TSG-RAN Meeting #28
Quebec, Canada, 01-03 June 2005

RP-050325
agenda item 7.3.1

Source: **TSG-RAN WG2.**

Subject: **(Other) CRs on TR 25.993**

The following CRs are in RP-050325:

Spec	CR	Rev	Phase	Subject	Cat	Version-Current	Version-New	Doc-2nd-Level	Workitem
25.993	0038	-	Rel-6	Introduction of fixed DTX positions for I/B RAB combinations	B	6.9.0	6.10.0	R2-051206	TEI
25.993	0039	-	Rel-6	Inclusion of HSDPA RABs already defined in 34.108	F	6.9.0	6.10.0	R2-051531	HSDPA-L23
25.993	0041	-	Rel-6	Introduction of Streaming RABs over HSDPA	F	6.9.0	6.10.0	R2-051187	HSDPA-L23

3GPP TSG-RAN WG2 Meeting #46bis
Beijing, China, 4th-8th April 2005

Tdoc ⌘R2-051206

CR-Form-v7

CHANGE REQUEST

⌘ **25.993** **CR** **0038** ⌘**rev** **-** ⌘ Current version: **6.9.0** ⌘

*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:	⌘	Introduction of fixed DTX positions for I/B RAB combinations
Source:	⌘	RAN WG2
Work item code:	⌘	TEI
Date:	⌘	29/03/2005
Category:	⌘	**B**
Release:	⌘	REL-6

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 RAB combinations that include an I/B RB mapped on DCH, only flexible DTX positions are defined in TR25.993.
Summary of change:	⌘	The option of having the DTX bits introduced in a fixed manner is added to all RAB combinations that include at least one I/B RB mapped on DCH. **This CR affects the R'99 (although written on a Rel-6 version).**
Consequences if not approved:	⌘	A representative I/B RB configuration would not be present in TR25.993.

Clauses affected:	⌘	7.1.x			
Other specs affected:	⌘	**Y**	**N**		⌘
		[ ]	[ ]	Other core specifications	
		[ ]	[ ]	Test specifications	
		[ ]	[ ]	O&M Specifications	
Other comments:	⌘				

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

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

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

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

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

7.1.23.1 Uplink

See subclause 6.10.2.4.1.23.1 of [1].

7.1.22.2 Downlink

7.1.22.2.1 Transport channel parameters

See subclause 6.10.2.4.1.23.2.1 of [1].

7.1.22.2.2 Physical channel parameters

DPCH Downlink	DTX position		Flexible or fixed
	Spreading factor		128
	DPCCH	Number of TFCI bits/slot	2
		Number of TPC bits/slot	2
		Number of Pilot bits/slot	4
	DPDCH	Number of data bits/slot	32
		Number of data bits/frame	480

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

This is supported in Release '99.

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

7.1.24.1 Uplink

See subclause 6.10.2.4.1.23a.1 of [1].

7.1.24.2 Downlink

7.1.24.2.1 Transport channel parameters

See subclause 6.10.2.4.1.23a.2.1 of [1].

7.1.24.2.2 Physical channel parameters

DPCH Downlink	DTX position		Flexible or fixed
	Spreading factor		128
	DPCCH	Number of TFCI bits/slot	2
		Number of TPC bits/slot	2
		Number of Pilot bits/slot	4
	DPDCH	Number of data bits/slot	32
		Number of data bits/frame	480

The minimum UE classes supporting this combination are UL: 12 kbps, DL: 12 kbps.

This is supported in Release '99.

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

7.1.25.1 Uplink

See subclause 6.10.2.4.1.23b.1 of [1]

7.1.25.2 Downlink

7.1.25.2.1 Transport channel parameters

See subclause 6.10.2.4.1.23b.2.1 of [1].

7.1.25.2.2 Physical channel parameters

DPCH Downlink	DTX position		Flexible or fixed
	Spreading factor		128
	DPCCH	Number of TFCI bits/slot	2
		Number of TPC bits/slot	2
		Number of Pilot bits/slot	4
	DPDCH	Number of data bits/slot	32
		Number of data bits/frame	480

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

This is supported in Release '99.

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

7.1.26.1 Uplink

See subclause 6.10.2.4.1.23c.1 of [1].

7.1.26.2 Downlink

7.1.26.2.1 Transport channel parameters

See subclause 6.10.2.4.1.23c.2.1 of [1].

7.1.26.2.2 Physical channel parameters

DPCH Downlink	DTX position		Flexible or fixed
	Spreading factor		64
	DPCCH	Number of TFCI bits/slot	8
		Number of TPC bits/slot	4
		Number of Pilot bits/slot	8
	DPDCH	Number of data bits/slot	60
		Number of data bits/frame	900

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

This is supported in Release '99.

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

7.1.27.1 Uplink

See subclause 6.10.2.4.1.23d.1 of [1].

7.1.27.2 Downlink

7.1.27.2.1 Transport channel parameters

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

Higher layer	RAB/Signalling RB		**RAB**
RLC	Logical channel type		DTCH
	RLC mode		AM
	Payload sizes, bit		320 alt.640
	Max data rate, bps		32000
	AMD PDU header, bit		16
MAC	MAC header, bit		0
	MAC multiplexing		N/A
Layer 1	TrCH type		DCH
	TB sizes, bit		336 alt. 656
	TFS	TF0, bits	0x336 alt. 0x656
		TF1, bits	1x336 alt. 1x656
		TF2, bits	2x336 alt. none
	TTI, ms		20
	Coding type		TC
	CRC, bit		16
	Max number of bits/TTI after channel coding		2124 alt. 2028
	RM attribute		135-175 alt. tbd

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

See clause 6.10.2.4.1.2.2.1.1 of [1].

7.1.27.2.1.3 TFCS

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

7.1.27.2.2 Physical channel parameters

DPCH Downlink	DTX position		Flexible or fixed
	Spreading factor		64
	DPCCH	Number of TFCI bits/slot	8
		Number of TPC bits/slot	4
		Number of Pilot bits/slot	8
	DPDCH	Number of data bits/slot	60
		Number of data bits/frame	900

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

This is supported in Release '99, the alt. is supported in Release 5.

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

7.1.28.1 Uplink

7.1.28.1.1 Transport channel parameters

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

Higher layer	RAB/Signalling RB		**RAB**
RLC	Logical channel type		DTCH
	RLC mode		AM
	Payload sizes, bit		320
	Max data rate, bps		64000
	AMD PDU header, bit		16
MAC	MAC header, bit		0
	MAC multiplexing		N/A
Layer 1	TrCH type		DCH
	TB sizes, bit		336
	TFS	TF0, bits	0x336
		TF1, bits	1x336
		TF2, bits	2x336
		TF3, bits	3x336
		TF4, bits	4x336
	TTI, ms		20
	Coding type		TC
	CRC, bit		16
	Max number of bits/TTI after channel coding		4236
	Uplink: Max number of bits/radio frame before rate matching		2118
	RM attribute		130-170

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

See subclause 6.10.2.4.1.2.1.1.1 of [1].

7.1.28.1.1.3 TFCS

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

7.1.28.1.2 Physical channel parameters

DPCH Uplink	Min spreading factor	16
	Max number of DPDCH data bits/radio frame	2400
	Puncturing Limit	0.96

7.1.28.2 Downlink

7.1.28.2.1 Transport channel parameters

See subclause 6.10.2.4.1.23.2.1 of [1].

7.1.28.2.2 Physical channel parameters

DPCH Downlink	DTX position		Flexible or fixed
	Spreading factor		128
	DPCCH	Number of TFCI bits/slot	2
		Number of TPC bits/slot	2
		Number of Pilot bits/slot	4
	DPDCH	Number of data bits/slot	32
		Number of data bits/frame	480

~~See subclause 6.10.2.4.1.23.2 of [1].~~

The minimum UE classes supporting this combination are UL: 64kbps, DL: 12 plus support for turbo decoding and 'Maximum sum of number of bits of all turbo coded transport blocks being received at an arbitrary time instant' = 640. The minimum UE class to support the alternative DL configuration is DL: 12kbps.

This is supported in Release '99.

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

7.1.29.1 Uplink

See subclause 6.10.2.4.1.25.1 of [1].

7.1.29.2 Downlink

7.1.29.2.1 Transport channel parameters

See subclause 6.10.2.4.1.25.2.1 of [1].

7.1.29.2.2 Physical channel parameters

DPCH Downlink	DTX position		Flexible or fixed
	Spreading factor		32
	DPCCH	Number of TFCI bits/slot	8
		Number of TPC bits/slot	4
		Number of Pilot bits/slot	8
	DPDCH	Number of data bits/slot	140
		Number of data bits/frame	2100

The minimum UE classes supporting this combination are UL: 64kbps, DL: 64kbps. The minimum UE class to support the alternative UL configuration (10ms TTI) is UL: 32kbps.

This is supported in Release '99.

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

7.1.30.1 Uplink

See subclause 6.10.2.4.1.26.1 of [1].

7.1.30.2 Downlink

See subclause 7.1.29.2.

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

This is supported in Release '99.

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

7.1.31.1 Uplink

See subclause 6.10.2.4.1.27.1 of [1].

7.1.31.2 Downlink

7.1.31.2.1 Transport channel parameters

See subclause 6.10.2.4.1.27.2.1 of [1].

7.1.31.2.2 Physical channel parameters

DPCH Downlink	DTX position		Flexible or fixed
	Spreading factor		16
	DPCCH	Number of TFCI bits/slot	8
		Number of TPC bits/slot	8
		Number of Pilot bits/slot	16
	DPDCH	Number of data bits/slot	288
		Number of data bits/frame	4320

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

This is supported in Release '99.

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

7.1.32.1 Uplink

See subclause 6.10.2.4.1.28.1 of [1].

7.1.32.2 Downlink

See subclause 7.1.31.2.

The minimum UE classes supporting this combination are UL: 128kbps plus support for 'Maximum total number of transport blocks transmitted within TTIs that start at the same time' = 16, DL: 128kbps.

This is supported in Release '99.

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

7.1.33.1 Uplink

See subclause 6.10.2.4.1.29.1 of [1].

7.1.33.2 Downlink

7.1.33.2.1 Transport channel parameters

See subclause 6.10.2.4.1.29.2.1 of [1].

7.1.33.2.2 Physical channel parameters

DPCH Downlink	DTX position		Flexible or fixed
	Spreading factor		16
	DPCCH	Number of TFCI bits/slot	8
		Number of TPC bits/slot	8
		Number of Pilot bits/slot	16
	DPDCH	Number of data bits/slot	288
		Number of data bits/frame	4320

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

This is supported in Release '99.

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

7.1.34.1 Uplink

See subclause 6.10.2.4.1.30.1 of [1].

7.1.34.2 Downlink

See subclause 7.1.33.2.

The minimum UE classes supporting this combination are UL: 128kbps plus support for 'Maximum total number of transport blocks transmitted within TTIs that start at the same time' = 16, DL: 128kbps.

This is supported in Release '99.

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

7.1.35.1 On DPCH

7.1.35.1.1 Uplink

See subclause 6.10.2.4.1.31.1 of [1].

7.1.35.1.2 Downlink

7.1.35.1.2.1 Transport channel parameters

See subclause 6.10.2.4.1.31.2.1 of [1].

7.1.35.1.2.2 Physical channel parameters

DPCH Downlink	DTX position		Flexible or fixed
	Spreading factor		8
	Number od DPDCH		1
	DPCCH	Number of TFCI bits/slot	8
		Number of TPC bits/slot	8
		Number of Pilot bits/slot	16
	DPDCH	Number of data bits/slot	608
		Number of data bits/frame	9120

The minimum UE classes supporting this combination are UL: 64kbps, DL: 128kbps plus support for 'Maximum number of physical channel bits received in any 10ms interval' = 9600. The minimum UE class to support the alternative DL configuration (20ms TTI) is DL: 384kbps.

This is supported in Release '99.

7.1.35.2 On PDSCH and DPCH

7.1.35.2.1 Uplink

See clause 6.10.2.4.1.24.1 of [1].

7.1.35.2.2 Downlink

7.1.35.2.2.1 Transport channel parameters

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

Higher layer	RAB/Signalling RB		RAB
RLC	Logical channel type		DTCH
	RLC mode		AM
	Payload sizes, bit		320
	Max data rate, bps		384000
	AMD PDU header, bit		16
MAC	MAC header, bit		18
	MAC multiplexing		Logical channel multiplexing on a frame by frame basis
Layer 1	TrCH type		DSCH
	TB sizes, bit		354
	TFS	TF0, bits	0x354
		TF1, bits	1x354
		TF2, bits	2x354
		TF3, bits	4 x354
		TF4, bits	8 x354
		TF5, bits	N/A (alt. 12x354)
		TF6, bits	N/A (alt. 16x354)

Higher layer	RAB/Signalling RB	RAB
	TTI, ms	10(alt. 20)
	Coding type	TC
	CRC, bit	16
	Max number of bits/TTI after channel coding	8892(alt. 17784)
	RM attribute	135-175

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

See clause 6.10.2.4.1.2.2.1.1 of [1].

7.1.35.2.2.1.3 TFCS

PDSCH	TFCS size	5 (alt.7)
	TFCS	256 kbps RAB =TF0, TF1, TF2, TF3, TF4 (alt. TF0, TF1, TF2, TF3, TF4, TF5, TF6)
DPCH Downlink associated with PDSCH	TFCS size	2
	TFCS	SRBs for DCCH = TF0, TF1

7.1.35.2.2.2 Physical channel parameters

PDSCH	RAB or SRB, TrCh		Interactive or background / 256 kbps / PS RAB, DSCH
	DTX position		N/A (SingleTrCH)
	Minimum spreading factor		8
DPCH Downlink associated with PDSCH	RAB or SRB, TrCh		3.4 kbps SRB for DCCH, DCH
	DTX position		N/A (SingleTrCH)
	Spreading factor		256
	DPCCH	Number of TFCI bits/slot	2
		Number of TPC bits/slot	2
		Number of Pilot bits/slot	4
	DPDCH	Number of data bits/slot	12
		Number of data bits/frame	180

The minimum UE classes supporting this combination are UL: 64kbps, DL: 128kbps plus support for PDSCH plus support for 'Maximum number of physical channel bits received in any 10ms interval' = 9600. The minimum UE class to support the alternative DL configuration (20ms TTI) is DL: 384kbps plus support for PDSCH.

This is supported in Release '99.

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

7.1.36.1 On DPCH

7.1.36.1.1 Uplink

See subclause 6.10.2.4.1.32.1 of [1].

7.1.36.1.2 Downlink

7.1.36.1.2.1 Transport channel parameters

See subclause 6.10.2.4.1.32.2.1 of [1].

7.1.36.1.2.2 Physical channel parameters

DPCH Downlink	DTX position		Flexible or fixed
	Spreading factor		8
	Number of DPDCH		1
	DPCCH	Number of TFCI bits/slot	8
		Number of TPC bits/slot	8
		Number of Pilot bits/slot	16
	DPDCH	Number of data bits/slot	608
		Number of data bits/frame	9120

The minimum UE classes supporting this combination are UL: 64kbps, DL: 384kbps. The minimum UE class to support the alternative DL configuration (20ms TTI) is DL: 768kbps.

This is supported in Release '99.

7.1.36.2 On PDSCH and DPCH

See subclause 6.10.2.4.2.2 of [1].

The minimum UE classes supporting this combination are UL: 64kbps, DL: 384kbps plus support for PDSCH. The minimum UE class to support the alternative DL configuration (20ms TTI) is DL: 768kbps.

This is supported in Release '99.

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

7.1.37.1 Uplink

See subclause 6.10.2.4.1.33.1 of [1].

7.1.37.2 Downlink

See subclause 7.1.36.1.2.

The minimum UE classes supporting this combination are UL: 128kbps plus support for 'Maximum total number of transport blocks transmitted within TTIs that start at the same time' = 16, DL: 384kbps. The minimum UE class to support the alternative DL configuration (20ms TTI) is DL: 768kbps.

This is supported in Release '99.

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

7.1.38.1 Uplink

See subclause 6.10.2.4.1.34.1 of [1].

7.1.38.2 Downlink

See subclause 7.1.36.1.2.

The minimum UE classes supporting this combination are UL: 384kbps, DL: 384kbps. The minimum UE class to support the alternative DL configuration (20ms TTI) is DL: 768kbps.

This is supported in Release '99.

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

7.1.39.1 On DPCH

7.1.39.1.1 Uplink

See subclause 6.10.2.4.1.35.1 of [1].

7.1.39.1.2 Downlink

7.1.39.1.2.1 Transport channel parameters

See subclause 6.10.2.4.1.35.2.1 of [1].

7.1.39.1.2.2 Physical channel parameters

DPCH Downlink	DTX position		Flexible or fixed
	Spreading factor		4
	Number of DPCH		3
	DPCCH	Number of TFCI bits/slot	8
		Number of TPC bits/slot	8
		Number of Pilot bits/slot	16
	DPDCH	Number of data bits/slot	1248
		Number of data bits/frame	18720

The minimum UE classes supporting this combination are UL: 64kbps, DL: 2048kbps plus support for 'Maximum sum of number of bits of all transport blocks being received at an arbitrary time instant' = 40960 (81920 for the TTI=20ms alternative) and 'Maximum sum of number of bits of all turbo coded transport blocks being received at an arbitrary time instant' = 40960 (81920 for the TTI=20ms alternative).

This is supported in Release '99.

7.1.39.2 On PDSCH and DPCH

See subclause 6.10.2.4.2.3 of [1].

The minimum UE classes supporting this combination are UL: 64kbps, DL: 2048kbps plus support for 'Maximum sum of number of bits of all transport blocks being received at an arbitrary time instant' = 40960 (81920 for the TTI=20ms alternative) and 'Maximum sum of number of bits of all turbo coded transport blocks being received at an arbitrary time instant' = 40960 (81920 for the TTI=20ms alternative).

This is supported in Release '99.

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

7.1.40.1 Uplink

See subclause 6.10.2.4.1.28.1 of [1].

7.1.40.2 Downlink

See subclause 7.1.39.1.26.10.2.4.1.35.2 of [1].

The minimum UE classes supporting this combination are UL: 128 kbps plus support for 'Maximum total number of transport blocks transmitted within TTIs that start at the same time' = 16, DL: 2048 kbps plus support for 'Maximum sum of number of bits of all transport blocks being received at an arbitrary time instant' = 40960 (81920 for the TTI=20ms alternative) and 'Maximum sum of number of bits of all turbo coded transport blocks being received at an arbitrary time instant' = 40960 (81920 for the TTI=20ms alternative).

This is supported in Release '99.

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

7.1.41.1 Uplink

See subclause 6.10.2.4.1.34.1 of [1].

7.1.41.2 Downlink

See subclause 7.1.39.1.2~~6.10.2.4.1.35.2 of [1]~~.

The minimum UE classes supporting this combination are UL: 384 kbps, DL: 2048 kbps plus support for 'Maximum sum of number of bits of all transport blocks being received at an arbitrary time instant' = 40960 (81920 for the TTI=20ms alternative) and 'Maximum sum of number of bits of all turbo coded transport blocks being received at an arbitrary time instant' = 40960 (81920 for the TTI=20ms alternative).

This is supported in Release '99.

7.1.42 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

7.1.42.1 Uplink

See subclause 6.10.2.4.1.38.1 of [1].

7.1.42.2 Downlink

7.1.42.2.1 Transport channel parameters

See subclause 6.10.2.4.1.38.2.1 of [1].

7.1.42.2.2 Physical channel parameters

DPCH Downlink	DTX position		Flexible or fixed
	Spreading factor		64
	DPCCH	Number of TFCI bits/slot	8
		Number of TPC bits/slot	4
		Number of Pilot bits/slot	8
	DPDCH	Number of data bits/slot	60
		Number of data bits/frame	900

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

This is supported in Release '99.

7.1.43 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

See subclause 6.10.2.4.1.38a of [1].

The minimum UE classes supporting this combination are UL: 64kbps, DL: 12 kbps plus support for 'Maximum number of simultaneous transport channels' = 5.

This is supported in Release '99.

7.1.44 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

7.1.44.1 Uplink

See subclause 6.10.2.4.1.38b.1 of [1].

7.1.44.2 Downlink

7.1.44.2.1 Transport channel parameters

See subclause 6.10.2.4.1.38b.2.1 of [1].

7.1.44.2.2 Physical channel parameters

DPCH Downlink	DTX position		Flexible or fixed
	Spreading factor		64
	DPCCH	Number of TFCI bits/slot	8
		Number of TPC bits/slot	4
		Number of Pilot bits/slot	8
	DPDCH	Number of data bits/slot	60
		Number of data bits/frame	900

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

This is supported in Release '99.

7.1.45 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

7.1.45.1 Uplink

See subclause 6.10.2.4.1.38c.1 of [1].

7.1.45.2 Downlink

7.1.45.2.1 Transport channel parameters

See subclause 6.10.2.4.1.38c.2.1 of [1].

7.1.45.2.2 Physical channel parameters

DPCH Downlink	DTX position		Flexible or fixed
	Spreading factor		32
	DPCCH	Number of TFCI bits/slot	8
		Number of TPC bits/slot	4
		Number of Pilot bits/slot	8
	DPDCH	Number of data bits/slot	140
		Number of data bits/frame	2100

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

This is supported in Release '99.

7.1.45a 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

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

This is supported in Release '99.

7.1.45a.1 Uplink

7.1.45a.1.1 Transport channel parameters

7.1.45a.1.1.1 Transport channel parameters for Conversational / speech / UL:12.2 kbps / CS RAB

See subclause 6.10.2.4.1.4.1.1.1 of [1]

7.1.45a.1.1.2 Transport channel parameters for Interactive or background / UL:32 kbps / PS RAB

See subclause 6.10.2.4.1.23d.1.1.1 of [1]

7.1.45a.1.1.3 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See subclause 6.10.2.4.1.2.1.1.1 of [1]

7.1.45a.1.1.4 TFCS

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

7.1.45a.1.2 Physical channel parameters

DPCH Uplink	Min spreading factor	16
	Max number of DPDCH data bits/radio frame	2400
	Puncturing Limit	1.0

7.1.45a.2 Downlink

7.1.45a.2.1 Transport channel parameters

7.1.45a.2.1.1 Transport channel parameters for Conversational / speech / DL:12.2 kbps / CS RAB

See subclause 6.10.2.4.1.4.2.1.1 of [1]

7.1.45a.2.1.2 Transport channel parameters for Interactive or background / DL:32 kbps / PS RAB

See subclause 6.10.2.4.1.23d.2.1.1 of [1]

7.1.45a.2.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See subclause 6.10.2.4.1.2.2.1.1 of [1]

7.1.45a.2.1.4 TFCS

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

7.1.45a.2.2 Physical channel parameters

DPCH Downlink	DTX position		Flexible or fixed
	Spreading factor		32
	DPCCH	Number of TFCI bits/slot	8
		Number of TPC bits/slot	4
		Number of Pilot bits/slot	8
	DPDCH	Number of data bits/slot	140
		Number of data bits/frame	2100

7.1.46 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

7.1.46.1 Uplink

See subclause 6.10.2.4.1.38d.1 of [1].

7.1.46.2 Downlink

7.1.46.2.1 Transport channel parameters

See subclause 6.10.2.4.1.38d.2.1 of [1].

7.1.46.2.2 Physical channel parameters

DPCH Downlink	DTX position		Flexible or fixed
	Spreading factor		32
	DPCCH	Number of TFCI bits/slot	8
		Number of TPC bits/slot	4
		Number of Pilot bits/slot	8
	DPDCH	Number of data bits/slot	140
		Number of data bits/frame	2100

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

This is supported in Release '99.

7.1.47 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

See subclause 6.10.2.4.1.38e of [1].

The minimum UE classes supporting this combination are UL: 64kbps, DL: 12 kbps plus support for 'Maximum number of simultaneous transport channels' = 5.

This is supported in Release '99.

7.1.48 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

7.1.48.1 Uplink

See subclause 6.10.2.4.1.38f.1 of [1].

7.1.48.2 Downlink

7.1.48.2.1 Transport channel parameters

See subclause 6.10.2.4.1.38f.2.1 of [1].

7.1.48.2.2 Physical channel parameters

DPCH Downlink	DTX position		Flexible or fixed
	Spreading factor		64
	DPCCH	Number of TFCI bits/slot	8
		Number of TPC bits/slot	4
		Number of Pilot bits/slot	8
	DPDCH	Number of data bits/slot	60
		Number of data bits/frame	900

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

This is supported in Release '99.

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

7.1.49.1 Uplink

See subclause 6.10.2.4.1.38g.1 of [1].

7.1.49.2 Downlink

7.1.49.2.1 Transport channel parameters

See subclause 6.10.2.4.1.38g.2.1 of [1].

7.1.49.2.2 Physical channel parameters

DPCH Downlink	DTX position		Flexible or fixed
	Spreading factor		64
	DPCCH	Number of TFCI bits/slot	8
		Number of TPC bits/slot	4
		Number of Pilot bits/slot	8
	DPDCH	Number of data bits/slot	60
		Number of data bits/frame	900

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

This is supported in Release '99.

7.1.50 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

7.1.50.1 Uplink

See subclause 6.10.2.4.1.38h.1 of [1].

7.1.50.2 Downlink

7.1.50.2.1 Transport channel parameters

See subclause 6.10.2.4.1.38h.2.1 of [1].

7.1.50.2.2 Physical channel parameters

DPCH Downlink	DTX position		Flexible or fixed
	Spreading factor		32
	DPCCH	Number of TFCI bits/slot	8
		Number of TPC bits/slot	4
		Number of Pilot bits/slot	8
	DPDCH	Number of data bits/slot	140
		Number of data bits/frame	2100

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

This is supported in Release '99.

7.1.51 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

7.1.51.1 Uplink

See subclause 6.10.2.4.1.38i.1 of [1].

7.1.51.2 Downlink

7.1.51.2.1 Transport channel parameters

See subclause 6.10.2.4.1.38i.2.1 of [1].

7.1.51.2.2 Physical channel parameters

DPCH Downlink	DTX position		Flexible or fixed
	Spreading factor		32
	DPCCH	Number of TFCI bits/slot	8
		Number of TPC bits/slot	4
		Number of Pilot bits/slot	8
	DPDCH	Number of data bits/slot	140
		Number of data bits/frame	2100

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

This is supported in Release '99.

7.1.52 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

7.1.52.1 Uplink

See subclause 6.10.2.4.1.38j.1 of [1].

7.1.52.2 Downlink

7.1.52.2.1 Transport channel parameters

See subclause 6.10.2.4.1.38j.2.1 of [1].

7.1.52.2.2 Physical channel parameters

DPCH Downlink	DTX position		Flexible or fixed
	Spreading factor		16
	DPCCH	Number of TFCI bits/slot	8
		Number of TPC bits/slot	8
		Number of Pilot bits/slot	16
	DPDCH	Number of data bits/slot	288
		Number of data bits/frame	4320

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

This is supported in Release '99.

7.1.53 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

7.1.53.1 Uplink

See subclause 6.10.2.4.1.39.1 of [1].

7.1.53.2 Downlink

7.1.53.2.1 Transport channel parameters

See subclause 6.10.2.4.1.39.2.1 of [1].

7.1.53.2.2 Physical channel parameters

DPCH Downlink	DTX position		Flexible or fixed
	Spreading factor		32
	DPCCH	Number of TFCI bits/slot	8
		Number of TPC bits/slot	4
		Number of Pilot bits/slot	8
	DPDCH	Number of data bits/slot	140
		Number of data bits/frame	2100

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

This is supported in Release '99.

7.1.54 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

7.1.54.1 Uplink

See subclause 6.10.2.4.1.40.1 of [1].

7.1.54.2 Downlink

See subclause 7.1.53.2.

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

This is supported in Release '99.

7.1.55 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

7.1.55.1 Uplink

See subclause 6.10.2.4.1.41.1 of [1].

7.1.55.2 Downlink

7.1.55.2.1 Transport channel parameters

See subclause 6.10.2.4.1.41.2.1 of [1].

7.1.55.2.2 Physical channel parameters

DPCH Downlink	DTX position		Flexible or fixed
	Spreading factor		16
	DPCCH	Number of TFCI bits/slot	8
		Number of TPC bits/slot	8
		Number of Pilot bits/slot	16
	DPDCH	Number of data bits/slot	288
		Number of data bits/frame	4320

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

This is supported in Release '99.

7.1.56 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

7.1.56.1 On DPCH

7.1.56.1.1 Uplink

See subclause 6.10.2.4.1.42.1 of [1].

7.1.56.1.2 Downlink

7.1.56.1.2.1 Transport channel parameters

See subclause 6.10.2.4.1.42.2.1 of [1].

7.1.56.1.2.2 Physical channel parameters

DPCH Downlink	DTX position		Flexible or fixed
	Spreading factor		8
	Number of DPDCH		1
	DPCCH	Number of TFCI bits/slot	8
		Number of TPC bits/slot	8
		Number of Pilot bits/slot	16
	DPDCH	Number of data bits/slot	608
		Number of data bits/frame	9120

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

This is supported in Release '99.

7.1.56.2 On PDSCH and DPCH

7.1.56.2.1 Uplink

See clause 6.10.2.4.1.40.1 of [1].

7.1.56.2.2 Downlink

7.1.56.2.2.1 Transport channel parameters

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

See clause 6.10.2.4.1.4.2.1.1 of [1]

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

See clause 6.10.2.4.2.1.2.1.1 of [1]

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

See clause 6.10.2.4.1.2.2.1.1. of [1]

7.1.56.2.2.1.4 TFCS

PDSCH	TFCS size	5 (alt.7)
	TFCS	256 kbps RAB = TF0, TF1, TF2, TF3, TF4 (alt. TF0, TF1, TF2, TF3, TF4, TF5, TF6)
DPCH Downlink associated with PDSCH	TFCS size	6
	TFCS	(RAB subflow#1, RAB subflow#2, RAB subflow#3, DCCH) = (TF0, TF0, TF0, TF0), (TF1, TF0, TF0, TF0), (TF2, TF1, TF1, TF0), (TF0, TF0, TF0, TF1), (TF1, TF0, TF0, TF1), (TF2, TF1, TF1, TF1)

7.1.56.2.2.2 Physical channel parameters

PDSCH	RAB or SRB, TrCh		Interactive or background / 256 kbps / PS RAB, DSCH
	DTX position		N/A (SingleTrCH)
	Minimum spreading factor		4
DPCH Downlink associated with PDSCH	RAB or SRB, TrCh		Conversational / speech / 12.2 kbps / CS RAB, DCH + 3.4 kbps SRBs for DCCH. DCH
	DTX position		Fixed
	Spreading factor		128
	DPCCH	Number of TFCI bits/slot	2
		Number of TPC bits/slot	2
		Number of Pilot bits/slot	4
	DPDCH	Number of data bits/slot	32
		Number of data bits/frame	480

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

This is supported in Release '99.

7.1.57 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

7.1.57.1 On DPCH

7.1.57.1.1 Uplink

See subclause 6.10.2.4.1.43.1 of [1].

7.1.57.1.2 Downlink

7.1.57.1.2.1 Transport channel parameters

See subclause 6.10.2.4.1.43.2.1 of [1].

7.1.57.1.2.2 Physical channel parameters

The minimum UE classes supporting this combination are UL: 64 kbps, DL: 384. The minimum UE class to support the alternative DL configuration (20ms TTI) is DL: 768kbps.

This is supported in Release '99.

7.1.57.2 On PDSCH and DPCH

See subclause 6.10.2.4.2.5 of [1].

The minimum UE classes supporting this combination are UL: 64 kbps, DL: 384 kbps plus support for PDSCH. The minimum UE class to support the alternative DL configuration (20ms TTI) is DL: 768kbps.

This is supported in Release '99.

7.1.58 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

7.1.58.1 Uplink

See subclause 6.10.2.4.2.6.1 of [1].

7.1.58.2 Downlink

7.1.58.2.1 Transport channel parameters

See subclause 6.10.2.4.1.44.2.1 of [1].

7.1.58.2.2 Physical channel parameters

DPCH Downlink	DTX position		Flexible or fixed
	Spreading factor		4
	Number of DPDCH		3
	DPCCH	Number of TFCI bits/slot	8
		Number of TPC bits/slot	8
		Number of Pilot bits/slot	16
	DPDCH	Number of data bits/slot	1248
		Number of data bits/frame	18720

The minimum UE classes supporting this combination are UL: 64 kbps, DL: 2048 kbps plus support for 'Maximum sum of number of bits of all transport blocks being received at an arbitrary time instant' = 40960 (81920 for the TTI=20ms alternative) and 'Maximum sum of number of bits of all turbo coded transport blocks being received at an arbitrary time instant' = 40960 (81920 for the TTI=20ms alternative).

This is supported in Release '99.

7.1.59 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

7.1.59.1 Uplink

See subclause 6.10.2.4.1.44.1 of [1].

7.1.59.2 Downlink

See subclause 7.1.58.2.

The minimum UE classes supporting this combination are UL: 384 kbps plus support for 'Maximum total number of transport blocks transmitted within TTIs that start at the same time' = 16, DL: 2048 kbps plus support for 'Maximum sum of number of bits of all transport blocks being received at an arbitrary time instant' = 40960 (81920 for the TTI=20ms alternative) and 'Maximum sum of number of bits of all turbo coded transport blocks being received at an arbitrary time instant' = 40960 (81920 for the TTI=20ms alternative).

This is supported in Release '99.

7.1.60 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

7.1.60.1 Uplink

See subclause 6.10.2.4.1.45.1 of [1].

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

This is supported in Release '99.

7.1.61 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

7.1.61.1 Uplink

See subclause 6.10.2.4.1.4.1 of [1].

7.1.61.2 Downlink

7.1.61.2.1 Transport channel parameters

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

See subclause 6.10.2.4.1.4.2.1.1 of [1].

7.1.61.2.1.2 Transport channel parameters for Streaming / unknown / DL:64 kbps / CS RAB

See subclause 6.10.2.4.1.18.2.1.1 of [1].

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

See subclause 6.10.2.4.1.2.2.1.1 of [1].

7.1.61.2.1.4 TFCS

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

7.1.61.2.2 Physical channel parameters

DPCH Downlink	DTX position		Flexible
	Spreading factor		32
	DPCCH	Number of TFCI bits/slot	8
		Number of TPC bits/slot	4
		Number of Pilot bits/slot	8
	DPDCH	Number of data bits/slot	140
		Number of data bits/frame	2100

The minimum UE classes supporting this combination are UL: 12 kbps plus support for 'Maximum number of simultaneous transport channels' = 5, DL: 128kbps.

This is supported in Release '99.

7.1.62 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

See subclause 6.10.2.4.1.49 of [1].

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

This is supported in Release '99.

7.1.63 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

See subclause 6.10.2.4.1.49a of [1].

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

This is supported in Release '99.

7.1.64 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

See subclause 6.10.2.4.1.50 of [1].

The minimum UE classes supporting this combination are UL: 128kbps, DL: 128kbps. The minimum UE class to support the alternative UL combination (40ms TTI) is UL: 384kbps.

This is supported in Release '99.

7.1.65 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

7.1.65.1 Uplink

See subclause 6.10.2.4.1.51.1 of [1].

7.1.65.2 Downlink

7.1.65.2.1 Transport channel parameters

See subclause 6.10.2.4.1.51.2.1 of [1].

7.1.65.2.2 Physical channel parameters

DPCH Downlink	DTX position		Flexible or fixed
	Spreading factor		16
	DPCCH	Number of TFCI bits/slot	8
		Number of TPC bits/slot	8
		Number of Pilot bits/slot	16
	DPDCH	Number of data bits/slot	288
		Number of data bits/frame	4320

The minimum UE classes supporting this combination are UL: 128kbps, DL: 128kbps. The minimum UE class to support the alternative UL combination (40ms TTI) is UL: 384kbps.

This is supported in Release '99.

7.1.66 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

7.1.66.1 Uplink

See subclause 6.10.2.4.1.51a.1 of [1].

7.1.66.2 Downlink

7.1.66.2.1 Transport channel parameters

See subclause 6.10.2.4.1.51a.2.1 of [1].

7.1.66.2.2 Physical channel parameters

DPCH Downlink	DTX position		Flexible or fixed
	Spreading factor		32
	DPCCH	Number of TFCI bits/slot	8
		Number of TPC bits/slot	4
		Number of Pilot bits/slot	8
	DPDCH	Number of data bits/slot	140
		Number of data bits/frame	2100

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

This is supported in Release '99.

7.1.67 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

7.1.67.1 Uplink

See subclause 6.10.2.4.1.51b.1 of [1].

7.1.67.2 Downlink

See subclause 7.1.65.2.

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

This is supported in Release '99.

7.1.68 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

7.1.68.1 Uplink

See subclause 6.10.2.4.1.52.1 of [1].

7.1.68.2 Downlink

7.1.68.2.1 Transport channel parameters

See subclause 6.10.2.4.1.52.2.1 of [1].

7.1.68.2.2 Physical channel parameters

DPCH Downlink	DTX position		Flexible or fixed
	Spreading factor		8
	DPCCH	Number of TFCI bits/slot	8
		Number of TPC bits/slot	8
		Number of Pilot bits/slot	16
	DPDCH	Number of data bits/slot	608
		Number of data bits/frame	9120

The minimum UE classes supporting this combination are UL: 128kbps, DL: 384kbps. The minimum UE class to support the alternative UL combination (40ms TTI) is UL: 384kbps.

This is supported in Release '99.

7.1.69 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

7.1.69.1 Uplink

See subclause 6.10.2.4.1.53.1 of [1].

7.1.69.2 Downlink

See subclause 7.1.68.2.

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

This is supported in Release '99.

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

7.1.70.1 Uplink

7.1.70.1.1 Transport channel parameters

7.1.70.1.1.1 Transport channel parameters for Interactive or background / UL:8 kbps / PS RAB + UL:8 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		8000	8000
	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	
	TTI, ms		40	
	Coding type		TC	
	CRC, bit		16	
	Max number of bits/TTI after channel coding		1080	
	Uplink: Max number of bits/radio frame before rate matching		270	
	RM attribute		135-175	

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

See subclause 6.10.2.4.1.2.1.1.1 of [1].

6.10.2.4.1.56.1.1.3 TFCS

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

7.1.70.1.2 Physical channel parameters

DPCH Uplink	Min spreading factor	64
	Max number of DPDCH data bits/radio frame	600
	Puncturing Limit	1.0

7.1.70.2 Downlink

7.1.70.2.1 Transport channel parameters

7.1.70.2.1.1 Transport channel parameters for Interactive or background / DL:8 kbps / PS RAB + DL:8 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		8000	8000
	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	
	TTI, ms		40	
	Coding type		TC	
	CRC, bit		16	
	Max number of bits/TTI after channel coding		1080	
	RM attribute		135-175	

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

See subclause 6.10.2.4.1.2.2.1.1 of [1].

7.1.70.2.1.3 TFCS

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

7.1.70.2.2 Physical channel parameters

DPCH Downlink	DTX position		Flexible or fixed
	Spreading factor		128
	DPCCH	Number of TFCI bits/slot	2
		Number of TPC bits/slot	2
		Number of Pilot bits/slot	4
	DPDCH	Number of data bits/slot	32
		Number of data bits/frame	480

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

This is supported in Release '99.

7.1.71 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

7.1.71.1 Uplink

See subclause 6.10.2.4.1.56.1 of [1].

7.1.71.2 Downlink

7.1.71.2.1 Transport channel parameters

See subclause 6.10.2.4.1.56.2.1 of [1].

7.1.71.2.2 Physical channel parameters

DPCH Downlink	DTX position		Flexible or fixed
	Spreading factor		128
	DPCCH	Number of TFCI bits/slot	2
		Number of TPC bits/slot	2
		Number of Pilot bits/slot	4
	DPDCH	Number of data bits/slot	32
		Number of data bits/frame	480

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

This is supported in Release '99.

7.1.72 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

7.1.72.1 Uplink

See subclause 6.10.2.4.1.57.1 of [1].

7.1.72.2 Downlink

7.1.72.2.1 Transport channel parameters

See subclause 6.10.2.4.1.57.2.1 of [1].

7.1.72.2.2 Physical channel parameters

DPCH Downlink	DTX position		Flexible or fixed
	Spreading factor		32
	DPCCH	Number of TFCI bits/slot	8
		Number of TPC bits/slot	4
		Number of Pilot bits/slot	8
	DPDCH	Number of data bits/slot	140
		Number of data bits/frame	2100

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

This is supported in Release '99.

7.1.73 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

7.1.73.1 Uplink

See subclause 6.10.2.4.1.58.1 of [1].

7.1.73.2 Downlink

7.1.73.2.1 Transport channel parameters

See subclause 6.10.2.4.1.58.2.1 of [1].

7.1.73.2.2 Physical channel parameters

DPCH Downlink	DTX position		Flexible or fixed
	Spreading factor		32
	DPCCH	Number of TFCI bits/slot	8
		Number of TPC bits/slot	4
		Number of Pilot bits/slot	8
	DPDCH	Number of data bits/slot	140
		Number of data bits/frame	2100

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

This is supported in Release '99.

7.1.73a 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 6.10.2.4.1.58 of [1], for the downlink,transport channel Streaming / unknown / DL:64 kbps PS RAB.

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

This is supported in Release ‘99.

7.1.73a.1 Uplink

See subclause 6.10.2.4.1.58.1 of [1]

7.1.73a.2 Downlink

7.1.73a.2.1 Transport channel parameters

7.1.73a.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
	RM attribute		125-165

7.1.73a.2.1.2 Transport channel parameters for Interactive or background / DL:8 kbps / PS RAB

See clause 6.10.2.4.1.38b.2.1.2 of [1]

7.1.73a.2.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See clause 6.10.2.4.1.2.2.1.1 of [1]

7.1.73a.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),

7.1.73a.2.2 Physical channel parameters

DPCH Downlink	DTX position		Flexible or fixed
	Spreading factor		32
	DPCCH	Number of TFCI bits/slot	8
		Number of TPC bits/slot	4
		Number of Pilot bits/slot	8
	DPDCH	Number of data bits/slot	140
		Number of data bits/frame	2100

7.1.74 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

~~See subclause 6.10.2.4.1.58a of [1].~~

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

This is supported in Release '99.

7.1.74.1 Uplink

See subclause 6.10.2.4.1.58a.1 of [1].

7.1.74.2 Downlink

7.1.74.2.1 Transport channel parameters

See subclause 6.10.2.4.1.58a.2.1 of [1].

7.1.74.2.2 Physical channel parameters

DPCH Downlink	DTX position		Flexible or fixed
	Spreading factor		16
	DPCCH	Number of TFCI bits/slot	8
		Number of TPC bits/slot	8
		Number of Pilot bits/slot	16
	DPDCH	Number of data bits/slot	288
		Number of data bits/frame	4320

7.1.75 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 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: 64kbps, DL: 64kbps.

This is supported in Release '99.

7.1.75.1 Uplink

7.1.75.1.1 Transport channel parameters

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

			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
	Uplink: Max number of bits/radio frame before rate matching		261
	RM attribute		135-175

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

See subclause 6.10.2.4.1.38b.1.1.2 of [1]

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

See subclause 6.10.2.4.1.2.1.1.1 of [1]

7.1.75.1.1.4 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)

7.1.75.1.2 Physical channel parameters

DPCH Uplink	Min spreading factor	32
	Max number of DPDCH data bits/radio frame	1200
	Puncturing Limit	1.0

7.1.75.2 Downlink

7.1.75.2.1 Transport channel parameters

7.1.75.2.1.1 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
	RM attribute		135-175

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

See subclause 6.10.2.4.1.38b.2.1.2 of [1].

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

See subclause 6.10.2.4.1.2.2.1.1 of [1]

7.1.75.2.1.4 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)

7.1.75.2.2 Physical channel parameters

DPCH Downlink	DTX position		Flexible or fixed
	Spreading factor		64
	DPCCH	Number of TFCI bits/slot	8
		Number of TPC bits/slot	4
		Number of Pilot bits/slot	8
	DPDCH	Number of data bits/slot	60
		Number of data bits/frame	900

7.1.76 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 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: 64kbps, DL: 64 kbps.

This is supported in Release '99.

7.1.76.1 Uplink

7.1.76.1.1 Transport channel parameters

7.1.76.1.1.1 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]).

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
	Uplink: Max number of bits/radio frame before rate matching		261
	RM attribute		135-175

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

See subclause 6.10.2.4.1.38b.1.1.2 of [1]

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

See subclause 6.10.2.4.1.2.1.1.1 of [1]

7.1.76.1.1.4 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)

7.1.76.1.2 Physical channel parameters

DPCH Uplink	Min spreading factor	32
	Max number of DPDCH data bits/radio frame	1200
	Puncturing Limit	1.0

7.1.76.2 Downlink

7.1.76.2.1 Transport channel parameters

7.1.76.2.1.1 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
	RM attribute		135-175

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

See subclause 6.10.2.4.1.38b.2.1.2 of [1].

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

See subclause 6.10.2.4.1.2.2.1.1 of [1]

7.1.76.2.1.4 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)

7.1.76.2.2 Physical channel parameters

DPCH Downlink	DTX position		Flexible or fixed
	Spreading factor		64
	DPCCH	Number of TFCI bits/slot	8
		Number of TPC bits/slot	4
		Number of Pilot bits/slot	8
	DPDCH	Number of data bits/slot	60
		Number of data bits/frame	900

7.1.77 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 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: 64kbps, DL: 64kbps.

This is supported in Release '99.

7.1.77.1 Uplink

7.1.77.1.1 Transport channel parameters

7.1.77.1.1.1 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
	Uplink: Max number of bits/radio frame before rate matching		519
	RM attribute		135-175

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

See subclause 6.10.2.4.1.38b.1.1.2 of [1]

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

See subclause 6.10.2.4.1.2.1.1.1 of [1]

7.1.77.1.1.4 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)

7.1.77.1.2 Physical channel parameters

DPCH Uplink	Min spreading factor	32
	Max number of DPDCH data bits/radio frame	1200
	Puncturing Limit	1.0

7.1.77.2 Downlink

7.1.77.2.1 Transport channel parameters

7.1.77.2.1.1 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
	RM attribute		135-175

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

See subclause 6.10.2.4.1. 38b.2.1.2 of [1]

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

See subclause 6.10.2.4.1.2.2.1.1 of [1]

7.1.77.2.1.4 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)

7.1.77.2.2 Physical channel parameters

DPCH Downlink	DTX position		Flexible or fixed
	Spreading factor		64
	DPCCH	Number of TFCI bits/slot	8
		Number of TPC bits/slot	4
		Number of Pilot bits/slot	8
	DPDCH	Number of data bits/slot	60
		Number of data bits/frame	900

7.1.78 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 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: 64kbps, DL: 64kbps.

This is supported in Release '99.

7.1.78.1 Uplink

7.1.78.1.1 Transport channel parameters

7.1.78.1.1.1 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
	Uplink: Max number of bits/radio frame before rate matching		519
	RM attribute		135-175

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

See subclause 6.10.2.4.1.38b.1.1.2 of [1]

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

See subclause 6.10.2.4.1.2.1.1.1 of [1]

7.1.78.1.1.4 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)

7.1.78.1.2 Physical channel parameters

DPCH Uplink	Min spreading factor	32
	Max number of DPDCH data bits/radio frame	1200
	Puncturing Limit	1.0

7.1.78.2 Downlink

7.1.78.2.1 Transport channel parameters

7.1.78.2.1.1 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
	RM attribute		135-175

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

See subclause 6.10.2.4.1.38b.2.1.2 of [1]

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

See subclause 6.10.2.4.1.2.2.1.1 of [1]

7.1.78.2.1.4 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)

7.1.78.2.2 Physical channel parameters

DPCH Downlink	DTX position		Flexible or fixed
	Spreading factor		64
	DPCCH	Number of TFCI bits/slot	8
		Number of TPC bits/slot	4
		Number of Pilot bits/slot	8
	DPDCH	Number of data bits/slot	60
		Number of data bits/frame	900

7.1.79 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

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

This is supported in Release '99.

7.1.79.1 Uplink

7.1.79.1.1 Transport channel parameters

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

See subclause 6.10.2.4.1.4.1.1.1 of [1].

7.1.79.1.1.2 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	
	Uplink: Max number of bits/radio frame before rate matching		0	
	RM attribute		130-170	

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

See subclause 6.10.2.4.1.2.1.1.1 of [1].

7.1.79.1.1.4 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)

7.1.79.1.2 Physical channel parameters

DPCH Uplink	Min spreading factor	64
	Max number of DPDCH data bits/radio frame	600
	Puncturing Limit	0.84

7.1.79.2 Downlink

7.1.79.2.1 Transport channel parameters

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

See subclause 6.10.2.4.1.4.2.1.1 of [1].

7.1.79.2.1.2 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	
	RM attribute		130-170	

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

See subclause 6.10.2.4.1.2.2.1.1 of [1].

7.1.79.2.1.4 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)

7.1.79.2.2 Physical channel parameters

DPCH Downlink	DTX position		Fixed
	Spreading factor		128
	DPCCH	Number of TFCI bits/slot	0
		Number of TPC bits/slot	2
		Number of Pilot bits/slot	4
	DPDCH	Number of data bits/slot	34
		Number of data bits/frame	510

7.1.79a 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 (L1 multiplexing) (FDD)

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

This is supported in Release '99.

7.1.79a.1 Uplink

7.1.79a.1.1 Transport channel parameters

7.1.79a.1.1.1 Transport channel parameters for Conversational / speech / UL:12.2 kbps / CS RAB

See subclause 6.10.2.4.1.4.1.1.1 of [1].

7.1.79a.1.1.2 Transport channel parameters for Interactive or background / UL:0 kbps / PS RAB

See clause 6.10.2.4.1.38a.1.1.2 of [1].

7.1.79a.1.1.3 Transport channel parameters for Interactive or background / UL:0 kbps / PS RAB

See clause 6.10.2.4.1.38a.1.1.2 of [1].

7.1.79a.1.1.4 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See clause 6.10.2.4.1.2.1.1.1 of [1].

7.1.79a.1.1.5 TFCS

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

7.1.79a.1.2 Physical channel parameters

See clause 6.10.2.4.1.38a.1.2 of [1].

7.1.79a.2 Downlink

7.1.79a.2.1 Transport channel parameters

7.1.79a.2.1.1 Transport channel parameters for Conversational / speech / DL:12.2 kbps / CS RAB

See clause 6.10.2.4.1.4.2.1.1 of [1].

7.1.79a.2.1.2 Transport channel parameters for Interactive or background / DL:0 kbps / PS RAB

See clause 6.10.2.4.1.38a.2.1.2 of [1].

7.1.79a.2.1.3 Transport channel parameters for Interactive or background / DL:0 kbps / PS RAB

See clause 6.10.2.4.1.38a.2.1.2 of [1].

7.1.79a.2.1.4 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See clause 6.10.2.4.1.2.2.1.1 of [1].

7.1.79a.2.1.5 TFCS

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

7.1.79a.2.2 Physical channel parameters

See clause 6.10.2.4.1.38a.2.2 of [1].

7.1.80 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

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

This is supported in Release '99.

7.1.80.1 Uplink

7.1.80.1.1 Transport channel parameters

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

See subclause 6.10.2.4.1.13.1.1.1 of [1].

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

See subclause 6.10.2.4.1.56.1.1.1 of [1]

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

See subclause 6.10.2.4.1.2.1.1.1 of [1].

7.1.80.1.1.4 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)

7.1.80.1.2 Physical channel parameters

DPCH Uplink	Min spreading factor	16
	Max number of DPDCH data bits/radio frame	2400
	Puncturing Limit	0.72

7.1.80.2 Downlink

7.1.80.2.1 Transport channel parameters

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

See subclause 6.10.2.4.1.13.2.1.1 of [1].

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

See subclause 6.10.2.4.1.56.2.1.1 of [1]

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

See subclause 6.10.2.4.1.2.2.1.1 of [1].

7.1.80.2.1.4 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)

7.1.80.2.2 Physical channel parameters

DPCH Downlink	DTX position		Flexible or fixed
	Spreading factor		32
	DPCCH	Number of TFCI bits/slot	8
		Number of TPC bits/slot	4
		Number of Pilot bits/slot	8
	DPDCH	Number of data bits/slot	140
		Number of data bits/frame	2100

7.1.81 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

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

This is supported in Release '99.

7.1.81.1 Uplink

7.1.81.1.1 Transport channel parameters

7.1.81.1.1.1 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
	Uplink: Max number of bits/radio frame before rate matching		267
	RM attribute		135-175

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

See subclause 6.10.2.4.1.38b.1.1.2 of [1]

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

See subclause 6.10.2.4.1.2.1.1.1 of [1]

7.1.81.1.1.4 TFCS

TFCS size	8
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)

7.1.81.1.2 Physical channel parameters

DPCH Uplink	Min spreading factor	32
	Max number of DPDCH data bits/radio frame	1200
	Puncturing Limit	1.0

7.1.81.2 Downlink

7.1.81.2.1 Transport channel parameters

7.1.81.2.1.1 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
	RM attribute		125-165

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

See subclause 6.10.2.4.1.38b.2.1.2 of [1]

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

See subclause 6.10.2.4.1.2.2.1.1 of [1]

7.1.81.2.1.4 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)

7.1.81.2.2 Physical channel parameters

DPCH Downlink	DTX position		Flexible or fixed
	Spreading factor		64
	DPCCH	Number of TFCI bits/slot	8
		Number of TPC bits/slot	4
		Number of Pilot bits/slot	8
	DPDCH	Number of data bits/slot	60
		Number of data bits/frame	900

7.1.82 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

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

This is supported in Release '99.

7.1.82.1 Uplink

7.1.82.1.1 Transport channel parameters

7.1.82.1.1.1 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
	Uplink: Max number of bits/radio frame before rate matching		267
	RM attribute		135-175

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

See subclause 6.10.2.4.1.38b.1.1.2 of [1]

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

See subclause 6.10.2.4.1.2.1.1.1 of [1]

7.1.82.1.1.4 TFCS

TFCS size	8
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)

7.1.82.1.2 Physical channel parameters

DPCH Uplink	Min spreading factor	32
	Max number of DPDCH data bits/radio frame	1200
	Puncturing Limit	1.0

7.1.82.2 Downlink

7.1.82.2.1 Transport channel parameters

7.1.82.2.1.1 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
	RM attribute		125-165

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

See subclause 6.10.2.4.1. 38b.2.1.2 of [1]

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

See subclause 6.10.2.4.1.2.2.1.1 of [1]

7.1.82.2.1.4 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)

7.1.82.2.2 Physical channel parameters

DPCH Downlink	DTX position		Flexible or fixed
	Spreading factor		32
	DPCCH	Number of TFCI bits/slot	8
		Number of TPC bits/slot	4
		Number of Pilot bits/slot	8
	DPDCH	Number of data bits/slot	140
		Number of data bits/frame	2100

7.1.83 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

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

This is supported in Release '99.

7.1.83.1 Uplink

7.1.83.1.1 Transport channel parameters

7.1.83.1.1.1 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
	Uplink: Max number of bits/radio frame before rate matching		1062
	RM attribute		135-175

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

See subclause 6.10.2.4.1.38b.1.1.2 of [1]

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

See subclause 6.10.2.4.1.2.1.1.1 of [1]

7.1.83.1.1.4 TFCS

TFCS size	12
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)

7.1.83.1.2 Physical channel parameters

DPCH Uplink	Min spreading factor	16
	Max number of DPDCH data bits/radio frame	2400
	Puncturing Limit	1.0

7.1.83.2 Downlink

7.1.83.2.1 Transport channel parameters

7.1.83.2.1.1 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
	RM attribute		125-165

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

See subclause 6.10.2.4.1. 38b.2.1.2 of [1]

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

See subclause 6.10.2.4.1.2.2.1.1 of [1]

7.1.83.2.1.4 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),

7.1.83.2.2 Physical channel parameters

DPCH Downlink	DTX position		Flexible or fixed
	Spreading factor		8
	DPCCH	Number of TFCI bits/slot	8
		Number of TPC bits/slot	8
		Number of Pilot bits/slot	16
	DPDCH	Number of data bits/slot	608
		Number of data bits/frame	9120

7.1.84 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

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

This is supported in Release '99.

7.1.84.1 Uplink

7.1.84.1.1 Transport channel parameters

7.1.84.1.1.1 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	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	
	Uplink: Max number of bits/radio frame before rate matching		537	
	RM attribute		135-175	

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

See subclause 6.10.2.4.1.2.1.1.1 of [1]

7.1.84.1.1.3 TFCS

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

7.1.84.1.2 Physical channel parameters

DPCH Uplink	Min spreading factor	32
	Max number of DPDCH data bits/radio frame	1200
	Puncturing Limit	1.0

7.1.84.2 Downlink

7.1.84.2.1 Transport channel parameters

7.1.84.2.1.1 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	
	RM attribute		135-175	

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

See subclause 6.10.2.4.1.2.2.1.1 of [1]

7.1.84.2.1.3 TFCS

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

7.1.84.2.2 Physical channel parameters

DPCH Downlink	DTX position		Flexible or fixed
	Spreading factor		128
	DPCCH	Number of TFCI bits/slot	2
		Number of TPC bits/slot	2
		Number of Pilot bits/slot	4
	DPDCH	Number of data bits/slot	32
		Number of data bits/frame	480

7.1.85 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

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

This is supported in Release '99.

7.1.85.1 Uplink

See subclause 6.10.2.4.1.57.1 of [1]

7.1.85.2 Downlink

See subclause 7.1.71.2~~6.10.2.4.1.56.2 of [1]~~

7.1.86 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

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

This is supported in Release '99.

7.1.86.1 Uplink

See subclause 6.10.2.4.1.57.1 of [1]

7.1.86.2 Downlink

7.1.86.2.1 Transport channel parameters

7.1.86.2.1.1 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	
	RM attribute		120-160	

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

See subclause 6.10.2.4.1.2.2.1.1 of [1].

7.1.86.2.1.3 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)

7.1.86.2.2 Physical channel parameters

DPCH Downlink	DTX position		Flexible or fixed
	Spreading factor		16
	DPCCH	Number of TFCI bits/slot	8
		Number of TPC bits/slot	8
		Number of Pilot bits/slot	16
	DPDCH	Number of data bits/slot	288
		Number of data bits/frame	4320

7.1.87 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

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

This is supported in Release '99.

7.1.87.1 Uplink

See subclause 6.10.2.4.1.57.1 of [1].

7.1.87.2 Downlink

7.1.87.2.1 Transport channel parameters

7.1.87.2.1.1 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	
	RM attribute		110-150	

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

See subclause 6.10.2.4.1.2.2.1.1 of [1].

7.1.87.2.1.3 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)

7.1.87.2.2 Physical channel parameters

DPCH Downlink	DTX position		Flexible or fixed
	Spreading factor		8
	DPCCH	Number of TFCI bits/slot	8
		Number of TPC bits/slot	8
		Number of Pilot bits/slot	16
	DPDCH	Number of data bits/slot	608
		Number of data bits/frame	9120

7.1.88 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

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

This is supported in Release '99.

7.1.88.1 Uplink

7.1.88.1.1 Transport channel parameters

7.1.88.1.1.1 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	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	
	Uplink: Max number of bits/radio frame before rate matching		4278	
	RM attribute		120-160	

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

See subclause 6.10.2.4.1.2.1.1.1 of [1]

7.1.88.1.1.3 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)

7.1.88.1.2 Physical channel parameters

DPCH Uplink	Min spreading factor	8
	Max number of DPDCH data bits/radio frame	4800
	Puncturing Limit	0.96

7.1.88.2 Downlink

7.1.88.2.1 Transport channel parameters

7.1.88.2.1.1 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	
	RM attribute		120-160	

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

See subclause 6.10.2.4.1.2.2.1.1 of [1].

7.1.88.2.1.3 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)

7.1.88.2.2 Physical channel parameters

DPCH Downlink	DTX position		Flexible or fixed
	Spreading factor		16
	DPCCH	Number of TFCI bits/slot	8
		Number of TPC bits/slot	8
		Number of Pilot bits/slot	16
	DPDCH	Number of data bits/slot	288
		Number of data bits/frame	4320

7.1.89 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

The minimum UE classes supporting this combination are UL: 128kbps, DL: 32kbps.

This is supported in Release '99.

7.1.89.1 Uplink

See subclause 7.1.88.1

7.1.89.2 Downlink

7.1.89.2.1 Transport channel parameters

7.1.89.2.1.1 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	
	RM attribute		135-175	

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

See subclause 6.10.2.4.1.2.2.1.1 of [1]

7.1.89.2.1.3 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)

7.1.89.2.2 Physical channel parameters

DPCH Downlink	DTX position		Flexible or fixed
	Spreading factor		64
	DPCCH	Number of TFCI bits/slot	8
		Number of TPC bits/slot	4
		Number of Pilot bits/slot	8
	DPDCH	Number of data bits/slot	60
		Number of data bits/frame	900

7.1.90 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

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

This is supported in Release '99.

7.1.90.1 Uplink

See subclause 6.10.2.4.1.58.1 of [1].

7.1.90.2 Downlink

See subclause 7.1.81.2.

7.1.91 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

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

This is supported in Release '99.

7.1.91.1 Uplink

See subclause 6.10.2.4.1.58.1 of [1].

7.1.91.2 Downlink

See subclause 7.1.82.2.

7.1.92 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.

This is supported in Release '99.

7.1.92.1 Uplink

See subclause 6.10.2.4.1.23b.1 of [1].

7.1.92.2 Downlink

See subclause 7.1.26.26.10.2.4.1.23c.2 of [1].

7.1.93 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.

This is supported in Release '99.

7.1.93.1 Uplink

See subclause 6.10.2.4.1.23b.1 of [1].

7.1.93.2 Downlink

See subclause 7.1.29.26.10.2.4.1.25.2 of [1].

7.1.94 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.

This is supported in Release '99.

7.1.94.1 Uplink

See subclause 6.10.2.4.1.23b.1 of [1].

7.1.94.2 Downlink

See subclause 7.1.31.26.10.2.4.1.27.2 of [1].

7.1.95 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, DL: 128 kbps.

This is supported in release '99.

7.1.95.1 Uplink

7.1.95.1.1 Transport channel parameters

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

See subclause 6.10.2.4.1.4.1.1.1 of [1].

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

See subclause 6.10.2.4.1.58.1.1.1 of [1].

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

See subclause 6.10.2.4.1.38b.1.1.2 of [1].

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

See subclause 6.10.2.4.1.2.1.1.1 of [1].

7.1.95.1.1.5 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)

7.1.95.1.2 Physical channel parameters

DPCH Uplink	Min spreading factor	16
	Max number of DPDCH data bits/radio frame	2400
	Puncturing Limit	1.0

7.1.95.2 Downlink

7.1.95.2.1 Transport channel parameters

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

See subclause 6.10.2.4.1.4.2.1.1 of [1]

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

See subclause 6.10.2.4.1.58a.2.1.1 of [1].

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

See subclause 6.10.2.4.1.38b.2.1.2 of [1]

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

See subclause 6.10.2.4.1.2.2.1.1 of [1].

7.1.95.2.1.5 TFCS

TFCS size	60
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,TF4,TF0,TF0), (TF1,TF0,TF0,TF4,TF0,TF0), (TF2,TF1,TF1,TF4,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,TF4,TF1,TF0), (TF1,TF0,TF0,TF4,TF1,TF0), (TF2,TF1,TF1,TF4,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,TF4,TF0,TF1), (TF1,TF0,TF0,TF4,TF0,TF1), (TF2,TF1,TF1,TF4,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,TF4,TF1,TF1), (TF1,TF0,TF0,TF4,TF1,TF1), (TF2,TF1,TF1,TF4,TF1,TF1)

7.1.95.2.2 Physical channel parameters

DPCH Downlink	DTX position		Flexible or fixed
	Spreading factor		16
	DPCCH	Number of TFCI bits/slot	8
		Number of TPC bits/slot	8
		Number of Pilot bits/slot	16
	DPDCH	Number of data bits/slot	288
		Number of data bits/frame	4320

7.1.96 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

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

This is supported in release '99.

7.1.96.1 Uplink

7.1.96.1.1 Transport channel parameters

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

See subclause 6.10.2.4.1.4.1.1.1 of [1]

7.1.96.1.1.2 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
	Uplink: Max number of bits/radio frame before rate matching		4038
	RM attribute		125-165

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

See subclause 6.10.2.4.1.38b.1.1.2 of [1].

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

See subclause 6.10.2.4.1.2.1.1.1 of [1].

7.1.96.1.1.5 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)

7.1.96.1.2 Physical channel parameters

DPCH Uplink	Min spreading factor	8
	Max number of DPDCH data bits/radio frame	4800
	Puncturing Limit	0.92

7.1.96.2 Downlink

7.1.96.2.1 Transport channel parameters

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

See subclause 6.10.2.4.1.4.2.1.1 of [1]

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

See subclause 7.1.81.2.1.1

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

See subclause 6.10.2.4.1.38b.2.1.2 of [1].

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

See subclause 6.10.2.4.1.2.2.1.1 of [1]

7.1.96.2.1.5 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)

7.1.96.2.2 Physical channel parameters

DPCH Downlink	DTX position		Flexible or fixed
	Spreading factor		64
	DPCCH	Number of TFCI bits/slot	8
		Number of TPC bits/slot	4
		Number of Pilot bits/slot	8
	DPDCH	Number of data bits/slot	60
		Number of data bits/frame	900

7.1.97 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

See subclause 6.10.2.4.1.62 of [1].

The minimum UE classes supporting this combination are UL: 12 kbps, DL: 12 kbps plus support for 'Maximum number of TFC' = 32.

This is supported in Release 5.

7.1.98 Interactive or background / UL:32 DL:64 kbps / PS RAB + Interactive or background / UL:32 DL:64 kbps / PS RAB + UL:3.4 DL: 3.4 kbps SRBs for DCCH (L1 multiplexing) (FDD)

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

This is supported in Release '99.

7.1.98.1 Uplink

7.1.98.1.1 Transport channel parameters

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

See clause 6.10.2.4.1.23.1.1.1 of [1].

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

See clause 6.10.2.4.1.23.1.1.1 of [1].

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

See clause 6.10.2.4.1.2.1.1.1 of [1].

7.1.98.1.1.4 TFCS

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

7.1.98.1.2 Physical channel parameters

DPCH Uplink	Min spreading factor	16
	Max number of DPDCH data bits/radio frame	2400
	Puncturing Limit	1

7.1.98.2 Downlink

7.1.98.2.1 Transport channel parameters

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

See clause 6.10.2.4.1.25.2.1.1 of [1].

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

See clause 6.10.2.4.1.25.2.1.1 of [1].

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

See clause 6.10.2.4.1.2.2.1.1 of [1].

7.1.98.2.1.4 TFCS

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

7.1.98.2.2 Physical channel parameters

DPCH Downlink	DTX position		Flexible or fixed
	Spreading factor		16
	DPCCH	Number of TFCI bits/slot	8
		Number of TPC bits/slot	8
		Number of Pilot bits/slot	16
	DPDCH	Number of data bits/slot	288
		Number of data bits/frame	4320

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

The minimum UE classes supporting this combination are UL: 128kbps plus support for 'Maximum total number of transport blocks transmitted within TTIs that start at the same time' = 16, DL: 64kbps.

7.1.99.1 Uplink

7.1.99.1.1 Transport channel parameters

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

See subclause 6.10.2.4.1.28.1.1.1 of [1]

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

See subclause 6.10.2.4.1.2.1.1.1. of [1]

7.1.99.1.1.3 TFCS

See subclause 6.10.2.4.1.28.1.1.3 of [1]

7.1.99.1.2 Physical channel parameters

See subclause 6.10.2.4.1.28.1.2 of [1]

7.1.99.2 Downlink

7.1.99.2.1 Transport channel parameters

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

See subclause 6.10.2.4.1.25.2.1.1 of [1]

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

See subclause 6.10.2.4.1.2.2.1.1. of [1]

7.1.99.2.1.3 TFCS

See subclause 6.10.2.4.1.25.2.1.3 of [1].

7.1.99.2.2 Physical channel parameters

DPCH Downlink	DTX position		Flexible or fixed
	Spreading factor		32
	DPCCH	Number of TFCI bits/slot	8
		Number of TPC bits/slot	4
		Number of Pilot bits/slot	8
	DPDCH	Number of data bits/slot	140
		Number of data bits/frame	2100

~~See subclause 6.10.2.4.1.25.2.2 of [1]~~

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

The minimum UE classes supporting this combination are UL: 384kbps, DL: 64kbps. The minimum UE class to support the alternative UL physical configuration 2 is UL: 384kbps plus support for 'Maximum total number of transport blocks transmitted within TTIs that start at the same time' = 32.

7.1.100.1 Uplink

7.1.100.1.1 Transport channel parameters

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

See subclause 6.10.2.4.1.34.1.1.1 of [1]

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

See subclause 6.10.2.4.1.2.1.1.1 of [1]

7.1.100.1.1.3 TFCS

See subclause 6.10.2.4.1.34.1.1.3 of [1]

7.1.100.1.2 Physical channel parameters

See subclause 6.10.2.4.1.34.1.2 of [1]

7.1.100.2 Downlink

7.1.100.2.1 Transport channel parameters

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

See subclause 6.10.2.4.1.25.2.1.1 of [1]

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

See subclause 6.10.2.4.1.2.2.1.1. of [1]

7.1.100.2.1.3 TFCS

See subclause 6.10.2.4.1.25.2.1.3 of [1].

7.1.100.2.2 Physical channel parameters

DPCH Downlink	DTX position		Flexible or fixed
	Spreading factor		32
	DPCCH	Number of TFCI bits/slot	8
		Number of TPC bits/slot	4
		Number of Pilot bits/slot	8
	DPDCH	Number of data bits/slot	140
		Number of data bits/frame	2100

~~See subclause 6.10.2.4.1.25.2.2 of [1].~~

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

The minimum UE classes supporting this combination are UL: 128kbps plus support for 'Maximum total number of transport blocks transmitted within TTIs that start at the same time' = 16, DL: 64kbps.

7.1.101.1 Uplink

7.1.101.1.1 Transport channel parameters

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

See subclause 6.10.2.4.1.4.1.1.1 of [1].

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

See subclause 6.10.2.4.1.28.1.1.1 of [1].

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

See subclause 6.10.2.4.1.2.1.1.1 of [1].

7.1.101.1.1.4 TFCS

See subclause 6.10.2.4.1.44.1.1.4 of [1]

7.1.101.1.2 Physical channel parameters

See subclause 6.10.2.4.1.44.1.2 of [1]

7.1.101.2 Downlink

7.1.101.2.1 Transport channel parameters

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

See subclause 6.10.2.4.1.4.2.1.1 of [1].

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

See subclause 6.10.2.4.1.25.2.1.1 of [1]

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

See subclause 6.10.2.4.1.2.2.1.1 of [1]

7.1.101.2.1.4 TFCS

See subclause 6.10.2.4.1.39.2.1.4 of [1].

7.1.101.2.2 Physical channel parameters

DPCH Downlink	DTX position		Flexible or fixed
	Spreading factor		32
	DPCCH	Number of TFCI bits/slot	8
		Number of TPC bits/slot	4
		Number of Pilot bits/slot	8
	DPDCH	Number of data bits/slot	140
		Number of data bits/frame	2100

~~See subclause 6.10.2.4.1.39.2.2 of [1].~~

7.1.102 Interactive or background / UL:384 DL: 128kbps / PS RAB + UL:3.4 DL:3.4 kb/s Signalling Radio Bearers for DCCH

The minimum UE classes supporting this combination are UL: 384kbps, DL: 128kbps. The minimum UE class to support the alternative UL physical configuration 2 is UL: 384kbps plus support for 'Maximum total number of transport blocks transmitted within TTIs that start at the same time' = 32.

7.1.102.1 Uplink

7.1.102.1.1 Transport channel parameters

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

See subclause 6.10.2.4.1.34.1.1.1 of [1].

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

See subclause 6.10.2.4.1.2.1.1.1 of [1].

7.1.102.1.1.3 TFCS

See subclause 6.10.2.4.1.34.1.1.3 of [1].

7.1.102.1.2 Physical channel parameters

See subclause 6.10.2.4.1.34.1.2 of [1].

7.1.102.2 Downlink

7.1.102.2.1 Transport channel parameters

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

See subclause 6.10.2.4.1.27.2.1.1 of [1].

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

See subclause 6.10.2.4.1.2.2.1.1. of [1].

7.1.102.2.1.3 TFCS

See subclause 6.10.2.4.1.27.2.1.3 of [1].

7.1.102.2.2 Physical channel parameters

DPCH Downlink	DTX position		Flexible or fixed
	Spreading factor		16
	DPCCH	Number of TFCI bits/slot	8
		Number of TPC bits/slot	8
		Number of Pilot bits/slot	16
	DPDCH	Number of data bits/slot	288
		Number of data bits/frame	4320

~~See subclause 6.10.2.4.1.27.2.2 of [1].~~

7.1.103 Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB + Interactive or background / UL:384 DL: 64kbps / PS RAB + UL:3.4 DL:3.4 kbps Signalling Radio Bearers for DCCH

The minimum UE classes supporting this combination are UL: 384kbps, DL: 64kbps. The minimum UE class to support the alternative UL physical configuration 2 is UL: 384kbps plus support for 'Maximum total number of transport blocks transmitted within TTIs that start at the same time' = 32.

7.1.103.1 Uplink

7.1.103.1.1 Transport channel parameters

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

See clause 6.10.2.4.1.4.1.1.1. of [1].

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

See subclause 6.10.2.4.1.34.1.1.1 of [1].

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

See subclause 6.10.2.4.1.2.1.1.1 of [1].

7.1.103.1.1.4 TFCS

See subclause 6.10.2.4.5.3.1.1.4 of [1].

7.1.103.1.2 Physical channel parameters

See subclause 6.10.2.4.5.3.1.2 of [1].

7.1.103.2 Downlink

7.1.103.2.1 Transport channel parameters

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

See subclause 6.10.2.4.1.4.2.1.1 of [1].

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

See subclause 6.10.2.4.1.25.2.1.1 of [1].

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

See subclause 6.10.2.4.1.2.2.1.1 of [1].

7.1.103.2.1.3 TFCS

See subclause 6.10.2.4.1.39.2.1.4 of [1].

7.1.103.2.2 Physical channel parameters

DPCH Downlink	DTX position		Flexible or fixed
	Spreading factor		32
	DPCCH	Number of TFCI bits/slot	8
		Number of TPC bits/slot	4
		Number of Pilot bits/slot	8
	DPDCH	Number of data bits/slot	140
		Number of data bits/frame	2100

~~See subclause 6.10.2.4.1.39.2.2 of [1].~~

7.1.104 Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB + Interactive or background / UL:384 DL: 128kbps / PS RAB + UL:3.4 DL:3.4 kbps Signalling Radio Bearers for DCCH

The minimum UE classes supporting this combination are UL: 384kbps, DL: 128kbps. The minimum UE class to support the alternative UL physical configuration 2 is UL: 384kbps plus support for 'Maximum total number of transport blocks transmitted within TTIs that start at the same time' = 32.

7.1.104.1 Uplink

7.1.104.1.1 Transport channel parameters

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

See subclause 6.10.2.4.1.4.1.1.1 of [1].

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

See subclause 6.10.2.4.1.34.1.1.1 of [1].

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

See subclause 6.10.2.4.1.2.1.1.1 of [1].

7.1.104.1.1.3 TFCS

See subclause 6.10.2.4.5.3.1.1.4 of [1].

7.1.104.1.2 Physical channel parameters

See subclause 6.10.2.4.5.3.1.2 of [1].

7.1.104.2 Downlink

7.1.104.2.1 Transport channel parameters

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

See subclause 6.10.2.4.1.4.2.1.1 of [1].

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

See clause 6.10.2.4.1.27.2.1.1 of [1].

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

See subclause 6.10.2.4.1.2.2.1.1. of [1].

7.1.104.2.1.4 TFCS

See subclause 6.10.2.4.1.41.2.1.4 of [1].

7.1.104.2.2 Physical channel parameters

DPCH Downlink	DTX position		Flexible or fixed
	Spreading factor		16
	DPCCH	Number of TFCI bits/slot	8
		Number of TPC bits/slot	8
		Number of Pilot bits/slot	16
	DPDCH	Number of data bits/slot	288
		Number of data bits/frame	4320

~~See subclause 6.10.2.4.1.41.2.2 of [1].~~

7.1.105 Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB + Interactive or background / UL:384 DL: 384kbps / PS RAB + UL:3.4 DL:3.4 kbps Signalling Radio Bearers for DCCH

The minimum UE classes supporting this combination are UL: 384kbps, DL: 384kbps. The minimum UE class to support the alternative UL physical configuration 2 is UL: 384kbps plus support for 'Maximum total number of transport blocks transmitted within TTIs that start at the same time' = 32.

7.1.105.1 Uplink

7.1.105.1.1 Transport channel parameters

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

See subclause 6.10.2.4.1.4.1.1.1 of [1].

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

See subclause 6.10.2.4.1.34.1.1.1 of [1].

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

See subclause 6.10.2.4.1.2.1.1.1 of [1].

7.1.105.1.1.3 TFCS

See subclause 6.10.2.4.5.3.1.1.4 of [1].

7.1.105.1.2 Physical channel parameters

See subclause 6.10.2.4.5.3.1.2 of [1].

7.1.105.2 Downlink

7.1.105.2.1 Transport channel parameters

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

See subclause 6.10.2.4.1.4.2.1.1 of [1].

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

See subclause 6.10.2.4.1.32.2.1.1 of [1].

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

See subclause 6.10.2.4.1.2.2.1.1. of [1].

7.1.105.2.1.4 TFCS

See subclause 6.10.2.4.1.43.2.1.4. of [1].

7.1.105.2.2 Physical channel parameters

DPCH Downlink	DTX position		Flexible or fixed
	Spreading factor		8
	Number of DPDCH		1
	DPCCH	Number of TFCI bits/slot	8
		Number of TPC bits/slot	8
		Number of Pilot bits/slot	16
	DPDCH	Number of data bits/slot	608
		Number of data bits/frame	9120

~~See subclause 6.10.2.4.1.43.2.2 of [1].~~

7.1.106 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

The minimum UE classes supporting this combination are UL: 12 kbps, DL: 12 kbps.

This is supported in Release 5.

7.1.106.1 Uplink

7.1.106.1.1 Transport channel parameters

7.1.106.1.1.1 Transport channel parameters for Conversational / speech / UL: (12.65 8.85 6.6) kbps / CS RAB

Higher Layer	RAB/Signalling RB		RAB subflow #1	RAB subflow #2
RLC	Logical channel type		DTCH	
	RLC mode		TM	TM
	Payload sizes, bit		40, 54, 64, 72 (alt. 0, 40, 54, 64, 72)	78, 113, 181
	Max data rate, bps		12 650	
	TrD PDU header, bit		0	
MAC	MAC header, bit		0	
	MAC multiplexing		N/A	
Layer 1	TrCH type		DCH	DCH
	TB sizes, bit		40, 54, 64, 72 (alt. 0, 40, 54, 64, 72)	78, 113, 181
	TFS	TF0, bits	0x72(alt. 1x0) (note)	0x181
		TF1, bits	1x40	1x78
		TF2 bits	1x54	1x113
		TF3, bits	1x64	1x181
		TF4, bits	1x72	N/A
	TTI, ms		20	20
	Coding type		CC 1/3	CC 1/3
	CRC, bit		12	N/A
	Max number of bits/TTI after channel coding		276	567
	Uplink: Max number of bits/radio frame before rate matching		138	284
	RM attribute		180-220	170-210
NOTE: In case of using this alternative, CRC parity bits are to be attached to RAB subflow#1 any time since number of TrBlks are 1 even if there is no data on RAB subflow#1 (see clause 4.2.1.1 in TS 25.212).				

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

See clause 6.10.2.4.1.2.1.1.1 of [1].

7.1.106.1.1.3 TFCS

TFCS size	10
TFCS	(RAB subflow#1, RAB subflow#2, DCCH)= (TF0,TF0,TF0), (TF1,TF0,TF0), (TF2,TF1,TF0), (TF3,TF2,TF0), (TF4,TF3,TF0), (TF0,TF0,TF1), (TF1,TF0,TF1), (TF2,TF1,TF1), (TF3,TF2,TF1), (TF4,TF3,TF1)

7.1.106.1.2 Physical channel parameters

DPCH Uplink	Min spreading factor	64
	Max number of DPDCH data bits/radio frame	600
	Puncturing Limit	0.84

7.1.106.2 Downlink

7.1.106.2.1 Transport channel parameters

7.1.106.2.1.1 Transport channel parameters for Conversational / speech / DL: (12.65 8.85 6.6) kbps / CS RAB

Higher Layer	RAB/Signalling RB		**RAB subflow #1**	**RAB subflow #2**
RLC	Logical channel type		DTCH	
	RLC mode		TM	TM
	Payload sizes, bit		0, 40, 54, 64, 72	78, 113, 181
	Max data rate, bps		12 650	
	TrD PDU header, bit		0	
MAC	MAC header, bit		0	
	MAC multiplexing		N/A	
Layer 1	TrCH type		DCH	DCH
	TB sizes, bit		0, 40, 54, 64, 72	78, 113, 181
	TFS (note 1)	TF0, bits	1x0 (note 2)	0x181
		TF1, bits	1x40	1x78
		TF2, bits	1x54	1x113
		TF3, bits	1x64	1x181
		TF4, bits	1x72	N/A
	TTI, ms		20	20
	Coding type		CC 1/3	CC 1/3
	CRC, bit		12	N/A
	Max number of bits/TTI after channel coding		276	567
	RM attribute		180-220	170-210

NOTE 1: The TrCH corresponding to RAB subflow #1 should be used as the guiding TrCH, (see clause 4.3 in TS 25.212).
NOTE 2: CRC parity bits are to be attached to RAB subflow#1 any time since number of TrBlks are 1 even if there is no data on RAB subflow#1 (see clause 4.2.1.1 in TS 25.212).

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

See clause 6.10.2.4.1.2.2.1.1 of [1].

7.1.106.2.1.3 TFCS

TFCS size	10
TFCS	(RAB subflow#1, RAB subflow#2, DCCH)= (TF0,TF0,TF0), (TF1,TF0,TF0), (TF2,TF1,TF0), (TF3,TF2,TF0), (TF4,TF3,TF0), (TF0,TF0,TF1), (TF1,TF0,TF1), (TF2,TF1,TF1), (TF3,TF2,TF1), (TF4,TF3,TF1)

7.1.106.2.2 Physical channel parameters

DPCH Downlink	DTX position		Fixed
	Spreading factor		128
	DPCCH	Number of TFCI bits/slot	0
		Number of TPC bits/slot	2
		Number of Pilot bits/slot	4
	DPDCH	Number of data bits/slot	34
		Number of data bits/frame	510

7.1.107 Conversational / speech / UL:(15.85 12.65 8.85 6.6) DL:(15.85 12.65 8.85 6.6) kbps / CS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

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

This is supported in Release 5.

7.1.107.1 Uplink

7.1.107.1.1 Transport channel parameters

7.1.107.1.1.1 Transport channel parameters for Conversational / speech / UL: (15.85 12.65 8.85 6.6) kbps / CS RAB

Higher Layer	RAB/Signalling RB		RAB subflow #1	RAB subflow #2
RLC	Logical channel type		DTCH	
	RLC mode		TM	TM
	Payload sizes, bit		40, 54, 64, 72 (alt. 0, 40, 54, 64, 72)	78, 113, 181, 245
	Max data rate, bps		15 850	
	TrD PDU header, bit		0	
MAC	MAC header, bit		0	
	MAC multiplexing		N/A	
Layer 1	TrCH type		DCH	DCH
	TB sizes, bit		40, 54, 64, 72 (alt. 0, 40, 54, 64, 72)	78, 113, 181, 245
	TFS	TF0, bits	0x72(alt. 1x0) (note)	0x245
		TF1, bits	1x40	1x78
		TF2 bits	1x54	1x113
		TF3, bits	1x64	1x181
		TF4, bits	1x72	1x245
	TTI, ms		20	20
	Coding type		CC 1/3	CC 1/3
	CRC, bit		12	N/A
	Max number of bits/TTI after channel coding		276	759
	Uplink: Max number of bits/radio frame before rate matching		138	380
	RM attribute		180-220	170-210
NOTE: In case of using this alternative, CRC parity bits are to be attached to RAB subflow#1 any time since number of TrBlks are 1 even if there is no data on RAB subflow#1 (see clause 4.2.1.1 in TS 25.212).				

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

See clause 6.10.2.4.1.2.1.1.1 of [1].

7.1.107.1.1.3 TFCS

TFCS size	12
TFCS	(RAB subflow#1, RAB subflow#2, DCCH)= (TF0,TF0,TF0), (TF1,TF0,TF0), (TF2,TF1,TF0), (TF3,TF2,TF0), (TF4,TF3,TF0), (TF4,TF4,TF0), (TF0,TF0,TF1), (TF1,TF0,TF1), (TF2,TF1,TF1), (TF3,TF2,TF1), (TF4,TF3,TF1), (TF4,TF4,TF1)

7.1.107.1.2 Physical channel parameters

DPCH Uplink	Min spreading factor	64
	Max number of DPDCH data bits/radio frame	600
	Puncturing Limit	0.76

7.1.107.2 Downlink

7.1.107.2.1 Transport channel parameters

7.1.107.2.1.1 Transport channel parameters for Conversational / speech / DL: (15.85 12.65 8.85 6.6) kbps / CS RAB

Higher Layer	RAB/Signalling RB		**RAB subflow #1**	**RAB subflow #2**
RLC	Logical channel type		DTCH	
	RLC mode		TM	TM
	Payload sizes, bit		0, 40, 54, 64, 72	78, 113, 181, 245
	Max data rate, bps		15 850	
	TrD PDU header, bit		0	
MAC	MAC header, bit		0	
	MAC multiplexing		N/A	
Layer 1	TrCH type		DCH	DCH
	TB sizes, bit		0, 40, 54, 64, 72	78, 113, 181, 245
	TFS (note 1)	TF0, bits	1x0 (note 2)	0x245
		TF1, bits	1x40	1x78
		TF2, bits	1x54	1x113
		TF3, bits	1x64	1x181
		TF4, bits	1x72	1x245
	TTI, ms		20	20
	Coding type		CC 1/3	CC 1/3
	CRC, bit		12	N/A
	Max number of bits/TTI after channel coding		276	759
	RM attribute		180-220	170-210

NOTE 1: The TrCH corresponding to RAB subflow #1 should be used as the guiding TrCH, (see clause 4.3 in TS 25.212).
NOTE 2: CRC parity bits are to be attached to RAB subflow#1 any time since number of TrBlks are 1 even if there is no data on RAB subflow#1 (see clause 4.2.1.1 in TS 25.212).

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

See clause 6.10.2.4.1.2.2.1.1 of [1].

7.1.107.2.1.3 TFCS

TFCS size	12
TFCS	(RAB subflow#1, RAB subflow#2, DCCH)= (TF0,TF0,TF0), (TF1,TF0,TF0), (TF2,TF1,TF0), (TF3,TF2,TF0), (TF4,TF3,TF0), (TF4,TF4,TF0), (TF0,TF0,TF1), (TF1,TF0,TF1), (TF2,TF1,TF1), (TF3,TF2,TF1), (TF4,TF3,TF1), (TF4,TF4,TF1)

7.1.107.2.2 Physical channel parameters

DPCH Downlink	DTX position		Fixed
	Spreading factor		128
	DPCCH	Number of TFCI bits/slot	0
		Number of TPC bits/slot	2
		Number of Pilot bits/slot	4
	DPDCH	Number of data bits/slot	34
		Number of data bits/frame	510

7.1.108 Conversational / speech / UL:(23.85 12.65 8.85 6.6) DL:(23.85 12.65 8.85 6.6) kbps / CS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

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

This is supported in Release 5.

7.1.108.1 Uplink

7.1.108.1.1 Transport channel parameters

7.1.108.1.1.1 Transport channel parameters for Conversational / speech / UL: (23.85 12.65 8.85 6.6) kbps / CS RAB

Higher Layer	**RAB/Signalling RB**		**RAB subflow #1**	**RAB subflow #2**
RLC	Logical channel type		DTCH	
	RLC mode		TM	TM
	Payload sizes, bit		40, 54, 64, 72 (alt. 0, 40, 54, 64, 72)	78, 113, 181, 405
	Max data rate, bps		23 850	
	TrD PDU header, bit		0	
MAC	MAC header, bit		0	
	MAC multiplexing		N/A	
Layer 1	TrCH type		DCH	DCH
	TB sizes, bit		40, 54, 64, 72 (alt. 0, 40, 54, 64, 72)	78, 113, 181, 405
	TFS	TF0, bits	0x72(alt. 1x0) (note)	0x405
		TF1, bits	1x40	1x78
		TF2 bits	1x54	1x113
		TF3, bits	1x64	1x181
		TF4, bits	1x72	1x405
	TTI, ms		20	20
	Coding type		CC 1/3	CC 1/3
	CRC, bit		12	N/A
	Max number of bits/TTI after channel coding		276	1239
	Uplink: Max number of bits/radio frame before rate matching		138	620
	RM attribute		180-220	170-210
NOTE: In case of using this alternative, CRC parity bits are to be attached to RAB subflow#1 any time since number of TrBlks are 1 even if there is no data on RAB subflow#1 (see clause 4.2.1.1 in TS 25.212).				

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

See clause 6.10.2.4.1.2.1.1.1 of [1].

7.1.108.1.1.3 TFCS

TFCS size	12
TFCS	(RAB subflow#1, RAB subflow#2, DCCH)= (TF0,TF0,TF0), (TF1,TF0,TF0), (TF2,TF1,TF0), (TF3,TF2,TF0), (TF4,TF3,TF0), (TF4,TF4,TF0), (TF0,TF0,TF1), (TF1,TF0,TF1), (TF2,TF1,TF1), (TF3,TF2,TF1), (TF4,TF3,TF1), (TF4,TF4,TF1)

7.1.108.1.2 Physical channel parameters

DPCH Uplink	Min spreading factor	32
	Max number of DPDCH data bits/radio frame	1200
	Puncturing Limit	1

7.1.108.2 Downlink

7.1.108.2.1 Transport channel parameters

7.1.108.2.1.1 Transport channel parameters for Conversational / speech / DL: (23.85 12.65 8.85 6.6) kbps / CS RAB

Higher Layer	RAB/Signalling RB		**RAB subflow #1**	**RAB subflow #2**
RLC	Logical channel type		DTCH	
	RLC mode		TM	TM
	Payload sizes, bit		0, 40, 54, 64, 72	78, 113, 181, 405
	Max data rate, bps		23 850	
	TrD PDU header, bit		0	
MAC	MAC header, bit		0	
	MAC multiplexing		N/A	
Layer 1	TrCH type		DCH	DCH
	TB sizes, bit		0, 40, 54, 64, 72	78, 113, 181, 405
	TFS (note 1)	TF0, bits	1x0 (note 2)	0x405
		TF1, bits	1x40	1x78
		TF2, bits	1x54	1x113
		TF3, bits	1x64	1x181
		TF4, bits	1x72	1x405
	TTI, ms		20	20
	Coding type		CC 1/3	CC 1/3
	CRC, bit		12	N/A
	Max number of bits/TTI after channel coding		276	1239
	RM attribute		180-220	170-210

NOTE 1: The TrCH corresponding to RAB subflow #1 should be used as the guiding TrCH, (see clause 4.3 in TS 25.212).
NOTE 2: CRC parity bits are to be attached to RAB subflow#1 any time since number of TrBlks are 1 even if there is no data on RAB subflow#1 (see clause 4.2.1.1 in TS 25.212).

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

See clause 6.10.2.4.1.2.2.1.1 of [1].

7.1.108.2.1.3 TFCS

TFCS size	12
TFCS	(RAB subflow#1, RAB subflow#2, DCCH)= (TF0,TF0,TF0), (TF1,TF0,TF0), (TF2,TF1,TF0), (TF3,TF2,TF0), (TF4,TF3,TF0), (TF4,TF4,TF0), (TF0,TF0,TF1), (TF1,TF0,TF1), (TF2,TF1,TF1), (TF3,TF2,TF1), (TF4,TF3,TF1), (TF4,TF4,TF1)

7.1.108.2.2 Physical channel parameters

DPCH Downlink	DTX position		Fixed
	Spreading factor		64
	DPCCH	Number of TFCI bits/slot	0
		Number of TPC bits/slot	4
		Number of Pilot bits/slot	8
	DPDCH	Number of data bits/slot	60
		Number of data bits/frame	900

3GPP TSG-RAN2 Meeting #47
Athens, Greece, 9th –13th May 2005

Tdoc ⌘R2-051531

CR-Form-v7

CHANGE REQUEST

⌘ **25.993** **CR** **0039** ⌘**rev** **-** ⌘ Current version: **6.9.0** ⌘

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

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

Title:	⌘	Inclusion of HSDPA RABs already defined in 34.108		
Source:	⌘	RAN WG2		
Work item code:	⌘	HSDPA-L23	***Date:*** ⌘	09/05/2005
Category:	⌘	**F**	***Release:*** ⌘	Rel-6

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: ⌘ Three RAB for HSDPA have been agreed for inclusion in 34.108 in RAN2#43 already, but the inclusion in 25.993 is still missing.

Additionally T1 introduced two additonal HSDPA RABs as above, but UL limited to 64 kbps without informing RAN2 which is in charge of 25.993.

In order to keep consistent numbering between 34.108 and 25.993 the VoIP HSDPA RAB defined as 1 is re-numbered to 13) and 1b to 1

Summary of change: ⌘ It is proposed to add following RABs for HSDPA which are already included in 34.108 to 25.993:

- Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB + Interactive or background / UL:384 DL:[Bit rate depending on the UE category] / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH.

- Conversational / unknown / UL:64 DL:64 kbps / CS RAB + Interactive or background / UL:384 DL:[Bit rate depending on the UE category] / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH.

- Interactive or background / UL:384 DL:[Bit rate depending on the UE category] / PS RAB + Interactive or background / UL:384 DL:[Bit rate depending on the UE category] / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH.

- Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB + Interactive or background / UL:64 DL:[Bit rate depending on the UE category] / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH.

		- Conversational / unknown / UL:64 DL:64 kbps / CS RAB + Interactive or background / UL:64 DL:[Bit rate depending on the UE category] / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH. **-> THIS is the same configuration as 11). 11) proposed to be deleted** **Update from presented version: Configuration 3a) is the same configuration as 9) and therefore 9) is proposed to be removed** - Interactive or background / UL:64 DL:[Bit rate depending on the UE category] / PS RAB + Interactive or background / UL:64 DL:[Bit rate depending on the UE category] / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH. Reference configuration 1 is re-numbered to 13) for consistency reasons **This CR affects the Rel-5 and HSDPA (although written on a Rel-6 version).**
Consequences if not approved:	⌘	It could be concluded that there are no reference configurations for the above mentioned HSDPA RABs defined.

Clauses affected:	⌘	6, 7			
Other specs affected:	⌘	**Y** / **N**		⌘	
			X Other core specifications		
			X Test specifications		
			X O&M Specifications		
Other comments:	⌘				

How to create CRs using this form:

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

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

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

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

<START OF MODIFIED SECTION>

6 Combinations of RABs

[TEXT PARTLY OBMITTED]

Combinations on DPCH and HS-PDSCH

~~1) Conversational / unknown / UL:42.8 DL:[max bit rate depending on UE category] kbps / PS RAB + interactive or background UL:16 DL:[max bit rate depending on UE category] kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH.~~

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

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

3) ~~Void~~Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB + Interactive or background / UL:384 DL:[Bit rate depending on the UE category] / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

3a) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB + Interactive or background / UL:64 DL:[Bit rate depending on the UE category] / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

4) ~~Void~~Conversational / unknown / UL:64 DL:64 kbps / CS RAB + Interactive or background / UL:384 DL:[Bit rate depending on the UE category] / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

4a) Conversational / unknown / UL:64 DL:64 kbps / CS RAB + Interactive or background / UL:64 DL:[Bit rate depending on the UE category] / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

5) ~~Void~~Interactive or background / UL:384 DL:[Bit rate depending on the UE category] / PS RAB + Interactive or background / UL:384 DL:[Bit rate depending on the UE category] / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH.

5a) Interactive or background / UL:64 DL:[Bit rate depending on the UE category] / PS RAB + Interactive or background / UL:64 DL:[Bit rate depending on the UE category] / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH.

6) Interactive or background / UL:128 DL:[Bit rate depending on the UE category] / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

7) 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:[Bit rate depending on the UE category] / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

8) 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:128 DL:[Bit rate depending on the UE category] / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

9) Void~~Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB + Interactive or background / UL:64 DL: [Bit rate depending on the UE category] / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH.~~

10) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB + Interactive or background / UL:128 DL: [Bit rate depending on the UE category] / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH.

11) Void~~Conversational / unknown / UL:64 DL:64 kbps / CS RAB + Interactive or background / UL:64DL:[Bit rate depending on the UE category] / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH.~~

12) Conversational / unknown / UL:64 DL:64 kbps / CS RAB + Interactive or background / UL:128 DL:[Bit rate depending on the UE category] / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH.

13) Conversational / unknown / UL:42.8 DL:[max bit rate depending on UE category] kbps / PS RAB + interactive or background UL:16 DL:[max bit rate depending on UE category] kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH.

<END OF MODIFIED SECTION>

<NEXT MODIFIED SECTION>

7.4 Combinations on DPCH and HS-PDSCH

7.4.1~~b~~ Interactive or background / UL:64 DL:[Bit rate depending on the UE category] / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

7.4.1~~b~~.1 Uplink

See subclause 6.10.2.4.1.26.1 of [1].

7.4.1~~b~~.2 Downlink

7.4.1~~b~~.2.1 Transport channel parameters

7.4.1~~b~~.2.1.1 Transport channel parameters for HS-DSCH

See subclause 6.10.2.4.5.1.2.1.1.1 of [1].

7.4.1~~b~~.2.1.2 Transport channel parameters for DCH

7.4.1~~b~~.2.1.2.1 Transport channel parameters for DL: 3.4 kbps SRBs for DCCH

See clause 6.10.2.4.1.2.2.1.1 of [1].

7.4.1~~b~~.2.1.2.2 TFCS

See clause 6.10.2.4.1.2.2.1.2 of [1].

7.4.1~~b~~.2.2 Physical channel parameters

7.4.1~~b~~.2.2.1 Physical channel parameters on DPCH

See clause 6.10.2.4.1.2.2.2 of [1].

7.4.1~~b~~.2.2.2 Physical channel parameters on HS-PDSCH

See subclause 6.10.2.4.5.1.2.2.2 of [1].

The minimum UE classes supporting this combination are UL: 64 kbps, DL on DPCH: 32 kbps plus support of HS-PDSCH, DL on HS-PDSCH: category 11.

This is supported in Release 5.

7.4.2 Interactive or background / UL:384 DL:[Bit rate depending on the UE category] / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

7.4.2.1 Uplink

See subclause 6.10.2.4.1.34.1 of [1].

7.4.2.2 Downlink

7.4.2.2.1 Transport channel parameters

7.4.2.2.1.1 Transport channel parameters for HS-DSCH

See subclause 6.10.2.4.5.1.2.1.1.1 of [1].

7.4.2.2.1.2 Transport channel parameters for DCH

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

See subclause 6.10.2.4.1.2.2.1.1 of [1].

7.4.2.2.1.2.2 TFCS

See subclause 6.10.2.4.1.2.2.1.2 of [1].

7.4.2.2.2 Physical channel parameters

7.4.2.2.2.1 Physical channel parameters on DPCH

See subclause 6.10.2.4.1.2.2.2 of [1].

7.4.2.2.2.2 Physical channel parameters on HS-PDSCH

See subclause 6.10.2.4.5.1.2.2.2 of [1].

The minimum UE classes supporting this combination are UL: 384 kbps, DL on DPCH: 32 kbps plus support of HS-PDSCH, DL on HS-PDSCH: category 11.

This is supported in Release 5.

7.4.3 ~~Void~~Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB + Interactive or background / UL:384 DL:[Bit rate depending on the UE category] / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

7.4.3.1 Uplink

See subclause 6.10.2.4.5.3.1of [1].

7.4.3.2 Downlink

See subclause 6.10.2.4.5.3.2 of [1].

The minimum UE classes supporting this combination are UL: 384 kbps, DL on DPCH: 32 kbps plus support of HS-PDSCH, DL on HS-PDSCH: category 11. The minimum UE class to support the alternative UL physical configuration 2 is UL: 384kbps plus support for 'Maximum total number of transport blocks transmitted within TTIs that start at the same time' = 32.

This is supported in Release 5.

7.4.3a Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB + Interactive or background / UL:64 DL:[Bit rate depending on the UE category] / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

7.4.3a.1 Uplink

See subclause 6.10.2.4.5.3a.1of [1].

7.4.3a.2 Downlink

See subclause 6.10.2.4.5.3a.2 of [1].

The minimum UE classes supporting this combination are UL: 64 kbps, DL on DPCH: 32 kbps plus support of HS-PDSCH, DL on HS-PDSCH: category 11.

This is supported in Release 5.

7.4.4 ~~Void~~Conversational / unknown / UL:64 DL:64 kbps / CS RAB + Interactive or background / UL:384 DL:[Bit rate depending on the UE category] / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

7.4.4.1 Uplink

See subclause 6.10.2.4.5.4.1of [1].

7.4.4.2 Downlink

See subclause 6.10.2.4.5.4.2 of [1].

The minimum UE classes supporting this combination are UL: 384 kbps, DL on DPCH: 64 kbps, DL on HS-PDSCH: category 11. The minimum UE class to support the alternative UL configuration is DL: 768 kbps plus support for 'Maximum sum of number of bits of all transport blocks being transmitted at an arbitrary time instant' = 20480 and 'Maximum sum of number of bits of all turbo coded transport blocks being transmitted at an arbitrary time instant' = 20480.

This is supported in Release 5.

7.4.4a Conversational / unknown / UL:64 DL:64 kbps / CS RAB + Interactive or background / UL:64 DL:[Bit rate depending on the UE category] / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

7.4.4a.1 Uplink

See subclause 6.10.2.4.5.4a.1of [1].

7.4.4a.2 Downlink

See subclause 6.10.2.4.5.4a.2 of [1].

The minimum UE classes supporting this combination are UL: 128kbps, DL on DPCH: 64 kbps, DL on HS-PDSCH: category 11. The minimum UE class to support the alternative UL combination (40ms TTI) is UL: 384kbps.

This is supported in Release 5.

7.4.5 ~~Void~~ Interactive or background / UL:384 DL:[Bit rate depending on the UE category] / PS RAB + Interactive or background / UL:384 DL:[Bit rate depending on the UE category] / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH.

7.4.5.1 Uplink

See subclause 6.10.2.4.5.5.1of [1].

7.4.5.2 Downlink

See subclause 6.10.2.4.5.5.2 of [1].

The minimum UE classes supporting this combination are UL: 384 kbps, DL on DPCH: 32 kbps plus support of HS-PDSCH, DL on HS-PDSCH: category 11.

This is supported in Release 5.

7.4.5a Interactive or background / UL:64 DL:[Bit rate depending on the UE category] / PS RAB + Interactive or background / UL:64 DL:[Bit rate depending on the UE category] / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH.

7.4.5a.1 Uplink

See subclause 6.10.2.4.5.5a.1of [1].

7.4.5a.2 Downlink

See subclause 6.10.2.4.5.5a.2 of [1].

The minimum UE classes supporting this combination are UL: 64 kbps, DL on DPCH: 32 kbps plus support of HS-PDSCH, DL on HS-PDSCH: category 11.

This is supported in Release 5.

7.4.6 Interactive or background / UL:128 DL:[Bit rate depending on the UE category] / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

7.4.6.1 Uplink

See subclause 6.10.2.4.1.28.1 of [1].

7.4.6.2 Downlink

7.4.6.2.1 Transport channel parameters

7.4.6.2.1.1 Transport channel parameters for HS-DSCH

See subclause 6.10.2.4.5.1.2.1.1.1 of [1].

7.4.6.2.1.2 Transport channel parameters for DCH

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

See subclause 6.10.2.4.1.2.2.1.1 of [1].

7.4.6.2.1.2.2 TFCS

See subclause 6.10.2.4.1.2.2.1.2 of [1].

7.4.6.2.2 Physical channel parameters

7.4.6.2.2.1 Physical channel parameters on DPCH

See subclause 6.10.2.4.1.2.2.2 of [1].

7.4.6.2.2.2 Physical channel parameters on HS-PDSCH

See subclause 6.10.2.4.5.1.2.2.2 of [1].

The minimum UE classes supporting this combination are UL: 128 kbps plus support for 'Maximum total number of transport blocks transmitted within TTIs that start at the same time' = 16, DL on DPCH: 32 kbps plus support of HS-PDSCH, DL on HS-PDSCH: category 11.

This is supported in Release 5.

7.4.7 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:[Bit rate depending on the UE category] / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

7.4.7.1 Uplink

See subclause 6.10.2.4.1.38i.1 of [1].

7.4.7.2 Downlink

7.4.7.2.1 Transport channel parameters

7.4.7.2.1.1 Transport channel parameters for HS-DSCH

See subclause 6.10.2.4.5.1.2.1.1.1 of [1].

7.4.7.2.1.2 Transport channel parameters for DCH

7.4.7.2.1.2.1 Transport channel parameters for Conversational / speech / DL: (12.2 7.95 5.9 4.75) kbps / CS RAB

See subclause 6.10.2.4.1.4a.2.1.1 of [1].

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

See subclause 6.10.2.4.1.2.2.1.1 of [1].

7.4.7.2.1.2.3 TFCS

See subclause 6.10.2.4.1.4a.2.1.3 of [1].

7.4.7.2.2 Physical channel parameters

7.4.7.2.2.1 Physical channel parameters on DPCH

See subclause 6.10.2.4.1.4a.2.2 of [1].

7.4.7.2.2.2 Physical channel parameters on HS-PDSCH

See subclause 6.10.2.4.5.1.2.2.2 of [1].

The minimum UE classes supporting this combination are UL: 64kbps, DL on DPCH: 32 kbps plus support of HS-PDSCH, DL on HS-PDSCH: category 11.

This is supported in Release 5.

7.4.8 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:128 DL: [Bit rate depending on the UE category] / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

7.4.8.1 Uplink

7.4.8.1.1 Transport channel parameters

7.4.8.1.1.1 Transport channel parameter for Conversational / speech / UL: (12.2 7.95 5.9 4.75) kbps / CS RAB on DCH

See subclause 6.10.2.4.1.4a.1.1.1 of [1].

7.4.8.1.1.2 Transport channel parameter for Interactive or background / UL:128 on DCH

See subclause 6.10.2.4.1.28.1.1.1 of [1].

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

See subclause 6.10.2.4.1.2.1.1.1 of [1].

7.4.8.1.1.4 TFCS

TFCS size	60
TFCS	(RAB subflow#1, RAB subflow#2, RAB subflow#3, 128 kbps RAB, DCCH)= (TF0,TF0,TF0,TF0,TF0), (TF1,TF0,TF0,TF0,TF0), (TF2,TF1,TF0,TF0,TF0), (TF3,TF2,TF0,TF0,TF0), (TF4,TF3,TF0,TF0,TF0), (TF5,TF4,TF1,TF0,TF0), (TF0,TF0,TF0,TF1,TF0), (TF1,TF0,TF0,TF1,TF0), (TF2,TF1,TF0,TF1,TF0), (TF3,TF2,TF0,TF1,TF0), (TF4,TF3,TF0,TF1,TF0), (TF5,TF4,TF1,TF1,TF0), (TF0,TF0,TF0,TF2,TF0), (TF1,TF0,TF0,TF2,TF0), (TF2,TF1,TF0,TF2,TF0), (TF3,TF2,TF0,TF2,TF0), (TF4,TF3,TF0,TF2,TF0), (TF5,TF4,TF1,TF2,TF0), (TF0,TF0,TF0,TF3,TF0), (TF1,TF0,TF0,TF3,TF0), (TF2,TF1,TF0,TF3,TF0), (TF3,TF2,TF0,TF3,TF0), (TF4,TF3,TF0,TF3,TF0), (TF5,TF4,TF1,TF3,TF0), (TF0,TF0,TF0,TF4,TF0), (TF1,TF0,TF0,TF4,TF0), (TF2,TF1,TF0,TF4,TF0), (TF3,TF2,TF0,TF4,TF0), (TF4,TF3,TF0,TF4,TF0), (TF5,TF4,TF1,TF4,TF0), (TF0,TF0,TF0,TF0,TF1), (TF1,TF0,TF0,TF0,TF1), (TF2,TF1,TF0,TF0,TF1), (TF3,TF2,TF0,TF0,TF1), (TF4,TF3,TF0,TF0,TF1), (TF5,TF4,TF1,TF0,TF1), (TF0,TF0,TF0,TF1,TF1), (TF1,TF0,TF0,TF1,TF1), (TF2,TF1,TF0,TF1,TF1), (TF3,TF2,TF0,TF1,TF1), (TF4,TF3,TF0,TF1,TF1), (TF5,TF4,TF1,TF1,TF1), (TF0,TF0,TF0,TF2,TF1), (TF1,TF0,TF0,TF2,TF1), (TF2,TF1,TF0,TF2,TF1), (TF3,TF2,TF0,TF2,TF1), (TF4,TF3,TF0,TF2,TF1), (TF5,TF4,TF1,TF2,TF1), (TF0,TF0,TF0,TF3,TF1), (TF1,TF0,TF0,TF3,TF1), (TF2,TF1,TF0,TF3,TF1), (TF3,TF2,TF0,TF3,TF1), (TF4,TF3,TF0,TF3,TF1), (TF5,TF4,TF1,TF3,TF1), (TF0,TF0,TF0,TF4,TF1), (TF1,TF0,TF0,TF4,TF1), (TF2,TF1,TF0,TF4,TF1), (TF3,TF2,TF0,TF4,TF1), (TF4,TF3,TF0,TF4,TF1), (TF5,TF4,TF1,TF4,TF1)

7.4.8.1.2 Physical channel parameters

DPCH Uplink	Min spreading factor	8
	Max number of DPDCH data bits/radio frame	4800
	Puncturing Limit	0.92

7.4.8.2 Downlink

7.4.8.2.1 Transport channel parameters

7.4.8.2.1.1 Transport channel parameters for HS-DSCH

See subclause 6.10.2.4.5.1.2.1.1.1 of [1].

7.4.8.2.1.2 Transport channel parameters for DCH

7.4.8.2.1.2.1 Transport channel parameters for Conversational / speech / DL: (12.2 7.95 5.9 4.75) kbps / CS RAB

See subclause 6.10.2.4.1.4a.2.1.1 of [1].

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

See subclause 6.10.2.4.1.2.2.1.1 of [1].

7.4.8.2.1.2.3 TFCS

See subclause 6.10.2.4.1.4a.2.1.3 of [1].

7.4.8.2.2 Physical channel parameters

7.4.8.2.2.1 Physical channel parameters on DPCH

See subclause 6.10.2.4.1.4a.2.2 of [1].

7.4.8.2.2.2 Physical channel parameters on HS-PDSCH

See subclause 6.10.2.4.5.1.2.2.2 of [1].

The minimum UE classes supporting this combination are UL: 128 kbps plus support for 'Maximum total number of transport blocks transmitted within TTIs that start at the same time' = 16 and 'Maximum number of TFC' = 64, DL on DPCH: 32 kbps plus support of HS-PDSCH, DL on HS-PDSCH: category 11.

This is supported in Release 5.

7.4.9 Void~~Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB + Interactive or background / UL:64 DL:[Bit rate depending on the UE category] / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH~~

~~7.4.9.1 Uplink~~

~~See subclause 6.10.2.4.1.40.1 of [1].~~

~~7.4.9.2 Downlink~~

~~7.4.9.2.1 Transport channel parameters~~

~~7.4.9.2.1.1 Transport channel parameters for HS-DSCH~~

~~See subclause 6.10.2.4.5.1.2.1.1.1 of [1].~~

~~7.4.9.2.1.2 Transport channel parameters for DCH~~

~~7.4.9.2.1.2.1 Transport channel parameters for Conversational / speech / DL: 12.2 kbps / CS RAB~~

~~See subclause 6.10.2.4.1.4.2.1.1 of [1].~~

~~7.4.9.2.1.2.2 Transport channel parameters for DL: 3.4 kbps SRBs for DCCH~~

~~See subclause 6.10.2.4.1.2.2.1.1 of [1].~~

~~7.4.9.2.1.2.3 TFCS~~

~~See subclause 6.10.2.4.1.4.2.1.3 of [1].~~

~~7.4.9.2.2 Physical channel parameters~~

~~7.4.9.2.2.1 Physical channel parameters on DPCH~~

~~See subclause 6.10.2.4.1.4.2.2 of [1].~~

~~7.4.9.2.2.2 Physical channel parameters on HS-PDSCH~~

~~See subclause 6.10.2.4.5.1.2.2.2 of [1].~~

~~The minimum UE classes supporting this combination are UL: 64 kbps, DL on DPCH: 32 kbps plus support of HS-PDSCH, DL on HS-PDSCH: category 11.~~

~~This is supported in Release 5.~~

7.4.10 Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB + Interactive or background / UL:128 DL: [Bit rate depending on the UE category] / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

7.4.10.1 Uplink

See subclause 6.10.2.4.1.44.1 of [1].

7.4.10.2 Downlink

7.4.10.2.1 Transport channel parameters

7.4.10.2.1.1 Transport channel parameters for HS-DSCH

See subclause 6.10.2.4.5.1.2.1.1.1 of [1].

7.4.10.2.1.2 Transport channel parameters for DCH

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

See subclause 6.10.2.4.1.4.2.1.1 of [1].

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

See subclause 6.10.2.4.1.2.2.1.1 of [1].

7.4.10.2.1.2.3 TFCS

See subclause 6.10.2.4.1.4.2.1.3 of [1].

7.4.10.2.2 Physical channel parameters

7.4.10.2.2.1 Physical channel parameters on DPCH

See subclause 6.10.2.4.1.4.2.2 of [1].

7.4.10.2.2.2 Physical channel parameters on HS-PDSCH

See subclause 6.10.2.4.5.1.2.2.2 of [1].

The minimum UE classes supporting this combination are UL: 384 kbps plus support for 'Maximum total number of transport blocks transmitted within TTIs that start at the same time' = 16, DL on DPCH: 32 kbps plus support of HS-PDSCH, DL on HS-PDSCH: category 11.

This is supported in Release 5.

7.4.11 Void~~Conversational / unknown / UL:64 DL:64 kbps / CS RAB + Interactive or background / UL:64 DL:[Bit rate depending on the UE category] / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH~~

~~7.4.11.1 Uplink~~

~~See subclause 6.10.2.4.1.52.1 of [1].~~

~~7.4.11.2 Downlink~~

~~7.4.11.2.1 Transport channel parameters~~

~~7.4.11.2.1.1 Transport channel parameters for HS-DSCH~~

~~See subclause 6.10.2.4.5.1.2.1.1.1 of [1].~~

~~7.4.11.2.1.2 Transport channel parameters for DCH~~

~~7.4.11.2.1.2.1 Transport channel parameters for Conversational / unknown / DL:64 kbps / CS RAB~~

~~See subclause 6.10.2.4.1.13.2.1.1 of [1].~~

~~7.4.11.2.1.2.2 Transport channel parameters for DL: 3.4 kbps SRBs for DCCH~~

~~See subclause 6.10.2.4.1.2.2.1.1 of [1].~~

~~7.4.11.2.1.2.3 TFCS~~

~~See subclause 6.10.2.4.1.13.2.1.3 of [1].~~

~~7.4.11.2.2 Physical channel parameters~~

~~7.4.11.2.2.1 Physical channel parameters on DPCH~~

~~See subclause 6.10.2.4.1.13.2.2 of [1].~~

~~7.4.11.2.2.2 Physical channel parameters on HS-PDSCH~~

~~See subclause 6.10.2.4.5.1.2.2.2 of [1].~~

~~The minimum UE classes supporting this combination are UL: 128kbps, DL on DPCH: 64 kbps, DL on HS-PDSCH: category 11. The minimum UE class to support the alternative UL combination (40ms TTI) is UL: 384kbps.~~

~~This is supported in Release 5.~~

7.4.12 Conversational / unknown / UL:64 DL:64 kbps / CS RAB + Interactive or background / UL:128 DL:[Bit rate depending on the UE category] / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH.

7.4.12.1 Uplink

See subclause 6.10.2.4.1.53.1 of [1].

7.4.12.2 Downlink

7.4.12.2.1 Transport channel parameters

7.4.12.2.1.1 Transport channel parameters for HS-DSCH

See subclause 6.10.2.4.5.1.2.1.1.1 of [1].

7.4.12.2.1.2 Transport channel parameters for DCH

7.4.12.2.1.2.1 Transport channel parameters for Conversational / speech / DL: 64 kbps / CS RAB

See subclause 6.10.2.4.1.13.2.1.1 of [1].

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

See subclause 6.10.2.4.1.2.2.1.1 of [1].

7.4.12.2.1.2.3 TFCS

See subclause 6.10.2.4.1.13.2.1.3 of [1].

7.4.12.2.2 Physical channel parameters

7.4.12.2.2.1 Physical channel parameters on DPCH

See subclause 6.10.2.4.1.13.2.2 of [1].

7.4.12.2.2.2 Physical channel parameters on HS-PDSCH

See subclause 6.10.2.4.5.1.2.2.2 of [1].

The minimum UE classes supporting this combination are UL: 384kbps, DL on DPCH: 64 kbps, DL on HS-PDSCH: category 11.

This is supported in Release 5.

7.4.13 Conversational / unknown / UL:42.8 kbps DL:[max bit rate depending on UE category] / PS RAB + interactive / background UL: 16 kbps DL:[max bit rate depending on UE category] / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH.

This is supported in Release 5.

7.4.13.1 Uplink

See subclause 6.10.2.4.1.60.1 of [1]

7.4.13.2 Downlink

7.4.13.2.1 Transport channel parameters

7.4.13.2.1.1 Transport channel parameters for HS-DSCH

7.4.13.2.1.1.1 MAC-d flow parameters for conversational / unknown DL:[max bit rate depending on UE category] / PS RAB

Higher Layer	RAB/Signalling RB	**RAB**
RLC	Logical channel type	DTCH
	RLC mode	UM
	Payload sizes, bit	920, 304, 96
	Max data rate, bps	depends on UE category NOTE1
	UMD PDU header, bit	8
MAC	MAC-d header, bit	0
	MAC multiplexing	N/A
	MAC-d PDU size, bit	928, 312, 104
	MAC-hs header fixed part, bit	21
Layer 1	TrCH type	HS-DSCH
	TTI	2 ms
	Coding type	TC
	CRC, bit	24

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

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

See subclause 6.10.2.4.5.1.2.1.1.1 of [1].

7.4.13.2.1.2 Transport channel parameters for DCH

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

See subclause 6.10.2.4.1.2.2.1.1 of [1].

7.4.13.2.1.3 TFCS

See subclause 6.10.2.4.1.2.2.1.2 of [1].

7.4.13.2.2 Physical channel parameters

7.4.13.2.2.1 Physical channel parameters on DPCH

See subclause 6.10.2.4.1.2.2.2 in [1].

7.4.13.2.2.2 Physical channel parameters on HS-PDSCH

See subclause 6.10.2.4.5.2.2.2 in [1].

The minimum UE classes supporting this combination are UL: 64 kbps, DL on DPCH: 32 kbps plus support of HS-PDSCH, DL on HS-PDSCH: category 11.

<END OF MODIFIED SECTION>

3GPP TSG-RAN Meeting #46bis
Beijing, China, 4th – 8th April 2005

Tdoc ⌘ R2-051187

CR-Form-v7.1

CHANGE REQUEST

⌘ **25.993** **CR** **0041** ⌘ **rev** **-** ⌘ Current version: **6.9.0** ⌘

*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:	⌘	Introduction of Streaming RABs over HSDPA
Source:	⌘	RAN WG2
Work item code:	⌘	HSDPA-L23
Date:	⌘	04/04/2005
Category:	⌘	**F**
Release:	⌘	Rel-6

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:
Ph2 *(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)*
Rel-7 *(Release 7)*

Reason for change:	⌘	New HSDPA RAB configurations for streaming are needed to ensure that the most commonly used configurations in real networks will be tested in the UE conformance specifications.
Summary of change:	⌘	Addition of following bearer combinations: Streaming / unknown / UL:16 DL:128 kbps / PS RAB + Interactive or background / UL:128 DL: [max bit rate depending on UE category] / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH Streaming / unknown / UL:64 DL:512 kbps / PS RAB + Interactive or background / UL:128 DL: [max bit rate depending on UE category] / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH Conversational / speech / UL:(12.2 7.95 5.9 4.75) DL:(12.2 7.95 5.9 4.75) kbps / CS RAB + Streaming / unknown / UL:16 DL:128 kbps / PS RAB + Interactive or background / UL:128 DL: [max bit rate depending on UE category] / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH Conversational / speech / UL:(12.2 7.95 5.9 4.75) DL:(12.2 7.95 5.9 4.75) kbps / CS RAB + Streaming / unknown / UL:128 DL:16 kbps / PS RAB + Interactive or background / UL:128 DL: [max bit rate depending on UE category] / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH Streaming / unknown / UL:64 DL:384 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

		This CR affects the Rel-5 (although written on a Rel-6 version).
Consequences if not approved:	⌘	No 3GPP approved configurations for typical HSDPA streaming bearer configurations in the specs.

Clauses affected:	⌘	5, 6, 7			
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.

5 List of RABs and SRBs

The following table provides examples of Radio Access Bearers (RABs) which can be realised by Radio Bearers (RBs) as defined in clauses 7 and 8. The data rate given for each RAB is the maximum data rate that can be supported by that RAB.

The mapping between Radio Access Bearer and Radio Bearer is internal to UTRAN Radio Resource Management and not standardised. Based on certain Radio Access Bearer attributes, resource utilisation or radio conditions, different Radio Bearers can fulfill the Radio Access Bearer requirements.

Table 5.1: Examples of Radio Access Bearers (RABs).

#	Traffic class [2]	SSD	Max. rate, kbps	CS/PS
1	Conversational	Speech	UL:12.2 DL:12.2	CS
2	Conversational	Speech	UL:10.2 DL:10.2	CS
3	Conversational	Speech	UL:7.95 DL:7.95	CS
4	Conversational	Speech	UL:7.4 DL:7.4	CS
5	Conversational	Speech	UL:6.7 DL:6.7	CS
6	Conversational	Speech	UL:5.9 DL:5.9	CS
7	Conversational	Speech	UL:5.15 DL:5.15	CS
8	Conversational	Speech	UL:4.75 DL:4.75	CS
9	Conversational	Unknown	UL:28.8 DL:28.8	CS
10	Conversational	Unknown	UL:64 DL:64	CS
11	Conversational	Unknown	UL:32 DL:32	CS
12	Conversational	Unknown	UL:8 DL:8	PS
13	Conversational	Unknown	UL:16 DL:16	PS
14	Streaming	Unknown	UL:14.4 DL:14.4	CS
15	Streaming	Unknown	UL:28.8 DL:28.8	CS
16	Streaming	Unknown	UL:57.6 DL:57.6	CS
17	Streaming	Unknown	UL:0 DL:64	CS
18	Streaming	Unknown	UL:16 DL:64	PS
19	Streaming	Unknown	UL:64 DL:0	CS
20	Streaming	Unknown	UL:8 DL:16	PS
21	Streaming	Unknown	UL:8 DL:32	PS
22	Streaming	Unknown	UL:16 DL:64	PS
23	Streaming	Unknown	UL:32 DL:256	PS
24	Void			
25	Streaming	Unknown	UL:16 DL:128	PS
26	Void			
27	Void			
28	Interactive or Background	N/A	UL:32 DL:8	PS
29	Interactive or Background	N/A	UL:8 DL:8	PS
30	Interactive or Background	N/A	UL:16 DL:16	PS
31	Interactive or Background	N/A	UL:32 DL:32	PS
32	Interactive or Background	N/A	UL:64 DL:8	PS
33	Interactive or Background	N/A	UL:32 DL:64	PS
34	Interactive or Background	N/A	UL:64 DL:64	PS
35	Interactive or Background	N/A	UL:64 DL:128	PS
36	Interactive or Background	N/A	UL:128 DL:128	PS
37	Interactive or Background	N/A	UL:64 DL:384	PS
38	Interactive or Background	N/A	UL:128 DL:384	PS
39	Interactive or Background	N/A	UL:384 DL:384	PS
40	Interactive or Background	N/A	UL:64 DL:2048	PS
41	Interactive or Background	N/A	UL:128 DL:2048	PS
42	Interactive or Background	N/A	UL:384 DL:2048	PS
43	Interactive or Background	N/A	UL:64 DL:256	PS
44	Interactive or Background	N/A	UL:0 DL:32	PS
45	Interactive or Background	N/A	UL:32 DL: 0	PS
46	Interactive or Background	N/A	UL:0 DL:0	PS
47	Interactive or Background	N/A	UL:64 DL:144	PS
48	Interactive or Background	N/A	UL:144 DL:144	PS
49	Interactive or Background	N/A	UL:128 DL:32	PS
50	Streaming	Unknown	UL:16 DL:16	PS
51	Streaming	Unknown	UL:16 DL:32	PS
52	Interactive or Background	N/A	UL:16 DL:32	PS
53	Interactive or Background	N/A	UL:16 DL:64	PS
54	Interactive or Background	N/A	UL:16 DL:128	PS
55	Streaming	Unknown	UL:128 DL:16	PS
56	Conversational	Speech	UL:(12.65 8.85 6.6) DL:(12.65 8.85 6.6)	CS
57	Conversational	Unknown	UL:42.8 DL:42.8	PS
58	Interactive or Background	N/A	UL:128 DL:64	PS

59	Interactive or Background	N/A	UL:384 DL:64	PS
60	Interactive or Background	N/A	UL:384 DL:128	PS
61	Streaming	Unknown	UL:64 DL:384	PS
62	Streaming	Unknown	UL:64 DL:512	PS

Table 5.2 provides examples of Signalling Radio Bearers (SRBs) which can use configurations as defined in clauses 7 and 8.

Table 5.2: Signalling Radio Bearers (SRBs)

#	Maximum rate, kbps	Logical channel	PhyCh onto which SRBs are mapped
1	UL:1.7 DL:1.7	DCCH	DPCH
2	UL:3.4 DL:3.4	DCCH	DPCH
3	UL:13.6 DL:13.6	DCCH	DPCH
4	DL:27.2 (alt. 40.8)	DCCH	SCCPCH
5	UL:16.6	CCCH	PRACH
6	DL:30.4 (alt. 45.6)	CCCH	SCCPCH
7	DL:33.2 (alt. 49.8)	BCCH:	SCCPCH
8	DL:24 (alt. 6.4)	PCCH	SCCPCH
9	UL:16.8 (TDD)	SHCCH	PRACH
10	UL:16.8 (TDD)	SHCCH	PRACH or PUSCH
11	DL:16 (TDD)	SHCCH	SCCPCH
12	DL:16 (TDD)	SHCCH	SCCPCH or PUSCH
13	DL: 0.15	DCCH	DPCH

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, RLC PDU size 320, alt. 640)
+ 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

79a) 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 (L1 multiplexing) (FDD)

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

98) Interactive or background / UL:32 DL:64 kbps / PS RAB
+ Interactive or background / UL:32 DL:64 kbps / PS RAB
+ UL:3.4 DL: 3.4 kbps SRBs for DCCH (L1 multiplexing) (FDD)

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

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

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

102) Interactive or background / UL:384 DL: 128kbps / PS RAB + UL:3.4 DL:3.4 kb/s Signalling Radio Bearers for DCCH

103) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB + Interactive or background / UL:384 DL: 64kbps / PS RAB + UL:3.4 DL:3.4 kbps Signalling Radio Bearers for DCCH

104) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB + Interactive or background / UL:384 DL: 128kbps / PS RAB + UL:3.4 DL:3.4 kbps Signalling Radio Bearers for DCCH

105) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB + Interactive or background / UL:384 DL: 384kbps / PS RAB + UL:3.4 DL:3.4 kbps Signalling Radio Bearers for DCCH

106) 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

107) Conversational / speech / UL:(15.85 12.65 8.85 6.6) DL:(15.85 12.65 8.85 6.6) kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH

108) Conversational / speech / UL:(23.85 12.65 8.85 6.6) DL:(23.85 12.65 8.85 6.6) kbps / CS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH

Combinations on SCCPCH

1) Stand-alone 24 kbps SRB for PCCH.

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

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

4) 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

Combinations on DPCH and HS-PDSCH

1) Conversational / unknown / UL:42.8 DL:[max bit rate depending on UE category] kbps / PS RAB
+ interactive or background UL:16 DL:[max bit rate depending on UE category] kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH.

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

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

3) Void

4) Void

5) Void

6) Interactive or background / UL:128 DL:[Bit rate depending on the UE category] / PS RAB
+ UL:3.4 DL:3.4 kbps SRBs for DCCH

7) 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:[Bit rate depending on the UE category] / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

8) 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:128 DL:[Bit rate depending on the UE category] / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

9) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB + Interactive or background / UL:64 DL: [Bit rate depending on the UE category] / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH.

10) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB + Interactive or background / UL:128 DL: [Bit rate depending on the UE category] / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH.

11) Conversational / unknown / UL:64 DL:64 kbps / CS RAB + Interactive or background / UL:64DL:[Bit rate depending on the UE category] / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH.

12) Conversational / unknown / UL:64 DL:64 kbps / CS RAB + Interactive or background / UL:128 DL:[Bit rate depending on the UE category] / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH.

13) Streaming / unknown / UL:16 DL:128 kbps / PS RAB + Interactive or background / UL:128 DL:[Bit rate depending on the UE category] / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

14) Streaming / unknown / UL:64 DL:512 kbps / PS RAB + Interactive or background / UL:128 DL:[Bit rate depending on the UE category] / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

15) Conversational / speech / UL:(12.2 7.95 5.9 4.75) DL:(12.2 7.95 5.9 4.75) kbps / CS RAB + Streaming / unknown / UL:16 DL:128 kbps / PS RAB + Interactive or background / UL:128 DL:[Bit rate depending on the UE category] / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

16) Conversational / speech / UL:(12.2 7.95 5.9 4.75) DL:(12.2 7.95 5.9 4.75) kbps / CS RAB + Streaming / unknown / UL:128 DL:16 kbps / PS RAB + Interactive or background / UL:128 DL:[Bit rate depending on the UE category] / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

17) Streaming / unknown / UL:64 DL:384 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

< TEXT OMITTED>

7.4.13 Streaming / unknown / UL:16 DL: [max bit rate depending on UE category] / PS RAB + Interactive or background / UL:128 DL:[max bit rate depending on UE category] / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH.

7.4.13.1 Uplink

7.4.13.1.1 Transport channel parameters

7.4.13.1.1.1 Transport channel parameters for Streaming / unknown / UL:16 kbps / PS RAB

See subclause 6.10.2.4.1.58.1.1.1 of [1].

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

See subclause 6.10.2.4.1.28.1.1.1 of [1].

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

See subclause 6.10.2.4.1.2.1.1.1of [1].

7.4.13.1.1.4 TFCS

TFCS size	20
TFCS	(16 kbps RAB, 128 kbps RAB, DCCH)= (TF0, TF0, TF0), (TF1, TF0, TF0), (TF0, TF1, TF0), (TF1, TF1, TF0), (TF0, TF2, TF0), (TF1, TF2, TF0), (TF0, TF3, TF0), (TF1, TF3, TF0), (TF0, TF4, TF0), (TF1, TF4, TF0), (TF0, TF0, TF1), (TF1, TF0, TF1), (TF0, TF1, TF1), (TF1, TF1, TF1), (TF0, TF2, TF1), (TF1, TF2, TF1), (TF0, TF3, TF1), (TF1, TF3, TF1), (TF0, TF4, TF1), (TF1, TF4, TF1)

7.4.13.1.2 Physical channel parameters

DPCH Uplink	Min spreading factor	8
	Max number of DPDCH data bits/radio frame	4800
	Puncturing Limit	0.8

7.4.13.2 Downlink

7.4.13.2.1 Transport channel parameters

7.4.13.2.1.1 Transport channel parameters for HS-DSCH

7.4.13.2.1.1.1 MAC-d flow parameters for Streaming / unknown / DL: [max bit rate depending on UE category] / PS RAB

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

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

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

See subclause 6.10.2.4.5.1.2.1.1.1 of [1].

7.4.13.2.1.2 Transport channel parameters for DCH

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

See subclause 6.10.2.4.1.2.2.1.1 of [1].

7.4.13.2.1.2.2 TFCS

See subclause 6.10.2.4.1.2.2.1.2 of [1].

7.4.13.2.2 Physical channel parameters

7.4.13.2.2.1 Physical channel parameters on DPCH

See subclause 6.10.2.4.1.2.2.2 of [1].

7.4.13.2.2.2 Physical channel parameters on HS-PDSCH

See subclause 6.10.2.4.5.1.2.2.2 of [1].

The minimum UE classes supporting this combination are UL: 64kbps plus support for 'Maximum number of DPDCH bits transmitted per 10 ms' = 4800 and ' Maximum total number of transport blocks transmitted within TTIs that start at the same time ' = 16, DL on DPCH: 32 kbps plus support for HS-PDSCH and 'Maximum number of AM entities' = 5, DL on HS-PDSCH: category 11.

This is supported in Release 5.

7.4.14 Streaming / unknown / UL:64 DL: [max bit rate depending on UE category] / PS RAB + Interactive or background / UL:128 DL: [max bit rate depending on UE category] / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH.

7.4.14.1 Uplink

7.4.14.1.1 Transport channel parameters

7.4.14.1.1.1 Transport channel parameters for Streaming / unknown / UL: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
	Uplink: Max number of bits/radio frame before rate matching		2019
	RM attribute		125-165

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

See subclause 6.10.2.4.1.28.1.1.1 of [1].

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

See subclause 6.10.2.4.1.2.1.1.1of [1].

7.4.14.1.1.4 TFCS

TFCS size	50
TFCS	(64 kbps RAB, 128 kbps RAB, DCCH)= (TF0, TF0, TF0), (TF1, TF0, TF0), (TF2, TF0, TF0), (TF3, TF0, TF0), (TF4, TF0, TF0), (TF0, TF1, TF0), (TF1, TF1, TF0), (TF2, TF1, TF0), (TF3, TF1, TF0), (TF4, TF1, TF0), (TF0, TF2, TF0), (TF1, TF2, TF0), (TF2, TF2, TF0), (TF3, TF2, TF0), (TF4, TF2, TF0), (TF0, TF3, TF0), (TF1, TF3, TF0), (TF2, TF3, TF0), (TF3, TF3, TF0), (TF4, TF3, TF0), (TF0, TF4, TF0), (TF1, TF4, TF0), (TF2, TF4, TF0), (TF3, TF4, TF0), (TF4, TF4, TF0), (TF0, TF0, TF1), (TF1, TF0, TF1), (TF2, TF0, TF1), (TF3, TF0, TF1), (TF4, TF0, TF1), (TF0, TF1, TF1), (TF1, TF1, TF1), (TF2, TF1, TF1), (TF3, TF1, TF1), (TF4, TF1, TF1), (TF0, TF2, TF1), (TF1, TF2, TF1), (TF2, TF2, TF1), (TF3, TF2, TF1), (TF4, TF2, TF1), (TF0, TF3, TF1), (TF1, TF3, TF1), (TF2, TF3, TF1), (TF3, TF3, TF1), (TF4, TF3, TF1), (TF0, TF4, TF1), (TF1, TF4, TF1), (TF2, TF4, TF1), (TF3, TF4, TF1), (TF4, TF4, TF1)

7.4.14.1.2 Physical channel parameters

DPCH Uplink	Min spreading factor	4
	Max number of DPDCH data bits/radio frame	9600
	Puncturing Limit	1

7.4.14.2 Downlink

7.4.14.2.1 Transport channel parameters

7.4.14.2.1.1 Transport channel parameters for HS-DSCH

7.4.14.2.1.1.1 MAC-d flow parameters for Streaming / unknown / DL: [max bit rate depending on UE category] / PS RAB

See subclause 7.4.13.2.1.1.1

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

See subclause 6.10.2.4.5.1.2.1.1.1 of [1].

7.4.14.2.1.2 Transport channel parameters for DCH

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

See subclause 6.10.2.4.1.2.2.1.1 of [1].

7.4.14.2.1.2.2 TFCS

See subclause 6.10.2.4.1.2.2.1.2 of [1].

7.4.14.2.2 Physical channel parameters

7.4.14.2.2.1 Physical channel parameters on DPCH

See subclause 6.10.2.4.1.2.2.2 of [1].

7.4.14.2.2.2 Physical channel parameters on HS-PDSCH

See subclause 6.10.2.4.5.1.2.2.2 of [1].

Note that the streaming RAB is not supported by all number of processes for UE category 1 and 11.

The minimum UE classes supporting this combination are UL: 384kbps, DL on DPCH: 64 kbps plus support for 'Maximum number of AM entities' = 5 and ' Total RLC AM buffer size' = 50, DL on HS-PDSCH: category 11.

This is supported in Release 5.

7.4.15 Conversational / speech / UL:(12.2 7.95 5.9 4.75) DL:(12.2 7.95 5.9 4.75) kbps / CS RAB + Streaming / unknown / UL:16 DL: [max bit rate depending on UE category] / PS RAB + Interactive or background / UL:128 DL: [max bit rate depending on UE category] / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH.

7.4.15.1 Uplink

7.4.15.1.1 Transport channel parameters

7.4.15.1.1.1 Transport channel parameters for Conversational / speech / UL:(12.2 7.95 5.9 4.75) kbps / CS RAB

See subclause 6.10.2.4.1.4a.1.1.1 of [1].

7.4.15.1.1.2 Transport channel parameters for Streaming / unknown / UL:16 kbps / PS RAB

See subclause 6.10.2.4.1.58.1.1.1 of [1].

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

See subclause 6.10.2.4.1.28.1.1.1 of [1].

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

See subclause 6.10.2.4.1.2.1.1.1of [1].

7.4.15.1.1.5 TFCS

TFCS size	120
TFCS	(RAB subflow#1, RAB subflow#2, RAB subflow#3, 16 kbps RAB, 128 kbps RAB, DCCH)= (TF0,TF0,TF0,TF0, TF0, TF0), (TF1,TF0,TF0, TF0, TF0, TF0), (TF2,TF1,TF0, TF0, TF0, TF0), (TF3,TF2,TF0, TF0, TF0, TF0), (TF4,TF3,TF0, TF0, TF0, TF0), (TF5,TF4,TF1, TF0, TF0, TF0), (TF0,TF0,TF0,TF1, TF0, TF0), (TF1,TF0,TF0, TF1, TF0, TF0), (TF2,TF1,TF0, TF1, TF0, TF0), (TF3,TF2,TF0, TF1, TF0, TF0), (TF4,TF3,TF0, TF1, TF0, TF0), (TF5,TF4,TF1, TF1, TF0, TF0), (TF0,TF0,TF0,TF0, TF1, TF0), (TF1,TF0,TF0, TF0, TF1, TF0), (TF2,TF1,TF0, TF0, TF1, TF0), (TF3,TF2,TF0, TF0, TF1, TF0), (TF4,TF3,TF0, TF0, TF1, TF0), (TF5,TF4,TF1, TF0, TF1, TF0), (TF0,TF0,TF0,TF1, TF1, TF0), (TF1,TF0,TF0, TF1, TF1, TF0), (TF2,TF1,TF0, TF1, TF1, TF0), (TF3,TF2,TF0, TF1, TF1, TF0), (TF4,TF3,TF0, TF1, TF1, TF0), (TF5,TF4,TF1, TF1, TF1, TF0), (TF0,TF0,TF0,TF0, TF2, TF0), (TF1,TF0,TF0, TF0, TF2, TF0), (TF2,TF1,TF0, TF0, TF2, TF0), (TF3,TF2,TF0, TF0, TF2, TF0), (TF4,TF3,TF0, TF0, TF2, TF0), (TF5,TF4,TF1, TF0, TF2, TF0), (TF0,TF0,TF0,TF1, TF2, TF0), (TF1,TF0,TF0, TF1, TF2, TF0), (TF2,TF1,TF0, TF1, TF2, TF0), (TF3,TF2,TF0, TF1, TF2, TF0), (TF4,TF3,TF0, TF1, TF2, TF0), (TF5,TF4,TF1, TF1, TF2, TF0), (TF0,TF0,TF0,TF0, TF3, TF0), (TF1,TF0,TF0, TF0, TF3, TF0), (TF2,TF1,TF0, TF0, TF3, TF0), (TF3,TF2,TF0, TF0, TF3, TF0), (TF4,TF3,TF0, TF0, TF3, TF0), (TF5,TF4,TF1, TF0, TF3, TF0), (TF0,TF0,TF0,TF1, TF3, TF0), (TF1,TF0,TF0, TF1, TF3, TF0), (TF2,TF1,TF0, TF1, TF3, TF0), (TF3,TF2,TF0, TF1, TF3, TF0), (TF4,TF3,TF0, TF1, TF3, TF0), (TF5,TF4,TF1, TF1, TF3, TF0), (TF0,TF0,TF0,TF0, TF4, TF0), (TF1,TF0,TF0, TF0, TF4, TF0), (TF2,TF1,TF0, TF0, TF4, TF0), (TF3,TF2,TF0, TF0, TF4, TF0), (TF4,TF3,TF0, TF0, TF4, TF0), (TF5,TF4,TF1, TF0, TF4, TF0), (TF0,TF0,TF0,TF1, TF4, TF0), (TF1,TF0,TF0, TF1, TF4, TF0), (TF2,TF1,TF0, TF1, TF4, TF0), (TF3,TF2,TF0, TF1, TF4, TF0), (TF4,TF3,TF0, TF1, TF4, TF0), (TF5,TF4,TF1, TF1, TF4, TF0), (TF0,TF0,TF0,TF0, TF0, TF1), (TF1,TF0,TF0, TF0, TF0, TF1), (TF2,TF1,TF0, TF0, TF0, TF1), (TF3,TF2,TF0, TF0, TF0, TF1), (TF4,TF3,TF0, TF0, TF0, TF1), (TF5,TF4,TF1, TF0, TF0, TF1), (TF0,TF0,TF0,TF1, TF0, TF1), (TF1,TF0,TF0, TF1, TF0, TF1), (TF2,TF1,TF0, TF1, TF0, TF1), (TF3,TF2,TF0, TF1, TF0, TF1), (TF4,TF3,TF0, TF1, TF0, TF1), (TF5,TF4,TF1, TF1, TF0, TF1), (TF0,TF0,TF0,TF0, TF1, TF1), (TF1,TF0,TF0, TF0, TF1, TF1), (TF2,TF1,TF0, TF0, TF1, TF1), (TF3,TF2,TF0, TF0, TF1, TF1), (TF4,TF3,TF0, TF0, TF1, TF1), (TF5,TF4,TF1, TF0, TF1, TF1), (TF0,TF0,TF0,TF1, TF1, TF1), (TF1,TF0,TF0, TF1, TF1, TF1), (TF2,TF1,TF0, TF1, TF1, TF1), (TF3,TF2,TF0, TF1, TF1, TF1), (TF4,TF3,TF0, TF1, TF1, TF1), (TF5,TF4,TF1, TF1, TF1, TF1), (TF0,TF0,TF0,TF0, TF2, TF1), (TF1,TF0,TF0, TF0, TF2, TF1), (TF2,TF1,TF0, TF0, TF2, TF1), (TF3,TF2,TF0, TF0, TF2, TF1), (TF4,TF3,TF0, TF0, TF2, TF1), (TF5,TF4,TF1, TF0, TF2, TF1), (TF0,TF0,TF0,TF1, TF2, TF1), (TF1,TF0,TF0, TF1, TF2, TF1), (TF2,TF1,TF0, TF1, TF2, TF1), (TF3,TF2,TF0, TF1, TF2, TF1), (TF4,TF3,TF0, TF1, TF2, TF1), (TF5,TF4,TF1, TF1, TF2, TF1), (TF0,TF0,TF0,TF0, TF3, TF1), (TF1,TF0,TF0, TF0, TF3, TF1), (TF2,TF1,TF0, TF0, TF3, TF1), (TF3,TF2,TF0, TF0, TF3, TF1), (TF4,TF3,TF0, TF0, TF3, TF1), (TF5,TF4,TF1, TF0, TF3, TF1), (TF0,TF0,TF0,TF1, TF3, TF1), (TF1,TF0,TF0, TF1, TF3, TF1), (TF2,TF1,TF0, TF1, TF3, TF1), (TF3,TF2,TF0, TF1, TF3, TF1), (TF4,TF3,TF0, TF1, TF3, TF1), (TF5,TF4,TF1, TF1, TF3, TF1), (TF0,TF0,TF0,TF0, TF4, TF1), (TF1,TF0,TF0, TF0, TF4, TF1), (TF2,TF1,TF0, TF0, TF4, TF1), (TF3,TF2,TF0, TF0, TF4, TF1), (TF4,TF3,TF0, TF0, TF4, TF1), (TF5,TF4,TF1, TF0, TF4, TF1), (TF0,TF0,TF0,TF1, TF4, TF1), (TF1,TF0,TF0, TF1, TF4, TF1), (TF2,TF1,TF0, TF1, TF4, TF1), (TF3,TF2,TF0, TF1, TF4, TF1), (TF4,TF3,TF0, TF1, TF4, TF1), (TF5,TF4,TF1, TF1, TF4, TF1)

7.4.15.1.2 Physical channel parameters

DPCH Uplink	Min spreading factor	8
	Max number of DPDCH data bits/radio frame	4800
	Puncturing Limit	0.72

7.4.15.2 Downlink

7.4.15.2.1 Transport channel parameters

7.4.15.2.1.1 Transport channel parameters for HS-DSCH

7.4.15.2.1.1.1 MAC-d flow parameters for Streaming / unknown / DL: [max bit rate depending on UE category] / PS RAB

See subclause 7.4.13.2.1.1.1

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

See subclause 6.10.2.4.5.1.2.1.1.1 of [1].

7.4.15.2.1.2 Transport channel parameters for DCH

7.4.15.2.1.2.1 Transport channel parameters for Conversational / speech / DL:(12.2 7.95 5.9 4.75) kbps / CS RAB

See subclause 6.10.2.4.1.4a.2.1.1 of [1].

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

See subclause 6.10.2.4.1.2.2.1.1 of [1].

7.4.15.2.1.2.3 TFCS

See subclause 6.10.2.4.1.4a.2.1.3 of [1].

7.4.15.2.2 Physical channel parameters

7.4.15.2.2.1 Physical channel parameters on DPCH

See subclause 6.10.2.4.1.4a.2.2 of [1].

7.4.15.2.2.2 Physical channel parameters on HS-PDSCH

See subclause 6.10.2.4.5.1.2.2.2 of [1].

The minimum UE classes supporting this combination are UL: 128kbps plus support for 'Maximum total number of transport blocks transmitted within TTIs that start at the same time' = 16 and 'Maximum number of TFC' = 128, DL on DPCH: 64 kbps plus support for 'Maximum number of AM entities' = 5 and ' Total RLC AM buffer size' = 50, DL on HS-PDSCH: category 11.

This is supported in Release 5.

7.4.16 Conversational / speech / UL:(12.2 7.95 5.9 4.75) DL:(12.2 7.95 5.9 4.75) kbps / CS RAB + Streaming / unknown / UL:128 DL: [max bit rate depending on UE category] / PS RAB + Interactive or background / UL:128 DL: [max bit rate depending on UE category] / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH.

7.4.16.1 Uplink

7.4.16.1.1 Transport channel parameters

7.4.16.1.1.1 Transport channel parameters for Conversational / speech / UL:(12.2 7.95 5.9 4.75) kbps / CS RAB

See subclause 6.10.2.4.1.4a.1.1.1 of [1].

7.4.16.1.1.2 Transport channel parameters for Streaming / unknown / UL:128 kbps / PS RAB

See subclause 7.1.96.1.1.2.

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

See subclause 6.10.2.4.1.28.1.1.1 of [1].

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

See subclause 6.10.2.4.1.2.1.1.1of [1].

7.4.16.1.1.5 TFCS

TFCS size	240
TFCS	(RAB subflow#1, RAB subflow#2, RAB subflow#3, 128 kbps RAB, 128 kbps RAB, DCCH)= (TF0,TF0,TF0,TF0,TF0,TF0), (TF1,TF0,TF0,TF0,TF0,TF0), (TF2,TF1,TF0,TF0,TF0,TF0), (TF3,TF2,TF0, TF0,TF0,TF0), (TF4,TF3,TF0,TF0,TF0,TF0), (TF5,TF4,TF1,TF0,TF0,TF0), (TF0,TF0,TF0,TF1,TF0,TF0), (TF1,TF0,TF0,TF1,TF0,TF0), (TF2,TF1,TF0,TF1,TF0,TF0), (TF3,TF2,TF0,TF1,TF0,TF0), (TF4,TF3,TF0,TF1,TF0,TF0), (TF5,TF4,TF1,TF1,TF0,TF0), (TF0,TF0,TF0,TF2,TF0,TF0), (TF1,TF0,TF0,TF2,TF0,TF0), (TF2,TF1,TF0,TF2,TF0,TF0), (TF3,TF2,TF0,TF2,TF0,TF0), (TF4,TF3,TF0,TF2,TF0,TF0), (TF5,TF4,TF1,TF2,TF0,TF0), (TF0,TF0,TF0,TF3,TF0,TF0), (TF1,TF0,TF0, TF3,TF0,TF0), (TF2,TF1,TF0,TF3,TF0,TF0), (TF3,TF2,TF0,TF3,TF0,TF0), (TF4,TF3,TF0,TF3,TF0,TF0), (TF5,TF4,TF1,TF3,TF0,TF0), (TF0,TF0,TF0,TF0,TF1,TF0), (TF1,TF0,TF0,TF0,TF1,TF0), (TF2,TF1,TF0,TF0,TF1,TF0), (TF3,TF2,TF0, TF0,TF1,TF0), (TF4,TF3,TF0,TF0,TF1,TF0), (TF5,TF4,TF1,TF0,TF1,TF0), (TF0,TF0,TF0,TF1,TF1,TF0), (TF1,TF0,TF0,TF1,TF1,TF0), (TF2,TF1,TF0,TF1,TF1,TF0), (TF3,TF2,TF0,TF1,TF1,TF0), (TF4,TF3,TF0,TF1,TF1,TF0), (TF5,TF4,TF1,TF1,TF1,TF0), (TF0,TF0,TF0,TF2,TF1,TF0), (TF1,TF0,TF0,TF2,TF1,TF0), (TF2,TF1,TF0,TF2,TF1,TF0), (TF3,TF2,TF0,TF2,TF1,TF0), (TF4,TF3,TF0,TF2,TF1,TF0), (TF5,TF4,TF1,TF2,TF1,TF0), (TF0,TF0,TF0,TF3,TF1,TF0), (TF1,TF0,TF0, TF3,TF1,TF0), (TF2,TF1,TF0,TF3,TF1,TF0), (TF3,TF2,TF0,TF3,TF1,TF0), (TF4,TF3,TF0,TF3,TF1,TF0), (TF5,TF4,TF1,TF3,TF1,TF0), (TF0,TF0,TF0,TF0,TF2,TF0), (TF1,TF0,TF0,TF0,TF2,TF0), (TF2,TF1,TF0,TF0,TF2,TF0), (TF3,TF2,TF0, TF0,TF2,TF0), (TF4,TF3,TF0,TF0,TF2,TF0), (TF5,TF4,TF1,TF0,TF2,TF0), (TF0,TF0,TF0,TF1,TF2,TF0), (TF1,TF0,TF0,TF1,TF2,TF0), (TF2,TF1,TF0,TF1,TF2,TF0), (TF3,TF2,TF0,TF1,TF2,TF0), (TF4,TF3,TF0,TF1,TF2,TF0), (TF5,TF4,TF1,TF1,TF2,TF0), (TF0,TF0,TF0,TF2,TF2,TF0), (TF1,TF0,TF0,TF2,TF2,TF0), (TF2,TF1,TF0,TF2,TF2,TF0), (TF3,TF2,TF0,TF2,TF2,TF0), (TF4,TF3,TF0,TF2,TF2,TF0), (TF5,TF4,TF1,TF2,TF2,TF0), (TF0,TF0,TF0,TF3,TF2,TF0), (TF1,TF0,TF0, TF3,TF2,TF0), (TF2,TF1,TF0,TF3,TF2,TF0), (TF3,TF2,TF0,TF3,TF2,TF0), (TF4,TF3,TF0,TF3,TF2,TF0), (TF5,TF4,TF1,TF3,TF2,TF0), (TF0,TF0,TF0,TF0,TF3,TF0), (TF1,TF0,TF0,TF0,TF3,TF0), (TF2,TF1,TF0,TF0,TF3,TF0), (TF3,TF2,TF0, TF0,TF3,TF0), (TF4,TF3,TF0,TF0,TF3,TF0), (TF5,TF4,TF1,TF0,TF3,TF0), (TF0,TF0,TF0,TF1,TF3,TF0), (TF1,TF0,TF0,TF1,TF3,TF0), (TF2,TF1,TF0,TF1,TF3,TF0), (TF3,TF2,TF0,TF1,TF3,TF0), (TF4,TF3,TF0,TF1,TF3,TF0), (TF5,TF4,TF1,TF1,TF3,TF0), (TF0,TF0,TF0,TF2,TF3,TF0), (TF1,TF0,TF0,TF2,TF3,TF0), (TF2,TF1,TF0,TF2,TF3,TF0), (TF3,TF2,TF0,TF2,TF3,TF0), (TF4,TF3,TF0,TF2,TF3,TF0), (TF5,TF4,TF1,TF2,TF3,TF0), (TF0,TF0,TF0,TF3,TF3,TF0), (TF1,TF0,TF0, TF3,TF3,TF0), (TF2,TF1,TF0,TF3,TF3,TF0), (TF3,TF2,TF0,TF3,TF3,TF0), (TF4,TF3,TF0,TF3,TF3,TF0), (TF5,TF4,TF1,TF3,TF3,TF0), (TF0,TF0,TF0,TF0,TF4,TF0), (TF1,TF0,TF0,TF0,TF4,TF0), (TF2,TF1,TF0,TF0,TF4,TF0), (TF3,TF2,TF0, TF0,TF4,TF0), (TF4,TF3,TF0,TF0,TF4,TF0), (TF5,TF4,TF1,TF0,TF4,TF0), (TF0,TF0,TF0,TF1,TF4,TF0), (TF1,TF0,TF0,TF1,TF4,TF0), (TF2,TF1,TF0,TF1,TF4,TF0), (TF3,TF2,TF0,TF1,TF4,TF0), (TF4,TF3,TF0,TF1,TF4,TF0), (TF5,TF4,TF1,TF1,TF4,TF0), (TF0,TF0,TF0,TF2,TF4,TF0), (TF1,TF0,TF0,TF2,TF4,TF0), (TF2,TF1,TF0,TF2,TF4,TF0), (TF3,TF2,TF0,TF2,TF4,TF0), (TF4,TF3,TF0,TF2,TF4,TF0), (TF5,TF4,TF1,TF2,TF4,TF0), (TF0,TF0,TF0,TF3,TF4,TF0), (TF1,TF0,TF0, TF3,TF4,TF0), (TF2,TF1,TF0,TF3,TF4,TF0), (TF3,TF2,TF0,TF3,TF4,TF0), (TF4,TF3,TF0,TF3,TF4,TF0), (TF5,TF4,TF1,TF3,TF4,TF0), (TF0,TF0,TF0,TF0,TF0,TF1), (TF1,TF0,TF0,TF0,TF0,TF1, (TF2,TF1,TF0,TF0,TF0,TF1), (TF3,TF2,TF0, TF0,TF0,TF1), (TF4,TF3,TF0,TF0,TF0,TF1), (TF5,TF4,TF1,TF0,TF0,TF1), (TF0,TF0,TF0,TF1,TF0,TF1), (TF1,TF0,TF0,TF1,TF0,TF1), (TF2,TF1,TF0,TF1,TF0,TF1), (TF3,TF2,TF0,TF1,TF0,TF1), (TF4,TF3,TF0,TF1,TF0,TF1), (TF5,TF4,TF1,TF1,TF0,TF1), (TF0,TF0,TF0,TF2,TF0,TF1), (TF1,TF0,TF0,TF2,TF0,TF1), (TF2,TF1,TF0,TF2,TF0,TF1), (TF3,TF2,TF0,TF2,TF0,TF1), (TF4,TF3,TF0,TF2,TF0,TF1), (TF5,TF4,TF1,TF2,TF0,TF1), (TF0,TF0,TF0,TF3,TF0,TF1), (TF1,TF0,TF0, TF3,TF0,TF1), (TF2,TF1,TF0,TF3,TF0,TF1), (TF3,TF2,TF0,TF3,TF0,TF1), (TF4,TF3,TF0,TF3,TF0,TF1), (TF5,TF4,TF1,TF3,TF0,TF1), (TF0,TF0,TF0,TF0,TF1,TF1), (TF1,TF0,TF0,TF0,TF1,TF1), (TF2,TF1,TF0,TF0,TF1,TF1), (TF3,TF2,TF0, TF0,TF1,TF1), (TF4,TF3,TF0,TF0,TF1,TF1), (TF5,TF4,TF1,TF0,TF1,TF1), (TF0,TF0,TF0,TF1,TF1,TF1), (TF1,TF0,TF0,TF1,TF1,TF1), (TF2,TF1,TF0,TF1,TF1,TF1), (TF3,TF2,TF0,TF1,TF1,TF1), (TF4,TF3,TF0,TF1,TF1,TF1), (TF5,TF4,TF1,TF1,TF1,TF1), (TF0,TF0,TF0,TF2,TF1,TF1), (TF1,TF0,TF0,TF2,TF1,TF1), (TF2,TF1,TF0,TF2,TF1,TF1), (TF3,TF2,TF0,TF2,TF1,TF1), (TF4,TF3,TF0,TF2,TF1,TF1), (TF5,TF4,TF1,TF2,TF1,TF1), (TF0,TF0,TF0,TF3,TF1,TF1), (TF1,TF0,TF0, TF3,TF1,TF1), (TF2,TF1,TF0,TF3,TF1,TF1), (TF3,TF2,TF0,TF3,TF1,TF1), (TF4,TF3,TF0,TF3,TF1,TF1), (TF5,TF4,TF1,TF3,TF1,TF1), (TF0,TF0,TF0,TF0,TF2,TF1), (TF1,TF0,TF0,TF0,TF2,TF1), (TF2,TF1,TF0,TF0,TF2,TF1),

	(TF3,TF2,TF0, TF0,TF2,TF1), (TF4,TF3,TF0,TF0,TF2,TF1), (TF5,TF4,TF1,TF0,TF2,TF1), (TF0,TF0,TF0,TF1,TF2,TF1), (TF1,TF0,TF0,TF1,TF2,TF1), (TF2,TF1,TF0,TF1,TF2,TF1), (TF3,TF2,TF0,TF1,TF2,TF1), (TF4,TF3,TF0,TF1,TF2,TF1), (TF5,TF4,TF1,TF1,TF2,TF1), (TF0,TF0,TF0,TF2,TF2,TF1), (TF1,TF0,TF0,TF2,TF2,TF1), (TF2,TF1,TF0,TF2,TF2,TF1), (TF3,TF2,TF0,TF2,TF2,TF1), (TF4,TF3,TF0,TF2,TF2,TF1), (TF5,TF4,TF1,TF2,TF2,TF1), (TF0,TF0,TF0,TF3,TF2,TF1), (TF1,TF0,TF0, TF3,TF2,TF1), (TF2,TF1,TF0,TF3,TF2,TF1), (TF3,TF2,TF0,TF3,TF2,TF1), (TF4,TF3,TF0,TF3,TF2,TF1), (TF5,TF4,TF1,TF3,TF2,TF1), (TF0,TF0,TF0,TF0,TF3,TF1), (TF1,TF0,TF0,TF0,TF3,TF1), (TF2,TF1,TF0,TF0,TF3,TF1), (TF3,TF2,TF0, TF0,TF3,TF1), (TF4,TF3,TF0,TF0,TF3,TF1), (TF5,TF4,TF1,TF0,TF3,TF1), (TF0,TF0,TF0,TF1,TF3,TF1), (TF1,TF0,TF0,TF1,TF3,TF1), (TF2,TF1,TF0,TF1,TF3,TF1), (TF3,TF2,TF0,TF1,TF3,TF1), (TF4,TF3,TF0,TF1,TF3,TF1), (TF5,TF4,TF1,TF1,TF3,TF1), (TF0,TF0,TF0,TF2,TF3,TF1), (TF1,TF0,TF0,TF2,TF3,TF1), (TF2,TF1,TF0,TF2,TF3,TF1), (TF3,TF2,TF0,TF2,TF3,TF1), (TF4,TF3,TF0,TF2,TF3,TF1), (TF5,TF4,TF1,TF2,TF3,TF1), (TF0,TF0,TF0,TF3,TF3,TF1), (TF1,TF0,TF0, TF3,TF3,TF1), (TF2,TF1,TF0,TF3,TF3,TF1), (TF3,TF2,TF0,TF3,TF3,TF1), (TF4,TF3,TF0,TF3,TF3,TF1), (TF5,TF4,TF1,TF3,TF3,TF1), (TF0,TF0,TF0,TF0,TF4,TF1), (TF1,TF0,TF0,TF0,TF4,TF1), (TF2,TF1,TF0,TF0,TF4,TF1), (TF3,TF2,TF0, TF0,TF4,TF1), (TF4,TF3,TF0,TF0,TF4,TF1), (TF5,TF4,TF1,TF0,TF4,TF1), (TF0,TF0,TF0,TF1,TF4,TF1), (TF1,TF0,TF0,TF1,TF4,TF1), (TF2,TF1,TF0,TF1,TF4,TF1), (TF3,TF2,TF0,TF1,TF4,TF1), (TF4,TF3,TF0,TF1,TF4,TF1), (TF5,TF4,TF1,TF1,TF4,TF1), (TF0,TF0,TF0,TF2,TF4,TF1), (TF1,TF0,TF0,TF2,TF4,TF1), (TF2,TF1,TF0,TF2,TF4,TF1), (TF3,TF2,TF0,TF2,TF4,TF1), (TF4,TF3,TF0,TF2,TF4,TF1), (TF5,TF4,TF1,TF2,TF4,TF1), (TF0,TF0,TF0,TF3,TF4,TF1), (TF1,TF0,TF0, TF3,TF4,TF1), (TF2,TF1,TF0,TF3,TF4,TF1), (TF3,TF2,TF0,TF3,TF4,TF1), (TF4,TF3,TF0,TF3,TF4,TF1), (TF5,TF4,TF1,TF3,TF4,TF1)

7.4.16.1.2 Physical channel parameters

DPCH Uplink	Min spreading factor	4
	Max number of DPDCH data bits/radio frame	9600
	Puncturing Limit	0.88

7.4.16.2 Downlink

7.4.16.2.1 Transport channel parameters

7.4.16.2.1.1 Transport channel parameters for HS-DSCH

7.4.16.2.1.1.1 MAC-d flow parameters for Streaming / unknown / DL: [max bit rate depending on UE category] / PS RAB

See subclause 7.4.13.2.1.1.1

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

See subclause 6.10.2.4.5.1.2.1.1.1 of [1].

7.4.16.2.1.2 Transport channel parameters for DCH

7.4.16.2.1.2.1 Transport channel parameters for Conversational / speech / DL:(12.2 7.95 5.9 4.75) kbps / CS RAB

See subclause 6.10.2.4.1.4a.2.1.1 of [1].

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

See subclause 6.10.2.4.1.2.2.1.1 of [1].

7.4.16.2.1.2.3 TFCS

See subclause 6.10.2.4.1.4a.2.1.3 of [1].

7.4.16.2.2 Physical channel parameters

7.4.16.2.2.1 Physical channel parameters on DPCH

See subclause 6.10.2.4.1.4a.2.2 of [1].

7.4.16.2.2.2 Physical channel parameters on HS-PDSCH

See subclause 6.10.2.4.5.1.2.2.2 of [1].

The minimum UE classes supporting this combination are UL: 384kbps plus support for 'Maximum number of TFC' = 256, DL on DPCH: 64 kbps plus support for 'Maximum number of AM entities' = 5 and ' Total RLC AM buffer size' = 50, DL on HS-PDSCH: category 11.

This is supported in Release 5.

7.4.17 Streaming / unknown / UL:64 DL: [max bit rate depending on UE category] / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH.

7.4.17.1 Uplink

7.4.17.1.1 Transport channel parameters

7.4.17.1.1.1 Transport channel parameters for Streaming / unknown / UL:64 kbps / PS RAB

See subclause 7.4.14.1.1.1.

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

See subclause 6.10.2.4.1.2.1.1.1of [1].

7.4.17.1.1.4 TFCS

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

7.4.17.1.2 Physical channel parameters

DPCH Uplink	Min spreading factor	16
	Max number of DPDCH data bits/radio frame	2400
	Puncturing Limit	1

7.4.17.2 Downlink

7.4.17.2.1 Transport channel parameters

7.4.17.2.1.1 Transport channel parameters for HS-DSCH

####### 7.4.17.2.1.1.1 MAC-d flow parameters for Streaming / unknown / DL: [max bit rate depending on UE category] / PS RAB

See subclause 7.4.13.2.1.1.1

7.4.17.2.1.2 Transport channel parameters for DCH

####### 7.4.17.2.1.2.1 Transport channel parameters for DL: 3.4 kbps SRBs for DCCH

See subclause 6.10.2.4.1.2.2.1.1 of [1].

####### 7.4.17.2.1.2.2 TFCS

See subclause 6.10.2.4.1.2.2.1.2 of [1].

7.4.17.2.2 Physical channel parameters

7.4.17.2.2.1 Physical channel parameters on DPCH

See subclause 6.10.2.4.1.2.2.2 of [1].

7.4.17.2.2.2 Physical channel parameters on HS-PDSCH

See subclause 6.10.2.4.5.1.2.2.2 of [1].

The minimum UE classes supporting this combination are UL: 64kbps, DL on DPCH: 32 kbps plus support for HS-PDSCH, DL on HS-PDSCH: category 11.

This is supported in Release 5.