | |
| Puncturing Limit | 1 | |

6.11.1.4.1.23.2 Downlink6.11.1.4.1.23.2.1 Transport channel parameters6.11.1.4.1.23.2.1.1 Transport channel parameters for Interactive or background / DL:8 kbps / PS RABSee 6.10.3.4.1.23.2.1.16.11.1.4.1.23.2.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCHSee 6.10.3.4.1.2.2.1.1

6.11.1.4.1.23.2.1.3 TFCSSee 6.10.3.4.1.23.2.1.36.11.1.4.1.23.2.2 Physical channel parameters

| DPCH Downlink | Modulation | QPSK |
|---------------|--------------------------------------|--------------------------------|
| | Codes and time slots/ radio frame | SF 16 x 2 codes x 2 time slots |
| | Max. Number of data bits/radio frame | 336 bits |
| | TFCI code word/ radio frame | 8 bits |
| | TPC/ radio frame | 2*2 bits |
| | SS/ radio frame | 2*2 bits |
| | Puncturing Limit | 0.84 |

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 DCCH6.11.1.4.1.24.1 Uplink6.11.1.4.1.24.1.1 Transport channel parameters6.11.1.4.1.24.1.1.1 Transport channel parameters for Interactive or background / UL:64 kbps / PS RABSee 6.10.3.4.1.24.1.1.16.11.1.4.1.24.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCHSee 6.10.3.4.1.2.1.1.16.11.1.4.1.24.1.1.3 TFCSSee 6.10.3.4.1.24.1.1.36.11.1.4.1.24.1.2 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 | 2 * 2 bits |
| | SS / radio frame | 2 * 2 bits |
| | Puncturing Limit | 0.6 |

6.11.1.4.1.24.2 DownlinkSee 6.11.1.4.1.23.26.11.1.4.1.25 Interactive or background / UL:32 DL: 64 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH6.11.1.4.1.25.1 UplinkSee 6.11.1.4.1.23.1

6.11.1.4.1.25.2 Downlink6.11.1.4.1.25.2.1 Transport channel parameters6.11.1.4.1.25.2.1.1 Transport channel parameters for Interactive or background / DL:64 kbps / PS RABSee 6.10.3.4.1.25.2.1.16.11.1.4.1.25.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCHSee 6.10.3.4.1.2.2.1.16.11.1.4.1.25.2.1.3 TFCSSee 6.10.3.4.1.25.2.1.36.11.1.4.1.25.2.2 Physical channel parameters

| <u>DPCH</u> | <u>Modulation</u> | <u>QPSK</u> |
|-----------------|---|--------------------------------------|
| <u>Downlink</u> | <u>Codes and time slots/ radio frame</u> | <u>SF16 x 8 codes x 2 time slots</u> |
| | <u>Max. Number of data bits/radio frame</u> | <u>1384 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/ radio frame</u> | <u>0.6</u> |

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 DCCH6.11.1.4.1.26.1 UplinkSee 6.11.1.4.1.24.16.11.1.4.1.26.2 DownlinkSee 6.11.1.4.1.25.26.11.1.4.1.27 Interactive or background / UL:64 DL:128 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH6.11.1.4.1.27.1 UplinkSee 6.11.1.4.1.24.16.11.1.4.1.27.2 Downlink6.11.1.4.1.27.2.1 Transport channel parameters6.11.1.4.1.27.2.1.1 Transport channel parameters for Interactive or background / DL:128 kbps / PS RABSee 6.10.3.4.1.27.2.1.16.11.1.4.1.27.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCHSee 6.10.3.4.1.2.2.1.1

6.11.1.4.1.27.2.1.3 TFCSSee 6.10.3.4.1.27.2.1.36.11.1.4.1.27.2.2 Physical channel parameters

| <u>DPCH Downlink</u> | <u>Modulation</u> | <u>QPSK</u> |
|----------------------|---|---------------------------------------|
| | <u>Codes and time slots/ radio frame</u> | <u>SF 16 x 9 codes x 4 time slots</u> |
| | <u>Max. Number of data bits/radio frame</u> | <u>3144 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>0.72</u> |

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 DCCH6.11.1.4.1.28.1 Uplink6.11.1.4.1.28.1.1 Transport channel parameters6.11.1.4.1.28.1.1.1 Transport channel parameters for Interactive or background / UL:128 kbps / PS RABSee 6.10.3.4.1.28.1.1.16.11.1.4.1.28.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCHSee 6.10.3.4.1.2.1.1.16.11.1.4.1.28.1.1.3 TFCSSee 6.10.3.4.1.28.1.1.36.11.1.4.1.28.1.2 Physical channel parameters

| <u>DPCH Uplink</u> | <u>Modulation</u> | <u>QPSK</u> |
|--------------------|---|-------------------------------------|
| | <u>Codes and time slots/ radio frame</u> | <u>SF1 x 1 codes 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>0.64</u> |

6.11.1.4.1.28.2 DownlinkSee 6.11.1.4.1.27.26.11.1.4.1.29 Interactive or background / UL:64 DL:144 kbps / PS RAB + UL:3.4 DL: 3.4 kbps SRBs for DCCH6.11.1.4.1.29.1 UplinkSee 6.11.1.4.1.24.1

6.11.1.4.1.29.2 Downlink6.11.1.4.1.29.2.1 Transport channel parameters6.11.1.4.1.29.2.1.1 Transport channel parameters for Interactive or background / DL:144 kbps / PS RABSee 6.10.3.4.1.29.2.1.16.11.1.4.1.29.2.1.2 Transport channel parameters for DL:3.4 kbps SRBs for DCCHSee 6.10.3.4.1.2.2.1.16.11.1.4.1.29.2.1.3 TFCSSee 6.10.3.4.1.29.2.1.36.11.1.4.1.29.2.2 Physical channel parameters

| <u>DPCH Downlink</u> | <u>Modulation</u> | <u>QPSK</u> |
|----------------------|---|---------------------------------------|
| | <u>Codes and time slots/ radio frame</u> | <u>SF 16 x 9 codes x 4 time slots</u> |
| | <u>Max. Number of data bits/radio frame</u> | <u>3144 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>0.64</u> |

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 DCCH6.11.1.4.1.30.1 Uplink6.11.1.4.1.30.1.1 Transport channel parameters6.11.1.4.1.30.1.1.1 Transport channel parameters for Interactive or background / UL:144 kbps / PS RABSee 6.10.3.4.1.30.1.1.16.11.1.4.1.30.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCHSee 6.10.3.4.1.2.1.1.16.11.1.4.1.30.1.1.3 TFCSSee 6.10.3.4.1.30.1.1.36.11.1.4.1.30.1.2 Physical channel parameters

| <u>DPCH Uplink</u> | <u>Modulation</u> | <u>QPSK</u> | <u>8PSK</u> |
|--------------------|---|--|-----------------------------------|
| | <u>Codes and time slots/ radio frame</u> | <u>(SF1 x 1 code x 2 time slots) + (SF2 x 1 code x 2 time slots)</u> | <u>SF1 x 1code x 2 time slots</u> |
| | <u>Max. Number of data bits/radio frame</u> | <u>4200 bits</u> | <u>4188 bits</u> |
| | <u>TFCI code word/ radio frame</u> | <u>16 bits</u> | <u>24 bits</u> |
| | <u>TPC/ radio frame</u> | <u>2*2 bits</u> | <u>2* 3bits</u> |
| | <u>SS/ radio frame</u> | <u>2*2 bits</u> | <u>2* 3bits</u> |
| | <u>Puncturing Limit</u> | <u>0.88</u> | <u>0.84</u> |

[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 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 | 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 |
| | TFCI 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

| <u>DPCH</u> | <u>Modulation</u> | <u>QPSK</u> |
|---------------|---|-------------------------------------|
| <u>Uplink</u> | <u>Codes and time slots/ radio frame</u> | <u>SF 2 x 1 code x 2 time slots</u> |
| | <u>Max. Number of data bits/radio frame</u> | <u>1384 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>0.84</u> |

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

| <u>DPCH</u> | <u>Modulation</u> | <u>QPSK</u> |
|-----------------|---|--------------------------------------|
| <u>Downlink</u> | <u>Codes and time slots/ radio frame</u> | <u>SF16 x 3 codes x 2 time slots</u> |
| | <u>Max. Number of data bits/radio frame</u> | <u>504 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>0.64</u> |

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

| <u>DPCH</u> | <u>Modulation</u> | <u>QPSK</u> |
|-----------------|---|--|
| <u>Downlink</u> | <u>Codes and time slots/ radio frame</u> | <u>SF 16 x 10 codes x 2 time slots</u> |
| | <u>Max. Number of data bits/radio frame</u> | <u>1736 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>0.64</u> |

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

| <u>DPCH Uplink</u> | <u>Modulation</u> | <u>QPSK</u> |
|--------------------|---|------------------------------------|
| | <u>Codes and time slots/ radio frame</u> | <u>SF1 x 1 code x 2 time slots</u> |
| | <u>Max. Number of data bits/radio frame</u> | <u>2784 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> |

6.11.1.4.1.40.2 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 Downlink6.11.1.4.1.41.2.1 Transport channel parameters6.11.1.4.1.41.2.1.1 Transport channel parameters for Conversational / speech / DL:12.2 kbps / CS RABSee 6.10.3.4.1.4.2.1.16.11.1.4.1.41.2.1.2 Transport channel parameters for Interactive or background / DL:128 kbps / PS RABSee 6.10.3.4.1.27.2.1.16.11.1.4.1.41.2.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCHSee 6.10.3.4.1.2.2.1.16.11.1.4.1.41.2.1.4 TFCSSee 6.10.3.4.1.41.2.1.46.11.1.4.1.41.2.2 Physical channel parameters

| <u>DPCH</u> | <u>Modulation</u> | <u>QPSK</u> | <u>8PSK</u> |
|-----------------|---|---------------------------------------|--|
| <u>Downlink</u> | <u>Codes and time slots/ radio frame</u> | <u>SF 16 x 9 codes x 4 time slots</u> | <u>SF 16 x 12 codes x 2 time slots</u> |
| | <u>Max. Number of data bits/radio frame</u> | <u>3144 bits</u> | <u>3132 bits</u> |
| | <u>TFCI code word / radio frame</u> | <u>16 bits</u> | <u>24 bits</u> |
| | <u>TPC / radio frame</u> | <u>2 * 2 bits</u> | <u>3 x 3 bits</u> |
| | <u>SS / radio frame</u> | <u>2 * 2 bits</u> | <u>3 x 3 bits</u> |
| | <u>Puncturing Limit</u> | <u>0.64</u> | <u>0.64</u> |

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 DCCH6.11.1.4.1.42.1 UplinkSee 6.11.1.4.1.40.16.11.1.4.1.42.2 Downlink6.11.1.4.1.42.2.1 Transport channel parameters6.11.1.4.1.42.2.1.1 Transport channel parameters for Conversational / speech / DL:12.2 kbps / CS RABSee 6.10.3.4.1.4.2.1.16.11.1.4.1.42.2.1.2 Transport channel parameters for Interactive or background / DL:256 kbps / PS RABSee 6.10.3.4.1.31.2.1.16.11.1.4.1.42.2.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCHSee 6.10.3.4.1.2.2.1.1

6.11.1.4.1.42.2.1.4 TFCSSee 6.10.3.4.1.42.2.1.46.11.1.4.1.42.2.2 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 1 code 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>8400 bits</u> | <u>8376 bits</u> |
| | <u>TFCI code word/ radio frame</u> | <u>16 bits</u> | <u>24 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>0.88</u> | <u>0.88</u> |

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 UplinkSee 6.11.1.4.1.40.16.11.1.4.1.43.2 Downlink6.11.1.4.1.43.2.1 Transport channel parameters6.11.1.4.1.43.2.1.1 Transport channel parameters for Conversational / speech / DL:12.2 kbps / CS RABSee 6.10.3.4.1.4.2.1.16.11.1.4.1.43.2.1.2 Transport channel parameters for Interactive or background / DL:384 kbps / PS RABSee 6.10.3.4.1.32.2.1.16.11.1.4.1.43.2.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCHSee 6.10.3.4.1.2.2.1.16.11.1.4.1.43.2.1.4 TFCSSee 6.10.3.4.1.43.2.1.46.11.1.4.1.43.2.2 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>SF 1 x 1 code x 6 time slots</u> | <u>SF 1 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>3 x 3 bits</u> |
| | <u>SS / radio frame</u> | <u>2 * 2 bits</u> | <u>3 x 3 bits</u> |
| | <u>Puncturing Limit</u> | <u>0.60</u> | <u>0.60</u> |

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

| | | |
|-------------|---|------------------------------------|
| DPCH Uplink | <u>Modulation</u> | <u>8PSK</u> |
| | <u>Codes and time slots/ radio frame</u> | <u>SF1 x 1 code x 2 time slots</u> |
| | <u>Max. Number of data bits/radio frame</u> | <u>4188 bits</u> |
| | <u>TFCI code word/ radio frame</u> | <u>24 bits</u> |
| | <u>TPC/ radio frame</u> | <u>2*3 bits</u> |
| | <u>SS/ radio frame</u> | <u>2*3 bits</u> |
| | <u>Puncturing Limit</u> | <u>0.88</u> |

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

| <u>DPCH</u> | <u>Modulation</u> | <u>QPSK</u> |
|-----------------|---|---------------------------------------|
| <u>Downlink</u> | <u>Codes and time slots/ radio frame</u> | <u>SF16 x 11 codes x 2 time slots</u> |
| | <u>Max. Number of data bits/radio frame</u> | <u>1912 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>0.64</u> |

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

| DPCH Downlink | Modulation | QPSK | 8PSK |
|---|--|---------------------------------------|--|
| | <u>Codes and time slots/ radio frame</u> | <u>SF 16 x 9 codes x 4 time slots</u> | <u>SF 16 x 12 codes x 2 time slots</u> |
| <u>Max. Number of data bits/radio frame</u> | <u>3128 bits</u> | <u>3108 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>3 x 3 bits</u> | |
| <u>SS / radio frame</u> | <u>2 * 2 bits</u> | <u>3 x 3 bits</u> | |
| <u>Puncturing Limit</u> | <u>0.68</u> | <u>0.68</u> | |

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 Downlink</u> | <u>Modulation</u> | <u>QPSK</u> | <u>8PSK</u> |
|---|--|------------------------------------|------------------------------------|
| | <u>Codes and time slots/ radio frame</u> | <u>SF1 x 1 code 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 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 DCCHSee 6.10.3.4.1.2.2.116.11.1.4.1.49.2.1.4 TFCSSee 6.10.3.4.1.49.2.1.46.11.1.4.1.49.2.2 Physical channel parameters

| <u>DPCH</u> | <u>Modulation</u> | <u>QPSK</u> |
|-----------------|---|---------------------------------------|
| <u>Downlink</u> | <u>Codes and time slots/ radio frame</u> | <u>SF16 x 11 codes x 2 time slots</u> |
| | <u>Max. Number of data bits/radio frame</u> | <u>1912 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>0.64</u> |

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 Uplink6.11.1.4.1.50.1.1 Transport channel parameters6.11.1.4.1.50.1.1.1 Transport channel parameters for Conversational / unknown / UL:64 kbps / CS RABSee 6.10.3.5.4.1.13.1.1.16.11.1.4.1.50.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCHSee 6.10.3.4.1.2.1.1.16.11.1.4.1.50.1.1.3 TFCSSee 6.10.3.4.1.50.1.1.36.11.1.4.1.50.1.2 Physical channel parameters

| <u>DPCH</u> | <u>Modulation</u> | <u>QPSK</u> |
|---------------|---|-------------------------------------|
| <u>Uplink</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>0.68</u> |

6.11.1.4.1.50.2 Downlink6.11.1.4.1.50.2.1 Transport channel parameters6.11.1.4.1.50.2.1.1 Transport channel parameters for Conversational / unknown / DL:64 kbps / CS RABSee 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

| <u>DPCH</u> | <u>Modulation</u> | <u>QPSK</u> |
|-----------------|---|--|
| <u>Downlink</u> | <u>Codes and time slots/ radio frame</u> | <u>SF 16 x 15 codes x 2 time slots</u> |
| | <u>Max. Number of data bits/radio frame</u> | <u>2616 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>0.64</u> |

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

| <u>DPCH</u> | <u>Modulation</u> | <u>QPSK</u> |
|---------------|---|-------------------------------------|
| <u>Uplink</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>0.64</u> |

6.11.1.4.1.51.2 Downlink6.11.1.4.1.51.2.1 Transport channel parameters6.11.1.4.1.51.2.1.1 Transport channel parameters for Conversational / unknown / DL:64 kbps / CS RABSee 6.10.3.4.1.13.2.1.16.11.1.4.1.51.2.1.2 Transport channel parameters for Interactive or background / DL:64 kbps / PS RABSee 6.10.3.4.1.25.2.1.16.11.1.4.1.51.2.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCHSee 6.10.3.4.1.2.2.1.16.11.1.4.1.51.2.1.4 TFCSSee 6.10.3.4.1.51.2.1.46.11.1.4.1.51.2.2 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 DCCH6.11.1.4.1.52.1 UplinkSee 6.11.1.4.1.51.16.11.1.4.1.52.2 Downlink6.11.1.4.1.52.2.1 Transport channel parameters6.11.1.4.1.52.2.1.1 Transport channel parameters for Conversational / unknown / DL:64 kbps / CS RABSee 6.10.3.4.1.13.2.1.16.11.1.4.1.52.2.1.2 Transport channel parameters for Interactive or background / DL:128 kbps / PS RABSee 6.10.3.4.1.27.2.1.16.11.1.4.1.52.2.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCHSee 6.10.3.4.1.2.2.1.1

6.11.1.4.1.52.2.1.4 TFCSSee 6.10.3.4.1.52.2.1.46.11.1.4.1.52.2.2 Physical channel parameters

| <u>DPCH Downlink</u> | <u>Modulation</u> | <u>QPSK</u> |
|----------------------|---|--|
| | <u>Codes and time slots/ radio frame</u> | <u>SF 16 x 12 codes x 4 time slots</u> |
| | <u>Max. Number of data bits/radio frame</u> | <u>4200 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>0.64</u> |

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 Uplink6.11.1.4.1.53.1.1 Transport channel parameters6.11.1.4.1.53.1.1.1 Transport channel parameters for Conversational / unknown / UL:64 kbps / CS RABSee 6.10.3.4.1.13.1.1.16.11.1.4.1.53.1.1.2 Transport channel parameters for Interactive or background / UL:128 kbps / PS RABSee 6.10.3.4.1.28.1.1.16.11.1.4.1.53.1.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCHSee 6.10.3.4.1.2.1.1.16.11.1.4.1.53.1.1.4 TFCSSee 6.10.3.4.1.53.1.1.46.11.1.4.1.53.1.2 Physical channel parameters

| <u>DPCH Uplink</u> | <u>Modulation</u> | <u>QPSK</u> | <u>8PSK</u> |
|--------------------|---|------------------------------------|-----------------------------------|
| | <u>Codes and time slots/ radio frame</u> | <u>SF1 x 1 code x 4 time slots</u> | <u>SF1 x 1code x 2 time slots</u> |
| | <u>Max. Number of data bits/radio frame</u> | <u>5608 bits</u> | <u>4188 bits</u> |
| | <u>TFCI code word/ radio frame</u> | <u>16 bits</u> | <u>24 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>0.88</u> | <u>0.68</u> |

6.11.1.4.1.53.2 DownlinkSee 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

| | | |
|--------------------------------|---|--|
| <u>DPCH</u> <u>Downlink</u> | <u>Modulation</u> | <u>QPSK</u> |
| | <u>Codes and time slots/ radio frame</u> | <u>SF 16 x 12 codes x 4 time slots</u> |
| | <u>Max. Number of data bits/radio frame</u> | <u>4184 bits</u> |
| | <u>TFCI code word / radio frame</u> | <u>32 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>0.64</u> |

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

| <u>DPCH</u> | <u>Modulation</u> | <u>QPSK</u> |
|-----------------|---|------------------------------------|
| <u>Downlink</u> | <u>Codes and time slots/ radio frame</u> | <u>SF1 x 1 code x 4 time slots</u> |
| | <u>Max. Number of data bits/radio frame</u> | <u>5592 bits</u> |
| | <u>TFCI code word/ radio frame</u> | <u>24 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>0.64</u> |

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

| | | |
|--------------|---|-------------------------------------|
| <u>PUSCH</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> |

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

| <u>Higher layer</u> | <u>RAB/signalling RB</u> | <u>SRB#0</u> | <u>SRB#1</u> | <u>SRB#2</u> | <u>SRB#3</u> | <u>SRB#4</u> | <u>SRB#5</u> | <u>SRB#6</u> |
|---------------------|-----------------------------|---------------------------------------|---|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|
| | <u>User of Radio Bearer</u> | <u>RRC</u> | <u>RRC</u> | <u>RRC</u> | <u>NAS_DT High prio</u> | <u>NAS_DT Low prio</u> | <u>RRC</u> | <u>RRC</u> |
| <u>RLC</u> | <u>Logical channel type</u> | <u>CCCH</u> | <u>DCCH</u> | <u>DCCH</u> | <u>DCCH</u> | <u>DCCH</u> | <u>SHCCH</u> | <u>BCCH</u> |
| | <u>RLC mode</u> | <u>UM</u> | <u>UM</u> | <u>AM</u> | <u>AM</u> | <u>AM</u> | <u>UM</u> | <u>TM</u> |
| | <u>Payload sizes, bit</u> | <u>160</u> | <u>136 or 120*</u> | <u>128</u> | <u>128</u> | <u>128</u> | <u>160</u> | <u>168</u> |
| | <u>Max data rate, bps</u> | <u>32000 (alt. 48000)</u> | <u>27200 or 24000 (alt. 40800 or 36000)</u> | <u>25600 (alt. 38400)</u> | <u>25600 (alt. 38400)</u> | <u>25600 (alt. 38400)</u> | <u>32000 (alt. 48000)</u> | <u>33600 (alt. 50400)</u> |
| | <u>RLC header, bit</u> | <u>8</u> | <u>8</u> | <u>16</u> | <u>16</u> | <u>16</u> | <u>8</u> | <u>0</u> |
| <u>MAC</u> | <u>MAC header, bit</u> | <u>3</u> | <u>27 or 43</u> | <u>27</u> | <u>27</u> | <u>27</u> | <u>3</u> | <u>3</u> |
| | <u>MAC multiplexing</u> | <u>7 logical channel multiplexing</u> | | | | | | |
| <u>Layer 1</u> | <u>TrCH type</u> | <u>FACH</u> | | | | | | |
| | <u>TB sizes, bit</u> | <u>171</u> | <u>171</u> | <u>171</u> | <u>171</u> | <u>171</u> | <u>171</u> | <u>171</u> |
| | <u>TFS</u> | <u>TF0, bits</u> | | | | | | |
| | | <u>0x171</u> | | | | | | |
| | | <u>TF1, bits</u> | | | | | | |
| | | <u>1x171</u> | | | | | | |
| | | <u>TF2, bits</u> | | | | | | |
| | | <u>2x171</u> | | | | | | |

| | | | | | | | | |
|--|---|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| | TF3, bits | 3x171 | | | | | | |
| | TF4, bits | 4x171 | | | | | | |
| | TF5, bits | N/A (alt. 5x171) | | | | | | |
| | TF6, bits | N/A (alt. 6x171) | | | | | | |
| | TTI, ms | 20 | | | | | | |
| | Coding type | CC 1/2 | | | | | | |
| | 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 DSCHSee 6.10.3.4.2.2.1.26.11.1.4.2.2.1.3 Transport channel parameters for DL SRBs for DCCH and SRB for CCCH and SRB for BCCH and DL SRB for SHCCH mapped on FACHSee 6.11.1.4.2.1.2.1.36.11.1.4.2.2.1.4 TFCS for FACHSee 6.11.1.4.2.1.2.1.46.11.1.4.2.2.2 Physical channel parameters

| | | |
|--------------|---|-------------------------------------|
| <u>PDSCH</u> | <u>Modulation</u> | <u>QPSK</u> |
| | <u>Codes and time slots/ radio frame</u> | <u>SF 1 x 1 code x 6 time slots</u> |
| | <u>Max. Number of data bits/radio frame</u> | <u>8424 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>0.64</u> |

| | | |
|---------------|---|---------------------------------------|
| <u>SCCPCH</u> | <u>Modulation</u> | <u>QPSK</u> |
| | <u>Codes and time slots/ radio frame</u> | <u>SF 16 x 5 codes x 2 time slots</u> |
| | <u>Max. Number of data bits/radio frame</u> | <u>856 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>0.72</u> |

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 SHCCH6.11.1.4.2.3.1 UplinkSee 6.11.1.4.2.1.16.11.1.4.2.3.2 Downlink6.11.1.4.2.3.2.1 Transport channel parameters6.11.1.4.2.3.2.1.1 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

| | | |
|--------------|---|-------------------------------------|
| <u>PDSCH</u> | <u>Modulation</u> | <u>8PSK</u> |
| | <u>Codes and time slots/ radio frame</u> | <u>SF1 x 1 code x 10 time slots</u> |
| | <u>Max. Number of data bits/radio frame</u> | <u>21084 bits</u> |
| | <u>TFCI code word/ radio frame</u> | <u>24 bits</u> |
| | <u>TPC/ radio frame</u> | <u>2*3 bits</u> |
| | <u>SS/ radio frame</u> | <u>2*3 bits</u> |
| | <u>Puncturing Limit</u> | <u>1</u> |

| | | |
|----------------|---|--------------------------------------|
| <u>S-CCPCH</u> | <u>Modulation</u> | <u>QPSK</u> |
| | <u>Codes and time slots/ radio frame</u> | <u>SF16 x 5 codes x 2 time slots</u> |
| | <u>Max. Number of data bits/radio frame</u> | <u>856 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>0.72</u> |

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 Downlink6.11.1.4.3.2.2.1 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 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

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

| | | | |
|---------------------|--|------------------------------------|---------------|
| <u>Higher layer</u> | <u>RAB/signalling RB</u> | <u>RAB</u> | |
| | <u>User of Radio Bearer</u> | <u>Interactive/ Background RAB</u> | |
| <u>RLC</u> | <u>Logical channel type</u> | <u>DTCH</u> | |
| | <u>RLC mode</u> | <u>AM</u> | |
| | <u>Payload sizes, bit</u> | <u>320</u> | |
| | <u>Max data rate, bps</u> | <u>32000</u> | |
| | <u>RLC header, bit</u> | <u>16</u> | |
| <u>MAC</u> | <u>MAC header, bit</u> | <u>27</u> | |
| | <u>MAC multiplexing</u> | <u>N/A</u> | |
| <u>Layer 1</u> | <u>TrCH type</u> | <u>FACH</u> | |
| | <u>TB sizes, bit</u> | <u>363</u> | |
| | <u>TFS</u> | <u>TF0, bits</u> | <u>0 x363</u> |
| | | <u>TF1, bits</u> | <u>1x363</u> |
| | | <u>TF2, bits</u> | <u>2x363</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 before rate matching</u> | <u>2286</u> | |
| | <u>RM attribute</u> | <u>110-150</u> | |

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

| | | | | | | | | |
|--|-----------------------------|---------------------------------------|--|---------------------------|---------------------------|---------------------------|---------------------------|--|
| <u>Higher layer</u> | <u>RAB/signalling RB</u> | <u>SRB#1</u> | <u>SRB#2</u> | <u>SRB#3</u> | <u>SRB#4</u> | <u>SRB#5</u> | <u>SRB#6</u> | |
| | <u>User of Radio Bearer</u> | <u>RRC</u> | <u>RRC</u> | <u>RRC</u> | <u>NAS DT High prio</u> | <u>NAS DT Low prio</u> | <u>RRC</u> | |
| <u>RLC</u> | <u>Logical channel type</u> | <u>CCCH</u> | <u>DCCH</u> | <u>DCCH</u> | <u>DCCH</u> | <u>DCCH</u> | <u>BCCH</u> | |
| | <u>RLC mode</u> | <u>UM</u> | <u>UM</u> | <u>AM</u> | <u>AM</u> | <u>AM</u> | <u>TM</u> | |
| | <u>Payload sizes, bit</u> | <u>160</u> | <u>136 or 120</u> | <u>128</u> | <u>128</u> | <u>128</u> | <u>168</u> | |
| | <u>Max data rate, bps</u> | <u>32000 (alt. 48000)</u> | <u>27200 or 2400 (alt. 40800 or 36000)</u> | <u>25600 (alt. 38400)</u> | <u>25600 (alt. 38400)</u> | <u>25600 (alt. 38400)</u> | <u>33600 (alt. 50400)</u> | |
| | <u>RLC header, bit</u> | <u>8</u> | <u>8</u> | <u>16</u> | <u>16</u> | <u>16</u> | <u>0</u> | |
| <u>MAC</u> | <u>MAC header, bit</u> | <u>3</u> | <u>27 or 43</u> | <u>27</u> | <u>27</u> | <u>27</u> | <u>3</u> | |
| | <u>MAC multiplexing</u> | <u>6 logical channel multiplexing</u> | | | | | | |
| <u>Layer 1</u> | <u>TrCH type</u> | <u>FACH</u> | | | | | | |
| | <u>TB sizes, bit</u> | <u>171</u> | | | | | | |
| | <u>TFS</u> | <u>TF0, bits</u> | <u>0x171</u> | | | | | |
| | | <u>TF1, bits</u> | <u>1x171</u> | | | | | |
| | | <u>TF2, bits</u> | <u>2x171</u> | | | | | |
| | | <u>TF3, bits</u> | <u>3x171</u> | | | | | |
| | | <u>TF4, bits</u> | <u>4x171</u> | | | | | |
| | | <u>TF5, bits</u> | <u>N/A (alt. 5x171)</u> | | | | | |
| | <u>TF6, bits</u> | <u>N/A (alt. 6x171)</u> | | | | | | |
| | <u>TTI, ms</u> | <u>20</u> | | | | | | |
| <u>Coding type</u> | <u>CC ½</u> | | | | | | | |
| <u>CRC, bit</u> | <u>16</u> | | | | | | | |
| <u>Max number of bits/TTI before rate matching</u> | <u>1528 (alt. 2292)</u> | | | | | | | |
| <u>RM attribute</u> | <u>200-240</u> | | | | | | | |

* 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)</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> |

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 | | | | |

| | | | | | |
|--|-------------|------------|------------|------------|------------|
| <u>TTI, ms</u> | <u>10</u> | | | | |
| <u>Coding type</u> | <u>CC ½</u> | | | | |
| <u>CRC, bit</u> | <u>16</u> | | | | |
| <u>Max number of bits/TTI after channel coding</u> | <u>388</u> | <u>388</u> | <u>388</u> | <u>388</u> | <u>388</u> |
| <u>Max number of bits/Radio frame before rate matching</u> | <u>388</u> | <u>388</u> | <u>388</u> | <u>388</u> | <u>388</u> |

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

| | | |
|--------------|---|-------------------------------------|
| <u>PRACH</u> | <u>Modulation</u> | <u>QPSK</u> |
| | <u>Codes and time slots/ radio frame</u> | <u>SF 8 x 1 code x 2 time slots</u> |
| | <u>Max. Number of data bits/radio frame</u> | <u>352 bits</u> |
| | <u>TPC / radio frame</u> | <u>0 bits</u> |
| | <u>SS / radio frame</u> | <u>0 bits</u> |
| | <u>Puncturing Limit</u> | <u>0.88</u> |

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

| | | |
|---------------------|---|------------------------------------|
| <u>Higher layer</u> | <u>RAB/signalling RB</u> | <u>RAB</u> |
| | <u>User of Radio Bearer</u> | <u>Interactive/ Background RAB</u> |
| <u>RLC</u> | <u>Logical channel type</u> | <u>DTCH</u> |
| | <u>RLC mode</u> | <u>AM</u> |
| | <u>Payload sizes, bit</u> | <u>320</u> |
| | <u>Max data rate, bps</u> | <u>32000</u> |
| | <u>AMD/UMD/TrD PDU header, bit</u> | <u>16</u> |
| <u>MAC</u> | <u>MAC header, bit</u> | <u>24</u> |
| | <u>MAC multiplexing</u> | |
| <u>Layer 1</u> | <u>TrCH type</u> | <u>RACH</u> |
| | <u>TB sizes, bit</u> | <u>360</u> |
| | <u>TFS</u> <u>TF0, bits</u> | <u>1x360</u> |
| | <u>TTI, ms</u> | <u>10</u> |
| | <u>Coding type</u> | <u>CC ½</u> |
| | <u>CRC, bit</u> | <u>16</u> |
| | <u>Max number of bits/TTI after channel coding</u> | <u>768</u> |
| | <u>Max number of bits/ Radio frame before rate matching</u> | <u>768</u> |

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

| <u>PRACH</u> | <u>Modulation</u> | <u>QPSK</u> |
|--------------|---|-------------------------------------|
| | <u>Codes and time slots/ radio frame</u> | <u>SF 4 x 1 code x 2 time slots</u> |
| | <u>Max. Number of data bits/radio frame</u> | <u>704 bits</u> |
| | <u>TPC / radio frame</u> | <u>0 bits</u> |
| | <u>SS / radio frame</u> | <u>0 bits</u> |
| | <u>Puncturing Limit</u> | <u>0.88</u> |

For physical channel parameters for SRB for CCCH + SRBs for DCCH see 6.11.1.4.5.1.2

| |
|---|
| CR-Form-v4 |
| 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) | | 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) |
| | Detailed explanations of the above categories can be found in 3GPP TR 21.900 . | | |

| | | | |
|--------------------------------------|--|--|--|
| 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

| Higher layer | RAB/Signalling RB | RAB | |
|--------------|---|-----------|--------------|
| RLC | Logical channel type | DTCH | |
| | RLC mode | UM | |
| | Payload sizes, bit | 328 | |
| | Max data rate, bps | 65600 | |
| | UMD PDU header, bit | 8 | |
| MAC | MAC header, bit | 0 | |
| | MAC multiplexing | N/A | |
| Layer 1 | TrCH type | DCH | |
| | TB sizes, bit | 336 | |
| | TFS | TF0, bits | 0x336 |
| | | TF1, bits | 1x336 |
| | | TF2, bits | 2x336(Note1) |
| | | TF3, bits | 3x336(Note1) |
| | | TF4, bits | 4x336(Note1) |
| | 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 | 328 | |
| | Max data rate, bps | 65600 | |
| | UMD PDU header, bit | 8 | |
| MAC | MAC header, bit | 0 | |
| | MAC multiplexing | N/A | |
| Layer 1 | TrCH type | DCH | |
| | TB sizes, bit | 336 | |
| | TFS | TF0, bits | 0x336 |
| | | TF1, bits | 1x336 |
| | | TF2, bits | 2x3368(Note1) |
| | | TF3, bits | 3x336(Note1) |
| | | TF4, bits | 4x336(Note1) |
| | TTI, ms | 20 | |
| | Coding type | TC | |
| | CRC, bit | 16 | |
| | Max number of bits/TTI after channel coding | 4236 | |
| | RM attribute | 130-170 | |

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