TSG-RAN Meeting #23 **RP-040100**
Phoenix, 10-12 March 2004

Title: **CRs on TR 25.993 (written on the Rel-6 version but affecting the R'99)**

Source: **TSG-RAN WG2**

Agenda item: **7.3.3**

Spec	CR	Rev	Phase	Subject	Cat	Version-Current	Version-New	Doc-2nd-Level	Workitem
25.993	19	-	R99	Alignment with 34.108 for TDD	F	6.4.0	6.5.0	R2-040610	TEI
25.993	24	-	R99	S-CCPCH combination for HS-DSCH channel type switching	F	6.4.0	6.5.0	R2-040652	TEI

3GPP TSG-RAN WG2 Meeting #41
Malaga, Spain, 16th – 20th February 2004

Tdoc ⌘R2-040610

CR-Form-v7

CHANGE REQUEST

⌘ **25.993** **CR** **19** ⌘**rev** ⌘ Current version: **6.4.0** ⌘

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

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

Title:	⌘	Alignment with 34.108 for TDD
Source:	⌘	RAN WG2
Work item code:	⌘	TEI
Date:	⌘	16/02/2004
Category:	⌘	**F**
Release:	⌘	R99

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use one of the following releases:

2	*(GSM Phase 2)*
R96	*(Release 1996)*
R97	*(Release 1997)*
R98	*(Release 1998)*
R99	*(Release 1999)*
Rel-4	*(Release 4)*
Rel-5	*(Release 5)*
Rel-6	*(Release 6)*

Reason for change:	⌘	The current version of 25.993 needs to be aligned with recent changes in 34.108 & 25.306, and the FDD RABs defined in 25.993
Summary of change:	⌘	1. Align UE classes for each RAB with changes in 34.108 and 25.306 2. Add TDD equivalent RABs for the FDD RABs defined in 25.993 3. Add UE class information for RABs added to 34.108 4. Added note clarifying the flexibility of physical channel assignments
Consequences if not approved:	⌘	If not approved 25.993 will not be inline with 34.108 and 25.306, and will not be aligned with servces defined for FDD in 25.993. **Impact analysis:** .

Clauses affected:	⌘	8 (many sections), 9 (many sections)

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

Other comments:	⌘	

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

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

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

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

8 Examples of Radio Bearers and Signalling Radio Bearers for 3.84 Mcps TDD

Note: The physical channel parameters were chosen for each RAB because they are typical for the targeted UE class to support the particular RAB. However based on current radio conditions UEs shall expect to be configured to use any timeslot/code/spreading factors combinations that support the RAB and are supported by that UE's physical capabilities.

8.1 Combinations on DPCH

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

See subclause 6.10.3.4.1.1 of [1].

The minimum UE classes supporting this combination are UL: 32kbps, DL: 32kbps.

This is supported in Release '99.

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

See subclause 6.10.3.4.1.2 of [1].

The minimum UE classes supporting this combination are UL: 32kbps, DL: 32kbps.

This is supported in Release '99.

8.1.3 Stand-aloneUL:13.6 DL:13.6 kbps SRBs for DCCH

See subclause 6.10.3.4.1.3 of [1].

The minimum UE classes supporting this combination are UL: 32kbps, DL: 32kbps.

This is supported in Release '99.

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

See subclause 6.10.3.4.1.4 of [1].

The minimum UE classes supporting this combination are UL: 32kbps, DL: 32kbps.

This is supported in Release '99.

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

See subclause 6.10.3.4.1.5 of [1].

The minimum UE classes supporting this combination are UL: 32kbps, DL: 32kbps.

This is supported in Release '99.

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

See subclause 6.10.3.4.1.6 of [1].

The minimum UE classes supporting this combination are UL: 32kbps, DL: 32kbps.

This is supported in Release '99.

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

See subclause 6.10.3.4.1.7 of [1].

The minimum UE classes supporting this combination are UL: 32kbps, DL: 32kbps.

This is supported in Release '99.

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

See subclause 6.10.3.4.1.8 of [1].

The minimum UE classes supporting this combination are UL: 32kbps, DL: 32kbps.

This is supported in Release '99.

8.1.9 Conversational / speech / UL:5.9 DL:5.9 kbps / CS rab + UL:3.4 DL:3.4 kbps SRBs for DCCH

See subclause 6.10.3.4.1.9 of [1].

The minimum UE classes supporting this combination are UL: 32kbps, DL: 32kbps.

This is supported in Release '99.

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

See subclause 6.10.3.4.1.10 of [1].

The minimum UE classes supporting this combination are UL: 32kbps, DL: 32kbps.

This is supported in Release '99.

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

See subclause 6.10.3.4.1.11 of [1].

The minimum UE classes supporting this combination are UL: 32kbps, DL: 32kbps.

This is supported in Release '99.

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

See subclause 6.10.3.4.1.12 of [1].

The minimum UE classes supporting this combination are UL: 32kbps ~~plus support for turbo coding, maximum TB bits 2560 and TB TC bits 1280~~, DL: 32kbps. ~~plus support for turbo coding, maximum TB bits 2560 and TB TC bits 1280.~~

This is supported in Release '99.

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

See subclause 6.10.3.4.1.13 of [1].

The minimum UE classes supporting this combination are UL: 64kbps, DL: 64kbps. ~~32kbps plus support for turbo coding, maximum TB bits 2560 (Alt. 3840) and TB TC bits 1280 (Alt. 2560).~~

This is supported in Release '99.

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

See subclause 6.10.3.4.1.14 of [1].

The minimum UE classes supporting this combination are UL: 32kbps ~~plus support for minimum SF 4, turbo coding, maximum TB bits 1280 (Alt. 2560) and TB TC bits 640 (Alt. 1280)~~, DL: 32kbps ~~plus support for turbo coding, maximum TB bits 1280(Alt. 2560) and TB TC bits 640 (Alt. 1280)~~.

This is supported in Release '99.

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

See subclause 6.10.3.4.1.15 of [1].

The minimum UE classes supporting this combination are UL: 32kbps ~~plus support for turbo coding, maximum TB bits 1280 and TB TC bits 640~~, DL: 32kbps ~~plus support for turbo coding, maximum TB bits 1280 and TB TC bits 640~~.

This is supported in Release '99.

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

See subclause 6.10.3.4.1.16 of [1].

The minimum UE classes supporting this combination are UL: 32kbps ~~plus support for turbo coding, maximum TB bits 2560 and TB TC bits 1280~~, DL: 32kbps ~~plus support for turbo coding, maximum TB bits 2560 and TB TC bits 1280~~.

This is supported in Release '99.

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

See subclause 6.10.3.4.1.17 of [1].

The minimum UE classes supporting this combination are UL: 64~~32~~kbps, DL: 64kbps ~~plus support for turbo coding, maximum TB bits 2560, and maximum TC TB bits 2560~~.

This is supported in Release '99.

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

Void. ~~See subclause 6.10.3.4.1.18 of [1].~~

~~The minimum UE classes supporting this combination are UL: 32kbps; DL: 32kbps plus support for turbo coding, maximum TB bits 3840, maximum TC TB bits 2560, and maximum 16 TBs per TTI.~~

~~This is supported in Release '99.~~

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

Void~~See subclause 6.10.3.4.1.19 of [1].~~

~~The minimum UE classes supporting this combination are UL: 64kbps plus support for maximum 16 TBs per TTI, and 2 physical channels per TS, DL: 32kbps.~~

~~This is supported in Release '99.~~

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

See subclause 6.10.3.4.1.23 of [1].

The minimum UE classes supporting this combination are UL: 32kbps~~64kbps, or alternatively plus support for maximum CC TB bits 1280 if turbo coding is not used~~; DL: 32kbps ~~plus support for turbo coding plus maximum TC TB bits 640, or alternatively, not support for turbo coding if convolutional coding with rate 1/3 is used~~. The minimum UE class to support the alternative UL configuration is UL: 32kbps plus support for 8 TB/TTI

This is supported in Release '99.

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

Void.~~See subclause 6.10.3.4.1.24 of [1].~~

~~The minimum UE classes supporting this combination are UL: 64kbps plus support for 2 physical channels per TS, DL: 32kbps plus support for turbo coding, maximum TC TB bits 640, or alternatively not support for turbo coding if convolutional coding with rate 1/3 is used.~~

~~This is supported in Release '99.~~

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

See subclause 6.10.3.4.1.25 of [1].

The minimum UE classes supporting this combination are UL: 32kbps~~64kbps, or (alternatively plus support for maximum CC TB bits 1280 if convolutional coding with rate 1/3 is used instead of turbo coding)~~; DL: 64kbps~~32kbps plus support for turbo coding, maximum TB bits 2560, and maximum TC TB bits 2560.~~ The minimum UE class to support the alternative UL configuration is UL: 32kbps plus support for 8 TB/TTI.

This is supported in Release '99.

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

See subclause 6.10.3.4.1.26 of [1].

The minimum UE classes supporting this combination are UL: 64kbps ~~plus support for2 physical channels per TS~~; DL: 64kbps~~32kbps plus support for turbo coding, maximum TB bits 2560, and maximum TC TB bits 2560~~. The minimum UE class to support the alternative UL configuration is UL: 64kbps plus support for 16 TB/TTI.

This is supported in Release '99.

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

See subclause 6.10.3.4.1.27 of [1].

The minimum UE classes supporting this combination are UL: 64kbps ~~plus support for2 physical channels per TS~~; DL: ~~32~~ 128kbps ~~plus support for turbo coding, maximum TB bits 3840, maximum TC TB bits 3840, and maximum 16 TBs per TTI~~. The minimum UE class to support the alternative UL configuration is UL: 64kbps plus support for 16 TB/TTI.

This is supported in Release '99.

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

See subclause 6.10.3.4.1.28 of [1].

The minimum UE classes supporting this combination are UL: ~~64kbps~~ 128kbps ~~plus support for maximum 16 TBs per TTI~~; DL: ~~32 kbps~~ 128kbps ~~plus support for turbo coding, maximum TB bits 3840, maximum TC TB bits 3840, and maximum 16 TBs per TTI.~~ The minimum UE class to support the alternative UL configuration is UL: 128kbps plus support for 32 TB/TTI.

This is supported in Release '99.

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

See subclause 6.10.3.4.1.29 of [1].

The minimum UE classes supporting this combination are UL: 64kbps ~~plus support for 2 physical channels per TS;~~; DL: 128~~64~~ kbps ~~plus support for maximum 16 TBs per TTI~~.

This is supported in Release '99.

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

See subclause 6.10.3.4.1.30 of [1].

The minimum UE classes supporting this combination are UL: 128kbps ~~64kbps~~ plus support for maximum 16 TBs per TTI~~, and 2 physical channels per TS~~; DL: ~~64 kbps~~ 128kbps~~plus support for maximum 16 TBs per TTI~~.

This is supported in Release '99.

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

See subclause 6.10.3.4.1.31 of [1].

The minimum UE classes supporting this combination are UL: 64kbps ~~plus support for 2 physical channels per TS~~; DL: ~~128kbps plus support for 16 physical channels per frame, or (if an alternative RAB is used, plus support for maximum TB bits 6400, maximum TC TB bits 6400, and maximum 32 TBs per TTI).~~ 384kbps. The minimum UE class to support the alternative UL configuration is UL: 64kbps plus support for 16 TB/TTI.

This is supported in Release '99.

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

See subclause 6.10.3.4.1.32 of [1].

The minimum UE classes supporting this combination are UL: 64kbps ~~plus support for 2 physical channels per TS~~; DL: 384kbps ~~or if an alternative RAB is used, support for maximum TB bits 8960, maximum TC TB bits 8960~~. The minimum UE class to support the alternative DL configuration is DL: 768kbps. The minimum UE class to support the alternative UL configuration is UL: 64kbps plus support for 16 TB/TTI.

This is supported in Release '99.

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

See subclause 6.10.3.4.1.33 of [1].

The minimum UE classes supporting this combination are UL: 128kbps ~~64kbps plus support for maximum 16 TBs per TTI~~; DL: 384kbps ~~or (if an alternative RAB is used, support for maximum TB bits 8960, maximum TC TB bits 8960)~~. The minimum UE class to support the alternative DL configuration is DL: 768kbps. The minimum UE class to support the alternative UL configuration is UL: 128kbps plus support for 16 TB/TTI.

This is supported in Release '99.

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

See subclause 6.10.3.4.1.34 of [1].

The minimum UE classes supporting this combination are UL: 384kbps ~~128kbps plus support for maximum TB bits 8960, maximum TC TB bits 8960, and maximum 32 TBs per TTI, or if an alternative RAB is used, plus support for maximum TB bits 5120, maximum TC TB bits 5120, and maximum 16 TBs per TTI~~; DL: 384kbps ~~or if an alternative RAB is used, plus support for maximum TB bits 8960, maximum TC TB bits 8960~~. The minimum UE class to support the alternative DL configuration is DL 768 kbps. The minimum UE class to support the alternative UL physical configuration 2 is UL 768 kbps.

This is supported in Release '99.

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

See subclause 6.10.3.4.1.35 of [1].

The minimum UE classes supporting this combination are UL: 64kbps ~~plus support for 2 physical channels per TS~~; DL: 2048kbps ~~plus support for maximum TB bits 40960 and maximum TB TC bits 40960, or if an alternative RAB is used, plus support for maximum TB bits 81920 and maximum TC TB bits 81920.~~ The minimum UE class to support the alternative DL configuration is 2048kbps plus support for maximum TB bits 81920 and maximum TC TB bits 81920. The minimum UE class to support the alternative UL configuration is UL: 64kbps plus support for 16 TB/TTI.

This is supported in Release '99.

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

Void. ~~See subclause 6.10.3.4.1.36 of [1].~~

~~The minimum UE classes supporting this combination are UL: 64kbps plus support for maximum 16 TBs per TTI; DL: 2048kbps plus support for maximum TB bits 40960 and maximum TB TC bits 40960, or if an alternative RAB is used, plus support for maximum TB bits 81920 and maximum TB TC bits 81920.~~

~~This is supported in Release '99.~~

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

Void. ~~See subclause 6.10.3.4.1.37 of [1].~~

~~The minimum UE classes supporting this combination are UL: 128kbps plus support for maximum TB bits 8690, maximum TC TB bits 8690, and maximum 32 TBs per TTI, or if an alternative RAB is used, plus support for maximum TB bits 5120, maximum TC TB bits 5120 and maximum 16 TBs per TTI; DL: 2048 kbps plus support for maximum TB bits 40960, maximum TB TC bits 40960, optional SF 1, or if an alternative RAB is used, plus support for maximum TB bits 81920 and maximum TB TC bits 81920..~~

~~This is supported in Release '99.~~

8.1.35 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

See subclause 6.10.3.4.1.38 of [1].

The minimum UE classes supporting this combination are UL: 64 kbps, ~~or if turbo coding is alternatively not used, support for maximum CC TB bits 1280~~; DL: 32 kbps ~~plus support for Turbo coding, maximum TC TB bits 640, and maximum TB bits 1280, or alternatively, if convolutional coding with rate 1/3 is used instead of turbo coding, support for maximum CC TB bits 1280~~. The minimum UE class to support the alternative UL configuration is UL: 64kbps plus support for 16 TB/TTI.

This is supported in Release '99.

8.1.36 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

See subclause 6.10.3.4.1.39 of [1].

The minimum UE classes supporting this combination are UL: 64 kbps, ~~alternatively, if covolutional coding with rate 1/3 is used instead of turbo coding, support for maximum TC TB bits 1280~~; DL: 64kbps ~~32 kbps plus support for turbo coding, maximum TB bits 2560, maximum TC TB bits 2560~~. The minimum UE class to support the alternative UL configuration is UL: 64kbps plus support for 16 TB/TTI.

This is supported in Release '99.

8.1.37 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

See subclause 6.10.3.4.1.40 of [1].

The minimum UE classes supporting this combination are UL: 64kbps ; DL: ~~32~~ 64kbps ~~plus support for turbo coding, maximum TB bits 2560, and maximum TC TB bits 2560~~. The minimum UE class to support the alternative UL configuration is UL: 64kbps plus support for 16 TB/TTI.

This is supported in Release '99.

8.1.38 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

See subclause 6.10.3.4.1.41 of [1].

The minimum UE classes supporting this combination are UL: 64 kbps; DL: 128 kbps.

This is supported in Release '99.

8.1.39 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

See subclause 6.10.3.4.1.42 of [1].

The minimum UE classes supporting this combination are UL: 64 kbps; DL: 384kbps~~128kbps plus support of 20 physical channels per frame and 10 physical channels per TS, or if an alternative RAB is used, plus support for maximum TB bits 6400, maximum TC TB bits 6400, and maximum 32 TBs per TTI~~. The minimum UE class to support the alternative UL configuration is UL: 64kbps plus support for 16 TB/TTI.

This is supported in Release '99.

8.1.40 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

See subclause 6.10.3.4.1.43 of [1].

The minimum UE classes supporting this combination are UL: 64 kbps; DL: 384 kbps plus~~, or if an alternative RAB is used, support for maximum TB bits 8960, maximum TC TB bits 8960.~~ The minimum UE class to support the alternative DL configuration is DL: 768kbps. The minimum UE class to support the alternative UL configuration is UL: 64kbps plus support for 16 TB/TTI.

This is supported in Release '99.

8.1.41 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

See subclause 6.10.3.4.1.44 of [1].

The minimum UE classes supporting this combination are UL: ~~64~~ 384kbps plus support for ~~maximum 16 TBs per TTI, and~~ 2 physical channels per TS; DL: 2048 kbps plus support for maximum TB bits 40960, maximum TC TB bits 40960, or if an alternative RAB is used, plus support for maximum TB bits 81920 and maximum TB TC bits 81920.

This is supported in Release '99.

8.1.42 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

See subclause 6.10.3.4.1.45 of [1].

The minimum UE classes supporting this combination are UL: 64 kbps~~ plus support 2 physical channels per TS~~; DL: ~~32~~ 64kbps~~ plus turbo coding, maximum TB bits 3840 and maximum TC TB bits 2560~~.

This is supported in Release '99.

8.1.43 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

Void. ~~See subclause 6.10.3.4.1.46 of [1].~~

~~The minimum UE classes supporting this combination are UL: 32 kbps DL: 32 kbps plus support for turbo coding, maximum TB bits 3840, maximum TC TB bits 2560, and maximum 16 TBs per TTI.~~

~~This is supported in Release '99.~~

8.1.44 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

See subclause 6.10.3.4.1.49 of [1].

The minimum UE classes supporting this combination are UL: 64 ~~kbps~~; DL: ~~32~~ 64kbps ~~plus turbo coding, maximum TB bits 2560, maximum TC TB bits 1280, or if the alternative RAB is used, plus support for maximum TB bits 3840 and maximum TC TB bits 2560.~~

This is supported in Release '99.

8.1.45 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

See subclause 6.10.3.4.1.50 of [1].

The minimum UE classes supporting this combination are UL: 64 kbps ~~plus support of SF1, or if the alternative RAB is used, maximum TB bits 6400, maximum TC TB bits 5120, and maximum 16 TBs per TTI~~; DL: 128 kbps ~~or if the alterntive RAB is used, plus support for maximum TB bits 6400, maximum TC TB bits 5120~~.

This is supported in Release '99

8.1.46 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

See subclause 6.10.3.4.1.51 of [1].

The minimum UE classes for this combinations are UL: 64 kbps; DL: ~~32~~ 128kbps ~~plus support for turbo coding, maximum TB bits 3840, maximum TC TB bits 3840, or if the RAB is used, plus support for maximum TB bits 5120, maximum TC TB bits 5120, and maximum 16 TBs per TTI~~. The minimum UE class to support the alternative UL configuration is UL: 64kbps plus support for 16 TB/TTI.

This is supported in Release '99.

8.1.47 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

See subclause 6.10.3.4.1.52 of [1].

The minimum UE classes for this combination are UL: 64 kbps ; DL: 384kbps ~~128kbps plus support for maximum TB bits 5120, maximum TC TB bits 5120, or if the alternative RAB is used, plus support for maximum TB bits 6400,~~

~~maximum TC TB bits 6400)~~. The minimum UE class to support the alternative UL configuration is UL: 64kbps plus support for 16 TB/TTI.

This is supported in Release '99.

8.1.48 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

See subclause 6.10.3.4.1.53 of [1].

The minimum UE classes for this combination are UL: 384kbps ~~64kbps plus support for support for maximum TB bits 5120, maximum TC TB bits 5120, and maximum 16 TBs per TTI, and 2 physical channels per TS, or if the alternative RAB is used, plus support for maximum TB bits 6400, maximum TC TB bits 6400)~~; DL: 384kbps~~128 kbps plus support for support for maximum TB bits 5120, maximum TC TB bits 5120, or if the RAB is used, plus support for maximum TB bits 6400, maximum TC TB bits 6400~~. The minimum UE class to support the alternative UL configuration is UL: 384kbps plus support for 32 TB/TTI.

This is supported in Release '99.

8.1.49 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:3.4kbps SRBs for DCCH

Void. ~~See subclause 6.10.3.4.1.54 of [1].~~

~~The minimum UE classes for this combination are UL: 64 kbps plus support for 2 physical channels per TS; DL: 128 kbps plus support for maximum TB bits 6400, maximum TC TB bits 6400, and maximum 32 TBs per TTI.~~

~~This is supported in Release '99.~~

8.1.50 Conversational / Speech UL:(12.2-7.95-5.9-4.75) & DL:(12.2-7.95-5.9-4.75) CS RAB + UL:3.4 & DL 3.4kbs SRBs for DCCH

See subclause 6.10.3.4.1.4a of [1].

The minimum UE classes for this combination are UL: 32 kbps; DL: 32 kbps.

This is supported in Release '99.

8.1.51 Conversational / Speech UL:(10.2-6.7-5.9-4.75) & DL:(10.2-7.95-5.9-4.75) CS RAB + UL:3.4 & DL 3.4kbs SRBs for DCCH

See subclause 6.10.3.4.1.5a of [1].

The minimum UE classes supporting this combination are UL: 32kbps, DL: 32kbps.

This is supported in Release '99.

8.1.52 Conversational / Speech UL:(7.4-6.7-5.9-4.75) & DL:(7.4-6.7-5.9-4.75) CS RAB + UL:3.4 & DL 3.4kbs SRBs for DCCH

See subclause 6.10.3.4.1.7a of [1].

The minimum UE classes supporting this combination are UL: 32kbps, DL: 32kbps.

This is supported in Release '99.

8.1.53 Interactive or Background UL:8 & DL:8kbs PS RAB + UL:3.4 & DL:3.4 SRBs for DCCH

See subclause 6.10.3.4.1.23a of [1].

The minimum UE classes supporting this combination are UL: 32kbps, DL: 32kbps. The minimum UE class to support the alternative UL configuration is UL: 32kbps plus support for 8 TB/TTI.

This is supported in Release '99.

8.1.54 Interactive or Background UL:16 & DL:16kbs PS RAB + UL:3.4 & DL:3.4 SRBs for DCCH

See subclause 6.10.3.4.1.23b of [1].

The minimum UE classes supporting this combination are UL: 32kbps, DL: 32kbps. The minimum UE class to support the alternative UL configuration is UL: 32kbps plus support for 8 TB/TTI.

This is supported in Release '99.

8.1.55 Interactive or Background UL:32 & DL:32kbs PS RAB + UL:3.4 & DL:3.4 SRBs for DCCH

See subclause 6.10.3.4.1.23c of [1].

The minimum UE classes supporting this combination are UL: 64kbps, DL: 64kbps.

This is supported in Release '99.

8.1.56 Interactive or Background UL:32 & DL:32kbs PS RAB (20msTTI) + UL:3.4 & DL:3.4 SRBs for DCCH

See subclause 6.10.3.4.1.23d of [1].

The minimum UE classes supporting this combination are UL: 32kbps, DL: 32kbps. The minimum UE class to support the alternative UL configuration is UL: 32kbps plus support for 8 TB/TTI.

This is supported in Release '99.

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

See subclause 6.10.3.4.1.38a of [1].

The minimum UE classes supporting this combination are UL: 64 kbps; DL: 32 kbps.

This is supported in Release '99.

8.1.58 Conversational / Speech UL:12.2 & DL:12.2kbs CS RAB + Interactive or Background UL:8 & DL:8kbs PS RAB + UL3.4 & DL:3.4kbs SRB's for DCCH

See subclause 6.10.3.4.1.38b of [1].

The minimum UE classes supporting this combination are UL: 64 kbps, DL: 32 kbps.

This is supported in Release '99.

8.1.59 Conversational / Speech UL:12.2 & DL:12.2kbs CS RAB + Interactive or Background UL:32 & DL:32kbs PS RAB + UL3.4 & DL:3.4kbs SRB's for DCCH

See subclause 6.10.3.4.1.38c of [1].

The minimum UE classes supporting this combination are UL: 64 kbps, DL: 64 kbps.

This is supported in Release '99.

8.1.60 Conversational / Speech UL:12.2 & DL:12.2kbs CS RAB + Interactive or Background UL:64 & DL:64kbs PS RAB + Interactive or Background UL:64 & DL:64kbs PS RAB + UL3.4 & DL:3.4kbs SRB's for DCCH

See subclause 6.10.3.4.1.38d of [1].

The minimum UE classes supporting this combination are UL: 64 kbps plus support for 5 AM mode entities, DL: 64 kbps plus support for 5 AM mode entities. The minimum UE class to support the alternative UL configuration is UL: 64kbps plus support for 16 TB per TTI and support for 5 AM mode entities.

This is supported in Release '99.

8.1.61 Conversational / Speech UL:(12.2 7.95 5.9 4.75) & DL:(12.2 7.95 5.9 4.75)kbs CS RAB + Interactive or Background UL:0 & DL:0kbs PS RAB + UL3.4 & DL:3.4kbs SRB's for DCCH

See subclause 6.10.3.4.1.38e of [1].

The minimum UE classes supporting this combination are UL: 64 kbps; DL: 32 kbps.

This is supported in Release '99.

8.1.62 Conversational / Speech UL:(12.2 7.95 5.9 4.75) & DL:(12.2 7.95 5.9 4.75)kbs CS RAB + Interactive or Background UL:8 & DL:8kbs PS RAB + UL3.4 & DL:3.4kbs SRB's for DCCH

See subclause 6.10.3.4.1.38f of [1].

The minimum UE classes supporting this combination are UL: 64 kbps, DL: 32 kbps.

This is supported in Release '99.

8.1.63 Conversational / Speech UL:(12.2 7.95 5.9 4.75) & DL:(12.2 7.95 5.9 4.75)kbs CS RAB + Interactive or Background UL:16 & DL:16kbs PS RAB + UL3.4 & DL:3.4kbs SRB's for DCCH

See subclause 6.10.3.4.1.38g of [1].

The minimum UE classes supporting this combination are UL: 64 kbps, DL: 64 kbps.

This is supported in Release '99.

8.1.64 Conversational / Speech UL:(12.2 7.95 5.9 4.75) & DL:(12.2 7.95 5.9 4.75)kbs CS RAB + Interactive or Background UL:32 & DL:32kbs PS RAB + UL3.4 & DL:3.4kbs SRB's for DCCH

See subclause 6.10.3.4.1.38h of [1].

The minimum UE classes supporting this combination are UL: 64 kbps, DL: 32 kbps..

This is supported in Release '99.

8.1.65 Conversational / Speech UL:(12.2 7.95 5.9 4.75) & DL:(12.2 7.95 5.9 4.75)kbs CS RAB + Interactive or Background UL:64 & DL:64kbs PS RAB + UL3.4 & DL:3.4kbs SRB's for DCCH

See subclause 6.10.3.4.1.38i of [1].

The minimum UE classes supporting this combination are UL: 64 kbps + 48 Configured TFCs, DL: 64 kbps + 64 Configured TFCs. The minimum UE class to support the alternative UL configuration is UL: 64kbps plus support for 16 TB per TTI and 48 Configured TFCs.

This is supported in Release '99.

8.1.66 Conversational / Speech UL:(12.2 7.95 5.9 4.75) & DL:(12.2 7.95 5.9 4.75)kbs CS RAB + Interactive or Background UL:64 & DL:128kbs PS RAB + UL3.4 & DL:3.4kbs SRB's for DCCH

See subclause 6.10.3.4.1.38j of [1].

The minimum UE classes supporting this combination are UL: 64 kbps + 48 Configured TFCs, DL: 128 kbps.. The minimum UE class to support the alternative UL configuration is UL: 64kbps plus support for 16 TB per TTI and 48 Configured TFCs.

This is supported in Release '99.

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

See subclause 6.10.3.4.1.49a of [1].

The minimum UE classes supporting this combination are UL:64 kbps; DL:64 kbps.

This is supported in Release '99.

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

See subclause 6.10.3.4.1.51a of [1].

The minimum UE classes supporting this combination are UL: 64 kbps, DL: 64 kbps.

This is supported in Release '99.

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

See subclause 6.10.3.4.1.51b of [1].

The minimum UE classes supporting this combination are UL: 64 kbps, DL: 128 kbps.

This is supported in Release '99.

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

See subclause 6.10.3.4.1.56 of [1].

The minimum UE classes supporting this combination are UL: 32 kbps plus support for 5 AM entities, DL: 32 kbps.plus support for 5 AM entities. The minimum UE class to support the alternative UL configuration is UL: 32 kbps plus support for 5 AM mode entities and 8 TB per TTI.

This is supported in Release '99.

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

See subclause 6.10.3.4.1.57 of [1].

The minimum UE classes supporting this combination are UL: 64 kbps plus support for 5 AM mode entities; DL: 64 kbps plus support for 5 AM mode entities. The minimum UE class to support the alternative UL configuration is UL: 64 kbps plus support for 5 AM mode entities and 16 TB per TTI.

This is supported in Release '99.

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

See subclause 6.10.3.4.1.58 of [1].

The minimum UE classes supporting this combination are UL: 64 kbps plus support for 5 AM mode entities; DL: 64 kbps plus support for 5 AM mode entities.

This is supported in Release '99.

8.1.72a Streaming / unknown / UL:16 DL:64 kbps / PS RAB + Interactive or background / UL:8 DL:8 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH – Alternative

This configuration optimises the flexibility of the Transport Format Selection by adding an omitted Transport Format, to the transport channel parameters given in the reference subclause 6.10.3.4.1.58 of [1], for the downlink,transport channel Streaming / unknown / DL:64 kbps PS RAB.

The minimum UE classes supporting this combination are UL: 64 kbps plus support for 5 AM mode entities; DL: 64 kbps plus support for 5 AM mode entities.

This is supported in Release ‘99.

8.1.72a.1 Uplink

See subclause 6.10.3.4.1.58.1 of [1]

8.1.72a.2 Downlink

8.1.72a.2.1 Transport channel parameters

8.1.72a.2.1.1 Transport channel parameters for Streaming / unknown / DL:64 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		64000
	AM 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	3x656
		TF4, bits	4x656
	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

8.1.72a.2.1.2 Transport channel parameters for Interactive or background / DL:8 kbps / PS RAB

See clause 6.10.3.4.1.23.2.1.2 of [1]

8.1.72a.2.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.2.1.1 of [1]

8.1.72a.2.1.4 TFCS

TFCS size	20
TFCS	(64 kbps RAB, 8 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,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),

8.1.72a.2.2 Physical channel parameters

DPCH Downlink	Midamble	256 chips
	Codes and time slots	SF16 x 6 codes x 1 time slot
	Max. Number of data bits/radio frame	1640 bits
	TFCI code word	16 bits
	Puncturing limit	0.64

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

See subclause 6.10.3.4.1.61 of [1].

The minimum UE classes supporting this combination are UL: 32 kbps; DL: 32 kbps.

This is supported in Release '99.

8.1.74 Stand-alone UL:1.7 DL:1.7 kbps SRBs for DCCH (Multiframe)

See subclause 6.10.3.4.1.1a of [1].

The minimum UE classes supporting this combination are UL: 32kbps, DL: 32kbps.

This is supported in Release '99.

8.1.75 Streaming / unknown / UL:16 DL:128 kbps / PS RAB + Interactive or background / UL:8 DL:8 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

The minimum UE classes supporting this combination are UL: 64 kbps plus support for 5 AM mode entities; DL: 128kbps.

This is supported in Release '99.

8.1.75.1 Uplink

See subclause 6.10.3.4.1.58.1 of [1]

8.1.75.2 Downlink

8.1.75.2.1 Transport channel parameters

8.1.75.2.1.1 Transport channel parameters for Streaming / unknown / DL:128 kbps / PS RAB

Higher Layer	RAB/Signalling RB		**RAB**
RLC	Logical channel type		DTCH
	RLC mode		UM
	Payload sizes, bit		640
	Max data rate, bps		128000
	UM 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	3x656
		TF4, bits	4x656
	TTI, ms		20
	Coding type		TC
	CRC, bit		16
	Max number of bits/TTI after channel coding		8076
	Max number of bits/radio frame before rate matching		4038
	RM attribute		125-165

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

See subclause 6.10.3.4.1.23.2.1.1 of [1].

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

See subclause 6.10.3.4.1.2.2.1.1 of [1].

8.1.75.2.1.4 TFCS

TFCS size	20
TFCS	(128 kbps RAB, 8 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,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),

8.1.75.2.2 Physical channel parameters

DPCH Downlink	Midamble	256 chips
	Codes and time slots	SF16 x 5 codes x 2 time slot
	Max. Number of data bits/radio frame	2744 bits
	TFCI code word	16 bits
	Puncturing limit	0.60

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

NOTE: Conversational / unknown / UL:8 kbps / PS RAB – TF0 contains zero Transport Blocks .

NOTE: Conversational / unknown / DL:8 kbps / PS RAB – TF0 contains zero Transport Blocks.

The minimum UE classes supporting this combination are UL: 32kbps, DL: 32kbps. The minimum UE class to support the alternative UL configuration is UL: 64kbps.

This is supported in Release '99.

8.1.76.1 Uplink

8.1.76.1.1 Transport channel parameters

8.1.76.1.1.1 Transport channel parameters for Conversational / unknown / UL:8 kbps / PS RAB

Higher layer	RAB/Signalling RB		**RAB**
RLC	Logical channel type		DTCH
	RLC mode		UM
	Payload sizes, bit		320
	Max data rate, bps		8000
	UMD PDU header, bit		8
MAC	MAC header, bit		0
	MAC multiplexing		N/A
Layer 1	TrCH type		DCH
	TB sizes, bit		328
	TFS	TF0, bits	0x328
		TF1, bits	1x328
	TTI, ms		40
	Coding type		TC
	CRC, bit		16
	Max number of bits/TTI after channel coding		1044
	Max number of bits/radio frame before rate matching		261
	RM attribute		135-175

8.1.76.1.1.2 Transport channel parameters for Interactive or Background / UL:8 kbps / PS RAB

See subclause 6.10.3.4.1.23a.1.1.1 of [1]

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

See subclause 6.10.3.4.1.2.1.1.1 of [1]

8.1.76.1.1.4 TFCS

TFCS size	8 (alt. 12)
TFCS	(8 kbps Conversational RAB, 8 kbps I/B 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) (alt. (TF0, TF0, TF0), (TF1, TF0, TF0), (TF0, TF1, TF0), (TF1, TF1, TF0), (TF0, TF2, TF0), (TF1, TF2, TF0), (TF0, TF0, TF1), (TF1, TF0, TF1), (TF0, TF1, TF1), (TF1, TF1, TF1), (TF0, TF2, TF1), (TF1, TF2, TF1))

8.1.76.1.2 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	0.68 (alt. 0.64)

8.1.76.2 Downlink

8.1.76.2.1 Transport channel parameters

8.1.76.2.1.1 Transport channel parameters for Conversational / unknown / DL:8 kbps / PS RAB

Higher layer	RAB/Signalling RB		**RAB**
RLC	Logical channel type		DTCH
	RLC mode		UM
	Payload sizes, bit		320
	Max data rate, bps		8000
	AMD PDU header, bit		8
MAC	MAC header, bit		0
	MAC multiplexing		N/A
Layer 1	TrCH type		DCH
	TB sizes, bit		328
	TFS	TF0, bits	0x328
		TF1, bits	1x328
	TTI, ms		40
	Coding type		TC
	CRC, bit		16
	Max number of bits/TTI after channel coding		1044
	Max number of bits/radio frame before rate matching		261
	RM attribute		135-175

8.1.76.2.1.2 Transport channel parameters for Interactive or Background / DL:8 kbps / PS RAB

See subclause 6.10.3.4.1.23.2.1.2 of [1].

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

See subclause 6.10.3.4.1.2.2.1.1 of [1]

8.1.76.2.1.4 TFCS

TFCS size	8
TFCS	(8 kbps Conversational RAB, 8 kbps I/B 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)

8.1.76.2.2 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	716 bits
	TFCI code word	16 bits
	Puncturing limit	0.96

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

NOTE: Conversational / unknown / UL:8 kbps / PS RAB – TF0 contains one Transport Block of zero size.

NOTE: Conversational / unknown / DL:8 kbps / PS RAB – TF0 contains one Transport Block of zero size.

The minimum UE classes supporting this combination are UL: 32kbps, DL: 32kbps. The minimum UE class to support the alternative UL configuration is UL: 64kbps.

This is supported in Release '99.

8.1.77.1 Uplink

8.1.77.1.1 Transport channel parameters

8.1.77.1.1.1 Transport channel parameters for Conversational / unknown / UL:8 kbps / PS RAB

NOTE: In case of using this alternative, CRC parity bits are to be attached every time since number of TrBlks are 1 even if there is no data on the RAB (see subclause 4.2.1.1 in [3]).

			RAB
Higher layer	RAB/Signalling RB		**RAB**
RLC	Logical channel type		DTCH
	RLC mode		UM
	Payload sizes, bit		320
	Max data rate, bps		8000
	UMD PDU header, bit		8
MAC	MAC header, bit		0
	MAC multiplexing		N/A
Layer 1	TrCH type		DCH
	TB sizes, bit		0, 328
	TFS	TF0, bits	1x0
		TF1, bits	1x328
	TTI, ms		40
	Coding type		TC
	CRC, bit		16
	Max number of bits/TTI after channel coding		1044
	Max number of bits/radio frame before rate matching		261
	RM attribute		135-175

8.1.77.1.1.2 Transport channel parameters for Interactive or Background / UL:8 kbps / PS RAB

See subclause 6.10.3.4.1.23a.1.1.2 of [1]

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

See subclause 6.10.3.4.1.2.1.1.1 of [1]

8.1.77.1.1.4 TFCS

TFCS size	8 (alt. 12)
TFCS	(8 kbps Conversational RAB, 8 kbps I/B 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) (alt. (TF0, TF0, TF0), (TF1, TF0, TF0), (TF0, TF1, TF0), (TF1, TF1, TF0), (TF0, TF2, TF0), (TF1, TF2, TF0), (TF0, TF0, TF1), (TF1, TF0, TF1), (TF0, TF1, TF1), (TF1, TF1, TF1), (TF0, TF2, TF1), (TF1, TF2, TF1))

8.1.77.1.2 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	0.68 (alt. 0.64)

8.1.77.2 Downlink

8.1.77.2.1 Transport channel parameters

8.1.77.2.1.1 Transport channel parameters for Conversational / unknown / DL:8 kbps / PS RAB

NOTE: In case of using this alternative, CRC parity bits are to be attached every time since number of TrBlks are 1 even if there is no data on the RAB (see subclause 4.2.1.1 in [3]).

Higher layer	RAB/Signalling RB		RAB
RLC	Logical channel type		DTCH
	RLC mode		UM
	Payload sizes, bit		320
	Max data rate, bps		8000
	AMD PDU header, bit		8
MAC	MAC header, bit		0
	MAC multiplexing		N/A
Layer 1	TrCH type		DCH
	TB sizes, bit		0, 328
	TFS	TF0, bits	1x0
		TF1, bits	1x328
	TTI, ms		40
	Coding type		TC
	CRC, bit		16
	Max number of bits/TTI after channel coding		1044
	Max number of bits/radio frame before rate matching		261
	RM attribute		135-175

8.1.77.2.1.2 Transport channel parameters for Interactive or Background / DL:8 kbps / PS RAB

See subclause 6.10.3.4.1.23.2.1.2 of [1].

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

See subclause 6.10.3.4.1.2.2.1.1 of [1]

8.1.77.2.1.4 TFCS

TFCS size	8
TFCS	(8 kbps Conversational RAB, 8 kbps I/B 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)

8.1.77.2.2 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	716 bits
	TFCI code word	16 bits
	Puncturing limit	0.72

8.1.78 Conversational / unknown / UL:16 DL:16 kbps / PS RAB + Interactive or Background / UL:8 DL:8 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

NOTE: Conversational / unknown / UL:16 kbps / PS RAB – TF0 contains zero Transport Blocks.

NOTE: Conversational / unknown / DL:16 kbps / PS RAB – TF0 contains zero Transport Blocks.

The minimum UE classes supporting this combination are UL: 32kbps, DL: 32kbps. The minimum UE class to support the alternative UL configuration is UL: 64kbps.

This is supported in Release '99.

8.1.78.1 Uplink

8.1.78.1.1 Transport channel parameters

8.1.78.1.1.1 Transport channel parameters for Conversational / unknown / UL:16 kbps / PS RAB

Higher layer	RAB/Signalling RB		**RAB**
RLC	Logical channel type		DTCH
	RLC mode		UM
	Payload sizes, bit		320
	Max data rate, bps		16000
	UMD PDU header, bit		8
MAC	MAC header, bit		0
	MAC multiplexing		N/A
Layer 1	TrCH type		DCH
	TB sizes, bit		328
	TFS	TF0, bits	0x328
		TF1, bits	1x328
		TF2, bits	2x328
	TTI, ms		40
	Coding type		TC
	CRC, bit		16
	Max number of bits/TTI after channel coding		2076
	Max number of bits/radio frame before rate matching		519
	RM attribute		135-175

8.1.78.1.1.2 Transport channel parameters for Interactive or Background / UL:8 kbps / PS RAB

See subclause 6.10.3.4.1.23a.1.1.1 of [1]

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

See subclause 6.10.3.4.1.2.1.1.1 of [1]

8.1.78.1.1.4 TFCS

TFCS size	12 (alt 18)
TFCS	(16 kbps Conversational RAB, 8 kbps I/B RAB, DCCH)= (TF0, TF0, TF0), (TF0, TF1, TF0), (TF0, TF0, TF1), (TF0, TF1, TF1), (TF1, TF0, TF0), (TF1, TF1, TF0), (TF1, TF0, TF1), (TF1, TF1, TF1), (TF2, TF0, TF0), (TF2, TF1, TF0), (TF2, TF0, TF1), (TF2, TF1, TF1) (alt ((TF0, TF0, TF0), (TF0, TF1, TF0), (TF0, TF2, TF0), (TF0, TF0, TF1), (TF0, TF1, TF1), (TF0, TF2, TF1), (TF1, TF0, TF0), (TF1, TF1, TF0), (TF1, TF2, TF0), (TF1, TF0, TF1), (TF1, TF1, TF1), (TF1, TF2, TF1),(TF2, TF0, TF0), (TF2, TF1, TF0), (TF2, TF2, TF0), (TF2, TF0, TF1), (TF2, TF1, TF1), (TF2, TF2, TF1))

8.1.78.1.2 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	0.96 (alt. 0.92)

8.1.78.2 Downlink

8.1.78.2.1 Transport channel parameters

8.1.78.2.1.1 Transport channel parameters for Conversational / unknown / DL:16 kbps / PS RAB

Higher layer	RAB/Signalling RB		RAB
RLC	Logical channel type		DTCH
	RLC mode		UM
	Payload sizes, bit		320
	Max data rate, bps		16000
	AMD PDU header, bit		8
MAC	MAC header, bit		0
	MAC multiplexing		N/A
Layer 1	TrCH type		DCH
	TB sizes, bit		328
	TFS	TF0, bits	0x328
		TF1, bits	1x328
		TF2, bits	2x328
	TTI, ms		40
	Coding type		TC
	CRC, bit		16
	Max number of bits/TTI after channel coding		2076
	Max number of bits/radio frame before rate matching		519
	RM attribute		135-175

8.1.78.2.1.2 Transport channel parameters for Interactive or Background / DL:8 kbps / PS RAB

See subclause 6.10.3.4.1. 23.2.1.1 of [1]

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

See subclause 6.10.3.4.1.2.2.1.1 of [1]

8.1.78.2.1.4 TFCS

TFCS size	12
TFCS	(16 kbps Conversational RAB, 8 kbps I/B RAB, DCCH)= (TF0, TF0, TF0), (TF0, TF1, TF0), (TF0, TF0, TF1), (TF0, TF1, TF1), (TF1, TF0, TF0), (TF1, TF1, TF0), (TF1, TF0, TF1), (TF1, TF1, TF1), (TF2, TF0, TF0), (TF2, TF1, TF0), (TF2, TF0, TF1), (TF2, TF1, TF1)

8.1.78.2.2 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	716 bits
	TFCI code word	16 bits
	Puncturing limit	0.72

8.1.79 Conversational / unknown / UL:16 DL:16 kbps / PS RAB + Interactive or Background / UL:8 DL:8 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

NOTE: Conversational / unknown / UL:16 kbps / PS RAB – TF0 contains one Transport Block of zero size.

NOTE: Conversational / unknown / DL:16 kbps / PS RAB – TF0 contains one Transport Block of zero size.

The minimum UE classes supporting this combination are UL: 32kbps, DL: 32kbps. The minimum UE class to support the alternative UL configuration is UL: 64kbps.

This is supported in Release '99.

8.1.79.1 Uplink

8.1.79.1.1 Transport channel parameters

8.1.79.1.1.1 Transport channel parameters for Conversational / unknown / UL:16 kbps / PS RAB

NOTE: In case of using this alternative, CRC parity bits are to be attached every time since number of TrBlks are 1 even if there is no data on the RAB (see subclause 4.2.1.1 in [3]).

Higher layer	RAB/Signalling RB		**RAB**
RLC	Logical channel type		DTCH
	RLC mode		UM
	Payload sizes, bit		320
	Max data rate, bps		16000
	UMD PDU header, bit		8
MAC	MAC header, bit		0
	MAC multiplexing		N/A
Layer 1	TrCH type		DCH
	TB sizes, bit		0, 328
	TFS	TF0, bits	1x0
		TF1, bits	1x328
		TF2, bits	2x328
	TTI, ms		40
	Coding type		TC
	CRC, bit		16
	Max number of bits/TTI after channel coding		2076
	Max number of bits/radio frame before rate matching		519
	RM attribute		135-175

8.1.79.1.1.2 Transport channel parameters for Interactive or Background / UL:8 kbps / PS RAB

See subclause 6.10.3.4.1.23a.1.1.1 of [1]

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

See subclause 6.10.3.4.1.2.1.1.1 of [1]

8.1.79.1.1.4 TFCS

TFCS size	12 (alt 18)
TFCS	(16 kbps Conversational RAB, 8 kbps I/B RAB, DCCH)= (TF0, TF0, TF0), (TF0, TF1, TF0), (TF0, TF0, TF1), (TF0, TF1, TF1), (TF1, TF0, TF0), (TF1, TF1, TF0), (TF1, TF0, TF1), (TF1, TF1, TF1), (TF2, TF0, TF0), (TF2, TF1, TF0), (TF2, TF0, TF1), (TF2, TF1, TF1) (alt. ((TF0, TF0, TF0), (TF0, TF1, TF0), (TF0, TF2, TF0), (TF0, TF0, TF1), (TF0, TF1, TF1), (TF0, TF2, TF1), (TF1, TF0, TF0), (TF1, TF1, TF0), (TF1, TF2, TF0), (TF1, TF0, TF1), (TF1, TF1, TF1), (TF1, TF1, TF1),(TF2, TF0, TF0), (TF2, TF1, TF0), (TF2, TF2, TF0), (TF2, TF0, TF1), (TF2, TF1, TF1), (TF2, TF1, TF1))

8.1.79.1.2 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	904bits
	TFCI code word	16 bits
	TPC	2 bits
	Puncturing Limit	0.96 (alt. 0.92)

8.1.79.2 Downlink

8.1.79.2.1 Transport channel parameters

8.1.79.2.1.1 Transport channel parameters for Conversational / unknown / DL:16 kbps / PS RAB

NOTE: In case of using this alternative, CRC parity bits are to be attached every time since number of TrBlks are 1 even if there is no data on the RAB (see subclause 4.2.1.1 in [3]).

Higher layer	RAB/Signalling RB		RAB
RLC	Logical channel type		DTCH
	RLC mode		UM
	Payload sizes, bit		320
	Max data rate, bps		16000
	AMD PDU header, bit		8
MAC	MAC header, bit		0
	MAC multiplexing		N/A
Layer 1	TrCH type		DCH
	TB sizes, bit		0, 328
	TFS	TF0, bits	1x0
		TF1, bits	1x328
		TF2, bits	2x328
	TTI, ms		40
	Coding type		TC
	CRC, bit		16
	Max number of bits/TTI after channel coding		2076
	Max number of bits/radio frame before rate matching		519
	RM attribute		135-175

8.1.79.2.1.2 Transport channel parameters for Interactive or Background / DL:8 kbps / PS RAB

See subclause 6.10.3.4.1.23.2.1.1 of [1]

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

See subclause 6.10.3.4.1.2.2.1.1 of [1]

8.1.79.2.1.4 TFCS

TFCS size	12
TFCS	(16 kbps Conversational RAB, 8 kbps I/B RAB, DCCH)= (TF0, TF0, TF0), (TF0, TF1, TF0), (TF0, TF0, TF1), (TF0, TF1, TF1), (TF1, TF0, TF0), (TF1, TF1, TF0), (TF1, TF0, TF1), (TF1, TF1, TF1), (TF2, TF0, TF0), (TF2, TF1, TF0), (TF2, TF0, TF1), (TF2, TF1, TF1)

8.1.79.2.2 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	716 bits
	TFCI code word	16 bits
	Puncturing limit	0.72

8.1.80 Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB + Interactive or Background / UL:0 DL:0 kbps / PS RAB + Interactive or Background / UL:0 DL:0 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

The minimum UE classes supporting this combination are UL: 32kbps plus support for 5 AM mode entities, DL: 32kbps plus support for 5 AM mode entities.

This is supported in Release '99.

8.1.80.1 Uplink

8.1.80.1.1 Transport channel parameters

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

See subclause 6.10.3.4.1.4.1.1.1 of [1].

8.1.80.1.1.2 Transport channel parameters for Interactive or Background / UL:0 + UL:0 kbps / PS RAB

Higher layer	RAB/Signalling RB		**RAB**	**RAB**
RLC	Logical channel type		DTCH	DTCH
	RLC mode		AM	AM
	Payload sizes, bit		320	320
	Max data rate, bps		0	0
	AMD PDU header, bit		16	16
MAC	MAC header, bit		4	4
	MAC multiplexing		2 logical channel multiplexing	
Layer 1	TrCH type		DCH	
	TB sizes, bit		340	
	TFS	TF0, bits	0x340	
	TTI, ms		20	
	Coding type		TC	
	CRC, bit		16	
	Max number of bits/TTI after channel coding		0	
	Max number of bits/radio frame before rate matching		0	
	RM attribute		130-170	

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

See subclause 6.10.3.4.1.2.1.1.1 of [1].

8.1.80.1.1.4 TFCS

TFCS size	6
TFCS	(RAB subflow#1, RAB subflow#2, RAB subflow#3, 0+0kbps RAB, DCCH)= (TF0,TF0,TF0,TF0,TF0), (TF1,TF0,TF0,TF0,TF0), (TF2,TF1,TF1,TF0,TF0), (TF0,TF0,TF0,TF0,TF1), (TF1,TF0,TF0,TF0,TF1), (TF2,TF1,TF1,TF0,TF1)

8.1.80.1.2 Physical channel parameters

DPCH Uplink	Midamble	512 chips
	Codes and time slots	SF8 x 1 code x 1 time slot
	Max. Number of data bits/radio frame	452 bits
	TFCI code word	16 bits
	TPC	2 bit
	Puncturing Limit	0.68

8.1.80.2 Downlink

8.1.80.2.1 Transport channel parameters

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

See subclause 6.10.3.4.1.4.2.1.1 of [1].

8.1.80.2.1.2 Transport channel parameters for Interactive or Background / DL:0 + DL:0 kbps / PS RAB

Higher layer	RAB/Signalling RB	**RAB**	**RAB**
RLC	Logical channel type	DTCH	DTCH
	RLC mode	AM	AM
	Payload sizes, bit	320	320
	Max data rate, bps	0	0
	AMD PDU header, bit	16	16
MAC	MAC header, bit	4	4
	MAC multiplexing	2 logical channel multiplexing	
Layer 1	TrCH type	DCH	
	TB sizes, bit	340	
	TFS / TF0, bits	0x340	
	TTI, ms	20	
	Coding type	TC	
	CRC, bit	16	
	Max number of bits/TTI after channel coding	0	
	Max number of bits/radio frame before rate matching	0	
	RM attribute	130-170	

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

See subclause 6.10.3.4.1.2.2.1.1 of [1].

8.1.80.2.1.4 TFCS

TFCS size	6
TFCS	(RAB subflow#1, RAB subflow#2, RAB subflow#3, 0+0kbps RAB, DCCH)= (TF0,TF0,TF0,TF0,TF0), (TF1,TF0,TF0,TF0,TF0), (TF2,TF1,TF1,TF0,TF0), (TF0,TF0,TF0,TF0,TF1), (TF1,TF0,TF0,TF0,TF1), (TF2,TF1,TF1,TF0,TF1)

8.1.80.2.2 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	0.68

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

The minimum UE classes supporting this combination are UL: 64kbps, DL: 64 kbps.

This is supported in Release '99.

8.1.81.1 Uplink

8.1.81.1.1 Transport channel parameters

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

See subclause 6.10.3.4.1.13.1.1.1 of [1].

8.1.81.1.1.2 Transport channel parameters for Interactive or Background / UL:8 + UL:8 kbps / PS RAB

See subclause 6.10.3.4.1.56.1.1.1 of [1]

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

See subclause 6.10.3.4.1.2.1.1.1 of [1].

8.1.81.1.1.4 TFCS

TFCS size	8 (alt. 12)
TFCS	(64 kbps Conversational RAB, 8+8 kbps I/B RAB, DCCH)= (TF0, TF0, TF0), (TF0, TF1, TF0), (TF0, TF0, TF1), (TF0, TF1, TF1), (TF1, TF0, TF0), (TF1, TF1, TF0), (TF1, TF0, TF1), (TF1, TF1, TF1) (alt. (TF0, TF0, TF0), (TF0, TF1, TF0), (TF0, TF2, TF0), (TF0, TF0, TF1), (TF0, TF1, TF1), (TF0, TF2, TF1), (TF1, TF0, TF0), (TF1, TF1, TF0), (TF1, TF2, TF0), (TF1, TF0, TF1), (TF1, TF1, TF1), (TF1, TF2, TF1))

8.1.81.1.2 Physical channel parameters

DPCH Uplink	Midamble	256 chips
	Codes and time slots	SF4 x 1 code x 1 time slot SF8 x 1 code x 1 time slot
	Max. Number of data bits/radio frame	1584 bits
	TFCI code word	16 bits
	TPC	2 bits
	Puncturing Limit	0.60(alt. 0.56)

8.1.81.2 Downlink

8.1.81.2.1 Transport channel parameters

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

See subclause 6.10.3.4.1.13.2.1.1 of [1].

8.1.81.2.1.2 Transport channel parameters for Interactive or Background / DL:8 + DL:8 kbps / PS RAB

See subclause 6.10.3.4.1.56.2.1.1 of [1]

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

See subclause 6.10.3.4.1.2.2.1.1 of [1].

8.1.81.2.1.4 TFCS

TFCS size	8
TFCS	(64 kbps Conversational RAB, 8+8 kbps I/B RAB, DCCH)= (TF0, TF0, TF0), (TF0, TF1, TF0), (TF0, TF0, TF1), (TF0, TF1, TF1), (TF1, TF0, TF0), (TF1, TF1, TF0), (TF1, TF0, TF1), (TF1, TF1, TF1)

8.1.81.2.2 Physical channel parameters

DPCH Downlink	Midamble	256 chips
	Codes and time slots	SF16 x 6 codes x 1 time slot
	Max. Number of data bits/radio frame	1640 bits
	TFCI code word	16 bits
	Puncturing limit	0.60

8.1.82 Streaming / unknown / UL:8 DL:16 kbps / PS RAB + Interactive or Background / UL:8 DL:8 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

The minimum UE classes supporting this combination are UL: 64kbps, DL: 64kbps.

This is supported in Release '99.

8.1.82.1 Uplink

8.1.82.1.1 Transport channel parameters

8.1.82.1.1.1 Transport channel parameters for Streaming / unknown / UL: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
	AMD PDU header, bit		16
MAC	MAC header, bit		0
	MAC multiplexing		N/A
Layer 1	TrCH type		DCH
	TB sizes, bit		336
	TFS	TF0, bits	0x336
		TF1, bits	1x336
	TTI, ms		40
	Coding type		TC
	CRC, bit		16
	Max number of bits/TTI after channel coding		1068
	Max number of bits/radio frame before rate matching		267
	RM attribute		135-175

8.1.82.1.1.2 Transport channel parameters for Interactive or Background / UL:8 kbps / PS RAB

See subclause 6.10.3.4.2.23a.1.1.2 of [1]

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

See subclause 6.10.3.4.2.2.1.1.1 of [1]

8.1.82.1.1.4 TFCS

TFCS size	8 (alt 12)
TFCS	(8 kbps Streaming RAB, 8 kbps I/B RAB, DCCH)= (TF0, TF0, TF0), (TF0, TF1, TF0), (TF0, TF0, TF1), (TF0, TF1, TF1), (TF1, TF0, TF0), (TF1, TF1, TF0), (TF1, TF0, TF1), (TF1, TF1, TF1) (alt. ((TF0, TF0, TF0), (TF0, TF1, TF0), (TF0, TF2, TF0), (TF0, TF0, TF1), (TF0, TF1, TF1), (TF0, TF2, TF1), (TF1, TF0, TF0), (TF1, TF1, TF0), (TF1, TF2, TF0), (TF1, TF0, TF1), (TF1, TF1, TF1), (TF1, TF2, TF1))

8.1.82.1.2 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	0.64

8.1.82.2 Downlink

8.1.82.2.1 Transport channel parameters

8.1.82.2.1.1 Transport channel parameters for Streaming / unknown / DL:16 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		16000
	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
	TTI, ms		40
	Coding type		TC
	CRC, bit		16
	Max number of bits/TTI after channel coding		2028
	Max number of bits/radio frame before rate matching		507
	RM attribute		125-165

8.1.82.2.1.2 Transport channel parameters for Interactive or Background / DL:8 kbps / PS RAB

See subclause 6.10.3.4.2.23.2.1.2 of [1]

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

See subclause 6.10.3.4.2.2.2.1.1 of [1]

8.1.82.2.1.4 TFCS

TFCS size	8
TFCS	(16 kbps Streaming RAB, 8 kbps I/B RAB, DCCH)= (TF0, TF0, TF0), (TF0, TF1, TF0), (TF0, TF0, TF1), (TF0, TF1, TF1), (TF1, TF0, TF0), (TF1, TF1, TF0), (TF1, TF0, TF1), (TF1, TF1, TF1)

8.1.82.2.2 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

8.1.83 Streaming / unknown / UL:8 DL:32 kbps / PS RAB + Interactive or Background / UL:8 DL:8 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

The minimum UE classes supporting this combination are UL: 64kbps, DL: 64kbps.

This is supported in Release '99.

8.1.83.1 Uplink

8.1.83.1.1 Transport channel parameters

8.1.83.1.1.1 Transport channel parameters for Streaming / unknown / UL: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
	AMD PDU header, bit		16
MAC	MAC header, bit		0
	MAC multiplexing		N/A
Layer 1	TrCH type		DCH
	TB sizes, bit		336
	TFS	TF0, bits	0x336
		TF1, bits	1x336
	TTI, ms		40
	Coding type		TC
	CRC, bit		16
	Max number of bits/TTI after channel coding		1068
	Max number of bits/radio frame before rate matching		267
	RM attribute		135-175

8.1.83.1.1.2 Transport channel parameters for Interactive or Background / UL:8 kbps / PS RAB

See subclause 6.10.3.4.2.23a.1.1.2 of [1]

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

See subclause 6.10.3.4.2.2.1.1.1 of [1]

8.1.83.1.1.4 TFCS

TFCS size	8 (alt. 12)
TFCS	(8 kbps Streaming RAB, 8 kbps I/B RAB, DCCH)= (TF0, TF0, TF0), (TF0, TF1, TF0), (TF0, TF0, TF1), (TF0, TF1, TF1), (TF1, TF0, TF0), (TF1, TF1, TF0), (TF1, TF0, TF1), (TF1, TF1, TF1) (alt (TF0, TF0, TF0), (TF0, TF1, TF0), (TF0, TF2, TF0), (TF0, TF0, TF1), (TF0, TF1, TF1), (TF0, TF2, TF1),(TF1, TF0, TF0), (TF1, TF1, TF0), (TF1, TF2, TF0), (TF1, TF0, TF1), (TF1, TF1, TF1), (TF1, TF2, TF1))

8.1.83.1.2 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	0.64

8.1.83.2 Downlink

8.1.83.2.1 Transport channel parameters

8.1.83.2.1.1 Transport channel parameters for Streaming / unknown / DL: 32 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		32000
	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
	TTI, ms		40
	Coding type		TC
	CRC, bit		16
	Max number of bits/TTI after channel coding		4044
	Max number of bits/radio frame before rate matching		1011
	RM attribute		125-165

8.1.83.2.1.2 Transport channel parameters for Interactive or Background / DL:8 kbps / PS RAB

See subclause 6.10.3.4.2.23.2.1.2 of [1]

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

See subclause 6.10.3.4.2.2.2.1.1 of [1]

8.1.83.2.1.4 TFCS

TFCS size	12
TFCS	(32 kbps Streaming RAB, 8 kbps I/B RAB, DCCH)= (TF0, TF0, TF0), (TF0, TF1, TF0), (TF0, TF0, TF1), (TF0, TF1, TF1), (TF1, TF0, TF0), (TF1, TF1, TF0), (TF1, TF0, TF1), (TF1, TF1, TF1), (TF2, TF0, TF0), (TF2, TF1, TF0), (TF2, TF0, TF1), (TF2, TF1, TF1)

8.1.83.2.2 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	0.80

8.1.84 Streaming / unknown / UL:32 DL:256 kbps / PS RAB + Interactive or Background / UL:8 DL:8 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

The minimum UE classes supporting this combination are UL: 64kbps, DL: 384kbps.

This is supported in Release '99.

8.1.84.1 Uplink

8.1.84.1.1 Transport channel parameters

8.1.84.1.1.1 Transport channel parameters for Streaming / unknown / 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
	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
	TTI, ms		20
	Coding type		TC
	CRC, bit		16
	Max number of bits/TTI after channel coding		2124
	Max number of bits/radio frame before rate matching		1062
	RM attribute		135-175

8.1.84.1.1.2 Transport channel parameters for Interactive or Background / UL:8 kbps / PS RAB

See subclause 6.10.3.4.1.23a.1.1.1 of [1]

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

See subclause 6.10.3.4.1.2.1.1.1 of [1]

8.1.84.1.1.4 TFCS

TFCS size	12 (alt 18)
TFCS	(32 kbps Streaming RAB, 8 kbps I/B RAB, DCCH)= (TF0, TF0, TF0), (TF1, TF0, TF0), (TF2, TF0, TF0), (TF0, TF1, TF0), (TF1, TF1, TF0), (TF2, TF1, TF0), (TF0, TF0, TF1), (TF1, TF0, TF1), (TF2, TF0, TF1), (TF0, TF1, TF1), (TF1, TF1, TF1), (TF2, TF1, TF1) (alt. ((TF0, TF0, TF0), (TF0, TF1, TF0), (TF0, TF2, TF0) (TF0, TF0, TF1), (TF0, TF1, TF1), (TF0, TF2, TF1), (TF1, TF0, TF0), (TF1, TF1, TF0), (TF1, TF2, TF0) (TF1, TF0, TF1), (TF1, TF1, TF1), (TF1, TF2, TF1), (TF2, TF0, TF0), (TF2, TF1, TF0), (TF2, TF2, TF0), (TF2, TF0, TF1), (TF2, TF1, TF1), (TF2, TF2, TF1))

8.1.84.1.2 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	0.60

8.1.84.2 Downlink

8.1.84.2.1 Transport channel parameters

8.1.84.2.1.1 Transport channel parameters for Streaming / unknown / DL:256 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		256000
	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	3x656
		TF4, bits	4x656
	TTI, ms		10
	Coding type		TC
	CRC, bit		16
	Max number of bits/TTI after channel coding		8076
	Max number of bits/radio frame before rate matching		8076
	RM attribute		125-165

8.1.84.2.1.2 Transport channel parameters for Interactive or Background / DL:8 kbps / PS RAB

See subclause 6.10.3.4.1. 23.2.1.2 of [1]

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

See subclause 6.10.3.4.1.2.2.1.1 of [1]

8.1.84.2.1.4 TFCS

TFCS size	20
TFCS	(256 kbps Streaming RAB, 8 kbps I/B 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,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),

8.1.84.2.2 Physical channel parameters

DPCH Downlink	Midamble	256 chips
	Codes and time slots	SF16 x 5 codes x 4 time slots
	Max. Number of data bits/radio frame	5504 bits
	TFCI code word	16 bits
	Puncturing limit	0.64

8.1.85 Interactive or background / UL:16 DL:16 kbps / PS RAB + Interactive or Background / UL:16 DL:16 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

The minimum UE classes supporting this combination are UL: 32bps, DL: 32kbps.

This is supported in Release '99.

8.1.85.1 Uplink

8.1.85.1.1 Transport channel parameters

8.1.85.1.1.1 Transport channel parameters for Interactive or Background / UL:16 + UL:16 kbps / PS RAB

Higher layer	RAB/Signalling RB		**RAB**	**RAB**
RLC	Logical channel type		DTCH	DTCH
	RLC mode		AM	AM
	Payload sizes, bit		320 (alt 128)	320 (alt 128)
	Max data rate, bps		16000	16000
	AMD PDU header, bit		16	16
MAC	MAC header, bit		4	4
	MAC multiplexing		2 logical channel multiplexing	
Layer 1	TrCH type		DCH	
	TB sizes, bit		340	
	TFS	TF0, bits	0x340 (alt 0x148)	
		TF1, bits	1x340 (alt 1x148)	
		TF2, bits	2x340 (alt 5x148)	
	TTI, ms		40	
	Coding type		TC	
	CRC, bit		16	
	Max number of bits/TTI after channel coding		2148 (alt 2472)	
	Max number of bits/radio frame before rate matching		537 (alt 618)	
	RM attribute		135-175	

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

See subclause 6.10.3.4.1.2.1.1.1 of [1]

8.1.85.1.1.3 TFCS

TFCS size	6
TFCS	(16 kbps RAB + 16 kbps RAB, DCCH)= (TF0, TF0), (TF1, TF0), (TF2, TF0), (TF0, TF1), (TF1, TF1), (TF2, TF1)

8.1.85.1.2 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	0.64 (alt. 0.60)

8.1.85.2 Downlink

8.1.85.2.1 Transport channel parameters

8.1.85.2.1.1 Transport channel parameters for Interactive or background / DL:16 + DL:16 kbps / PS RAB

Higher layer	RAB/Signalling RB		RAB	RAB
RLC	Logical channel type		DTCH	DTCH
	RLC mode		AM	AM
	Payload sizes, bit		320	320
	Max data rate, bps		16000	16000
	AMD PDU header, bit		16	16
MAC	MAC header, bit		4	4
	MAC multiplexing		2 logical channel multiplexing	
Layer 1	TrCH type		DCH	
	TB sizes, bit		340	
	TFS	TF0, bits	0x340	
		TF1, bits	1x340	
		TF2, bits	2x340	
	TTI, ms		40	
	Coding type		TC	
	CRC, bit		16	
	Max number of bits/TTI after channel coding		2148	
	Max number of bits/radio frame before rate matching		537	
	RM attribute		135-175	

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

See subclause 6.10.3.4.1.2.2.1.1 of [1]

8.1.85.2.1.3 TFCS

TFCS size	6
TFCS	(16 kbps RAB + 16 kbps RAB, DCCH)= (TF0, TF0), (TF1, TF0), (TF2, TF0), (TF0, TF1), (TF1, TF1), (TF2, TF1)

8.1.85.2.2 Physical channel parameters

DPCH Downlink	Midamble	512 chips
	Codes and time slots	SF16 x 2 codes x 1 time slots
	Max. Number of data bits/radio frame	472 bits
	TFCI code word	16 bits
	Puncturing limit	0.68

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

The minimum UE classes supporting this combination are UL: 64 kbps plus support for 5 AM entities, DL: 32 kbps.plus support for 5 AM entities.

This is supported in Release '99.

8.1.86.1 Uplink

See subclause 6.10.3.4.1.57.1 of [1]

8.1.86.2 Downlink

See subclause 6.10.3.4.1.56.2 of [1]

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

The minimum UE classes supporting this combination are UL: 64 kbps plus support for 5 AM entities, DL: 128kbps.

This is supported in Release '99.

8.1.87.1 Uplink

See subclause 6.10.3.4.1.57.1 of [1].

8.1.87.2 Downlink

8.1.87.2.1 Transport channel parameters

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

Higher Layer	RAB/Signalling RB		**RAB**	**RAB**
RLC	Logical channel type		DTCH	DTCH
	RLC mode		AM	AM
	Payload sizes, bit		320	320
	Max data rate, bps		128000	128000
	AMD PDU header, bit		16	16
MAC	MAC header, bit		4	4
	MAC multiplexing		2 logical channel multiplexing	
Layer 1	TrCH type		DCH	
	TB sizes, bit		340	
	TFS	TF0, bits	0x340	
		TF1, bits	1x340	
		TF2, bits	2x340	
		TF3, bits	4x340	
		TF4, bits	8x340	
	TTI, ms		20	
	Coding type		TC	
	CRC, bit		16	
	Max number of bits/TTI after channel coding		8556	
	Max number of bits/radio frame before rate matching		4278	
	RM attribute		120-160	

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

See subclause 6.10.3.4.1.2.2.1.1 of [1].

8.1.87.2.1.3 TFCS

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

8.1.87.2.2 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	0.52

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

The minimum UE classes supporting this combination are UL: 64kbps, DL: 384kbps.

This is supported in Release '99.

8.1.88.1 Uplink

See subclause 6.10.3.4.1.57.1 of [1].

8.1.88.2 Downlink

8.1.88.2.1 Transport channel parameters

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

Higher Layer	RAB/Signalling RB		**RAB**	**RAB**
RLC	Logical channel type		DTCH	DTCH
	RLC mode		AM	AM
	Payload sizes, bit		320	320
	Max data rate, bps		384000	384000
	AMD PDU header, bit		16	16
MAC	MAC header, bit		4	4
	MAC multiplexing		2 logical channel multiplexing	
Layer 1	TrCH type		DCH	
	TB sizes, bit		340	
	TFS	TF0, bits	0x340	
		TF1, bits	1x340	
		TF2, bits	2x340	
		TF3, bits	4x340	
		TF4, bits	8x340	
		TF5, bits	12x340	
	TTI, ms		10	
	Coding type		TC	
	CRC, bit		16	
	Max number of bits/TTI after channel coding		12828	
	Max number of bits/radio frame before rate matching		12828	
	RM attribute		110-150	

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

See subclause 6.10.3.4.1.2.2.1.1 of [1].

8.1.88.2.1.3 TFCS

TFCS size	12
TFCS	(384 kbps RAB + 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)

8.1.88.2.2 Physical channel parameters

DPCH Downlink	Midamble	256 chips
	Codes and time slots	SF16 x 9 codes x 3 time slots
	Max. Number of data bits/radio frame	7436 bits
	TFCI code word	16 bits
	Puncturing limit	0.56

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

The minimum UE classes supporting this combination are UL: 128kbps, DL: 128kbps. The minimum UE class to support the alternative UL configuration (128-bit payload size) is UL: 128kbps plus support for 'Maximum total number of transport blocks transmitted within TTIs that start at the same time' = 32.

This is supported in Release '99.

8.1.89.1 Uplink

8.1.89.1.1 Transport channel parameters

8.1.89.1.1.1 Transport channel parameters for Interactive or Background / UL:128 + UL:128 kbps / PS RAB

Higher layer	RAB/Signalling RB		**RAB**	**RAB**
RLC	Logical channel type		DTCH	DTCH
	RLC mode		AM	AM
	Payload sizes, bit		320 (alt. 128)	320 (alt. 128)
	Max data rate, bps		128000	128000
	AMD PDU header, bit		16	16
MAC	MAC header, bit		4	4
	MAC multiplexing		2 logical channel multiplexing	
Layer 1	TrCH type		DCH	
	TB sizes, bit		340 (alt. 148)	
	TFS	TF0, bits	0x340 (alt. 0x148)	
		TF1, bits	1x340 (alt. 1x148)	
		TF2, bits	2x340 (alt. 7x148)	
		TF3, bits	4x340 (alt. 14x148)	
		TF4, bits	8x340 (alt. 20x148)	
	TTI, ms		20	
	Coding type		TC	
	CRC, bit		16	
	Max number of bits/TTI after channel coding		8556 (alt. 9852)	
	Max number of bits/radio frame before rate matching		4278 (alt. 4926)	
	RM attribute		120-160	

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

See subclause 6.10.3.4.1.2.1.1.1 of [1].

8.1.89.1.1.3 TFCS

TFCS size	9 (alt. 10)
TFCS	(128 kbps RAB + 128 kbps RAB, DCCH)= (TF0, TF0), (TF1, TF0), (TF2, TF0), (TF3, TF0), (TF4, TF0), (TF0, TF1), (TF1, TF1), (TF2, TF1), (TF3, TF1) (alt (TF0, TF0), (TF1, TF0), (TF2, TF0), (TF3, TF0), (TF4, TF0), (TF0, TF1), (TF1, TF1), (TF2, TF1), (TF3, TF1), (TF4, TF1))

8.1.89.1.2 Physical channel parameters

DPCH Uplink	Midamble	256 chips
	Codes and time slots	SF2 x 1 code x 1 time slot+ SF4 x 1 code x 1 time slot
	Max. Number of data bits/radio frame	3168 bits
	TFCI code word	16 bits
	TPC	2 bits
	Puncturing Limit	0.68(alt. 0.60)

8.1.89.2 Downlink

8.1.89.2.1 Transport channel parameters

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

Higher layer	RAB/Signalling RB		**RAB**	**RAB**
RLC	Logical channel type		DTCH	DTCH
	RLC mode		AM	AM
	Payload sizes, bit		320	320
	Max data rate, bps		128000	128000
	AMD PDU header, bit		16	16
MAC	MAC header, bit		4	4
	MAC multiplexing		2 logical channel multiplexing	
Layer 1	TrCH type		DCH	
	TB sizes, bit		340	
	TFS	TF0, bits	0x340	
		TF1, bits	1x340	
		TF2, bits	2x340	
		TF3, bits	4x340	
		TF4, bits	8x340	
	TTI, ms		20	
	Coding type		TC	
	CRC, bit		16	
	Max number of bits/TTI after channel coding		8556	
	Max number of bits/radio frame before rate matching		4278	
	RM attribute		120-160	

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

See subclause 6.10.3.4.1.2.2.1.1 of [1].

8.1.89.2.1.3 TFCS

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

8.1.89.2.2 Physical channel parameters

DPCH Downlink	Midamble	256 chips
	Codes and time slots	SF16 x 5 codes x 2 time slots
	Max. Number of data bits/radio frame	2744 bits
	TFCI code word	16 bits
	Puncturing limit	0.60

8.1.90 Interactive or background / UL:128 DL:32 kbps / PS RAB + Interactive or Background / UL:128 DL:32 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

The minimum UE classes supporting this combination are UL: 128kbps, DL: 32kbps. The minimum UE class to support the alternative UL configuration (128-bit payload size) is UL: 128kbps plus support for 'Maximum total number of transport blocks transmitted within TTIs that start at the same time' = 32.

This is supported in Release '99.

8.1.90.1 Uplink

See subclause 8.1.89.1 of [1].

8.1.90.2 Downlink

8.1.90.2.1 Transport channel parameters

8.1.90.2.1.1 Transport channel parameters for Interactive or background / DL:32 + DL:32 kbps / PS RAB

Higher layer	RAB/Signalling RB		**RAB**	**RAB**
RLC	Logical channel type		DTCH	DTCH
	RLC mode		AM	AM
	Payload sizes, bit		320	320
	Max data rate, bps		32000	32000
	AMD PDU header, bit		16	16
MAC	MAC header, bit		4	4
	MAC multiplexing		2 logical channel multiplexing	
Layer 1	TrCH type		DCH	
	TB sizes, bit		340	
	TFS	TF0, bits	0x340	
		TF1, bits	1x340	
		TF2, bits	2x340	
		TF3, bits	3x340	
		TF4, bits	4x340	
	TTI, ms		40	
	Coding type		TC	
	CRC, bit		16	
	Max number of bits/TTI after channel coding		4284	
	Max number of bits/radio frame before rate matching		1071	
	RM attribute		135-175	

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

See subclause 6.10.3.4.1.2.2.1.1 of [1].

8.1.90.2.1.3 TFCS

TFCS size	10
TFCS	(32 kbps RAB + 32 kbps RAB, DCCH)= (TF0, TF0), (TF1, TF0), (TF2, TF0), (TF3, TF0), (TF4, TF0) (TF0, TF1), (TF1, TF1), (TF2, TF1), (TF3, TF1), (TF4, TF1)

8.1.90.2.2 Physical channel parameters

DPCH Downlink	Midamble	256 chips
	Codes and time slots	SF16 x 3 codes x 1 time slot
	Max. Number of data bits/radio frame	812 bits
	TFCI code word	16 bits
	Puncturing limit	0.64

8.1.91 Streaming / unknown / UL:16 DL:16 kbps / PS RAB + Interactive or background / UL:8 DL:8 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

The minimum UE classes supporting this combination are UL: 64 kbps plus support for 5 AM entities, DL: 64 kbps.

This is supported in Release '99.

8.1.91.1 Uplink

See subclause 6.10.3.4.1.58.1 of [1].

8.1.91.2 Downlink

See subclause 8.1.82.2 of [1].

8.1.92 Streaming / unknown / UL:16 DL:32 kbps / PS RAB + Interactive or background / UL:8 DL:8 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

The minimum UE classes supporting this combination are UL: 64 kbps plus support for 5 AM entities, DL: 64 kbps.

This is supported in Release '99.

8.1.92.1 Uplink

See subclause 6.10.3.4.1.58.1 of [1].

8.1.92.2 Downlink

See subclause 8.1.83.2 of [1].

8.1.93 Interactive or background / UL:16 DL:32 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

The minimum UE classes supporting this combination are UL: 64 kbps, DL: 64 kbps. The minimum UE class to support the alternative UL configuration is UL: 32kbps plus support for 8 TB/TTI.

This is supported in Release '99.

8.1.93.1 Uplink

See subclause 6.10.3.4.1.23b.1 of [1].

8.1.93.2 Downlink

See subclause 6.10.3.4.1.23c.2 of [1].

8.1.94 Interactive or background / UL:16 DL:64 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

The minimum UE classes supporting this combination are UL: 64 kbps, DL: 64 kbps. The minimum UE class to support the alternative UL configuration is UL: 32kbps plus support for 8 TB/TTI.

This is supported in Release '99.

8.1.94.1 Uplink

See subclause 6.10.3.4.1.23b.1 of [1].

8.1.94.2 Downlink

See subclause 6.10.3.4.1.25.2 of [1].

8.1.95 Interactive or background / UL:16 DL:128 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

The minimum UE classes supporting this combination are UL: 64 kbps, DL: 128 kbps. The minimum UE class to support the alternative UL configuration is UL: 32kbps plus support for 8 TB/TTI.

This is supported in Release '99.

8.1.95.1 Uplink

See subclause 6.10.3.4.1.23b.1 of [1].

8.1.95.2 Downlink

See subclause 6.10.3.4.1.27.2 of [1].

8.1.96 Conversational / speech / UL:12.2 DL:12.2 kbps + Streaming / unknown / UL:16 DL:128 kbps / PS RAB + Interactive or background / UL:8 DL:8 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

The minimum UE classes supporting this combination are UL: 64 kbps plus support for 16 TB/TTI, DL: 128 kbps.

This is supported in release '99.

8.1.96.1 Uplink

8.1.96.1.1 Transport channel parameters

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

See subclause 6.10.3.4.1.4.1.1.1 of [1].

8.1.96.1.1.2 Transport channel parameters for Streaming / unknown / UL:16 kbps

See subclause 6.10.3.4.1.58.1.1.1 of [1].

8.1.96.1.1.3 Transport channel parameters for Interactive or background / UL:8 kbps / PS RAB

See subclause 6.10.3.4.1.23a.1.1.1 of [1].

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

See subclause 6.10.3.4.1.2.1.1.1 of [1].

8.1.96.1.1.5 TFCS

TFCS size	24 (alt. 36)
TFCS	(RAB subflow#1, RAB subflow#2, RAB subflow#3, 16 kbps RAB, 8 kbps RAB, DCCH)= (TF0,TF0,TF0,TF0,TF0,TF0), (TF1,TF0,TF0,TF0,TF0,TF0), (TF2,TF1,TF1,TF0,TF0,TF0), (TF0,TF0,TF0,TF1,TF0,TF0), (TF1,TF0,TF0,TF1,TF0,TF0), (TF2,TF1,TF1,TF1,TF0,TF0), (TF0,TF0,TF0,TF0,TF1,TF0), (TF1,TF0,TF0,TF0,TF1,TF0), (TF2,TF1,TF1,TF0,TF1,TF0), (TF0,TF0,TF0,TF1,TF1,TF0), (TF1,TF0,TF0,TF1,TF1,TF0), (TF2,TF1,TF1,TF1,TF1,TF0), (TF0,TF0,TF0,TF0,TF0,TF1), (TF1,TF0,TF0,TF0,TF0,TF1), (TF2,TF1,TF1,TF0,TF0,TF1), (TF0,TF0,TF0,TF1,TF0,TF1), (TF1,TF0,TF0,TF1,TF0,TF1), (TF2,TF1,TF1,TF1,TF0,TF1), (TF0,TF0,TF0,TF0,TF1,TF1), (TF1,TF0,TF0,TF0,TF1,TF1), (TF2,TF1,TF1,TF0,TF1,TF1), (TF0,TF0,TF0,TF1,TF1,TF1), (TF1,TF0,TF0,TF1,TF1,TF1), (TF2,TF1,TF1,TF1,TF1,TF1) (alt (TF0,TF0,TF0,TF0,TF0,TF0), (TF1,TF0,TF0,TF0,TF0,TF0), (TF2,TF1,TF1,TF0,TF0,TF0), (TF0,TF0,TF0,TF1,TF0,TF0), (TF1,TF0,TF0,TF1,TF0,TF0), (TF2,TF1,TF1,TF1,TF0,TF0), (TF0,TF0,TF0,TF0,TF1,TF0), (TF1,TF0,TF0,TF0,TF1,TF0), (TF2,TF1,TF1,TF0,TF1,TF0), (TF0,TF0,TF0,TF1,TF1,TF0), (TF1,TF0,TF0,TF1,TF1,TF0), (TF2,TF1,TF1,TF1,TF1,TF0), (TF0,TF0,TF0,TF0,TF2,TF0), (TF1,TF0,TF0,TF0,TF2,TF0), (TF2,TF1,TF1,TF0,TF2,TF0), (TF0,TF0,TF0,TF1,TF2,TF0), (TF1,TF0,TF0,TF1,TF2,TF0), (TF2,TF1,TF1,TF1,TF2,TF0), (TF0,TF0,TF0,TF0,TF0,TF1), (TF1,TF0,TF0,TF0,TF0,TF1), (TF2,TF1,TF1,TF0,TF0,TF1), (TF0,TF0,TF0,TF1,TF0,TF1), (TF1,TF0,TF0,TF1,TF0,TF1), (TF2,TF1,TF1,TF1,TF0,TF1), (TF0,TF0,TF0,TF0,TF1,TF1), (TF1,TF0,TF0,TF0,TF1,TF1), (TF2,TF1,TF1,TF0,TF1,TF1), (TF0,TF0,TF0,TF1,TF1,TF1), (TF1,TF0,TF0,TF1,TF1,TF1), (TF2,TF1,TF1,TF1,TF1,TF1), (TF0,TF0,TF0,TF0,TF2,TF1), (TF1,TF0,TF0,TF0,TF2,TF1), (TF2,TF1,TF1,TF0,TF2,TF1), (TF0,TF0,TF0,TF1,TF2,TF1), (TF1,TF0,TF0,TF1,TF2,TF1), (TF2,TF1,TF1,TF1,TF2,TF1))

8.1.96.1.2 Physical channel parameters

DPCH Uplink	Midamble	256 chips
	Codes and time slots	SF4 x 1 code x 1 time slot + SF16 x 1 code x 1 time slot
	Max. Number of data bits/radio frame	1308 bits (alt. 1244 bits)
	TFCI code word	16 bits (alt. 32 bits)
	TPC	2 bits
	Puncturing Limit	0.88 (alt. 0.84))

8.1.96.2 Downlink

8.1.96.2.1 Transport channel parameters

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

See subclause 6.10.3.4.1.4.2.1.1 of [1]

8.1.96.2.1.2 Transport channel parameters for Streaming / unknown / DL:128 kbps / PS RAB

See subclause 8.1.75.2.1.1 of [1].

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

See subclause 6.10.3.4.1.23.2.1.1 of [1].

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

See subclause 6.10.3.4.1.2.2.1.1 of [1].

8.1.96.2.1.5 TFCS

TFCS size	48
TFCS	(RAB subflow#1, RAB subflow#2, RAB subflow#3, 128 kbps RAB, 8 kbps RAB, DCCH)= (TF0,TF0,TF0,TF0,TF0,TF0), (TF1,TF0,TF0,TF0,TF0,TF0), (TF2,TF1,TF1,TF0,TF0,TF0), (TF0,TF0,TF0,TF1,TF0,TF0), (TF1,TF0,TF0,TF1,TF0,TF0), (TF2,TF1,TF1,TF1,TF0,TF0), (TF0,TF0,TF0,TF2,TF0,TF0), (TF1,TF0,TF0,TF2,TF0,TF0), (TF2,TF1,TF1,TF2,TF0,TF0), (TF0,TF0,TF0,TF3,TF0,TF0), (TF1,TF0,TF0,TF3,TF0,TF0), (TF2,TF1,TF1,TF3,TF0,TF0), (TF0,TF0,TF0,TF0,TF1,TF0), (TF1,TF0,TF0,TF0,TF1,TF0), (TF2,TF1,TF1,TF0,TF1,TF0), (TF0,TF0,TF0,TF1,TF1,TF0), (TF1,TF0,TF0,TF1,TF1,TF0), (TF2,TF1,TF1,TF1,TF1,TF0), (TF0,TF0,TF0,TF2,TF1,TF0), (TF1,TF0,TF0,TF2,TF1,TF0), (TF2,TF1,TF1,TF2,TF1,TF0), (TF0,TF0,TF0,TF3,TF1,TF0), (TF1,TF0,TF0,TF3,TF1,TF0), (TF2,TF1,TF1,TF3,TF1,TF0), (TF0,TF0,TF0,TF0,TF0,TF1), (TF1,TF0,TF0,TF0,TF0,TF1), (TF2,TF1,TF1,TF0,TF0,TF1), (TF0,TF0,TF0,TF1,TF0,TF1), (TF1,TF0,TF0,TF1,TF0,TF1), (TF2,TF1,TF1,TF1,TF0,TF1), (TF0,TF0,TF0,TF2,TF0,TF1), (TF1,TF0,TF0,TF2,TF0,TF1), (TF2,TF1,TF1,TF2,TF0,TF1), (TF0,TF0,TF0,TF3,TF0,TF1), (TF1,TF0,TF0,TF3,TF0,TF1), (TF2,TF1,TF1,TF3,TF0,TF1), (TF0,TF0,TF0,TF0,TF1,TF1), (TF1,TF0,TF0,TF0,TF1,TF1), (TF2,TF1,TF1,TF0,TF1,TF1), (TF0,TF0,TF0,TF1,TF1,TF1), (TF1,TF0,TF0,TF1,TF1,TF1), (TF2,TF1,TF1,TF1,TF1,TF1), (TF0,TF0,TF0,TF2,TF1,TF1), (TF1,TF0,TF0,TF2,TF1,TF1), (TF2,TF1,TF1,TF2,TF1,TF1), (TF0,TF0,TF0,TF3,TF1,TF1), (TF1,TF0,TF0,TF3,TF1,TF1), (TF2,TF1,TF1,TF3,TF1,TF1)

8.1.96.2.2 Physical channel parameters

DPCH Downlink	Midamble	256 chips
	Codes and time slots	SF16 x 6 codes x 2 time slots
	Max. Number of data bits/radio frame	3280 bits
	TFCI code word	32 bits
	Puncturing limit	0.64

8.1.97 Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB + Streaming / unknown / UL:128 DL:16 kbps / PS RAB + Interactive or background / UL:8 DL:8 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

The minimum UE classes supporting this combination are UL: 128 kbps plus support for 16 TB/TTI, DL: 64 kbps.

This is supported in release 99.

8.1.97.1 Uplink

8.1.97.1.1 Transport channel parameters

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

See subclause 6.10.3.4.1.4.1.1.1 of [1]

8.1.97.1.1.2 Transport channel parameters for Streaming / unknown / UL:128 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		128000
	AM 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	4x656
	TTI, ms		20
	Coding type		TC
	CRC, bit		16
	Max number of bits/TTI after channel coding		8076
	Max number of bits/radio frame before rate matching		4038
	RM attribute		125-165

8.1.97.1.1.3 Transport channel parameters for Interactive or background / UL:8 kbps / PS RAB

See subclause 6.10.3.4.1.23a.1.1.1 of [1].

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

See subclause 6.10.3.4.1.2.1.1.1 of [1].

8.1.97.1.1.5 TFCS

TFCS size	48 (alt. 72)
TFCS	(RAB subflow#1, RAB subflow#2, RAB subflow#3, 128 kbps RAB, 8 kbps RAB, DCCH)= (TF0,TF0,TF0,TF0,TF0,TF0), (TF1,TF0,TF0,TF0,TF0,TF0), (TF2,TF1,TF1,TF0,TF0,TF0), (TF0,TF0,TF0,TF1,TF0,TF0), (TF1,TF0,TF0,TF1,TF0,TF0), (TF2,TF1,TF1,TF1,TF0,TF0), (TF0,TF0,TF0,TF2,TF0,TF0), (TF1,TF0,TF0,TF2,TF0,TF0), (TF2,TF1,TF1,TF2,TF0,TF0), (TF0,TF0,TF0,TF3,TF0,TF0), (TF1,TF0,TF0,TF3,TF0,TF0), (TF2,TF1,TF1,TF3,TF0,TF0), (TF0,TF0,TF0,TF0,TF1,TF0), (TF1,TF0,TF0,TF0,TF1,TF0), (TF2,TF1,TF1,TF0,TF1,TF0), (TF0,TF0,TF0,TF1,TF1,TF0), (TF1,TF0,TF0,TF1,TF1,TF0), (TF2,TF1,TF1,TF1,TF1,TF0), (TF0,TF0,TF0,TF2,TF1,TF0), (TF1,TF0,TF0,TF2,TF1,TF0), (TF2,TF1,TF1,TF2,TF1,TF0), (TF0,TF0,TF0,TF3,TF1,TF0), (TF1,TF0,TF0,TF3,TF1,TF0), (TF2,TF1,TF1,TF3,TF1,TF0), (TF0,TF0,TF0,TF0,TF0,TF1), (TF1,TF0,TF0,TF0,TF0,TF1), (TF2,TF1,TF1,TF0,TF0,TF1), (TF0,TF0,TF0,TF1,TF0,TF1), (TF1,TF0,TF0,TF1,TF0,TF1), (TF2,TF1,TF1,TF1,TF0,TF1), (TF0,TF0,TF0,TF2,TF0,TF1), (TF1,TF0,TF0,TF2,TF0,TF1), (TF2,TF1,TF1,TF2,TF0,TF1), (TF0,TF0,TF0,TF3,TF0,TF1), (TF1,TF0,TF0,TF3,TF0,TF1), (TF2,TF1,TF1,TF3,TF0,TF1), (TF0,TF0,TF0,TF0,TF1,TF1), (TF1,TF0,TF0,TF0,TF1,TF1), (TF2,TF1,TF1,TF0,TF1,TF1), (TF0,TF0,TF0,TF1,TF1,TF1), (TF1,TF0,TF0,TF1,TF1,TF1), (TF2,TF1,TF1,TF1,TF1,TF1), (TF0,TF0,TF0,TF2,TF1,TF1), (TF1,TF0,TF0,TF2,TF1,TF1), (TF2,TF1,TF1,TF2,TF1,TF1), (TF0,TF0,TF0,TF3,TF1,TF1), (TF1,TF0,TF0,TF3,TF1,TF1), (TF2,TF1,TF1,TF3,TF1,TF1) (alt. (TF0,TF0,TF0,TF0,TF0,TF0), (TF1,TF0,TF0,TF0,TF0,TF0), (TF2,TF1,TF1,TF0,TF0,TF0), (TF0,TF0,TF0,TF1,TF0,TF0), (TF1,TF0,TF0,TF1,TF0,TF0), (TF2,TF1,TF1,TF1,TF0,TF0), (TF0,TF0,TF0,TF2,TF0,TF0), (TF1,TF0,TF0,TF2,TF0,TF0), (TF2,TF1,TF1,TF2,TF0,TF0), (TF0,TF0,TF0,TF3,TF0,TF0), (TF1,TF0,TF0,TF3,TF0,TF0), (TF2,TF1,TF1,TF3,TF0,TF0), (TF0,TF0,TF0,TF0,TF1,TF0), (TF1,TF0,TF0,TF0,TF1,TF0), (TF2,TF1,TF1,TF0,TF1,TF0), (TF0,TF0,TF0,TF1,TF1,TF0), (TF1,TF0,TF0,TF1,TF1,TF0), (TF2,TF1,TF1,TF1,TF1,TF0), (TF0,TF0,TF0,TF2,TF1,TF0), (TF1,TF0,TF0,TF2,TF1,TF0), (TF2,TF1,TF1,TF2,TF1,TF0), (TF0,TF0,TF0,TF3,TF1,TF0), (TF1,TF0,TF0,TF3,TF1,TF0), (TF2,TF1,TF1,TF3,TF1,TF0), (TF0,TF0,TF0,TF0,TF2,TF0), (TF1,TF0,TF0,TF0,TF2,TF0), (TF2,TF1,TF1,TF0,TF2,TF0), (TF0,TF0,TF0,TF1,TF2,TF0), (TF1,TF0,TF0,TF1,TF2,TF0), (TF2,TF1,TF1,TF1,TF2,TF0), (TF0,TF0,TF0,TF2,TF2,TF0), (TF1,TF0,TF0,TF2,TF2,TF0), (TF2,TF1,TF1,TF2,TF2,TF0), (TF0,TF0,TF0,TF3,TF2,TF0), (TF1,TF0,TF0,TF3,TF2,TF0), (TF2,TF1,TF1,TF3,TF2,TF0), (TF0,TF0,TF0,TF0,TF0,TF1), (TF1,TF0,TF0,TF0,TF0,TF1), (TF2,TF1,TF1,TF0,TF0,TF1), (TF0,TF0,TF0,TF1,TF0,TF1), (TF1,TF0,TF0,TF1,TF0,TF1), (TF2,TF1,TF1,TF1,TF0,TF1), (TF0,TF0,TF0,TF2,TF0,TF1), (TF1,TF0,TF0,TF2,TF0,TF1), (TF2,TF1,TF1,TF2,TF0,TF1), (TF0,TF0,TF0,TF3,TF0,TF1), (TF1,TF0,TF0,TF3,TF0,TF1), (TF2,TF1,TF1,TF3,TF0,TF1), (TF0,TF0,TF0,TF0,TF1,TF1), (TF1,TF0,TF0,TF0,TF1,TF1), (TF2,TF1,TF1,TF0,TF1,TF1), (TF0,TF0,TF0,TF1,TF1,TF1), (TF1,TF0,TF0,TF1,TF1,TF1), (TF2,TF1,TF1,TF1,TF1,TF1), (TF0,TF0,TF0,TF2,TF1,TF1), (TF1,TF0,TF0,TF2,TF1,TF1), (TF2,TF1,TF1,TF2,TF1,TF1), (TF0,TF0,TF0,TF3,TF1,TF1), (TF1,TF0,TF0,TF3,TF1,TF1), (TF2,TF1,TF1,TF3,TF1,TF1), (TF0,TF0,TF0,TF0,TF2,TF1), (TF1,TF0,TF0,TF0,TF2,TF1), (TF2,TF1,TF1,TF0,TF2,TF1), (TF0,TF0,TF0,TF1,TF2,TF1), (TF1,TF0,TF0,TF1,TF2,TF1), (TF2,TF1,TF1,TF1,TF2,TF1), (TF0,TF0,TF0,TF2,TF2,TF1), (TF1,TF0,TF0,TF2,TF2,TF1), (TF2,TF1,TF1,TF2,TF2,TF1), (TF0,TF0,TF0,TF3,TF2,TF1), (TF1,TF0,TF0,TF3,TF2,TF1), (TF2,TF1,TF1,TF3,TF2,TF1))

8.1.97.1.2 Physical channel parameters

DPCH Uplink	Midamble	256 chips
	Codes and time slots	{SF2 x 1 code x 1 timeslot} + {SF4 x 1 code x 1 timeslot}
	Max. Number of data bits/radio frame	3040 bits
	TFCI code word	32 bits
	TPC	2
	Puncturing limit	0.60

8.1.97.2 Downlink

8.1.97.2.1 Transport channel parameters

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

See subclause 6.10.3.4.1.4.2.1.1 of [1].

8.1.97.2.1.2 Transport channel parameters for Streaming / unknown / DL:16 kbps / PS RAB

See subclause 8.1.82.2.1.1 of [1].

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

See subclause 6.10.3.4.1.23.2.1.1 of [1].

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

See subclause 6.10.3.4.1.2.2.1.1 of [1].

8.1.97.2.1.5 TFCS

TFCS size	24
TFCS	(RAB subflow#1, RAB subflow#2, RAB subflow#3, 16 kbps RAB, 8 kbps RAB, DCCH)= (TF0,TF0,TF0,TF0,TF0,TF0), (TF1,TF0,TF0,TF0,TF0,TF0), (TF2,TF1,TF1,TF0,TF0,TF0), (TF0,TF0,TF0,TF1,TF0,TF0), (TF1,TF0,TF0,TF1,TF0,TF0), (TF2,TF1,TF1,TF1,TF0,TF0), (TF0,TF0,TF0,TF0,TF1,TF0), (TF1,TF0,TF0,TF0,TF1,TF0), (TF2,TF1,TF1,TF0,TF1,TF0), (TF0,TF0,TF0,TF1,TF1,TF0), (TF1,TF0,TF0,TF1,TF1,TF0), (TF2,TF1,TF1,TF1,TF1,TF0), (TF0,TF0,TF0,TF0,TF0,TF1), (TF1,TF0,TF0,TF0,TF0,TF1), (TF2,TF1,TF1,TF0,TF0,TF1), (TF0,TF0,TF0,TF1,TF0,TF1), (TF1,TF0,TF0,TF1,TF0,TF1), (TF2,TF1,TF1,TF1,TF0,TF1), (TF0,TF0,TF0,TF0,TF1,TF1), (TF1,TF0,TF0,TF0,TF1,TF1), (TF2,TF1,TF1,TF0,TF1,TF1), (TF0,TF0,TF0,TF1,TF1,TF1), (TF1,TF0,TF0,TF1,TF1,TF1), (TF2,TF1,TF1,TF1,TF1,TF1)

8.1.97.2.2 Physical channel parameters

DPCH Downlink	Midamble	256 chips
	Codes and time slots	SF16 x 3 codes x 1 time slot
	Max. Number of data bits/radio frame	812 bits
	TFCI code word	16 bits
	Puncturing limit	0.52

8.2 Combinations on PDSCH, SCCH, PUSCH and PRACH

8.2.1 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

See subclause 6.10.3.4.2.1 of [1].

The minimum UE classes supporting this combination are UL: 64 kbps~~128kbps (See Note)~~, DL: 384kbps ~~128kbps plus support for 21 physical channels per frame, maximum TB bits (Alt. 7680), TB CC bits 1280, TB TC bits (Alt. 6400) and (Alt. TTI TB 32).~~

~~NOTE: Physical parameters for this RAB define two UL codes and one timeslot. To avoid the UL multicode requirement only supported by the 768kbs class, a second timeslot is provided for the PUSCH.~~

This is supported in Release '99.

8.2.2 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

See subclause 6.10.3.4.2.2 of [1].

The minimum UE classes supporting this combination are UL: 64kbps~~128kbps (See Note)~~, DL: 384kbps ~~plus support for 29 physical channels per frame, maximum TB bits (Alt. 10240), TB CC bits 1280, and TB TC bits (Alt. 8960).~~ The minimum UE class to support the alternative DL configuration is DL: 768kbps.

~~NOTE: Physical parameters for this RAB define two UL codes and one timeslot. To avoid the UL multicode requirement only supported by the 768kbs class, a second timeslot is provided for the PUSCH.~~

This is supported in Release '99.

8.2.3 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

See subclause 6.10.3.4.2.3 of [1].

The minimum UE classes supporting this combination are UL: 64kbps~~128kbps (See Note)~~, DL: 2048kbps ~~Mbps plus support for 137 physical channels per frame, maximum TB bits 40960 (Alt. 81920), TB CC bits 1280, and TB TC bits 40960 (Alt. 81920).~~ The minimum UE class to support the alternative DL configuration is DL: 2048kbps plus support maximum TB bits 81920, and TB TC bits 81920.

~~NOTE: Physical parameters for this RAB define two UL codes and one timeslot. To avoid the UL multicode requirement only supported by the 768kbs class, a second timeslot is provided for the PUSCH.~~

This is supported in Release '99.

8.2.4 Interactive or background / UL: 384 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

See subclause 6.10.3.4.2.4 of [1].

The minimum UE classes supporting this combination are UL: 384kbps plus support of SF1, DL: 2048kbps. The minimum UE class to support the alternative DL configuration is DL: 2048kbps plus support maximum TB bits 81920, and TB TC bits 81920. The minimum UE class to support the alternative UL configuration is UL: 384kbps plus support for 64 TB/TTI and support of SF1.

This is supported in Release '99

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

8.3.1 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

See subclause 6.10.3.4.3.1 of [1].

The minimum UE classes supporting this combination are UL: 64kbps~~128kbps plus support for maximum CC TB bits 1280, and maximum 16 TBs per TTI, 2 physical channels per TS~~; DL: 384kbps ~~plus support for maximum CC TB bits 1280, or if the alternative RAB is used, support for maximum TB bits 7680~~.

NOTE: It is assumed that the DPCH DL, PDSCH and SCCPCH use different TS.

This is supported in Release '99.

8.3.2 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

See subclause 6.10.3.4.3.2 of [1].

The minimum UE classes supporting this combination are UL: 64kbps~~128kbps plus support for maximum CC TB bits 1280, maximum 16 TBs per TTI, and 2 physical channels per TS~~; DL: 384kbps ~~plus support for maximum CC TB bits 1280, 31 physical channels per frame, or if the alternative RAB is used, support for maximum TB bits 10240, maximum TC TB bits 8960, and maximum 48 TBs per TTI.~~ The minimum UE class to support the alternative DL configuration is DL: 768kps.

NOTE: It is assumed that the DPCH DL, PDSCH and SCCPCH use different TS.

This is supported in Release '99.

8.3.3 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

See subclause 6.10.3.4.3.3 of [1].

The minimum UE classes supporting this combination are UL: 64kbps~~128kbps plus support for maximum CC TB bits 1280, maximum 16 TBs per TTI, and 2 physical channels per TS~~; DL: 2048kbps plus ~~support for maximum TB bits 40960, maximum TC TB bits 40960, and maximum CC TB bits 1280, 139 physical channels per frame, or if the alternative RAB is used,~~ support for maximum TB bits 81920, maximum TC TB bits 81920.

This is supported in Release '99.

8.4 Combinations on SCCPCH

8.4.1 Stand – alone signalling RB for PCCH

See subclause 6.10.3.4.4.1 of [1].

The minimum UE class supporting this combination is DL: 32 kbps. This is supported in Release '99

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

See subclause 6.10.3.4.4.2 of [1].

The minimum UE class supporting this combination is DL: 32 kbps ~~plus turbo coding, maximum TB bits 2560, maximum CC TB bits 1280, and maximum TC TB bits 1280~~.

This is supported in Release '99.

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

See subclause 6.10.3.4.4.3 of [1].

The minimum UE class supporting this combination is DL: 32 kbps ~~plus turbo coding, maximum TB bits 2560, maximum CC TB bits 2560, and maximum TC TB bits 1280, maximum 48 TFC, or if the alternative RAB is used, support for maximum 16 TBs per TTI, and maximum 64 TFC~~.

This is supported in Release '99.

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

See subclause 6.10.3.4.4.2a of [1].

The minimum UE class supporting this combination is DL: 32 kbps.

This is supported in Release '99.

8.4.5 SRBs for CCCH + SRB for DCCH + SRB for BCCH

See subclause 6.10.3.4.4.2b of [1].

The minimum UE class supporting this combination is DL: 32 kbps.

This is supported in Release '99.

8.4.6 SRB for PCCH + SRB for CCCH + SRB for DCCH + SRB for BCCH

See subclause 6.10.3.4.4.3a of [1].

The minimum UE class supporting this combination is DL: 32 kbps.

This is supported in Release '99.

8.4.7 RB for CTCH + SRB for CCCH + SRB for BCCH

See subclause 6.10.3.4.4.4 of [1].

The minimum UE class supporting this combination is DL: 32 kbps.

This is supported in Release '99.

8.5 Combinations on PRACH

8.5.1 SRB for CCCH + SRB for DCCH

See subclause 6.10.3.4.5.1 of [1].

The minimum UE class supporting this combination is UL: 32 kbps. This is supported by Release '99.

8.5.2 Interactive/Background 12.8 kbps PS RAB + SRB for CCCH + SRB for DCCH

See subclause 6.10.3.4.5.2 of [1].

The minimum UE class supporting this combination is UL: 32 kbps. This is supported by Release '99.

8.5.3 Interactive/Background 12.8 kbps PS RAB + SRB for CCCH + SRB for DCCH

See subclause 6.10.3.4.5.3 of [1].

The minimum UE class supporting this combination is UL: 32 kbps. This is supported by Release '99.

9 Examples of Radio Bearers and Signalling Radio Bearers for 1.28 Mcps TDD

9.1 Combinations on DPCH

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

See subclause 6.11.5.4.1.1 of [1].

The minimum UE classes supporting this combination are UL: 32kbps; DL: 32kbps.

This is supported in Release 4.

9.1.1a Stand-alone UL: 1.7 DL: 1.7 kbps SRBs for DCCH (multiframe)

See subclause 6.11.5.4.11a of [1].

The minimum UE classes supporting this combination are UL: 32kbps; DL: 32kbps.

This is supported in Release 4.

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

See subclause 6.11.5.4.1.2 of [1].

The minimum UE classes supporting this combination are UL: 32kbps; DL: 32kbps.

This is supported in Release 4.

9.1.3 Stand-aloneUL: 13.6 DL: 13.6 kbps SRBs for DCCH

See subclause 6.11.5.4.1.3 of [1].

The minimum UE classes supporting this combination are UL: 32kbps; DL: 32kbps.

This is supported in Release 4.

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

See subclause 6.11.5.4.1.4 of [1].

The minimum UE classes supporting this combination are UL: 32kbps, DL: 32kbps.

This is supported in Release 4.

9.1.4a Conversational / speech / UL: (12.2, 7.95, 5.9, 4.75) DL: (12.2 kbps, 7.95, 5.9, 4.75) / CS RAB + UL: 3.4 DL: 3.4 kbps SRBs for DCCH

See subclause 6.11.5.4.1.4a of [1].

The minimum UE classes supporting this combination are UL: 32kbps, DL: 32kbps.

This is supported in Release 4.

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

See subclause 6.11.5.4.1.5 of [1].

The minimum UE classes supporting this combination are UL: 32kbps, DL: 32kbps.

This is supported in Release 4.

9.1.5a Conversational / speech / UL: (10.2, 6.7, 5.9, 4.75) DL: (10.2, 6.7, 5.9, 4.75) kbps / CS RAB + UL: 3.4 DL: 3.4 kbps SRBs for DCCH

See subclause 6.11.5.4.1.5a of [1].

The minimum UE classes supporting this combination are UL: 32kbps, DL: 32kbps.

This is supported in Release 4.

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

See subclause 6.11.5.4.1.6 of [1].

The minimum UE classes supporting this combination are UL: 32kbps; DL: 32kbps.

This is supported in Release 4.

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

See subclause 6.11.5.4.1.7 of [1].

The minimum UE classes supporting this combination are UL: 32kbps; DL: 32kbps.

This is supported in Release 4.

9.1.7a Conversational / speech / UL: (7.4, 6.7, 5.9, 4.75) DL: (7.4, 6.7, 5.9, 4.75) kbps / CS RAB + UL: 3.4 DL: 3.4 kbps SRBs for DCCH

See subclause 6.11.5.4.1.7a of [1].

The minimum UE classes supporting this combination are UL: 32kbps; DL: 32kbps.

This is supported in Release 4.

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

See subclause 6.11.5.4.1.8 of [1].

The minimum UE classes supporting this combination are UL: 32kbps, DL: 32kbps.

This is supported in Release 4.

9.1.9 Conversational / speech / UL: 5.9 DL: 5.9 kbps / CS rab + UL: 3.4 DL: 3.4 kbps SRBs for DCCH

See subclause 6.11.5.4.1.9 of [1].

The minimum UE classes supporting this combination are UL: 32kbps, DL: 32kbps.

This is supported in Release 4.

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

See subclause 6.11.5.4.1.10 of [1].

The minimum UE classes supporting this combination are UL: 32kbps, DL: 32kbps.

This is supported in Release 4.

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

See subclause 6.11.5.4.1.11 of [1].

The minimum UE classes supporting this combination are UL: 32kbps, DL: 32kbps.

This is supported in Release 4.

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

See subclause 6.11.5.4.1.12 of [1].

The minimum UE classes supporting this combination are UL: 32kbps ~~plus support for turbo coding, maximum TB bits 2560 and TB TC bits 1280,~~ DL: 32kbps ~~plus support for turbo coding, maximum TB bits 2560 and TB TC bits 1280~~.

This is supported in Release 4.

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

See subclause 6.11.5.4.1.13 of [1].

The minimum UE classes supporting this combination are UL: 64kbps, DL: 64 kbps~~32kbps plus support for turbo coding, maximum TB bits 2560 (Alt. 3840) and TB TC bits 1280 (Alt. 2560)~~.

This is supported in Release 4.

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

See subclause 6.11.5.4.1.14 of [1].

The minimum UE classes supporting this combination are UL: 32kbps ~~plus support for turbo coding, maximum TB bits 1280 (Alt. 2560) and TB TC bits 640 (Alt. 1280)~~, DL: 32kbps ~~plus support for turbo coding and maximum TB bits 1280(Alt. 2560) and TB TC bits 640 (Alt. 1280).~~

This is supported in Release 4.

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

See subclause 6.11.5.4.1.15 of [1].

The minimum UE classes supporting this combination are UL: 32kbps ~~plus support for turbo coding, maximum TB bits 1280 and TB TC bits 640~~, DL: 32kbps ~~plus support for turbo coding, maximum TB bits 1280 and TB TC bits 640~~.

This is supported in Release 4.

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

See subclause 6.11.5.4.1.16 of [1].

The minimum UE classes supporting this combination are UL: 32kbps ~~plus support for turbo coding, maximum TB bits 2560 and TB TC bits 1280~~; DL: 32kbps ~~plus support for turbo coding, maximum TB bits 2560 and TB TC bits 1280.~~

This is supported in Release 4.

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

See subclause 6.11.5.4.1.17 of [1].

The minimum UE classes supporting this combination are UL: 64kbps; DL: 32kbps ~~plus support for turbo coding, maximum TB bits 2560, and maximum TC TB bits 2560~~.

This is supported in Release 4.

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

Void ~~See subclause 6.11.5.4.1.18 of [1].~~

~~The minimum UE classes supporting this combination are UL: 32kbps; DL: 32kbps plus support for turbo coding, maximum TB bits 3840, maximum TC TB bits 2560, and maximum 16 TBs per TTI.~~

~~This is supported in Release 4.~~

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

Void ~~See subclause 6.11.5.4.1.19 of [1].~~

~~The minimum UE classes supporting this combination are UL: 64kbps plus support for maximum 16 TBs per TTI; DL: 32kbps.~~

~~This is supported in Release 4.~~

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

Void

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

Void

9.1.22 Streaming / unknown / UL: 0 DL: 384 kbps / CS or PS RAB + UL: 3.4 DL: 3.4 kbps SRBs for DCCH

Void

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

See subclause 6.11.5.4.1.23 of [1].

The minimum UE classes supporting this combination are UL: 32 kbps~~64kbps, or alternatively plus support for maximum CC TB bits 1280 if turbo coding is not used~~; DL: 32kbps~~. plus support for turbo coding plus maximum TC TB bits 640, or alternatively, not support for turbo coding if convolutional coding with rate 1/3 is used.~~

This is supported in Release 4.

9.1.23a Interactive or background / UL: 32 DL: 8 kbps / PS RAB + UL: 3.4 DL: 3.4 kbps SRBs for DCCH

See subclause 6.11.5.4.1.23a of [1].

The minimum UE classes supporting this combination are UL: 32 kbps; DL: 32kbps.

This is supported in Release 4.

9.1.23b Interactive or background / UL: 16 DL: 16 kbps / PS RAB + UL: 3.4 DL: 3.4 kbps SRBs for DCCH

See subclause 6.11.5.4.1.23b of [1].

The minimum UE classes supporting this combination are UL: 32 kbps; DL: 32kbps.

This is supported in Release 4.

9.1.23c Interactive or background / UL: 32 DL: 32 kbps / PS RAB + UL: 3.4 DL: 3.4 kbps SRBs for DCCH

See subclause 6.11.5.4.1.23c of [1].

The minimum UE classes supporting this combination are UL: 32 kbps; DL: 32kbps.

This is supported in Release 4.

9.1.23d Interactive or background / UL: 32 DL: 32 kbps / PS RAB + UL: 3.4 DL: 3.4 kbps SRBs for DCCH (20 ms TTI)

See subclause 6.11.5.4.1.23d of [1].

The minimum UE classes supporting this combination are UL: 32 kbps; DL: 32kbps.

This is supported in Release 4.

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

Void. ~~See subclause 6.11.5.4.1.24 of [1].~~

~~The minimum UE classes supporting this combination are UL: 64kbps; DL: 32kbps plus support for turbo coding, maximum TC TB bits 640, or alternatively not support for turbo coding if convolutional coding with rate 1/3 is used.~~

~~This is supported in Release 4.~~

9.1.2~~2~~5 Interactive or background / UL: 32 DL: 64 kbps / PS RAB + UL: 3.4 DL: 3.4 kbps SRBs for DCCH

See subclause 6.11.5.4.1.25 of [1].

The minimum UE classes supporting this combination are UL: 32 kbps~~64kbps, or ir alternatively plus support for maximum CC TB bits 1280 if convolutional coding with rate 1/3 is used instead of turbo coding~~; DL: 64 kbps.~~32kbps plus support for turbo coding, maximum TB bits 2560, and maximum TC TB bits 2560.~~

This is supported in Release 4.

9.1.2~~3~~6 Interactive or background / UL: 64 DL: 64 kbps / PS RAB + UL: 3.4 DL: 3.4 kbps SRBs for DCCH

See subclause 6.11.5.4.1.26 of [1].

The minimum UE classes supporting this combination are UL: 64kbps; DL: 64 kbps~~32kbps plus support for turbo coding, maximum TB bits 2560, and maximum TC TB bits 2560.~~

This is supported in Release 4.

9.1.2~~4~~7 Interactive or background / UL: 64 DL: 128 kbps / PS RAB + UL: 3.4 DL: 3.4 kbps SRBs for DCCH

See subclause 6.11.5.4.1.27 of [1].

The minimum UE classes supporting this combination are UL: 64kbps; DL: 128kbps.

This is supported in Release 4.

9.1.2~~5~~8 Interactive or background / UL: 128 DL: 128 kbps / PS RAB + UL: 3.4 DL: 3.4 kbps SRBs for DCCH

See subclause 6.11.5.4.1.28 of [1].

The minimum UE classes supporting this combination are UL: 128kbps~~64kbps plus support for maximum 16 TBs per TTI, and SF 1~~; DL: 128kbps.

This is supported in Release 4.

9.1.2~~6~~9 Interactive or background / UL: 64 DL: 144 kbps / PS RAB + UL: 3.4 DL: 3.4 kbps SRBs for DCCH

See subclause 6.11.5.4.1.29 of [1].

The minimum UE classes supporting this combination are UL: 64kbps; DL: 128kbps.

This is supported in Release 4.

9.1.~~27~~30 Interactive or background / UL: 144 DL: 144 kbps / PS RAB + UL: 3.4 DL: 3.4 kbps SRBs for DCCH

See subclause 6.11.5.4.1.30 of [1].

The minimum UE classes supporting this combination are UL: 128 kbps~~64kbps plus support for maximum 16 TBs per TTI, SF 1, and alternatively to spport for 8PSK if QPSK is not used~~; DL: 128kbps.

This is supported in Release 4.

9.1.~~28~~31 Interactive or background / UL: 64 DL: 256 kbps / PS RAB + UL: 3.4 DL: 3.4 kbps SRBs for DCCH

See subclause 6.11.5.4.1.31 of [1].

The minimum UE classes supporting this combination are UL: 64kbps; DL: 384 kbps~~128 kbps plus support for optional SF 1, or if an alternateive RAB is used, plus support for maximum TB bits 6400, maximum TC TB bits 6400, and maximum 32 TBs per TTI.~~

This is supported in Release 4.

9.1.~~29~~32 Interactive or background / UL: 64 DL: 384 kbps / PS RAB + UL: 3.4 DL: 3.4 kbps SRBs for DCCH

See subclause 6.11.5.4.1.32 of [1].

The minimum UE classes supporting this combination are UL: 64kbps; DL: 384 kbps~~128 kbps plus maximum TB bits 5120, maximum TC TB bits 5120, SF 1, and 8PSK if QPSK is not used, or if an alternative RAB is used, support for maximum TB bits 8960, maximum TC TB bits 8960, and maximum 32 TBs per TTI.~~

This is supported in Release 4.

9.1.3~~0~~3 Interactive or background / UL: 128 DL: 384 kbps / PS RAB + UL: 3.4 DL: 3.4 kbps SRBs for DCCH

See subclause 6.11.5.4.1.33 of [1].

The minimum UE classes supporting this combination are UL: 128 kbps~~64kbps plus support for maximum 16 TBs per TTI, and SF 1~~; DL: 384 kbps~~128 kbps plus maximum TB bits 5120, maximum TC TB bits 5120, optional SF 1, and 8PSK if QPSK is not used, or if an alternative RAB is used, support for maximum TB bits 8960, maximum TC TB bits 8960, and maximum 32 TBs per TTI.~~

This is supported in Release 4.

9.1.3~~1~~4 Interactive or background / UL: 384 DL: 384 kbps / PS RAB +UL: 3.4 DL: 3.4 kbps SRBs for DCCH

See subclause 6.11.5.4.1.34 of [1].

The minimum UE classes supporting this combination are UL: 384 kbps~~128kbps plus support for maximum TB bits 8960, maximum TC TB bits 8960, and maximum 32 TBs per TTI, SF 1, and 8PSK if QPSK is not used, or if an alternative RAB is used, plus support for maximum TB bits 5120, maximum TC TB bits 5120, and maximum 16 TBs per TTI)~~; DL: 384kbps~~. plus support for SF 1, 8PSK if QPSK is not used, or if an alternative RAB is used, plus support for maximum TB bits 8960, maximum TC TB bits 8960.~~

This is supported in Release 4.

9.1.3~~2~~5 Interactive or background / UL: 64 DL: 2048 kbps / PS RAB + UL: 3.4 DL: 3.4 kbps SRBs for DCCH

See subclause 6.11.5.4.1.35 of [1].

The minimum UE classes supporting this combination are UL: 64kbps; DL: 2048kbps~~. plus support for maximum TB bits 40960 and maximum TB TC bits 40960, and SF 1.~~

This is supported in Release 4.

9.1.3~~3~~6 Interactive or background / UL: 128 DL: 2048 kbps / PS RAB + UL: 3.4 DL: 3.4 kbps SRBs for DCCH

Void. ~~See subclause 6.11.5.4.1.36 of [1].~~

~~The minimum UE classes supporting this combination are UL: 64kbps plus support for maximum 16 TBs per TTI, and SF 1; DL: 2048kbps plus support for maximum TB bits 40960 and maximum TB TC bits 40960, and SF 1.~~

~~This is supported in Release 4.~~

9.1.3~~4~~7 Interactive or background / UL: 384 DL: 2048 kbps / PS RAB+UL: 3.4 DL: 3.4 kbps SRBs for DCCH

Void. ~~See subclause 6.11.5.4.1.37 of [1].~~

~~The minimum UE classes supporting this combination are UL: 128kbps plus support for maximum TB bits 8690, maximum TC TB bits 8690, and maximum 32 TBs per TTI, SF 1, and 8PSK if QPSK is not used, or if an alternative RAB is used, plus support for maximum TB bits 5120, maximum TC TB bits 5120 and maximum 16 TBs per TTI; DL: 2048 kbps plus support for maximum TB bits 40960, maximum TB TC bits 40960.~~

~~This is supported in Release 4.~~

9~~9~~.1.3~~5~~8 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

See subclause 6.11.5.4.1.38 of [1].

The minimum UE classes supporting this combination are UL: 64 kbps~~, or alternatively if turbo coding is not used, support for maximum CC TB bits 1280~~; DL: 32kbps ~~plus support for Turbo coding, maximum TC TB bits 640, and maximum TB bits 1280, or alternatively, if convolutional coding with rate 1/3 is used instead of turbo coding, support for maximum CC TB bits 1280.~~

This is supported in Release 4.

9.1.38a Conversational / speech / UL: 12.2 DL: 12.2 kbps / CS RAB + Interactive or background / UL: 0 DL: 0 kbps / PS RAB + UL: 3.4 DL: 3.4 kbps SRBs for DCCH

See subclause 6.11.5.4.1.38a of [1].

The minimum UE classes supporting this combination are UL: 64 kbps; DL: 32kbps

This is supported in Release 4.

9.1.38b Conversational / speech / UL: 12.2 DL: 12.2 kbps / CS RAB + Interactive or background / UL: 8 DL: 8 kbps / PS RAB + UL: 3.4 DL: 3.4 kbps SRBs for DCCH

See subclause 6.11.5.4.1.38b of [1].

The minimum UE classes supporting this combination are UL: 64 kbps; DL: 32 kbps

This is supported in Release 4.

9.1.38c Conversational / speech / UL: 12.2 DL: 12.2 kbps / CS RAB + Interactive or background / UL: 32 DL: 32 kbps / PS RAB + UL: 3.4 DL: 3.4 kbps SRBs for DCCH

See subclause 6.11.5.4.1.38c of [1].

The minimum UE classes supporting this combination are UL: 64 kbps; DL: 64 kbps

This is supported in Release 4.

9.1.38d Conversational / speech / UL: 12.2 DL: 12.2 kbps / CS RAB + Interactive or background / UL: 64 DL: 64 kbps / PS RAB + Interactive or background / UL: 64 DL: 64 kbps / PS RAB + UL: 3.4 DL: 3.4 kbps SRBs for DCCH

See subclause 6.11.5.4.1.38d of [1].

The minimum UE classes supporting this combination are UL: 64 kbps; DL: 64 kbps

This is supported in Release 4.

9.1.38e Conversational / speech / UL: (12.2, 7.95, 5.9, 4.75) DL: (12.2, 7.95, 5.9, 4.75) kbps / CS RAB + Interactive or background / UL: 0 DL: 0 kbps / PS RAB + UL: 3.4 DL: 3.4 kbps SRBs for DCCH

See subclause 6.11.5.4.1.38e of [1].

The minimum UE classes supporting this combination are UL: 64 kbps; DL: 32 kbps

This is supported in Release 4.

9.1.38f Conversational / speech / UL: (12.2, 7.95, 5.9, 4.75) DL: (12.2, 7.95, 5.9, 4.75) kbps / CS RAB + Interactive or background / UL: 8 DL: 8 kbps / PS RAB + UL: 3.4 DL: 3.4 kbps SRBs for DCCH

See subclause 6.11.5.4.1.38f of [1].

The minimum UE classes supporting this combination are UL: 64 kbps; DL: 32 kbps

This is supported in Release 4.

9.1.38g Conversational / speech / UL: (12.2, 7.95, 5.9, 4.75) DL: (12.2, 7.95, 5.9, 4.75) kbps / CS RAB + Interactive or background / UL: 16 DL: 16 kbps / PS RAB + UL: 3.4 DL: 3.4 kbps SRBs for DCCH

See subclause 6.11.5.4.1.38g of [1].

The minimum UE classes supporting this combination are UL: 64 kbps; DL: 32 kbps

This is supported in Release 4.

9.1.38h Conversational / speech / UL: (12.2, 7.95, 5.9, 4.75) DL: (12.2, 7.95, 5.9, 4.75) kbps / CS RAB + Interactive or background / UL: 32 DL: 32 kbps / PS RAB + UL: 3.4 DL: 3.4 kbps SRBs for DCCH

See subclause 6.11.5.4.1.38h of [1].

The minimum UE classes supporting this combination are UL: 64 kbps; DL: 32 kbps

This is supported in Release 4.

9.1.38i Conversational / speech / UL: (12.2, 7.95, 5.9, 4.75) DL: (12.2, 7.95, 5.9, 4.75) kbps / CS RAB + Interactive or background / UL: 64 DL: 64 kbps / PS RAB + UL: 3.4 DL: 3.4 kbps SRBs for DCCH

See subclause 6.11.5.4.1.38i of [1].

The minimum UE classes supporting this combination are UL: 64 kbps; DL: 64 kbps

This is supported in Release 4.

9.1.38j Conversational / speech / UL: (12.2, 7.95, 5.9, 4.75) DL: (12.2, 7.95, 5.9, 4.75) kbps / CS RAB + Interactive or background / UL: 64 DL: 128 kbps / PS RAB + UL: 3.4 DL: 3.4 kbps SRBs for DCCH

See subclause 6.11.5.4.1.38j of [1].

The minimum UE classes supporting this combination are UL: 64 kbps; DL: 128 kbps

This is supported in Release 4.

9.1.3~~6~~9 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

See subclause 6.11.5.4.1.39 of [1].

The minimum UE classes supporting this combination are UL: 64 kbps~~, or alternatively, if covolutional coding with rate 1/3 is used instead of turbo coding, support for maximum TC TB bits 1280~~; DL: 64kbps.

This is supported in Release 4.

9.1.~~37~~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

See subclause 6.11.5.4.1.40 of [1].

The minimum UE classes supporting this combination are UL: 64kbps ~~plus support of SF 1~~; DL: 64 kbps.

This is supported in Release 4.

9.1.~~38~~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

See subclause 6.11.5.4.1.41 of [1].

The minimum UE classes supporting this combination are UL: 64 kbps ~~plus support of SF 1~~; DL: 128 kbps ~~plus support for 8PSK if QPSK is not used.~~

This is supported in Release 4.

9.1.~~39~~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

See subclause 6.11.5.4.1.42 of [1].

The minimum UE classes supporting this combination are UL: 64 kbps ~~plus support of SF 1~~; DL: 384 kbps.~~128kbps plus support of 8PSK if QPSK is not supported, or if an alternative RAB is used, plus support for maximum TB bits 6400, maximum TC TB bits 6400, and maximum 32 TBs per TTI.~~

This is supported in Release 4.

9.1.~~40~~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

See subclause 6.11.5.4.1.43 of [1].

The minimum UE classes supporting this combination are UL: 64 kbps ~~plus support of SF1~~; DL: 384 kbps ~~plus support for optional SF 1, 8PSK if QPSK is not used, or if an alternative RAB is used, support for maximum TB bits 8960, maximum TC TB bits 8960.~~

This is supported in Release 4.

9.1.4~~1~~4 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

See subclause 6.11.5.4.1.44 of [1].

The minimum UE classes supporting this combination are UL: 384 kbps~~64 kbps plus support for maximum 16 TBs per TTI, SF1, and 8PSK if QPSK is not used~~; DL: 2048 kbps ~~plus support for maximum TB bits 40960, maximum TC TB bits 40960, SF 1, or if an alternative RAB is used, plus support for maximum TB bits 81920 and maximum TB TC bits 81920.~~

This is supported in Release 4.

9.1.4~~2~~5 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

See subclause 6.11.5.4.1.45 of [1].

The minimum UE classes supporting this combination are UL: 64 kbps; DL: 64 kbps.

This is supported in Release 4.

9.1.4~~3~~6 ~~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~~

Void.~~See subclause 6.11.5.4.1.46 of [1].~~

~~The minimum UE classes supporting this combination are UL: 32 kbps; DL: 64 kbps plus support for maximum 16 TBs per TTI.~~

~~This is supported in Release 4.~~

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

Void.

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

Void.

9.1.4~~4~~9 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

See subclause 6.11.5.4.1.49 of [1].

The minimum UE classes supporting this combination are UL: 64 kbps ~~plus support of SF1~~; DL: 64 kbps.

This is supported in Release 4.

9.1.49a Conversational / speech / UL: (12.2, 7.95, 5.9, 4.75) DL: (12.2, 7.95, 5.9, 4.75) kbps / CS RAB + Conversational / unknown / UL: 64 DL: 64 kbps / CS RAB + UL: 3.4 DL: 3.4 kbps SRBs for DCCH

See subclause 6.11.5.4.1.49 of [1].

The minimum UE classes supporting this combination are UL: 64 kbps ; DL: 64 kbps.

This is supported in Release 4.

9.1.4~~5~~0 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

See subclause 6.11.5.4.1.50 of [1].

The minimum UE classes supporting this combination are UL: 64 kbps ~~plus support of SF1, or if the alternative RAB is used, maximum TB bits 6400, maximum TC TB bits 5120, and maximum 16 TBs per TTI~~; DL: 128 kbps ~~plus support for 15 physical channels per TS, or if the alterntive RAB is used, plus support for maximum TB bits 6400, maximum TC TB bits 5120.~~

This is supported in Release 4.

9.1.4~~6~~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

See subclause 6.11.5.4.1.51 of [1].

The minimum UE classes for this combinations are UL: 64 kbps ~~plus support of SF1~~; DL: 128 kbps.~~32 kbps plus support for turbo coding, maximum TB bits 3840, maximum TC TB bits 3840, SF1, or if the RAB is used, plus support for maximum TB bits 5120, maximum TC TB bits 5120, and maximum 16 TBs per TTI.~~

This is supported in Release 4.

9.1.51a Conversational / unknown / UL: 64 DL: 64 kbps / CS RAB + Interactive or background / UL: 8 DL: 8 kbps / PS RAB + UL: 3.4 DL: 3.4 kbps SRBs for DCCH

See subclause 6.11.5.4.1.51a of [1].

The minimum UE classes for this combinations are UL: 64 kbps ; DL: 64 kbps.

This is supported in Release 4.

9.1.51b Conversational / unknown / UL: 64 DL: 64 kbps / CS RAB + Interactive or background / UL: 16 DL: 64 kbps / PS RAB + UL: 3.4 DL: 3.4 kbps SRBs for DCCH

See subclause 6.11.5.4.1.51b of [1].

The minimum UE classes for this combinations are UL: 64 kbps ; DL: 128 kbps.

This is supported in Release 4.

9.1.~~47~~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

See subclause 6.11.5.4.1.52 of [1].

The minimum UE classes for this combination are UL: 64 kbps ~~plus support of SF1~~; DL: 384 kbps~~128kbps plus support for maximum TB bits 5120, maximum TC TB bits 5120, 24 physical channels per subframe, or if the alternative RAB is used, plus support for maximum TB bits 6400, maximum TC TB bits 6400.~~

This is supported in Release 4.

9.1.~~48~~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

See subclause 6.11.5.4.1.53 of [1].

The minimum UE classes for this combination are UL: 384 kbps ~~64kbps plus support for support for maximum TB bits 5120, maximum TC TB bits 5120, and maximum 16 TBs per TTI, SF1, and 8PSK if QPSK is not used, or if the alternative RAB is used, plus support for maximum TB bits 6400, maximum TC TB bits 6400~~); DL: 384 kbps~~128 kbps plus support for support for maximum TB bits 5120, maximum TC TB bits 5120, 24 physical channels per subframe, or (if the RAB is used, plus support for maximum TB bits 6400, maximum TC TB bits 6400).~~

This is supported in Release 4.

9.1.~~49~~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:3.4kbps SRBs for DCCH~~

Void. ~~See subclause 6.11.5.4.1.54 of [1].~~

~~The minimum UE classes for this combination are UL: 64 kbps; DL: 128 kbps plus support for maximum TB bits 6400, maximum TC TB bits 6400, and maximum 32 TBs per TTI, and 24 physical channels per subframe.~~

~~This is supported in Release 4.~~

9.1.55 Void

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

See subclause 6.11.5.4.1.56 of [1].

The minimum UE classes for this combination are UL: 32 kbps, DL: 32 kbps.

This is supported in Release 4.

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

See subclause 6.11.5.4.1.57 of [1].

The minimum UE classes for this combination are UL: 64 kbps, DL: 64 kbps.

This is supported in Release 4.

9.1.58 Streaming / Unknown / UL: 16 DL: 64 kbps / PS RAB + Interactive or background / UL:8 DL:8 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

See subclause 6.11.5.4.1.58 of [1].

The minimum UE classes for this combination are UL: 64 kbps, DL: 64 kbps.

This is supported in Release 4.

9.1.59 Reserved for future use

9.1.60 Reserved for future use

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

See subclause 6.11.5.4.1.561 of [1].

The minimum UE classes for this combination are UL: 32 kbps, DL: 32 kbps.

This is supported in Release 4.

9.2 Combinations on PDSCH, SCCH, PUSCH and PRACH

9.2.1 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

See subclause 6.11.5.4.2.1 of [1].

The minimum UE classes supporting this combination are UL: 128kbs ~~plus support for SF 1~~; DL: 384kbs ~~plus support for (Alt. 8PSK), maximum TB bits (Alt. 7680), TB CC bits 1280, TB TC bits (Alt. 6400) and (Alt. TTI TB 32).~~

This is supported in Release 4.

9.2.2 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

See subclause 6.11.5.4.2.2 of [1].

The minimum UE classes supporting this combination are UL: 128kbs ~~plus support for SF 1~~, DL: 384kbs ~~(with SF 1 option) plus support for maximum TB bits (Alt. 10240), TB CC bits 1280, and TB TC bits (Alt. 8960).~~

This is supported in Release 4.

9.2.3 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

See subclause 6.11.5.4.2.3 of [1].

The minimum UE classes supporting this combination are UL: 128kbs ~~plus support for SF 1~~, DL: 2Mbps ~~plus support for maximum TB bits 40960 (Alt. 81920) and TB CC bits 1280.~~

This is supported in Release 4.

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

9.3.1 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

See subclause 6.11.5.4.3.1 of [1].

The minimum UE classes supporting this combination are UL: 128kbps ~~plus support for maximum CC TB bits 1280, maximum 16 TBs per TTI, and SF 1 for PUSCH~~; DL: 384kbps ~~plus support for maximum CC TB bits 1280, 5 TS per subframe, optional SF 1, 8PSK if QPSK is not used for PDSCH, or if the alternative RAB is used, support for maximum TB bits 7680.~~

~~PS. Assume the DPCH DL, PDSCH and SCCPCH use different TS.~~

This is supported in Release 4.

9.3.2 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

See subclause 6.11.5.4.3.2 of [1].

The minimum UE classes supporting this combination are UL: 128kbps ~~plus support for maximum CC TB bits 1280, maximum 16 TBs per TTI, and SF 1 for PUSCH~~; DL: 384kbps ~~plus support for maximum CC TB bits 1280, 5 TS per~~

~~subframe, optional SF 1 for PDSCH, or if the alternative RAB is used, support for maximum TB bits 10240, maximum TC TB bits 8960, and maximum 48 TBs per TTI.~~

~~PS. Assume the DPCH DL, PDSCH and SCCPCH use different TS.~~

This is supported in Release 4.

9.3.3 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

See subclause 6.11.5.4.3.3 of [1].

The minimum UE classes supporting this combination are UL: 128kbps ~~plus support for maximum CC TB bits 1280, maximum 16 TBs per TTI, and SF 1 for PUSCH~~; DL: 2048kbps ~~plus support for maximum TB bits 40960, maximum TC TB bits 40960, and maximum CC TB bits 1280, 5 TS per subframe, optional SF 1 for PDSCH, or if the alternative RAB is used, support for maximum TB bits 81920, maximum TC TB bits 81920.~~

This is supported in Release 4.

9.4 Combinations on SCCPCH

9.4.1 Stand – alone signalling RB for PCCH

See subclause 6.11.5.4.4.1 of [1].

The minimum UE class supporting this combination is DL: 32 kbps.

This is supported in Release 4.

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

See subclause 6.11.5.4.4.2 of [1].

The minimum UE class supporting this combination is DL: 64 kbps. ~~plus support for maximum CC TB bits 1280.~~

This is supported in Release 4.

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

See subclause 6.11.5.4.4.3 of [1].

The minimum UE class supporting this combination is DL: 64 kbps ~~plus support for maximum CC TB bits 2560, or if the alternative RAB is used, support for maximum 16 TBs per TTI, and maximum 64 TFC.~~

This is supported in Release 4.

9.5 Combinations on PRACH

9.5.1 SRB for CCCH + SRB for DCCH

See subclause 6.11.5.4.5.1 of [1].

The minimum UE class supporting this combination is UL: 32 kbps.

This is supported in Release 4.

3GPP TSG-RAN WG2 Meeting #41
Malaga, February 16th – 21st 2004

R1-040652

CR-Form-v7

CHANGE REQUEST

⌘ **25.993** **CR** **24** ⌘ **rev** **-** ⌘ Current version: **6.4.0** ⌘

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

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

Title:	⌘	S-CCPCH combination for HS-DSCH channel type switching
Source:	⌘	RAN WG2
Work item code:	⌘	TEI
Date:	⌘	09/02/2004
Category:	⌘	**F**
Release:	⌘	R99

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use one of the following releases:

2	*(GSM Phase 2)*
R96	*(Release 1996)*
R97	*(Release 1997)*
R98	*(Release 1998)*
R99	*(Release 1999)*
Rel-4	*(Release 4)*
Rel-5	*(Release 5)*
Rel-6	*(Release 6)*

Reason for change:	⌘	For the HS-DSCH it is proposed to use the RLC PDU size of 640 bits. As per now, there is no test case defined in TS 34.108 to to have a DTCH with 640 bits RLC PDU size mapped on the FACH. This possibility is needed in order to be able to perform channel type switching between HS-DSCH and FACH.
Summary of change:	⌘	The following Release 5 radio bearer combinations for testing of HSDPA combined with other radio bearers/services is included in section 7.2.9. 5) Interactive or background / DL:32 kbps / PS RAB (RLC size 320 bits) + Interactive or background / DL:32 kbps / PS RAB (RLC size 640 bits) + SRB for PCCH + SRB for CCCH + SRBs for DCCH + SRB for BCCH.
Consequences if not approved:	⌘	UE conformance testing would not cover mapping options for a HS-DSCH RB with AM RLC PDU size of 640 bits.

Clauses affected:	⌘	6, creation of new section (7.2.9)

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

Other comments:	⌘	

How to create CRs using this form:

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

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

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

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

6 Combinations of RABs

The present document contains examples of Radio configuration for following combinations of RABs.

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

List of RAB combinations:

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:(12.2 7.95 5.9 4.75) DL:(12.2 7.95 5.9 4.75) kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH. (FDD)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

21) Streaming / unknown / UL:0 DL:64 kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

22) Streaming / unknown / UL:64 DL:0 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:8 DL:8 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

25) Interactive or background / UL:16 DL:16 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH. (FDD)

26) Interactive or background / UL:32 DL:32 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH. (FDD)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

41) Interactive or background / UL:384 DL:2048 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:32 DL:8 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:0 DL:0 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH (FDD)

44) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ Interactive or background / UL:8 DL:8 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH (FDD)

45) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ Interactive or background / UL:32 DL:32 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH (FDD)

45a) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ Interactive or background / UL:32 DL:32 kbps / PS RAB (20ms TTI)
+ UL:3.4 DL:3.4 kbps SRBs for DCCH (FDD)

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

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

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

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

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

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

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

53) 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.

54) 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.

55) 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.

56) 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.

57) 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.

58) 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.

59) 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.

60) 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.

61) 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.

62) 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.

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

64) 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.

65) 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.

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

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

68) 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.

69) 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.

70) 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.

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

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

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

74) Streaming / unknown / UL:16 DL:128 kbps / PS RAB
+ Interactive or background / UL:8 DL:8 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

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

NOTE: Conversational / unknown / UL:8 DL:8 kbps / PS RAB – TF0 contains zero Transport Blocks

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

NOTE: Conversational / unknown / UL:8 DL:8 kbps / PS RAB – TF0 contains one Transport Block of zero size

77) Conversational / unknown / UL:16 DL:16 kbps / PS RAB +
Interactive or Background / UL:8 DL:8 kbps / PS RAB +
UL:3.4 DL:3.4 kbps SRBs for DCCH

NOTE: Conversational / unknown / UL:16 DL:16 kbps / PS RAB – TF0 contains zero Transport Blocks

78) Conversational / unknown / UL:16 DL:16 kbps / PS RAB +
Interactive or Background / UL:8 DL:8 kbps / PS RAB +
UL:3.4 DL:3.4 kbps SRBs for DCCH

NOTE: Conversational / unknown / UL:16 DL:16 kbps / PS RAB – TF0 contains one Transport Block of zero size

79) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ Interactive or Background / UL:0 DL:0 kbps / PS RAB
+ Interactive or Background / UL:0 DL:0 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH

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

81) Streaming / unknown / UL:8 DL:16 kbps / PS RAB
+ Interactive or Background / UL:8 DL:8 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH

82) Streaming / unknown / UL:8 DL:32 kbps / PS RAB +
Interactive or Background / UL:8 DL:8 kbps / PS RAB +
UL:3.4 DL:3.4 kbps SRBs for DCCH

83) Streaming / unknown / UL:32 DL:256 kbps / PS RAB +
Interactive or Background / UL:8 DL:8 kbps / PS RAB +
UL:3.4 DL:3.4 kbps SRBs for DCCH

84) Interactive or background / UL:16 DL:16 kbps / PS RAB +
Interactive or Background / UL:16 DL:16 kbps / PS RAB +
UL:3.4 DL:3.4 kbps SRBs for DCCH

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

86) Interactive or Background / UL:64 DL:128 kbps / PS RAB
+ Interactive or Background / UL:64 DL:128 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH

87) Interactive or Background / UL:64 DL:384 kbps / PS RAB
+ Interactive or Background / UL:64 DL:384 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH

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

89) Interactive or background / UL:128 DL:32 kbps / PS RAB +
Interactive or Background / UL:128 DL:32 kbps / PS RAB +
UL:3.4 DL:3.4 kbps SRBs for DCCH

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

91) Streaming / unknown / UL: 16 DL:32 kbps / PS RAB
+ Interactive or background / UL:8 DL:8 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH

92) Interactive or background / UL: 16 DL:32 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH

93) Interactive or background / UL: 16 DL:64 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH

94) Interactive or background / UL: 16 DL:128 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH

95) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ Streaming / unknown / UL: 16 DL:128 kbps / PS RAB
+ Interactive or background / UL:8 DL:8 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH

96) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB
+ Streaming / unknown / UL: 128 DL:16 kbps / PS RAB
+ Interactive or background / UL:8 DL:8 kbps / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH

97) Conversational / speech / UL:(12.65 8.85 6.6) DL:(12.65 8.85 6.6) kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH + DL:0.15 kbps SRB#5 for DCCH

Combinations on SCCPCH

1) Stand-alone 24 kbps SRB for PCCH.

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

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

4) 16 kbps RB for CTCH (FDD)
+ SRB for CCCH
+ SRB for BCCH

5) RB for CTCH (FDD)
+ Interactive or background / DL: 32 kbps / PS RAB
+ SRB for PCCH
+ SRB for CCCH
+ SRBs for DCCH
+ SRB for BCCH

6) Interactive or background / DL:16 kbps / PS RAB
+ SRB for CCCH
+ SRBs for DCCH
+ SRB for BCCH.

7) 8 kbps RB for CTCH (FDD)
+ SRB for CCCH
+ SRB for BCCH

8) Interactive or background / DL:32 kbps / PS RAB (RLC size 320 bits)
+ Interactive or background / DL:32 kbps / PS RAB (RLC size 640 bits)
+ 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.

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

Combinations on PDSCH, SCCPCH, PUSCH and PRACH (TDD)

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 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 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 for SHCCH.

Combinations on PDSCH, SCCPCH, DPCH, PUSCH and PRACH (TDD)

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) Conversationnal / 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

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

7.2.9.1 Transport channel parameters

7.2.9.1.1 Transport channel parameters for Interactive or background / 32 kbps / PS RAB + 32 kbps / PS RAB (RLC size 320)

See clause 6.10.2.4.3.2a.1.1 of [1]

7.2.9.1.2 Transport channel parameters for Interactive or background / 32 kbps / PS RAB + 32 kbps / PS RAB (RLC size 640)

Higher Layer	RAB/Signalling RB		**RAB**	**RAB**
RLC	Logical channel type		DTCH	DTCH
	RLC mode		AM	AM
	Payload sizes, bit		640	640
	Max data rate, bps		32000	32000
	AMD PDU header, bit		16	16
MAC	MAC header, bit		24	24
	MAC multiplexing		2 logical channel multiplexing	
Layer 1	TrCH type		FACH	
	TB sizes, bit		680	
	TFS	TF0, bits	0x680	
		TF1, bits	1x680	
	TTI, ms		20	
	Coding type		TC	
	CRC, bit		16	
	Max number of bits/TTI after channel coding		2100	
	RM attribute		110- 150	

7.2.9.1.3 Transport channel parameters of SRB for PCCH

See clause 6.10.2.4.3.1.1 of [1]

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

See clause 6.10.2.4.3.2.1.2 of [1]

7.2.9.1.5 TFCS

TFCS size	7, 8, 9 or 10 for 240 bits PCH TrBlk size and TF3 not used (alt 7, 8, 9 or 10, 11 or 12 for 80 bits PCH TrBlk size and TF3 not used) (alt 7, 8, 9, 10 or 11 for 240 bits PCH TrBlk size and TF3 used) (alt. 7, 8, 9, 10, 11, 12, 13 or 14 for 80 bits PCH TrBlk size and TF3 used)
TFCS	(SRB for PCCH, SRBs for CCCH/ DCCH/ BCCH, 32 kbps RAB (RLC size 320), 32 kbps RAB (RLC size 640)) = (TF0, TF0, TF0, TF0), (TF1, TF0, TF0, TF0), (TF0, TF1, TF0, TF0), (TF1, TF1, TF0, TF0), (TF0, TF2, TF0, TF0), [TF1, TF2, TF0, TF0] (see note), (TF0, TF0, TF1, TF0), [TF0, TF1, TF1, TF0] (see note), (TF0, TF0, TF0, TF1), [TF0, TF1, TF0, TF1] (see note) for 240 bits PCH TrBlk size and TF3 not used (alt. (TF0, TF0, TF0, TF0), (TF1, TF0, TF0, TF0), (TF0, TF1, TF0, TF0), (TF1, TF1, TF0, TF0), (TF0, TF2, TF0, TF0), [TF1, TF2, TF0, TF0] (see note), (TF0, TF0, TF1, TF0), [TF1, TF0, TF1, TF0] (see note), [TF0, TF1, TF1, TF0] (see note), (TF0, TF0, TF0, TF1), [TF1, TF0, TF0, TF1] (see note), [TF0, TF1, TF0, TF1] (see note) for 80 bits PCH TrBlk size and TF3 not used) (alt. (TF0, TF0, TF0, TF0), (TF1, TF0, TF0, TF0), (TF0, TF1, TF0, TF0), (TF1, TF1, TF0, TF0), (TF0, TF2, TF0, TF0), [TF1, TF2, TF0, TF0] (see note), [TF0, TF3, TF0, TF0] (see note), (TF0, TF0, TF1, TF0), [TF0, TF1, TF1, TF0] (see note), (TF0, TF0, TF0 TF1, [TF0, TF1, TF0, TF1] (see note) for 240 bits PCH TrBlk size and TF3 used) (alt. (TF0, TF0, TF0, TF0), (TF1, TF0, TF0, TF0), (TF0, TF1, TF0, TF0), (TF1, TF1, TF0, TF0), (TF0, TF2, TF0, TF0), [TF1, TF2, TF0, TF0] (see note), [TF0, TF3, TF0, TF0] (see note), [TF1, TF3, TF0, TF0] (see note), (TF0, TF0, TF1, TF0), [TF1, TF0, TF1, TF0] (see note), [TF0, TF1, TF1, TF0] (see note), (TF0, TF0, TF0, TF1), [TF1, TF0, TF0, TF1] (see note), [TF0, TF1, TF0, TF1] (see note) for 80 bits PCH TrBlk size and TF3 used)
NOTE: These TFCs are available only if SCCPCH can be allocated bigger Tx power than required Tx power for TFC of (TF0, TF2, TF0).	

7.2.9.2 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