

**Source:** T1  
**Title:** CRs to TS 34.108 v.5.2.0 for approval  
**Agenda item:** 5.1.3  
**Document for:** Approval

This document contains the CRs to TS 34.108 v.5.2.0. These CRs have been agreed by T1 and are put forward to TSG T for approval.

<i>Doc-2nd-Level</i>	<i>CR</i>	<i>R e v</i>	<i>Phase</i>	<i>Subject</i>	<i>C a t</i>	<i>Versio n- Curre nt</i>	<i>Versio n-New</i>
T1-041532	365	-	Rel-5	CR to 34.108 Rel-5:Correction to default value of Qrxlevmin	F	5.2.0	5.3.0
T1-041573	366	-	Rel-5	CR to 34.108 Rel-5: Corrections of the values in 6.11.5.4 for LCR TDD	F	5.2.0	5.3.0
T1-041584	367	-	Rel-5	Alignment of Prose to TTCN for SCH power level	F	5.2.0	5.3.0
T1-041651	368	-	Rel-5	Addition of new HSDPA RAB configurations with UL 64 kbps	F	5.2.0	5.3.0
T1-041654	369	-	Rel-5	Correction to initial conditions and references in clause 7.3	F	5.2.0	5.3.0
T1-041685	370	-	Rel-5	Introduction of reference radio bearer combination for PS streaming and downlink rate up to 128 kbps	F	5.2.0	5.3.0
T1-041686	371	-	Rel-5	Correction of section 6.1 (Simulated network environment)	F	5.2.0	5.3.0
T1-041699	372	-	Rel-5	Correction to generic Call Setup procedure for mobile terminating circuit switched calls	F	5.2.0	5.3.0
T1-041754	373	-	Rel-5	CR to 34.108 Rel-5; Corrections to the default RADIO BEARER SETUP message for HSDPA	F	5.2.0	5.3.0
T1-041801	374	-	Rel-5	Physical layer multiplexing configuration in case of AMR and two PS RABs	F	5.2.0	5.3.0
T1-041802	375	-	Rel-5	Addition of new HSDPA RAB configurations	F	5.2.0	5.3.0
T1-041850	376	-	Rel-5	Introduction of information for tests for Performance requirements for A-GPS.	B	5.2.0	5.3.0
T1-041874	377	-	Rel-5	Introduction of UMTS-850 MHz band V	F	5.2.0	5.3.0
T1-041933	378	-	Rel-5	CR to TS34.108 Rel-5; Adding a new test condition for RADIO BEARER RELEASE Procedure (Revision of T1-041716).	F	5.2.0	5.3.0
T1-041942	379	-	Rel-5	Update of Reference Radio Bearer for Conversational / speech / UL:5.9 DL:5.9 kbps / CS RAB for DL SF=256	F	5.2.0	5.3.0
T1-041943	380	-	Rel-5	CR to 34.108: Correction to the maximum bit rate for HS-PDSCH	F	5.2.0	5.3.0

T1-041965	381	-	Rel-5	Alignment of Prose to TTCN for RRC Connection Release (Cell DCH state) and RRC Connection Setup Message (Cell FACH State).	F	5.2.0	5.3.0
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## CHANGE REQUEST

⌘ **34.108 CR 365** ⌘ rev **-** ⌘ Current version: **5.2.0** ⌘

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

<b>Title:</b>	<span>⌘</span> CR to 34.108 Rel-5:Correction to default value of Qrxlevmin		
<b>Source:</b>	<span>⌘</span> Cetecom, MCC160, Rohde & Schwarz		
<b>Work item code:</b>	<span>⌘</span> TEI	<b>Date:</b>	<span>⌘</span> 14/10/2004
<b>Category:</b>	<span>⌘</span> <b>F</b>	<b>Release:</b>	<span>⌘</span> Rel-5
	Use <u>one</u> of the following categories:		Use <u>one</u> of the following releases:
	<b>F</b> (correction)		2 (GSM Phase 2)
	<b>A</b> (corresponds to a correction in an earlier release)		R96 (Release 1996)
	<b>B</b> (addition of feature),		R97 (Release 1997)
	<b>C</b> (functional modification of feature)		R98 (Release 1998)
	<b>D</b> (editorial modification)		R99 (Release 1999)
	Detailed explanations of the above categories can be found in 3GPP <a href="#">TR 21.900</a> .		Rel-4 (Release 4)
			Rel-5 (Release 5)
			Rel-6 (Release 6)

<b>Reason for change:</b>	<span>⌘</span> The default value of Qrxlevmin used in tables 6.1.1 to 6.1.4 of TS 34.108 and the value applied in the TTCN are not consistent.
<b>Summary of change:</b>	<span>⌘</span> The default value of Qrxlevmin in TS 34.108 is changed to align the prose to the TTCN.
<b>Consequences if not approved:</b>	<span>⌘</span> Prose and TTCN were misaligned.

<b>Clauses affected:</b>	<span>⌘</span> 9.1.1						
<b>Other specs affected:</b>	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> </table>	Y	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Other core specifications	<span>⌘</span>
Y	N						
<input type="checkbox"/>	<input checked="" type="checkbox"/>						
	<input checked="" type="checkbox"/>	Test specifications					
	<input type="checkbox"/>	O&M Specifications					
<b>Other comments:</b>	<span>⌘</span> Affects R99, Rel-4 and Rel-5. This CR aligns the prose to the TTCN. TTCN IE value is -40. IE value is TTCN IE value * 2 + 1.						

### 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>

**Table 6.1.1: Default settings for a serving cell in a single cell environment**

Parameter	Unit	Cell 1
Cell type		Serving cell
UTRA RF Channel Number		Channel 1
Qqualmin	dB	-24
Qrxlevmin	dBm	<del>-81</del> -79
UE_TXPWR_MAX_RACH	dBm	21
CPICH Ec (see notes 1 and 2)	dBm/3.84 MHz	-60
NOTE 1: The power level is specified in terms of CPICH_Ec instead of CPICH_RSCP as RSCP is a receiver measurement and only CPICH_Ec can be directly controlled by the SS.		
NOTE 2: The cell fulfils TS 25.304, 5.2.3.1.2 and TS 25.133, 8.1.2.2.1.		

**Table 6.1.2: Default settings for a serving cell and a suitable neighbour cell in a multi-cell environment**

Parameter	Unit	Cell 1	Cell 2	Cell 4
Cell type		Serving cell	Suitable neighbour intra-frequency cell	Suitable neighbour inter-frequency cell
UTRA RF Channel Number		Channel 1	Channel 1	Channel 2
Qqualmin	dB	-24	-24	
Qrxlevmin	dBm	<del>-81</del> -79	<del>-81</del> -79	
UE_TXPWR_MAX_RACH	dBm	21	21	
CPICH Ec (see notes 1 and 2)	dBm/3.84 MHz	-60	-70	
NOTE 1: The power level is specified in terms of CPICH_Ec instead of CPICH_RSCP as RSCP is a receiver measurement and only CPICH_Ec can be directly controlled by the SS.				
NOTE 2: Both cells fulfil TS 25.304, 5.2.3.1.2 and TS 25.133, 8.1.2.2.1.				

**Table 6.1.3: Default settings for a non-suitable cell**

Parameter	Unit	Level
Qqualmin	dB	-24
Qrxlevmin	dBm	<del>-81</del> -79
UE_TXPWR_MAX_RACH	dBm	21
CPICH_Ec	dBm/3.84 MHz	-90
NOTE 1: The power level is specified in terms of CPICH_Ec instead of CPICH_RSCP as RSCP is a receiver measurement and only CPICH_Ec can be directly controlled by the SS		
NOTE 2: The cell is not suitable according to TS 25.304, 5.2.3.1.2		

**Table 6.1.4: Default settings for a non-suitable "Off" cell**

Parameter	Unit	Level
Qqualmin	dB	-24
Qrxlevmin	dBm	<del>-81</del> -79
UE_TXPWR_MAX_RACH	dBm	21
CPICH_Ec	dBm/3.84 MHz	≤ -122
NOTE 1: The power level is specified in terms of CPICH_Ec instead of CPICH_RSCP as RSCP is a receiver measurement and only CPICH_Ec can be directly controlled by the SS.		
NOTE 2: The cell is not suitable according to TS 25.304, 5.2.3.1.2.		

<END OF MODIFIED SECTION>



3GPP TSGnT1 Meeting #25  
 Malta, 1<sup>th</sup> ñ 5<sup>th</sup> November 2004

Tdoc **T1-041573**

CR-Form-v7
<b>CHANGE REQUEST</b>
<span>TS34.108 CR 366 rev - Current version: <b>5.2.0</b></span>

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

<b>Title:</b>	CR to 34.108 Rel-5: Corrections of the values in 6.11.5.4 for LCR TDD		
<b>Source:</b>	CATT/CCSA		
<b>Work item code:</b>	LCR TDD	<b>Date:</b>	010/19/2004
<b>Category:</b>	<b>F</b>	<b>Release:</b>	Rel-5
	Use <u>one</u> of the following categories:		Use <u>one</u> of the following releases:
	<b>F</b> (correction)	2	(GSM Phase 2)
	<b>A</b> (corresponds to a correction in an earlier release)	R96	(Release 1996)
	<b>B</b> (addition of feature),	R97	(Release 1997)
	<b>C</b> (functional modification of feature)	R98	(Release 1998)
	<b>D</b> (editorial modification)	R99	(Release 1999)
	Detailed explanations of the above categories can be found in 3GPP <a href="#">TR 21.900</a> .	Rel-4	(Release 4)
		Rel-5	(Release 5)
		Rel-6	(Release 6)

<b>Reason for change:</b>	<ol style="list-style-type: none"> <li>1. In 6.11.5.4.1.23.1.2, 6.11.5.4.1.23c.1.2 and 6.11.5.4.1.23d.1.2, the values of Codes and time slots/ radio frame and Puncturing Limit are not suitable for Interactive or background / UL:32 kbps / PS RAB.</li> <li>2. In 6.11.5.4.1.23c.2.2 and 6.11.5.4.1.23d.2.2, the values of Codes and time slots/ radio frame and Puncturing Limit are not suitable for Interactive or background / DL:32 kbps / PS RAB.</li> <li>3. In 6.11.5.4.1.38g.1.2, the current value of FCI code word / radio frame for uplink is 16 and it is not suitable since in this case the TFCS size is 32.</li> <li>4. In 6.11.5.4.1.38g.2.2, the current value of FCI code word / radio frame for downlink is 16 and it is not suitable since in this case the TFCS size is 36.</li> <li>5. In 6.11.5.4.1.38h.1.2, the current value of FCI code word / radio frame for uplink is 16 and it is not suitable since in this case the TFCS size is 32.</li> <li>6. In 6.11.5.4.1.38h.2.2, the current value of FCI code word / radio frame for downlink is 16 and it is not suitable since in this case the TFCS size is 32.</li> <li>7. In 6.11.5.4.1.38i.1.2, the current value of FCI code word / radio frame for uplink is 16 and it is not suitable since in this case the TFCS size is 48.</li> <li>8. In 6.11.5.4.1.38i.2.2, the current value of FCI code word / radio frame for downlink is 16 and it is not suitable since in this case the TFCS size is 60.</li> <li>9. In 32.6.11.5.4.1.38j.2.2, the current value of FCI code word / radio frame for downlink is 16 and it is not suitable since in this case the TFCS size is 60.</li> </ol>
<b>Summary of change:</b>	<ol style="list-style-type: none"> <li>1. In 6.11.5.4.1.23.1.2, 6.11.5.4.1.23c.1.2 and 6.11.5.4.1.23d.1.2, the value of Codes and time slots/ radio frame is changed to SF 4 from SF 2 and the value of Puncturing Limit is changed to 0.48 from 1.0 (alt 0.92).</li> </ol>

2. In 6.11.5.4.1.23c.2.2 and 6.11.5.4.1.23d.2.2, the value of  $\alpha$  Codes and time slots/ radio frame is changed to 4 codes from 8 codes and the value of  $\beta$  Puncturing Limit is changed to 0.48 from 1.0.
3. In 6.11.5.4.1.38g.1.2, the current value of  $\alpha$  FCI code word / radio frame for uplink is changed to 32 or 16 and the value of  $\beta$  Max. Number of data bits/radio frame is changed correspondingly.
4. In 6.11.5.4.1.38g.2.2, the current value of  $\alpha$  FCI code word / radio frame for downlink is changed to 32 and the value of  $\beta$  Max. Number of data bits/radio frame is changed correspondingly.
5. In 6.11.5.4.1.38h.1.2, the current value of  $\alpha$  FCI code word / radio frame for uplink is changed to 32 and the value of  $\beta$  Max. Number of data bits/radio frame is changed correspondingly.
6. In 6.11.5.4.1.38h.2.2, the current value of  $\alpha$  FCI code word / radio frame for downlink is changed to 32 and the value of  $\beta$  Max. Number of data bits/radio frame is changed correspondingly..
7. In 6.11.5.4.1.38i.1.2, the current value of  $\alpha$  FCI code word / radio frame for uplink is changed to 32 and the value of  $\beta$  Max. Number of data bits/radio frame is changed correspondingly.
8. In 6.11.5.4.1.38i.2.2, the current value of  $\alpha$  FCI code word / radio frame for downlink is changed to 32 and the value of  $\beta$  Max. Number of data bits/radio frame is changed correspondingly.
9. In 32.6.11.5.4.1.38j.2.2, the current value of  $\alpha$  FCI code word / radio frame for downlink is changed to 32 and the value of  $\beta$  Max. Number of data bits/radio frame is changed correspondingly.

**Consequences if not approved:** ☹ The test case will not executed rightly for TDD.

**Clauses affected:** ☹ 6.11.5.4.1.23, 6.11.5.4.1.23c , 6.11.5.4.1.23d, 6.11.5.4.1.38g, 6.11.5.4.1.38h, 6.11.5.4.1.38i, 6.11.5.4.1.38j

<b>Other specs affected:</b>	☹	<b>Y</b>	<b>N</b>	Other core specifications ☹	
		<b>X</b>			Test specifications
					O&M Specifications

**Other comments:** ☹ The CR is only connected with LCR TDD.



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

6.11.5.4.1.23.1 Uplink

6.11.5.4.1.23.1.1 Transport channel parameters

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

See clause 6.10.3.4.1.23.1.1.1.

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

See clause 6.10.3.4.1.2.1.1.1.

6.11.5.4.1.23.1.1.3 TFCS

See clause 6.10.3.4.1.23.1.1.3.

6.11.5.4.1.23.1.2 Physical channel parameters

DPCH Uplink	Modulation	QPSK
	Codes and time slots/ radio frame	SF <del>42</del> x 1 code x 2 time slots
	Max. Number of data bits/radio frame	<del>1384</del> 680bits
	TFCI code word/ radio frame	16 bits
	TPC / radio frame	2 * 2 bits
	SS / radio frame	2 * 2 bits
	Puncturing Limit	<del>0.48(alt. 0.44)</del> 1.0 (alt 0.92)

6.11.5.4.1.23.2 Downlink

6.11.5.4.1.23.2.1 Transport channel parameters

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

See clause 6.10.3.4.1.23.2.1.1.

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

See clause 6.10.3.4.1.2.2.1.1.

6.11.5.4.1.23.2.1.3 TFCS

See clause 6.10.3.4.1.23.2.1.3.

6.11.5.4.1.23.2.2 Physical channel parameters

DPCH Downlink	Modulation	QPSK
	Codes and time slots/ radio frame	SF 16 x 2 codes x 2 time slots
	Max. Number of data bits/radio frame	336 bits
	TFCI code word/ radio frame	8 bits
	TPC/ radio frame	2*2 bits
	SS/ radio frame	2*2 bits
	Puncturing Limit	0.76

6.11.5.4.1.23c Interactive or background / UL:32 DL:32 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.11.5.4.1.23c.1 Uplink

6.11.5.4.1.23c.1.1 Transport channel parameters

6.11.5.4.1.23c.1.1.1 Transport channel parameters for Interactive or background / UL:32 kbps / PS RAB

See clause 6.10.3.4.1.23c.1.1.1.

6.11.5.4.1.23c.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.1.1.1.

6.11.5.4.1.23c.1.1.3 TFCS

See clause 6.10.3.4.1.23c.1.1.3.

6.11.5.4.1.23c.1.2 Physical channel parameters

DPCH Uplink	Modulation	QPSK
	Codes and time slots/ radio frame	SF <del>42</del> x 1 code x 2 time slots
	Max. Number of data bits/radio frame	<del>680</del> bits <del>1384</del> bits
	TFCI code word/ radio frame	16 bits
	TPC / radio frame	2 * 2 bits
	SS / radio frame	2 * 2 bits
	Puncturing Limit	<del>0.48</del> (alt <del>0.44</del> ) <del>1.0</del> alt ( <del>0.92</del> )

6.11.5.4.1.23c.2 Downlink

6.11.5.4.1.23c.2.1 Transport channel parameters

6.11.5.4.1.23c.2.1.1 Transport channel parameters for Interactive or background / DL:32 kbps / PS RAB

See clause 6.10.3.4.1.23c.2.1.1.

6.11.5.4.1.23c.2.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.2.1.1.

6.11.5.4.1.23c.2.1.3 TFCS

See clause 6.10.3.4.1.23c.2.1.3.

6.11.5.4.1.23c.2.2 Physical channel parameters

DPCH Downlink	Modulation	QPSK
	Codes and time slots / radio frame	SF16 x <del>48</del> code x 2 time slots
	Max. Number of data bits/radio frame	<del>680</del> <del>1384</del> bits
	TFCI code word / radio frame	16 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	<del>0.48</del> <del>1.0</del>

6.11.5.4.1.23d Interactive or background / UL:32 DL:32 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.11.5.4.1.23d.1 Uplink

6.11.5.4.1.23d.1.1 Transport channel parameters

6.11.5.4.1.23d.1.1.1 Transport channel parameters for Interactive or background / UL:32 kbps / PS RAB

See clause 6.10.3.4.1.23d.1.1.1.

6.11.5.4.1.23d.1.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.1.1.1.

6.11.5.4.1.23d.1.1.3 TFCS

See clause 6.10.3.4.1.23d.1.1.3.

6.11.5.4.1.23d.1.2 Physical channel parameters

DPCH Uplink	Modulation	QPSK
	Codes and time slots/ radio frame	SF <del>42</del> x 1 code x 2 time slots
	Max. Number of data bits/radio frame	<del>680</del> 1384 bits
	TFCI code word/ radio frame	16 bits
	TPC / radio frame	2 * 2 bits
	SS / radio frame	2 * 2 bits
	Puncturing Limit	<del>0.48(alt. 0.44)</del> 1.0 alt(0.92)

6.11.5.4.1.23d.2 Downlink

6.11.5.4.1.23d.2.1 Transport channel parameters

6.11.5.4.1.23d.2.1.1 Transport channel parameters for Interactive or background / DL:32 kbps / PS RAB

See clause 6.10.3.4.1.23d.2.1.1.

6.11.5.4.1.23d.2.1.2 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.2.1.1.

6.11.5.4.1.23d.2.1.3 TFCS

See clause 6.10.3.4.1.23d.2.1.3.

6.11.5.4.1.23d.2.2 Physical channel parameters

DPCH Downlink	Modulation	QPSK
	Codes and time slots / radio frame	SF16 x <del>48</del> code x 2 time slots
	Max. Number of data bits/radio frame	<del>680</del> 1384 bits
	TFCI code word / radio frame	16 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	<del>0.48</del> 1

6.11.5.4.1.38g Conversational / speech / UL: 12.2 7.95 5.9 4.75 DL:12.2 7.95 5.9 4.75 kbps / CS RAB  
 + Interactive or background / UL:16 DL:16 kbps / PS RAB  
 + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.11.5.4.1.38g.1 Uplink

6.11.5.4.1.38g.1.1 Transport channel parameters

6.11.5.4.1.38g.1.1.1 Transport channel parameters for Conversational / speech / UL: 12.2 7.95 5.9 4.75 / CS RAB

See clause 6.10.3.4.1.4a.1.1.1.

6.11.5.4.1.38g.1.1.2 Transport channel parameters for Interactive or background / UL:16 kbps / PS RAB

See clause 6.10.3.4.1.23b.1.1.1.

6.11.5.4.1.38g.1.1.3 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.1.1.1.

6.11.5.4.1.38g.1.1.4 TFCS

See clause 6.10.3.4.1.38g.1.1.4.

6.11.5.4.1.38g.1.2 Physical channel parameters

DPCH Uplink	Modulation	QPSK
	Codes and time slots/ radio frame	SF2 x 1 code x 2 time slots
	Max. Number of data bits / radio frame	1368 bits (alt. 1384 bits)
	TFCl code word / radio frame	32 bits (alt. 16 bits) <del>16 bits</del>
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	0.961.0 (alt 0.961.0)
Note: There are 32 bit and 16 bit TFCl's for the two cases.		

6.11.5.4.1.38g.2 Downlink

6.11.5.4.1.38g.2.1 Transport channel parameters

6.11.5.4.1.38g.2.1.1 Transport channel parameters for Conversational / speech / DL:12.2 7.95 5.9 4.75 / CS RAB

See clause 6.10.3.4.1.4a.2.1.1.

6.11.5.4.1.38g.2.1.2 Transport channel parameters for Interactive or background / DL:16 kbps / PS RAB

See clause 6.10.3.4.1.23b.2.1.1.

6.11.5.4.1.38g.2.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.2.1.1.

6.11.5.4.1.38g.2.1.4 TFCS

See clause 6.10.3.4.1.38g.2.1.4.

## 6.11.5.4.1.38g.2.2 Physical channel parameters

DPCH Downlink	Modulation	QPSK
	Codes and time slots / radio frame	SF16 x 8 code x 2 time slots
	Max. Number of data bits / radio frame	<del>1368</del> 1384 bits
	TFCI code word / radio frame	<del>32</del> 46 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	1.0

6.11.5.4.1.38h Conversational / speech / UL: 12.2 7.95 5.9 4.75 DL:12.2 7.95 5.9 4.75 kbps / CS RAB  
+ Interactive or background / UL:32 DL:32 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH

6.11.5.4.1.38h.1 Uplink

6.11.5.4.1.38h.1.1 Transport channel parameters

6.11.5.4.1.38h.1.1.1 Transport channel parameters for Conversational / speech / UL: 12.2 7.95 5.9 4.75 / CS RAB

See clause 6.10.3.4.1.4a.1.1.1.

6.11.5.4.1.38h.1.1.2 Transport channel parameters for Interactive or background / UL:32 kbps / PS RAB

See clause 6.10.3.4.1.23d.1.1.1.

6.11.5.4.1.38h.1.1.3 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.1.1.1.

6.11.5.4.1.38h.1.1.4 TFCS

See clause 6.10.3.4.1.38h.1.1.4.

6.11.5.4.1.38h.1.2 Physical channel parameters

DPCH Uplink	Modulation	QPSK
	Codes and time slots / radio frame	SF2 x 1 code x 2 time slots
	Max. Number of data bits/radio frame	<del>1368</del> 1384 bits
	TFCI code word / radio frame	<del>32</del> 46 bits
	TPC / radio frame	2x 2 bits
	SS/ radio frame	2x 2 bits
	Puncturing Limit	0.72 (alt 0.64)

6.11.5.4.1.38h.2 Downlink

6.11.5.4.1.38h.2.1 Transport channel parameters

6.11.5.4.1.38h.2.1.1 Transport channel parameters for Conversational / speech / DL:12.2 7.95 5.9 4.75 / CS RAB

See clause 6.10.3.4.1.4a.2.1.1.

6.11.5.4.1.38h.2.1.2 Transport channel parameters for Interactive or background / DL:32 kbps / PS RAB

See clause 6.10.3.4.1.23d.2.1.1.

6.11.5.4.1.38h.2.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.2.1.1.

6.11.5.4.1.38h.2.1.4 TFCS

See clause 6.10.3.4.1.38h.2.1.4.

6.11.5.4.1.38h.2.2 Physical channel parameters

DPCH Downlink	Modulation	QPSK
	Codes and time slots / radio frame	SF16 x 8 code x 2 time slots
	Max. Number of data bits / radio frame	<del>1368</del> 1384 bits
	TFCl code word / radio frame	<del>32</del> 46 bits
	TPC / radio frame	2x 2 bits
	SS / radio frame	2x 2 bits
	Puncturing Limit	0.72

6.11.5.4.1.38i Conversational / speech / UL: 12.2 7.95 5.9 4.75 DL:12.2 7.95 5.9 4.75 kbps / CS RAB  
 + Interactive or background / UL:64 DL:64 kbps / PS RAB  
 + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.11.5.4.1.38i.1 Uplink

6.11.5.4.1.38i.1.1 Transport channel parameters

6.11.5.4.1.38i.1.1.1 Transport channel parameters for Conversational / speech / UL: 12.2 7.95 5.9 4.75 / CS RAB

See clause 6.10.3.4.1.4a.1.1.1.

6.11.5.4.1.38i.1.1.2 Transport channel parameters for Interactive or background / UL:64 kbps / PS RAB

See clause 6.10.3.4.1.26.1.1.1.

6.11.5.4.1.38i.1.1.3 Transport channel parameters for UL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.1.1.1.

6.11.5.4.1.38i.1.1.4 TFCS

See clause 6.10.3.4.1.38i.1.1.4.

## 6.11.5.4.1.38i.1.2 Physical channel parameters

DPCH Uplink	Modulation	QPSK	8PSK
	Codes and time slots/ radio frame	(SF1 x 1 code x 2 time slots) + (SF2 x 1 code x 2 time slots)	SF1 x 1code x 2 time slots
Max. Number of data bits/radio frame		<del>4184</del> 4200 bits	<del>4164</del> 4188 bits
TFCI code word/ radio frame		<del>32</del> 46 bits	<del>48</del> 24 bits
TPC/ radio frame		2*2 bits	2* 3bits
SS/ radio frame		2*2 bits	2* 3bits
Puncturing Limit		1	1

## 6.11.5.4.1.38i.2 Downlink

## 6.11.5.4.1.38i.2.1 Transport channel parameters

## 6.11.5.4.1.38i.2.1.1 Transport channel parameters for Conversational / speech / DL:12.2 7.95 5.9 4.75 / CS RAB

See clause 6.10.3.4.1.4a.2.1.1.

## 6.11.5.4.1.38i.2.1.2 Transport channel parameters for Interactive or background / DL:64 kbps / PS RAB

See clause 6.10.3.4.1.25.2.1.1.

## 6.11.5.4.1.38i.2.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.2.1.1.

## 6.11.5.4.1.38i.2.1.4 TFCS

See clause 6.10.3.4.1.38i.2.1.4.

## 6.11.5.4.1.38i.2.2 Physical channel parameters

DPCH Downlink	Modulation	QPSK
	Codes and time slots/ radio frame	SF 16 x 9 codes x 4 time slots
Max. Number of data bits/radio frame		<del>3128</del> 3144 bits
TFCI code word/ radio frame		<del>32</del> 46 bits
TPC / radio frame		2 * 2 bits
SS / radio frame		2 * 2 bits
Puncturing Limit		1

6.11.5.4.1.38j Conversational / speech / UL: 12.2 7.95 5.9 4.75 DL:12.2 7.95 5.9 4.75 kbps / CS RAB  
 + Interactive or background / UL:64 DL:128 kbps / PS RAB  
 + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.11.5.4.1.38j.1 Uplink

See clause 6.11.5.4.1.38i.1.

6.11.5.4.1.38j.2 Downlink

6.11.5.4.1.38j.2.1 Transport channel parameters

6.11.5.4.1.38j.2.1.1 Transport channel parameters for Conversational / speech / DL:12.2 7.95 5.9 4.75 / CS RAB

See clause 6.10.3.4.1.4a.2.1.1.

6.11.5.4.1.38j.2.1.2 Transport channel parameters for Interactive or background / DL:128 kbps / PS RAB

See clause 6.10.3.4.1.27.2.1.1.

6.11.5.4.1.38j.2.1.3 Transport channel parameters for DL:3.4 kbps SRBs for DCCH

See clause 6.10.3.4.1.2.2.1.1.

6.11.5.4.1.38j.2.1.4 TFCS

See clause 6.10.3.4.1.38j.2.1.4.

6.11.5.4.1.38j.2.2 Physical channel parameters

DPCH	Modulation	QPSK
Downlink	Codes and time slots/ radio frame	SF 16 x 9 codes x 4 time slots
	Max. Number of data bits/radio frame	<del>3128</del> 3144 bits
	TFCI code word/ radio frame	<del>32</del> 46 bits
	TPC / radio frame	2 * 2 bits
	SS / radio frame	2 * 2 bits
	Puncturing Limit	0.60



## CHANGE REQUEST

⌘ **34.108 CR 367** ⌘ rev **-** ⌘ Current version: **5.2.0** ⌘

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

<b>Title:</b>	⌘ Alignment of Prose to TTCN for SCH power level		
<b>Source:</b>	⌘ Anite		
<b>Work item code:</b>	⌘ TEI	<b>Date:</b>	⌘ 14/10/2004
<b>Category:</b>	⌘ <b>F</b>	<b>Release:</b>	⌘ Rel-5
	Use <u>one</u> of the following categories: <b>F</b> (correction) <b>A</b> (corresponds to a correction in an earlier release) <b>B</b> (addition of feature), <b>C</b> (functional modification of feature) <b>D</b> (editorial modification) Detailed explanations of the above categories can be found in 3GPP <a href="#">TR 21.900</a> .		Use <u>one</u> of the following releases: 2 (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) Rel-4 (Release 4) Rel-5 (Release 5) Rel-6 (Release 6)

<b>Reason for change:</b>	⌘ [H] TS 34.108 "Table 6.1.5: Default power levels of physical channels relative to CPICH_Ec" specifies that SCH_Ec should be ñ2dB below CPICH_Ec.  Hiowever, in the TTCN SCH_Ec is set to -5db below CPICH_Ec.		
<b>Summary of change:</b>	⌘ In table 6.1.5 changed SCH_Ec to ñ5dB.		
<b>Consequences if not approved:</b>	⌘ Inconsistency will remain between the TTCN implementation & prose specification in TS34.108.		

<b>Clauses affected:</b>	⌘ Section 9.1.1										
<b>Other specs affected:</b>	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;">⌘</td> <td style="text-align: center;">X</td> </tr> <tr> <td style="text-align: center;">⌘</td> <td style="text-align: center;">X</td> </tr> <tr> <td style="text-align: center;">⌘</td> <td style="text-align: center;">X</td> </tr> </table> Other core specifications <span style="float: right;">⌘</span> Test specifications O&M Specifications	Y	N	⌘	X	⌘	X	⌘	X		
Y	N										
⌘	X										
⌘	X										
⌘	X										
<b>Other comments:</b>	⌘ Affects Rel-5, Rel-4 and R99 UEs.										

**How to create CRs using this form:**

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

<<START OF Modified Section>>

### 6.1.5 Reference Radio Conditions for signalling test cases (FDD)

The following transmission parameters shall be used for signalling test cases only unless otherwise stated in the description of the individual test case.

Ö Ö Ö ..

**Table 6.1.5: Default power levels of physical channels relative to CPICH\_Ec**

Parameter	Unit	Level Idle mode	Level Connected mode
DPCH_Ec	dB	(NOTE)	See table 6.1.6
PCCPCH_Ec	dB		-2
SCCPCH_Ec	dB		-2
AICH_Ec	dB		-5
SCH_Ec	dB		-25
PICH_Ec	dB		-5
NOTE: This shall be less than $\bar{n}122$ dBm to ensure the channel is considered as "off".			

<<End OF Modified Section>>

## CHANGE REQUEST

**34.108 CR 368 rev -** Current version: **5.2.0**

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


<b>Title:</b>	Addition of new HSDPA RAB configurations with UL 64 kbps		
<b>Source:</b>	NEC		
<b>Work item code:</b>	HSDPA	<b>Date:</b>	18/10/2004
<b>Category:</b>	<b>F</b>	<b>Release:</b>	Rel-5
	Use <u>one</u> of the following categories: <b>F</b> (correction) <b>A</b> (corresponds to a correction in an earlier release) <b>B</b> (addition of feature), <b>C</b> (functional modification of feature) <b>D</b> (editorial modification) Detailed explanations of the above categories can be found in 3GPP <a href="#">TR 21.900</a> .		Use <u>one</u> of the following releases: <b>Ph2</b> (GSM Phase 2) <b>R96</b> (Release 1996) <b>R97</b> (Release 1997) <b>R98</b> (Release 1998) <b>R99</b> (Release 1999) <b>Rel-4</b> (Release 4) <b>Rel-5</b> (Release 5) <b>Rel-6</b> (Release 6) <b>Rel-7</b> (Release 7)

<b>Reason for change:</b>	Multi-RAB configurations with UL 64 kbps are not included in the UE conformance test specifications.
<b>Summary of change:</b>	The following new radio bearer configurations are added: - 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. - 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.
<b>Consequences if not approved:</b>	The use of multi-RABs with UL 64 kbps is not covered for HSDPA. UEs with lower UE capabilities than UL 384 kbps can not be tested.

<b>Clauses affected:</b>	6.10.2.2, 6.10.2.4.5										
<b>Other specs affected:</b>	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="padding: 2px;">Y</td> <td style="padding: 2px;">N</td> </tr> <tr> <td style="padding: 2px;">X</td> <td style="padding: 2px;"></td> </tr> <tr> <td style="padding: 2px;">X</td> <td style="padding: 2px;"></td> </tr> <tr> <td style="padding: 2px;"></td> <td style="padding: 2px;">X</td> </tr> </table>	Y	N	X		X			X	Other core specifications	<b>TS 25.993</b>
	Y	N									
	X										
X											
	X										
Test specifications	<b>TS 34.123</b>										
O&M Specifications											
<b>Other comments:</b>	Applicable for terminals supporting Rel-5 and HSDPA.										

### How to create CRs using this form:

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

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

## 6.10.2.2 Combinations of RABs and Signalling RBs

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

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

### Combinations on DPCH

- 1) Stand-alone UL:1.7 DL:1.7 kbps SRBs for DCCH.
- 2) Stand-alone UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 3) Stand-alone UL:13.6 DL:13.6 kbps SRBs for DCCH.
- 4) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 4a) Conversational / speech / UL:(12.2 7.95 5.9 4.75) DL:(12.2 7.95 5.9 4.75) kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 5) Conversational / speech / UL:10.2 DL:10.2 kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 5a) Conversational / speech / UL:(10.2, 6.7, 5.9, 4.75) DL:(10.2, 6.7, 5.9, 4.75) kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 6) Conversational / speech / UL:7.95 DL:7.95 kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 7) Conversational / speech / UL:7.4 DL:7.4 kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 7a) Conversational / speech / UL:(7.4, 6.7, 5.9, 4.75) DL:(7.4, 6.7, 5.9, 4.75) kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 8) Conversational / speech / UL:6.7 DL:6.7 kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 9) Conversational / speech / UL:5.9 DL:5.9 kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 10) Conversational / speech / UL:5.15 DL:5.15 kbps / CS RAB  
+ UL:1.7 DL:1.7 kbps SRBs for DCCH.
- 11) Conversational / speech / UL:4.75 DL:4.75 kbps / CS RAB  
+ UL:1.7 DL:1.7 kbps SRBs for DCCH.
- 12) Conversational / unknown / UL:28.8 DL:28.8 kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 13) Conversational / unknown / UL:64 DL:64 kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 14) Conversational / unknown / UL:32 DL:32 kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 15) Streaming / unknown / UL:14.4/DL:14.4 kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 16) Streaming / unknown / UL:28.8/DL:28.8 kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

- 17) Streaming / unknown / UL:57.6/DL:57.6 kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 18) Void
- 19) Void.
- 20) Void.
- 21) Void.
- 22) Void.
- 23) Interactive or background / UL:32 DL:8 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 23a) Interactive or background / UL:8 DL:8 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 23b) Interactive or background / UL:16 DL:16 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 23c) Interactive or background / UL:32 DL:32 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 23d) Interactive or background / UL:32 DL:32 kbps / PS RAB (20 ms TTI)  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 24) Void
- 25) Interactive or background / UL:32 DL: 64 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 26) Interactive or background / UL:64 DL: 64 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 27) Interactive or background / UL:64 DL:128 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 28) Interactive or background / UL:128 DL:128 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 29) Interactive or background / UL:64 DL:144 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 30) Interactive or background / UL:144 DL:144 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 31) Interactive or background / UL:64 DL:256 kbps / PS RAB  
+ UL:3.4 DL: 3.4 kbps SRBs for DCCH.
- 32) Interactive or background / UL:64 DL:384 kbps / PS RAB  
+ UL:3.4 DL: 3.4 kbps SRBs for DCCH.
- 33) Interactive or background / UL:128 DL:384 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 34) Interactive or background / UL:384 DL:384 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 35) Interactive or background / UL:64 DL:2048 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 36) Void
- 37) Void

- 38) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ Interactive or background / UL:32 DL:8 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 38a) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ Interactive or background / UL:0 DL:0 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 38b) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ Interactive or background / UL:8 DL:8 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 38c) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ Interactive or background / UL:32 DL:32 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 38d) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ Interactive or background / UL:64 DL:64 kbps / PS RAB  
+ Interactive or background / UL:64 DL:64 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 38e) Conversational / speech / UL:(12.2 7.95 5.9 4.75) DL:(12.2 7.95 5.9 4.75) kbps / CS RAB  
+ Interactive or background / UL:0 DL:0 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 38f) Conversational / speech / UL:(12.2 7.95 5.9 4.75) DL:(12.2 7.95 5.9 4.75) kbps / CS RAB  
+ Interactive or background / UL:8 DL:8 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 38g) Conversational / speech / UL:(12.2 7.95 5.9 4.75) DL:(12.2 7.95 5.9 4.75) kbps / CS RAB  
+ Interactive or background / UL:16 DL:16 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 38h) Conversational / speech / UL:(12.2 7.95 5.9 4.75) DL:(12.2 7.95 5.9 4.75) kbps / CS RAB  
+ Interactive or background / UL:32 DL:32 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 38i) Conversational / speech / UL:(12.2 7.95 5.9 4.75) DL:(12.2 7.95 5.9 4.75) kbps / CS RAB  
+ Interactive or background / UL:64 DL:64 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 38j) Conversational / speech / UL:(12.2 7.95 5.9 4.75) DL:(12.2 7.95 5.9 4.75) kbps / CS RAB  
+ Interactive or background / UL:64 DL:128 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 39) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ Interactive or background / UL:32 DL:64 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 40) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ Interactive or background / UL:64 DL:64 kbps / PS RAB  
+ UL:3.4 DL: 3.4 kbps SRBs for DCCH.
- 41) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ Interactive or background / UL:64 DL:128 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 42) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ Interactive or background / UL:64 DL:256 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 43) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ Interactive or background / UL:64 DL:384 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.



- 44) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ Interactive or background / UL:128 DL:2048 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 45) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ Streaming / unknown / UL:57.6 DL:57.6 kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 46) Void
- 47) Void.
- 48) Void.
- 49) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ Conversational / unknown / UL:64 DL:64 kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 49a) Conversational / speech / UL:(12.2 7.95 5.9 4.75) DL:(12.2 7.95 5.9 4.75) kbps / CS RAB  
+ Conversational / unknown / UL:64 DL:64 kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 50) Conversational / unknown / UL:64 DL:64 kbps / CS RAB  
+ Conversational / unknown / UL:64 DL:64 kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 51) Conversational / unknown / UL:64 DL:64 kbps / CS RAB  
+ Interactive or background / UL:64 DL:64 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 51a) Conversational / unknown / UL:64 DL:64 kbps / CS RAB  
+ Interactive or Background / UL:8 DL:8 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 51b) Conversational / unknown / UL:64 DL:64 kbps / CS RAB  
+ Interactive or Background / UL:16 DL:64 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 52) Conversational / unknown / UL:64 DL:64 kbps / CS RAB  
+ Interactive or background / UL:64 DL:128 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 53) Conversational / unknown / UL:64 DL:64 kbps / CS RAB  
+ Interactive or background / UL:128 DL:128 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 54) Void
- 55) Void.
- 56) Interactive or background / UL:8 DL:8 kbps / PS RAB  
+ Interactive or background / UL:8 DL:8 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 57) Interactive or background / UL:64 DL:64 kbps / PS RAB  
+ Interactive or background / UL:64 DL:64 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 58) Streaming / unknown / UL:16 DL:64 kbps / PS RAB  
+ Interactive or background / UL:8 DL:8 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 59) Conversational / Speech / UL:42.8 DL:42.8 kbps / PS RAB  
+ 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 (REL-5).

- 60) Conversational / Speech / UL:42.8 DL:42.8 kbps / PS RAB  
+ Interactive or background / UL:16 DL:16 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH (REL-5).
- 61) Conversational / unknown / UL:8 DL:8 kbps / PS RAB  
+ Interactive or Background / UL:8 DL:8 kbps / PS RAB +  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH
- 62) 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 (REL-5).
- 63) Interactive or background / UL:64 DL:768 kbps / PS RAB  
+ UL:3.4 DL: 3.4 kbps SRBs for DCCH (REL-5).

#### Combinations on DSCH and DPCH

- 1) Void
- 2) Interactive or background / UL:64 DL:384 kbps / PS RAB  
+ UL:3.4 DL: 3.4 kbps SRBs for DCCH.
- 3) Interactive or background / UL:64 DL:2048 kbps / PS RAB  
+ UL:3.4 DL: 3.4 kbps SRBs for DCCH.
- 4) Void
- 5) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ Interactive or background / UL:64 DL:384 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 6) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ Interactive or background / UL:64 DL:2048 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

#### Combinations on SCCPCH

- 1) Stand-alone 24 kbps SRB for PCCH.
- 2) Interactive or background / DL:32 kbps / PS RAB  
+ SRB for CCCH  
+ SRBs for DCCH  
+ SRB for BCCH.
- 3) Interactive or background / DL:32 kbps / PS RAB  
+ SRB for PCCH  
+ SRB for CCCH  
+ SRBs for DCCH  
+ SRB for BCCH.
- 4) RB for CTCH  
+ SRB for CCCH  
+SRB for BCCH

#### Combinations on PRACH

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

#### Combinations on DPCH and HS-PDSCH

- 1) Interactive or background / UL:64 DL: [max bit rate depending on UE category] / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH (REL-5)

- 2) Interactive or background / UL:384 DL: [max bit rate depending on UE category] / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH (REL-5)
- x) 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 (REL-5)
- y) 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 (REL-5)
- z) 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 (REL-5)

## 6.10.2.4.5 Combinations on DPCH and HS-PDSCH

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

6.10.2.4.5.1.1 Uplink

See clause 6.10.2.4.1.26.1.

6.10.2.4.5.1.2 Downlink

6.10.2.4.5.1.2.1 Transport channel parameters

6.10.2.4.5.1.2.1.1 Transport channel parameters for HS-DSCH

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

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

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

6.10.2.4.5.1.2.1.2 Transport channel parameters for DCH

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

See clause 6.10.2.4.1.2.2.1.1.

6.10.2.4.5.1.2.1.2.2 TFCS

See clause 6.10.2.4.1.2.2.1.2.

6.10.2.4.5.1.2.2 Physical channel parameters

6.10.2.4.5.1.2.2.1 Physical channel parameters on DPCH

See clause 6.10.2.4.1.2.2.2.

6.10.2.4.5.1.2.2.1 Physical channel parameters on HS-PDSCH

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

UE HS-DSCH Physical Layer category 1:

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

UE HS-DSCH Physical Layer category 2:

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

UE HS-DSCH Physical Layer category 3:

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

UE HS-DSCH Physical Layer category 4:

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

UE HS-DSCH Physical Layer category 5:

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

UE HS-DSCH Physical Layer category 6:

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

UE HS-DSCH Physical Layer category 7:

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

UE HS-DSCH Physical Layer category 8:

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

UE HS-DSCH Physical Layer category 9:

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

UE HS-DSCH Physical Layer category 10:

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

UE HS-DSCH Physical Layer category 11:

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

UE HS-DSCH Physical Layer category 12:

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

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

6.10.2.4.5.2.1 Uplink

See clause 6.10.2.4.1.34.1.

6.10.2.4.5.2.2 Downlink

6.10.2.4.5.2.2.1 Transport channel parameters

6.10.2.4.5.2.2.1.1 Transport channel parameters for HS-DSCH

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

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

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

6.10.2.4.5.2.2.1.2 Transport channel parameters for DCH

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

See clause 6.10.2.4.1.2.2.1.1.

6.10.2.4.5.2.2.1.2.2 TFCS

See clause 6.10.2.4.1.2.2.1.2.

6.10.2.4.5.2.2.2 Physical channel parameters

6.10.2.4.5.2.2.2.1 Physical channel parameters on DPCH

See clause 6.10.2.4.1.2.2.2.

6.10.2.4.5.2.2.2.2 Physical channel parameters on HS-PDSCH

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

UE HS-DSCH Physical Layer category 1:

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

UE HS-DSCH Physical Layer category 2:

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

UE HS-DSCH Physical Layer category 3:

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

UE HS-DSCH Physical Layer category 4:

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

UE HS-DSCH Physical Layer category 5:

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

UE HS-DSCH Physical Layer category 6:

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

UE HS-DSCH Physical Layer category 7:

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

UE HS-DSCH Physical Layer category 8:

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

UE HS-DSCH Physical Layer category 9:

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

UE HS-DSCH Physical Layer category 10:

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

UE HS-DSCH Physical Layer category 11:

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

UE HS-DSCH Physical Layer category 12:

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

[6.10.2.4.5.x](#) [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](#)

[6.10.2.4.5.x.1](#) [Uplink](#)

[See clause 6.10.2.4.1.40.1.](#)

[6.10.2.4.5.x.2](#) [Downlink](#)

[6.10.2.4.5.x.2.1](#) [Transport channel parameters](#)

[6.10.2.4.5.x.2.1.1](#) [Transport channel parameters for HS-DSCH](#)

[See clause 6.10.2.4.5.1.2.1.1.](#)

[6.10.2.4.5.x.2.1.2](#) [Transport channel parameters for DCH](#)

[6.10.2.4.5.x.2.1.2.1](#) [Transport channel parameters for Conversational / speech / DL:12.2 kbps / CS RAB](#)

[See clause 6.10.2.4.1.4.2.1.1.](#)



[6.10.2.4.5.x.2.1.2.2](#) [Transport channel parameters for DL: 3.4 kbps SRBs for DCCH](#)

[See clause 6.10.2.4.1.2.2.1.1.](#)

[6.10.2.4.5.x.2.1.2.3](#) [TFCS](#)

[See clause 6.10.2.4.1.4.2.1.3.](#)

[6.10.2.4.5.x.2.2](#) [Physical channel parameters](#)

[6.10.2.4.5.x.2.2.1](#) [Physical channel parameters on DPCH](#)

[See clause 6.10.2.4.1.4.2.2.](#)

[6.10.2.4.5.x.2.2.2](#) [Physical channel parameters on HS-PDSCH](#)

[See clause 6.10.2.4.5.1.2.2.2.](#)

[6.10.2.4.5.y](#) [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](#)

[6.10.2.4.5.y.1](#) [Uplink](#)

[See clause 6.10.2.4.1.51.1.](#)

[6.10.2.4.5.y.2](#) [Downlink](#)

[6.10.2.4.5.y.2.1](#) [Transport channel parameters](#)

[6.10.2.4.5.y.2.1.1](#) [Transport channel parameters for HS-DSCH](#)

[See clause 6.10.2.4.5.1.2.1.1.](#)

[6.10.2.4.5.y.2.1.2](#) [Transport channel parameters for DCH](#)

[6.10.2.4.5.y.2.1.2.1](#) [Transport channel parameters for Conversational / unknown / DL:64 kbps / CS RAB](#)

[See clause 6.10.2.4.1.13.2.1.1.](#)

[6.10.2.4.5.y.2.1.2.2](#) [Transport channel parameters for DL: 3.4 kbps SRBs for DCCH](#)

[See clause 6.10.2.4.1.2.2.1.1.](#)

[6.10.2.4.5.y.2.1.2.3](#) [TFCS](#)

[See clause 6.10.2.4.1.13.2.1.3.](#)

[6.10.2.4.5.y.2.2](#) [Physical channel parameters](#)

[6.10.2.4.5.y.2.2.1](#) [Physical channel parameters on DPCH](#)

[See clause 6.10.2.4.1.13.2.2.](#)

[6.10.2.4.5.y.2.2.2](#) [Physical channel parameters on HS-PDSCH](#)

[See clause 6.10.2.4.5.1.2.2.2.](#)

[6.10.2.4.5.z](#) [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](#)

[6.10.2.4.5.z.1](#) [Uplink](#)

[See clause 6.10.2.4.1.57.1.](#)

[6.10.2.4.5.z.2](#) [Downlink](#)

[6.10.2.4.5.z.2.1](#) [Transport channel parameters](#)

[6.10.2.4.5.z.2.1.1](#) [Transport channel parameters for HS-DSCH](#)

[6.10.2.4.5.z.2.1.1.1](#) [MAC-d flow parameters for Interactive or background / DL: \[max bit rate depending on UE category\] / PS RAB](#)

[See clause 6.10.2.4.5.1.2.1.1.1.](#)

[6.10.2.4.5.z.2.1.1.2](#) [MAC-d flow parameters for Interactive or background / DL: \[max bit rate depending on UE category\] / PS RAB](#)

[See clause 6.10.2.4.5.1.2.1.1.1.](#)

[6.10.2.4.5.z.2.1.2](#) [Transport channel parameters for DCH](#)

[6.10.2.4.5.z.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.](#)

[6.10.2.4.5.z.2.1.2.2](#) [TFCS](#)

[See clause 6.10.2.4.1.2.2.1.2.](#)

[6.10.2.4.5.z.2.2](#) [Physical channel parameters](#)

[6.10.2.4.5.z.2.2.1](#) [Physical channel parameters on DPCH](#)

[See clause 6.10.2.4.1.2.2.2.](#)

[6.10.2.4.5.z.2.2.2](#) [Physical channel parameters on HS-PDSCH](#)

[See clause 6.10.2.4.5.1.2.2.2.](#)

## CHANGE REQUEST

**34.108 CR 369 rev -** Current version: **5.2.0**

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


<b>Title:</b>	Correction to initial conditions and references in clause 7.3		
<b>Source:</b>	NEC, Racal Instruments Wireless Solutions		
<b>Work item code:</b>	TEI	<b>Date:</b>	21/10/2004
<b>Category:</b>	<b>F</b>	<b>Release:</b>	Rel-5
	Use <u>one</u> of the following categories: <b>F</b> (correction) <b>A</b> (corresponds to a correction in an earlier release) <b>B</b> (addition of feature), <b>C</b> (functional modification of feature) <b>D</b> (editorial modification) Detailed explanations of the above categories can be found in 3GPP <a href="#">TR 21.900</a> .		Use <u>one</u> of the following releases: <b>Ph2</b> (GSM Phase 2) <b>R96</b> (Release 1996) <b>R97</b> (Release 1997) <b>R98</b> (Release 1998) <b>R99</b> (Release 1999) <b>Rel-4</b> (Release 4) <b>Rel-5</b> (Release 5) <b>Rel-6</b> (Release 6) <b>Rel-7</b> (Release 7)

<b>Reason for change:</b>	The number of cells listed under initial conditions is not correct for several test cases referring to sections 7.3.x. The references to TS 34.121 clause 6.8.x do only apply for the RX spurious emissions test case (6.8), but not for the other test cases using CELL_FACH state.
<b>Summary of change:</b>	Add references to TS 34.121 for the number of cells and parameters to be used in specific test cases. Remove references to specific test case in TS 34.121 (6.8).
<b>Consequences if not approved:</b>	Incorrect number of cells and parameters for specific test cases listed under initial conditions. Incorrect references to TS 34.121 clauses for several test cases.

<b>Clauses affected:</b>	7.3, 7.3.2, 7.3.3, 7.3.4, 7.3.5										
<b>Other specs affected:</b>	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> </table>	Y	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Other core specifications Test specifications O&M Specifications	
Y	N										
<input type="checkbox"/>	<input checked="" type="checkbox"/>										
<input type="checkbox"/>	<input checked="" type="checkbox"/>										
<input type="checkbox"/>	<input checked="" type="checkbox"/>										
<b>Other comments:</b>	Applicable for terminals supporting R99 and later.										

**How to create CRs using this form:**

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

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

## 7.3 Test procedures for RF test

[Note: In general parameters defined for specific test cases in TS 34.121 \[2\] take priority over the default parameters defined in this specification.](#)

### 7.3.1 UE Test States for RF testing

In this clause, the states of the UE for the test are defined.

		<b>RRC</b>	<b>CC</b>	<b>MM</b>	<b>SM</b>	<b>GMM</b>
State1	Power OFF	-----	null	detached	inactive	detached
State2	CS Registered Idle Mode	idle	null	idle	inactive	detached
State3	PS Registered Idle Mode	idle	null	detached	inactive	idle
State4	Test Mode	connected	null	detached	inactive	detached

### 7.3.2 Test procedure for TX, RX and Performance Requirement (without handover)

#### 7.3.2.1 Initial conditions

System Simulator

- [test cases using 1 cell:](#)

- 1cell, default parameters.

- [other test cases using this test procedure:](#)

- [Number of cells and parameters for specific tests are defined in TS 34.121 \[2\] and take priority over the default parameters.](#)

User Equipment

The UE shall initially be operated under normal RF test conditions if not otherwise stated in the initial conditions for the actual test case.

The Test-USIM shall be inserted.

The UE has a valid TMSI (CS) after the execution of the procedure described in 7.2.2.1

The UE has a valid P-TMSI (PS) after the execution of the procedure described in 7.2.2.2

#### 7.3.2.2 Definition of system information messages

The default system information messages specified in clause 6.1.0b are used with the following exceptions.

Contents of System information block type 1: RRC

Information Element	Value/remark
- CN domain system information	
- CN domain identity	PS
- CHOICE CN Type	GSM-MAP
- CN domain specific NAS system information	
- GSM-MAP NAS system information	00 00
- CN domain specific DRX cycle length coefficient	7
- CN domain identity	CS
- CHOICE CN Type	GSM-MAP
- CN domain specific NAS system information	
- GSM-MAP NAS system information	00(T3212 is set to infinity) 01
- CN domain specific DRX cycle length coefficient	7
- UE Timers and constants in connected mode	
- T305	Infinity

Contents of System Information Block type 5 (FDD)

Information Element	Value/remark
- Secondary CCPCH system information	
- Secondary CCPCH info	
- CHOICE mode	FDD
- Secondary scrambling code	Not Present
- STTD indicator	FALSE
- Spreading factor	64
- Code number	2
- Pilot symbol existence	FALSE
- TFCI existence	TRUE (default value)
- Fixed or Flexible position	Flexible (default value)
- Timing offset	Not Present
	Absence of this IE is equivalent to default value 0

### 7.3.2.3 Procedure

For UE supporting CS

Step	Direction		Message	Comments
	UE	SS		
1	<--		SYSTEM INFORMATION (BCCH)	Broadcast
2	<--		PAGING TYPE1 (PCCH)	Paging (CS domain, TMSI)
3	-->		RRC CONNECTION REQUEST (CCCH)	RRC
4	<--		RRC CONNECTION SETUP (CCCH)	RRC
5	-->		RRC CONNECTION SETUP COMPLETE (DCCH)	RRC
6	-->		PAGING RESPONSE	RR
7	<--		AUTHENTICATION REQUEST	MM
8	-->		AUTHENTICATION RESPONSE	MM
9	<--		SECURITY MODE COMMAND	RRC
10	-->		SECURITY MODE COMPLETE	RRC
11	<--		ACTIVATE RB TEST MODE	TC
12	-->		ACTIVATE RB TEST MODE COMPLETE	TC
13	<--		RADIO BEARER SETUP	RRC (RAB SETUP)
14	-->		RADIO BEARER SETUP COMPLETE	RRC
15	<--		CLOSE UE TEST LOOP (DCCH)	TC (UE test loop mode set up)
16	-->		CLOSE UE TEST LOOP COMPLETE	TC (confirms that loopback entities for the radio bearer(s) have been created and loop back is activated)
17	<--		OPEN UE TEST LOOP	TC
18	-->		OPEN UE TEST LOOP COMPLETE	TC
19	<--		RRC CONNECTION RELEASE	RRC
20	-->		RRC CONNECTION RELEASE COMPLETE	RRC

For UE supporting PS only

Step	Direction		Message	Comments
	UE	SS		
1	<--		SYSTEM INFORMATION (BCCH)	Broadcast
2	<--		PAGING TYPE1 (PCCH)	Paging (PS domain, P-TMSI)
3	-->		RRC CONNECTION REQUEST (CCCH)	RRC
4	<--		RRC CONNECTION SETUP (CCCH)	RRC
5	-->		RRC CONNECTION SETUP COMPLETE (DCCH)	RRC
6	-->		SERVICE REQUEST	GMM
7	<--		AUTHENTICATION AND CIPHERING REQUEST	GMM
8	-->		AUTHENTICATION AND CIPHERING RESPONSE	GMM
9	<--		SECURITY MODE COMMAND	RRC
10	-->		SECURITY MODE COMPLETE	RRC
11	<--		ACTIVATE RB TEST MODE	TC
12	-->		ACTIVATE RB TEST MODE COMPLETE	TC
13	<--		RADIO BEARER SETUP	RRC (RAB SETUP)
14	-->		RADIO BEARER SETUP COMPLETE	RRC
15	<--		CLOSE UE TEST LOOP (DCCH)	TC (UE test loop mode set up)
16	-->		CLOSE UE TEST LOOP COMPLETE	TC (confirms that loopback entities for the radio bearer(s) have been created and loop back is activated)
17	<--		OPEN UE TEST LOOP	TC
18	-->		OPEN UE TEST LOOP COMPLETE	TC
19	<--		RRC CONNECTION RELEASE	RRC
20	-->		RRC CONNECTION RELEASE COMPLETE	RRC

### 7.3.2.4 Specific message contents

The default message contents specified in clause 9.2 are used with the following exceptions.

#### 7.3.2.4.1 ATTACH ACCEPT

This message is sent from the SS to the UE, used for the UE supporting PS only.

Contents of Attach Accept message: GMM

Information Element	Value/remark
Periodic RA update timer	E0 (timer is deactivated)

#### 7.3.2.4.2 Reference measurement channels

The configurations of the reference measurement channels for RF tests are described in TS 34.121 [2] Annex C for FDD and TS 34.122 [5] Annex C for TDD.

#### 7.3.2.4.3 Void

#### 7.3.2.4.4 Compressed mode

[T.B.D.]

#### 7.3.2.4.5 Transmit diversity mode

[T.B.D.]

### 7.3.3 Test procedure for test cases using Cell\_PCH or URA\_PCH state

#### 7.3.3.1 Initial conditions

System Simulator

- [Number of cells and parameters for specific tests are defined in TS 34.121 \[2\] and take priority over the default parameters.](#) ~~cell, default parameters.~~

User Equipment

The UE shall be operated under RF test conditions.

The Test-USIM shall be inserted.

The UE has a valid TMSI (CS) after the execution of the procedure described in 7.2.2.1

The UE has a valid P-TMSI (PS) after the execution of the procedure described in 7.2.2.2

#### 7.3.3.2 Definition of system information messages

The default system information messages specified in clause 6.1.0b are used with the following exceptions.



Contents of System information block type 1: RRC

Information Element	Value/remark
- CN domain system information	
- CN domain identity	PS
- CHOICE CN Type	GSM-MAP
- CN domain specific NAS system information	
- GSM-MAP NAS system information	00 00
- CN domain specific DRX cycle length coefficient	7
- CN domain identity	CS
- CHOICE CN Type	GSM-MAP
- CN domain specific NAS system information	
- GSM-MAP NAS system information	00(T3212 is set to infinity) 01
- CN domain specific DRX cycle length coefficient	7
- UE Timers and constants in connected mode	
- T305	Infinity

Contents of System Information Block type 5 (FDD)

Information Element	Value/remark
- Secondary CCPCH system information	
- Secondary CCPCH info	
- CHOICE mode	FDD
- Secondary scrambling code	Not Present
- STTD indicator	FALSE
- Spreading factor	64
- Code number	2
- Pilot symbol existence	FALSE
- TFCI existence	TRUE (default value)
- Fixed or Flexible position	Flexible (default value)
- Timing offset	Not Present
	Absence of this IE is equivalent to default value 0

### 7.3.3.3 Procedure

For UE supporting PS

Step	Direction		Message	Comments
	UE	SS		
1	<--		SYSTEM INFORMATION (BCCH)	Broadcast
2	<--		PAGING TYPE1 (PCCH)	Paging (PS domain, P-TMSI)
3	-->		RRC CONNECTION REQUEST (CCCH)	RRC
4	<--		RRC CONNECTION SETUP (CCCH)	RRC
5	-->		RRC CONNECTION SETUP COMPLETE (DCCH)	RRC
6	-->		SERVICE REQUEST	GMM
7	<--		AUTHENTICATION AND CIPHERING REQUEST	GMM
8	-->		AUTHENTICATION AND CIPHERING RESPONSE	GMM
9	<--		SECURITY MODE COMMAND	RRC
10	-->		SECURITY MODE COMPLETE	RRC
11	<--		ACTIVATE RB TEST MODE	TC
12	-->		ACTIVATE RB TEST MODE COMPLETE	TC
13	<--		RADIO BEARER SETUP	RRC - RAB SETUP using Reference Radio Bearer Configuration
14	-->		RADIO BEARER SETUP COMPLETE	RRC
15	<--		PHYSICAL CHANNEL RECONFIGURATION	RRC - RRC state indicator is set to iCell_PCHî or iURA_PCHî depending on the test case
16	-->		PHYSICAL CHANNEL RECONFIGURATION COMPLETE	RRC The UE sends this message before it completes state transition.
17			Void	SS sends the L2 ack on the PHYSICAL CHANNEL RECONFIGURATION COMPLETE message. Note: The SS should continue to keep the dedicated channel configuration during the time when the L2 ack is sent to the UE.

### 7.3.3.4 Specific message contents

The default message contents specified in clause 9.2 are used with the following exceptions.

The RADIO BEARER SETUP message is defined in section 9.2.1 i Contents of RADIO BEARER SETUP message: AM or UM (UE supports PS RAB only)î .

The PHYSICAL CHANNEL RECONFIGURATION message is defined in 9.1.1 i Contents of PHYSICAL CHANNEL RECONFIGURATION message: AM or UMî using condition A8 for URA\_PCH and condition A10 for Cell\_PCH.

Contents of Attach Accept message: GMM

Information Element	Value/remark
Periodic RA update timer	E0 (timer is deactivated)

### 7.3.4 Test procedure for Handover

Note: This test procedure is also used for some other test cases involving more than 1 cell.

### 7.3.4.1 Initial conditions

#### System Simulator

- Intra-frequency hard handover and soft handover case:
  - 2 cells, default parameters according to Cell 1 and Cell 2 in clause 6.1.4.
- Inter-frequency hard handover case:
  - 2 cells, default parameters according to Cell 1 and Cell 4 in clause 6.1.4.
- Inter-system handover UTRAN FDD to GSM case:
  - 2 cells, default parameters according to Cell 1 and Cell 9 in clause 6.1.4.
- [other test cases using this test procedure:](#)
  - [Number of cells and parameters for specific tests are defined in TS 34.121 \[2\] and take priority over the default parameters.](#)

#### User Equipment

The UE shall be initially operated under the normal RF test conditions if not otherwise stated in the initial conditions for the actual test case.

The Test-USIM shall be inserted.

The UE has a valid TMSI (CS) after the execution of the procedure described in 7.2.2.1

The UE has a valid P-TMSI (PS) after the execution of the procedure described in 7.2.2.2

### 7.3.4.2 Definition of system information messages

The default system information messages specified in clause 6.1.0b are used with the following exceptions.

#### Contents of System information block type 1: RRC

Information Element	Value/remark
- CN domain system information	
- CN domain identity	PS
- CHOICE CN Type	GSM-MAP
- CN domain specific NAS system information	
- GSM-MAP NAS system information	00 00
- CN domain specific DRX cycle length coefficient	7
- CN domain identity	CS
- CHOICE CN Type	GSM-MAP
- CN domain specific NAS system information	
- GSM-MAP NAS system information	00(T3212 is set to infinity) 01
- CN domain specific DRX cycle length coefficient	7
- UE Timers and constants in connected mode	
- T305	Infinity

Contents of System Information Block type 5 (FDD)

Information Element	Value/remark
- Secondary CCPCH system information	
- Secondary CCPCH info	
- CHOICE mode	FDD
- Secondary scrambling code	Not Present
- STTD indicator	FALSE
- Spreading factor	64
- Code number	2
- Pilot symbol existence	FALSE
- TFCI existence	TRUE (default value)
- Fixed or Flexible position	Flexible (default value)
- Timing offset	Not Present
	Absence of this IE is equivalent to default value 0

For the intra-frequency hard handover and soft handover case the default messages for SIB11 and SIB12 as specified for Cell 1 and Cell 2 in clause 6.1.4 are used.

For the inter-frequency hard handover case the default messages for SIB11 and SIB12 as specified for Cell 1 and Cell 4 in clause 6.1.4 are used.

For the inter-system handover from UTRAN FDD to GSM case the default messages for SIB11 and SIB12 as specified for Cell 1 and Cell 9 in clause 6.1.4 are used.

7.3.4.3 Procedure

For UE supporting CS

Step	Direction		Message	Comments
	UE	SS		
1	<--		SYSTEM INFORMATION (BCCH)	Broadcast
2	<--		PAGING TYPE1 (PCCH)	Paging (CS domain, TMSI)
3	-->		RRC CONNECTION REQUEST (CCCH)	RRC
4	<--		RRC CONNECTION SETUP (CCCH)	RRC
5	-->		RRC CONNECTION SETUP COMPLETE (DCCH)	RRC
6	-->		PAGING RESPONSE	RR
7	<--		AUTHENTICATION REQUEST	MM
8	-->		AUTHENTICATION RESPONSE	MM
9	<--		SECURITY MODE COMMAND	RRC
10	-->		SECURITY MODE COMPLETE	RRC
11	<--		ACTIVATE RB TEST MODE	TC
12	-->		ACTIVATE RB TEST MODE COMPLETE	TC
13	<--		RADIO BEARER SETUP	RRC
				- RAB SETUP using Reference Radio Bearer Configuration
				- RRC state indicator is set to "CELL_DCH"
14	-->		RADIO BEARER SETUP COMPLETE	RRC
15	<--		RRC CONNECTION RELEASE	RRC
16	-->		RRC CONNECTION RELEASE COMPLETE	RRC

For UE supporting PS only

Step	Direction		Message	Comments
	UE	SS		
1	<--		SYSTEM INFORMATION (BCCH)	Broadcast
2	<--		PAGING TYPE1 (PCCH)	Paging (PS domain, P-TMSI)
3	-->		RRC CONNECTION REQUEST (CCCH)	RRC
4	<--		RRC CONNECTION SETUP (CCCH)	RRC
5	-->		RRC CONNECTION SETUP COMPLETE (DCCH)	RRC
6	-->		SERVICE REQUEST	GMM
7	<--		AUTHENTICATION AND CIPHERING REQUEST	GMM
8	-->		AUTHENTICATION AND CIPHERING RESPONSE	GMM
9	<--		SECURITY MODE COMMAND	RRC
10	-->		SECURITY MODE COMPLETE	RRC
11	<--		ACTIVATE RB TEST MODE	TC
12	-->		ACTIVATE RB TEST MODE COMPLETE	TC
13	<--		RADIO BEARER SETUP	RRC - RAB SETUP using Reference Radio Bearer Configuration - RRC state indicator is set to "CELL_DCH"
14	-->		RADIO BEARER SETUP COMPLETE	RRC
15	<--		RRC CONNECTION RELEASE	RRC
16	-->		RRC CONNECTION RELEASE COMPLETE	RRC

### 7.3.4.4 Specific message contents

The default message contents specified in clause 9.2 are used with the following exceptions.

Contents of RADIO BEARER SETUP message: RRC

Information Element	Value/remark
New C-RNTI	'1010 1010 1010 1010'
RRC State indicator	CELL_DCH

Contents of Attach Accept message: GMM

Information Element	Value/remark
Periodic RA update timer	E0 (timer is deactivated)

## 7.3.5 Test procedure for test cases using CELL\_FACH state

### 7.3.5.1 Initial conditions

System Simulator

- ~~cell~~ [Number of cells and parameters for specific tests are defined in TS 34.121 \[2\] and take priority over the default parameters.](#) ~~with the settings defined in clause 6.8 of TS 34.121 [2] and clause 6.1.4 of the present document.~~

User Equipment

The UE shall be operated under RF test conditions.

The Test-USIM shall be inserted.

The UE has a valid TMSI (CS) after the execution of the procedure described in 7.2.2.1

The UE has a valid P-TMSI (PS) after the execution of the procedure described in 7.2.2.2

### 7.3.5.2 Definition of system information messages

The default system information messages specified in clause 6.1.0b are used with the following exceptions.

~~For SIB 1 the exceptions are given below:~~

~~For SIB 3 the exceptions are given in TS 34.121 [2] clause 6.8.4~~

Contents of System information block type 1: RRC

Information Element	Value/remark
- CN domain system information	
- CN domain identity	PS
- CHOICE CN Type	GSM-MAP
- CN domain specific NAS system information	
- GSM-MAP NAS system information	00 00
- CN domain specific DRX cycle length coefficient	7
- CN domain identity	CS
- CHOICE CN Type	GSM-MAP
- CN domain specific NAS system information	
- GSM-MAP NAS system information	00(T3212 is set to infinity) 01
- CN domain specific DRX cycle length coefficient	7
- UE Timers and constants in connected mode	
- T305	Infinity

Contents of System Information Block type 5 (FDD)

Information Element	Value/remark
- Secondary CCPCH system information	
- Secondary CCPCH info	
- CHOICE mode	FDD
- Secondary scrambling code	Not Present
- STTD indicator	FALSE
- Spreading factor	64
- Code number	2
- Pilot symbol existence	FALSE
- TFCI existence	TRUE (default value)
- Fixed or Flexible position	Flexible (default value)
- Timing offset	Not Present
	Absence of this IE is equivalent to default value 0

### 7.3.5.3 Procedure

For UE supporting CS

Step	Direction		Message	Comments
	UE	SS		
1	<--		SYSTEM INFORMATION (BCCH)	Broadcast
2	<--		PAGING TYPE1 (PCCH)	Paging (CS domain, TMSI)
3	-->		RRC CONNECTION REQUEST (CCCH)	RRC
4	<--		RRC CONNECTION SETUP (CCCH)	RRC
5	-->		RRC CONNECTION SETUP COMPLETE (DCCH)	RRC
6	-->		PAGING RESPONSE	RR
7	<--		AUTHENTICATION REQUEST	MM
8	-->		AUTHENTICATION RESPONSE	MM
9	<--		SECURITY MODE COMMAND	RRC
10	-->		SECURITY MODE COMPLETE	RRC
11	<--		ACTIVATE RB TEST MODE	TC
12	-->		ACTIVATE RB TEST MODE COMPLETE	TC
13	<--		DEACTIVATE RB TEST MODE	TC
14	-->		DEACTIVATE RB TEST MODE COMPLETE	TC
15	<--		RRC CONNECTION RELEASE	RRC
16	-->		RRC CONNECTION RELEASE COMPLETE	RRC

For UE supporting PS only

Step	Direction		Message	Comments
	UE	SS		
1	<--		SYSTEM INFORMATION (BCCH)	Broadcast
2	<--		PAGING TYPE1 (PCCH)	Paging (PS domain, P-TMSI)
3	-->		RRC CONNECTION REQUEST (CCCH)	RRC
4	<--		RRC CONNECTION SETUP (CCCH)	RRC
5	-->		RRC CONNECTION SETUP COMPLETE (DCCH)	RRC
6	-->		SERVICE REQUEST	GMM
7	<--		AUTHENTICATION AND CIPHERING REQUEST	GMM
8	-->		AUTHENTICATION AND CIPHERING RESPONSE	GMM
9	<--		SECURITY MODE COMMAND	RRC
10	-->		SECURITY MODE COMPLETE	RRC
11	<--		ACTIVATE RB TEST MODE	TC
12	-->		ACTIVATE RB TEST MODE COMPLETE	TC
13	<--		DEACTIVATE RB TEST MODE	TC
14	-->		DEACTIVATE RB TEST MODE COMPLETE	TC
15	<--		RRC CONNECTION RELEASE	RRC
16	-->		RRC CONNECTION RELEASE COMPLETE	RRC

### 7.3.5.4 Specific message contents

The default message contents specified in clause 9.2 are used with the following exceptions.

Contents of Attach Accept message: GMM

Information Element	Value/remark
Periodic RA update timer	E0 (timer is deactivated)

The RRC connection setup is defined in 9.1.1 ì Contents of RRC CONNECTION SETUP message: UM (Transition to CELL\_FACH)î

## 7.3.6 Test procedure for HSDPA RF Performance Requirement

### 7.3.6.1 Initial conditions

System Simulator

- 1 HS-DSCH cell, default parameters.

User Equipment

The UE shall initially be operated under normal RF test conditions if not otherwise stated in the initial conditions for the actual test case.

The Test-USIM shall be inserted.

The UE has a valid P-TMSI (PS) after the execution of the procedure described in 7.2.2.2

### 7.3.6.2 Definition of system information messages

The default system information messages specified in clause 6.1.0b are used with the following exceptions.

Contents of System information block type 1: RRC

Information Element	Value/remark
- CN domain system information	
- CN domain identity	PS
- CHOICE CN Type	GSM-MAP
- CN domain specific NAS system information	
- GSM-MAP NAS system information	00 00
- CN domain specific DRX cycle length coefficient	7
- CN domain identity	CS
- CHOICE CN Type	GSM-MAP
- CN domain specific NAS system information	
- GSM-MAP NAS system information	00(T3212 is set to infinity) 01
- CN domain specific DRX cycle length coefficient	7
- UE Timers and constants in connected mode	
- T305	Infinity

Contents of System Information Block type 5 (FDD)

Information Element	Value/remark
- Secondary CCPCH system information	
- Secondary CCPCH info	
- CHOICE mode	FDD
- Secondary scrambling code	Not Present
- STTD indicator	FALSE
- Spreading factor	64
- Code number	2
- Pilot symbol existence	FALSE
- TFCI existence	TRUE (default value)
- Fixed or Flexible position	Flexible (default value)
- Timing offset	Not Present
	Absence of this IE is equivalent to default value 0



### 7.3.6.3 Procedure

Step	Direction		Message	Comments
	UE	SS		
1	<--		SYSTEM INFORMATION (BCCH)	Broadcast
2	<--		PAGING TYPE1 (PCCH)	Paging (PS domain, P-TMSI)
3	-->		RRC CONNECTION REQUEST (CCCH)	RRC
4	<--		RRC CONNECTION SETUP (CCCH)	RRC
5	-->		RRC CONNECTION SETUP COMPLETE (DCCH)	RRC
6	-->		SERVICE REQUEST	GMM
7	<--		AUTHENTICATION AND CIPHERING REQUEST	GMM
8	-->		AUTHENTICATION AND CIPHERING RESPONSE	GMM
9	<--		SECURITY MODE COMMAND	RRC
10	-->		SECURITY MODE COMPLETE	RRC
11	<--		ACTIVATE RB TEST MODE	TC
12	-->		ACTIVATE RB TEST MODE COMPLETE	TC
13	<--		RADIO BEARER SETUP	RRC (RAB SETUP)
14	-->		RADIO BEARER SETUP COMPLETE	RRC
15	<-->			Perform test
16	<--		RRC CONNECTION RELEASE	RRC
17	-->		RRC CONNECTION RELEASE COMPLETE	RRC

### 7.3.6.4 Specific message contents

The default message contents specified in clause 9.2 are used with the following exceptions.

#### 7.3.6.4.1 ATTACH ACCEPT

This message is sent from the SS to the UE, used for the UE supporting PS only.

Contents of Attach Accept message: GMM

Information Element	Value/remark
Periodic RA update timer	E0 (timer is deactivated)

#### 7.3.6.4.2 RADIO BEARER SETUP

For step 13, the messages in clause 9.2 titled "Contents of RADIO BEARER SETUP message: AM or UM (HSDPA)" is used.

The configurations of the fixed reference channels for HSDPA RF tests are described in TS 34.121[2] Annex C for FDD and TS 34.122 [5] Annex C for TDD.

## CHANGE REQUEST

**34-108 CR 370 rev -** Current version: **5.2.0**

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

<b>Title:</b>	Introduction of reference radio bearer combination for PS streaming and downlink rate up to 128 kbps		
<b>Source:</b>	Ericsson, Cingular		
<b>Work item code:</b>	TEI	<b>Date:</b>	20/10/2004
<b>Category:</b>	<b>F</b>	<b>Release:</b>	Rel-5
	Use <u>one</u> of the following categories: <b>F</b> (correction) <b>A</b> (corresponds to a correction in an earlier release) <b>B</b> (addition of feature), <b>C</b> (functional modification of feature) <b>D</b> (editorial modification) Detailed explanations of the above categories can be found in 3GPP <a href="#">TR 21.900</a> .		Use <u>one</u> of the following releases: 2 (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) Rel-4 (Release 4) Rel-5 (Release 5) Rel-6 (Release 6)

<b>Reason for change:</b>	PS streaming services is an important feature of 3G networks. PS streaming services for such as streaming video clips of sport events require downlink rates of up to 128 kbps. Currently there is no test coverage of PS streaming and downlink rate of 128 kbps.
<b>Summary of change:</b>	<ol style="list-style-type: none"> <li>1. Section 6.10.2.1: Entry 15b for Streaming/Unknown/UL:16 DL:128 PS RAB added to table 6.10.2.1.1.</li> <li>2. Section 6.10.2.2: Added radio bearer combination 58a) 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</li> <li>3. New section 6.10.2.4.1.58a added containing the detailed parameters of the new radio bearer configuration. The content is based on the parameter set derived from RAN2 TR 25.933 section 7.1.74.</li> </ol>
<b>Consequences if not approved:</b>	Lack of test coverage for streaming services requiring downlink rates upto 128 kbps.

<b>Clauses affected:</b>	6.10.2.1, 6.10.2.2 and 6.10.2.4.1.58a (new)										
<b>Other specs affected:</b>	<table border="1" style="display: inline-table; border-collapse: collapse; text-align: center;"> <tr> <td>Y</td> <td>N</td> </tr> <tr> <td>X</td> <td>X</td> </tr> <tr> <td>X</td> <td></td> </tr> <tr> <td></td> <td>X</td> </tr> </table>	Y	N	X	X	X			X	Other core specifications Test specifications O&M Specifications	34.123-1 (T1-041692) 34.123-2 (T1-041734)
Y	N										
X	X										
X											
	X										

**Other comments:** ☞ Affects Rel 99, Rel4 and Rel5 UEs.

**How to create CRs using this form:**

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

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

<Start of first modified section>

## 6.10 Reference Radio Bearer configurations used in Radio Bearer interoperability testing

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

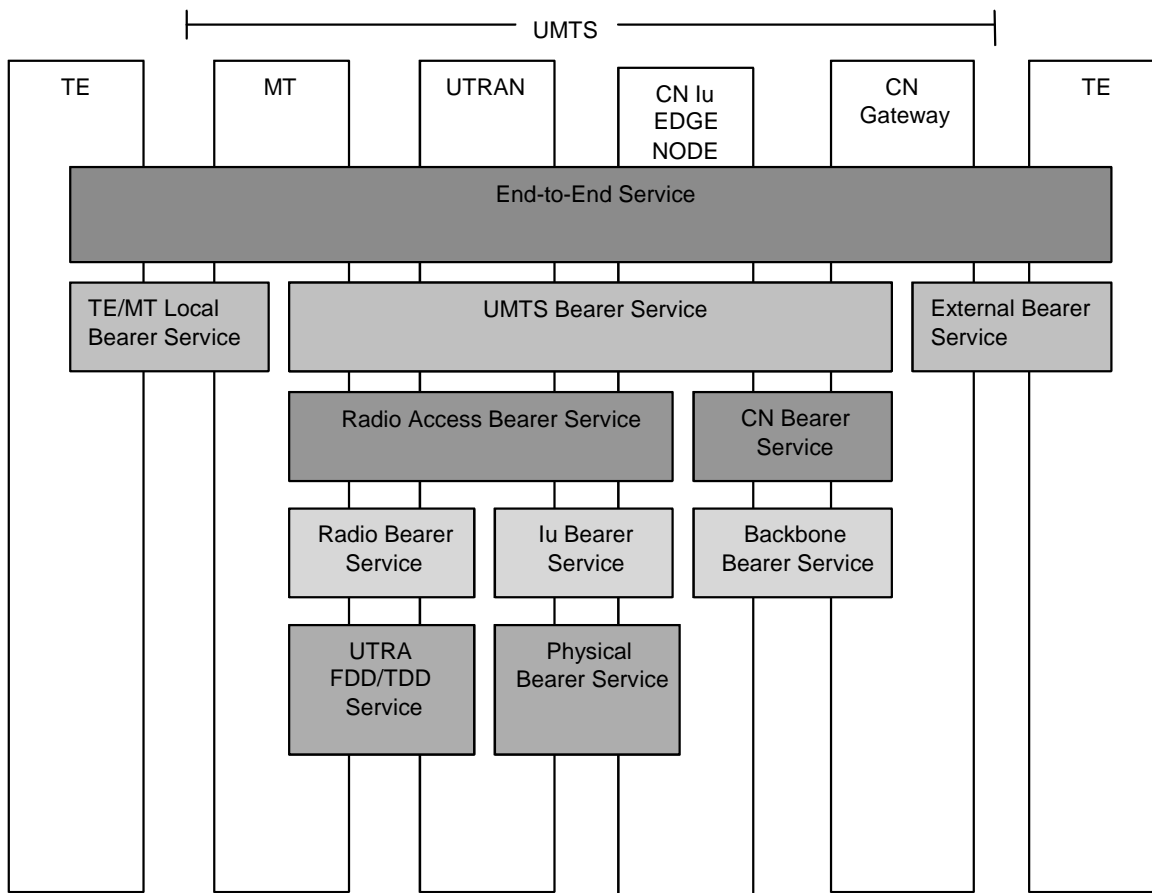
The reference radio bearer configurations are used in the radio bearer interoperability test cases, clause 14 of TS 34.123-1 [1]. The reference radio bearer configurations are also intended to be the first choice for other test cases where a radio bearer configuration is needed. For test cases requiring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

**NOTE** If not specifically specified then the mid-value of the RM attribute value range as specified by the actual reference radio bearer configuration shall be applied for testing. However, in the case of UL and DL :3.4 kbps SRBs for DCCH and where the Choice "Same As UL" is used for the IE "DL Transport channel information common for all transport channel", the RM attribute for the "DL:3.4 kbps SRBs for DCCH" shall be set to the same value as that used in the Uplink.

### 6.10.1 QoS Architecture and RAB attributes

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

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



**Figure 6.10.1.1: UMS QoS Architecture**

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

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

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

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

Table 6.10.1.1: Traffic classes

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

## 6.10.2 RAB and signalling RB for FDD

### 6.10.2.1 RABs and signalling RBs

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

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

Table 6.10.2.1.1: Prioritised RABs.

#	Traffic class [15]	SSD [15]	Max. rate, kbps	CS/PS	Version
1	Conversational	Speech	UL:12.2 DL:12.2	CS	R99
1a	Conversational	Speech	UL:(12.2 7.95 5.9 4.75) DL:(12.2 7.95 5.9 4.75)	CS	R99
2	Conversational	Speech	UL:10.2 DL:10.2	CS	R99
2a	Conversational	Speech	UL:(10.2, 6.7, 5.9, 4.75) DL:(10.2, 6.7, 5.9, 4.75)	CS	R99
3	Conversational	Speech	UL:7.95 DL:7.95	CS	R99
4	Conversational	Speech	UL:7.4 DL:7.4	CS	R99
4a	Conversational	Speech	UL:(7.4, 6.7, 5.9, 4.75) DL:(7.4, 6.7, 5.9, 4.75)	CS	R99
5	Conversational	Speech	UL:6.7 DL:6.7	CS	R99
6	Conversational	Speech	UL:5.9 DL:5.9	CS	R99
7	Conversational	Speech	UL:5.15 DL:5.15	CS	R99
8	Conversational	Speech	UL:4.75 DL:4.75	CS	R99
9	Conversational	Unknown	UL:28.8 DL:28.8	CS	R99
10	Conversational	Unknown	UL:64 DL:64	CS	R99
11	Conversational	Unknown	UL:32 DL:32	CS	R99
11a	Conversational	Unknown	UL:8 DL:8	PS	R99
12	Streaming	Unknown	UL:14.4 DL:14.4	CS	R99
13	Streaming	Unknown	UL:28.8 DL:28.8	CS	R99
14	Streaming	Unknown	UL:57.6 DL:57.6	CS	R99
15	Void				
15a	Streaming	Unknown	UL:16 DL:64	PS	R99
<a href="#">15b</a>	<a href="#">Streaming</a>	<a href="#">Unknown</a>	<a href="#">UL:16 DL:128</a>	<a href="#">PS</a>	<a href="#">R99</a>
16	Void				
17	Void				
18	Void				
19	Void				
20	Interactive or Background	N/A	UL:32 DL:8	PS	R99
20a	Interactive or Background	N/A	UL:8 DL:8	PS	R99
20b	Interactive or Background	N/A	UL:16 DL:16	PS	R99
20c	Interactive or Background	N/A	UL:32 DL:32	PS	R99
21	Void				
22	Interactive or Background	N/A	UL:32 DL:64	PS	R99
23	Interactive or Background	N/A	UL:64 DL:64	PS	R99
24	Interactive or Background	N/A	UL:64 DL:128	PS	R99
25	Interactive or Background	N/A	UL:128 DL:128	PS	R99
26	Interactive or Background	N/A	UL:64 DL:384	PS	R99
27	Interactive or Background	N/A	UL:128 DL:384	PS	R99
28	Interactive or Background	N/A	UL:384 DL:384	PS	R99
29	Interactive or Background	N/A	UL:64 DL:2048	PS	R99
30	Interactive or Background	N/A	UL:128 DL:2048	PS	R99
31	Void				
32	Interactive or Background	N/A	UL:64 DL:256	PS	R99
33	Interactive or Background	N/A	UL:0 DL:32	PS	R99
34	Interactive or Background	N/A	UL:32 DL: 0	PS	R99
35	Interactive or Background	N/A	UL:64 DL:144	PS	R99
36	Interactive or Background	N/A	UL:144 DL:144	PS	R99
37	Conversational	N/A	UL:42.8 DL:42.8	PS	REL-5
38	Conversational	Speech	UL:(12.65 8.85 6.6) DL:(12.65 8.85 6.6)	CS	REL-5
39	Interactive or Background	N/A	UL:64 DL:768	PS	REL-5

Table 6.10.2.1.2: Signalling RBs

#	Maximum rate, kbps	Logical channel	PhyCh onto which SRBs are mapped	Version
1	UL:1.7 DL:1.7	DCCH	DPCH	R99
2	UL:3.4 DL:3.4	DCCH	DPCH	R99
3	UL:13.6 DL:13.6	DCCH	DPCH	R99
4	DL:27.2 (alt. 40.8)	DCCH	SCCPCH	R99
5	UL:16.6	CCCH	PRACH	R99
6	DL:30.4 (alt. 45.6)	CCCH	SCCPCH	R99
7	DL:33.2 (alt. 49.8)	BCCH:	SCCPCH	R99
8	DL:24 (alt. 6.4)	PCCH	SCCPCH	R99
9	DL: 0.15	DCCH	DPCH	REL-5

### 6.10.2.2 Combinations of RABs and Signalling RBs

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

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

#### Combinations on DPCH

- 1) Stand-alone UL:1.7 DL:1.7 kbps SRBs for DCCH.
- 2) Stand-alone UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 3) Stand-alone UL:13.6 DL:13.6 kbps SRBs for DCCH.
- 4) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 4a) Conversational / speech / UL:(12.2 7.95 5.9 4.75) DL:(12.2 7.95 5.9 4.75) kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 5) Conversational / speech / UL:10.2 DL:10.2 kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 5a) Conversational / speech / UL:(10.2, 6.7, 5.9, 4.75) DL:(10.2, 6.7, 5.9, 4.75) kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 6) Conversational / speech / UL:7.95 DL:7.95 kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 7) Conversational / speech / UL:7.4 DL:7.4 kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 7a) Conversational / speech / UL:(7.4, 6.7, 5.9, 4.75) DL:(7.4, 6.7, 5.9, 4.75) kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 8) Conversational / speech / UL:6.7 DL:6.7 kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 9) Conversational / speech / UL:5.9 DL:5.9 kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 10) Conversational / speech / UL:5.15 DL:5.15 kbps / CS RAB  
+ UL:1.7 DL:1.7 kbps SRBs for DCCH.
- 11) Conversational / speech / UL:4.75 DL:4.75 kbps / CS RAB  
+ UL:1.7 DL:1.7 kbps SRBs for DCCH.



- 12) Conversational / unknown / UL:28.8 DL:28.8 kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 13) Conversational / unknown / UL:64 DL:64 kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 14) Conversational / unknown / UL:32 DL:32 kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 15) Streaming / unknown / UL:14.4/DL:14.4 kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 16) Streaming / unknown / UL:28.8/DL:28.8 kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 17) Streaming / unknown / UL:57.6/DL:57.6 kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 18) Void
- 19) Void.
- 20) Void.
- 21) Void.
- 22) Void.
- 23) Interactive or background / UL:32 DL:8 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 23a) Interactive or background / UL:8 DL:8 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 23b) Interactive or background / UL:16 DL:16 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 23c) Interactive or background / UL:32 DL:32 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 23d) Interactive or background / UL:32 DL:32 kbps / PS RAB (20 ms TTI)  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 24) Void
- 25) Interactive or background / UL:32 DL: 64 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 26) Interactive or background / UL:64 DL: 64 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 27) Interactive or background / UL:64 DL:128 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 28) Interactive or background / UL:128 DL:128 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 29) Interactive or background / UL:64 DL:144 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 30) Interactive or background / UL:144 DL:144 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 31) Interactive or background / UL:64 DL:256 kbps / PS RAB  
+ UL:3.4 DL: 3.4 kbps SRBs for DCCH.

- 32) Interactive or background / UL:64 DL:384 kbps / PS RAB  
+ UL:3.4 DL: 3.4 kbps SRBs for DCCH.
- 33) Interactive or background / UL:128 DL:384 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 34) Interactive or background / UL:384 DL:384 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 35) Interactive or background / UL:64 DL:2048 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 36) Void
- 37) Void
- 38) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ Interactive or background / UL:32 DL:8 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 38a) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ Interactive or background / UL:0 DL:0 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 38b) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ Interactive or background / UL:8 DL:8 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 38c) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ Interactive or background / UL:32 DL:32 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 38d) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ Interactive or background / UL:64 DL:64 kbps / PS RAB  
+ Interactive or background / UL:64 DL:64 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 38e) Conversational / speech / UL:(12.2 7.95 5.9 4.75) DL:(12.2 7.95 5.9 4.75) kbps / CS RAB  
+ Interactive or background / UL:0 DL:0 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 38f) Conversational / speech / UL:(12.2 7.95 5.9 4.75) DL:(12.2 7.95 5.9 4.75) kbps / CS RAB  
+ Interactive or background / UL:8 DL:8 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 38g) Conversational / speech / UL:(12.2 7.95 5.9 4.75) DL:(12.2 7.95 5.9 4.75) kbps / CS RAB  
+ Interactive or background / UL:16 DL:16 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 38h) Conversational / speech / UL:(12.2 7.95 5.9 4.75) DL:(12.2 7.95 5.9 4.75) kbps / CS RAB  
+ Interactive or background / UL:32 DL:32 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 38i) Conversational / speech / UL:(12.2 7.95 5.9 4.75) DL:(12.2 7.95 5.9 4.75) kbps / CS RAB  
+ Interactive or background / UL:64 DL:64 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 38j) Conversational / speech / UL:(12.2 7.95 5.9 4.75) DL:(12.2 7.95 5.9 4.75) kbps / CS RAB  
+ Interactive or background / UL:64 DL:128 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 39) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ Interactive or background / UL:32 DL:64 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

- 40) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ Interactive or background / UL:64 DL:64 kbps / PS RAB  
+ UL:3.4 DL: 3.4 kbps SRBs for DCCH.
- 41) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ Interactive or background / UL:64 DL:128 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 42) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ Interactive or background / UL:64 DL:256 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 43) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ Interactive or background / UL:64 DL:384 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 44) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ Interactive or background / UL:128 DL:2048 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 45) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ Streaming / unknown / UL:57.6 DL:57.6 kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 46) Void
- 47) Void.
- 48) Void.
- 49) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ Conversational / unknown / UL:64 DL:64 kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 49a) Conversational / speech / UL:(12.2 7.95 5.9 4.75) DL:(12.2 7.95 5.9 4.75) kbps / CS RAB  
+ Conversational / unknown / UL:64 DL:64 kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 50) Conversational / unknown / UL:64 DL:64 kbps / CS RAB  
+ Conversational / unknown / UL:64 DL:64 kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 51) Conversational / unknown / UL:64 DL:64 kbps / CS RAB  
+ Interactive or background / UL:64 DL:64 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 51a) Conversational / unknown / UL:64 DL:64 kbps / CS RAB  
+ Interactive or Background / UL:8 DL:8 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 51b) Conversational / unknown / UL:64 DL:64 kbps / CS RAB  
+ Interactive or Background / UL:16 DL:64 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 52) Conversational / unknown / UL:64 DL:64 kbps / CS RAB  
+ Interactive or background / UL:64 DL:128 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 53) Conversational / unknown / UL:64 DL:64 kbps / CS RAB  
+ Interactive or background / UL:128 DL:128 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 54) Void
- 55) Void.

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

58a) 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

- 59) Conversational / Speech / UL:42.8 DL:42.8 kbps / PS RAB  
+ 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 (REL-5).
- 60) Conversational / Speech / UL:42.8 DL:42.8 kbps / PS RAB  
+ Interactive or background / UL:16 DL:16 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH (REL-5).
- 61) Conversational / unknown / UL:8 DL:8 kbps / PS RAB  
+ Interactive or Background / UL:8 DL:8 kbps / PS RAB +  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH
- 62) 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 (REL-5).
- 63) Interactive or background / UL:64 DL:768 kbps / PS RAB  
+ UL:3.4 DL: 3.4 kbps SRBs for DCCH (REL-5).

#### Combinations on DSCH and DPCH

- 1) Void
- 2) Interactive or background / UL:64 DL:384 kbps / PS RAB  
+ UL:3.4 DL: 3.4 kbps SRBs for DCCH.
- 3) Interactive or background / UL:64 DL:2048 kbps / PS RAB  
+ UL:3.4 DL: 3.4 kbps SRBs for DCCH.
- 4) Void
- 5) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ Interactive or background / UL:64 DL:384 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 6) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ Interactive or background / UL:64 DL:2048 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

#### Combinations on SCCPCH

- 1) Stand-alone 24 kbps SRB for PCCH.
- 2) Interactive or background / DL:32 kbps / PS RAB  
+ SRB for CCCH  
+ SRBs for DCCH  
+ SRB for BCCH.
- 3) Interactive or background / DL:32 kbps / PS RAB  
+ SRB for PCCH

- + SRB for CCCH
- + SRBs for DCCH
- + SRB for BCCH.

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

#### Combinations on PRACH

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

#### Combinations on DPCH and HS-PDSCH

- 1) Interactive or background / UL:64 DL: [max bit rate depending on UE category] / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH (REL-5)
- 2) Interactive or background / UL:384 DL: [max bit rate depending on UE category] / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH (REL-5)

**<End of modified section>**

## &lt;Start of next modified section&gt;

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

6.10.2.4.1.58.1 Uplink

6.10.2.4.1.58.1.1 Transport channel parameters

6.10.2.4.1.58.1.1.1 Transport channel parameters for Streaming / unknown / UL:16 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	16000	
	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	20	
	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	534	
	RM attribute	135-175	

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

See clause 6.10.2.4.1.38b.1.1.2.

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

See clause 6.10.2.4.1.2.1.1.1.

6.10.2.4.1.58.1.1.4 TFCS

TFCS size	8
TFCS	(16 kbps RAB, 8 kbps RAB, DCCH)= (TF0,TF0,TF0), (TF1,TF0,TF0), (TF0,TF1,TF0), (TF1,TF1,TF0), (TF0,TF0,TF1), (TF1,TF0,TF1), (TF0,TF1,TF1), (TF1,TF1,TF1)

6.10.2.4.1.58.1.2 Physical channel parameters

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

## 6.10.2.4.1.58.2 Downlink

## 6.10.2.4.1.58.2.1 Transport channel parameters

## 6.10.2.4.1.58.2.1.1 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	4x656
	TTI, ms	40	
	Coding type	TC	
	CRC, bit	16	
	Max number of bits/TTI after channel coding	8076	
RM attribute	125-165		

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

See clause 6.10.2.4.1.38b.2.1.2.

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

See clause 6.10.2.4.1.2.2.1.1.

## 6.10.2.4.1.58.2.1.4 TFCS

TFCS size	16
TFCS	(64 kbps RAB, 8 kbps RAB, DCCH)= (TF0,TF0,TF0), (TF1,TF0,TF0), (TF2,TF0,TF0), (TF3,TF0,TF0), (TF0,TF1,TF0), (TF1,TF1,TF0), (TF2,TF1,TF0), (TF3,TF1,TF0), (TF0,TF0,TF1), (TF1,TF0,TF1), (TF2,TF0,TF1), (TF3,TF0,TF1), (TF0,TF1,TF1), (TF1,TF1,TF1), (TF2,TF1,TF1), (TF3,TF1,TF1)

## 6.10.2.4.1.58.2.2 Physical channel parameters

DPCH Downlink	DTX position		Flexible
	Spreading factor		32
	DPCCH	Number of TFCl 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

[6.10.2.4.1.58a](#) [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](#)

[6.10.2.4.1.58a.1](#) [Uplink](#)

[6.10.2.4.1.58a.1.1](#) [Transport channel parameters](#)

[6.10.2.4.1.58a.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.](#)

[6.10.2.4.1.58a.1.1.2](#) [Transport channel parameters for Interactive or background / UL:8 kbps / PS RAB](#)

[See subclause 6.10.2.4.1.38b.1.1.1.](#)

[6.10.2.4.1.58a.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.](#)

[6.10.2.4.1.58a.1.1.4](#) [TFCS](#)

[See subclause 6.10.2.4.1.58.1.1.4.](#)

[6.10.2.4.1.58a.1.2](#) [Physical channel parameters](#)

[See subclause 6.10.2.4.1.58.1.2.](#)



[6.10.2.4.1.58a.2 Downlink](#)

[6.10.2.4.1.58a.2.1 Transport channel parameters](#)

[6.10.2.4.1.58a.2.1.1 Transport channel parameters for Streaming / unknown / DL:128 kbps / PS RAB](#)

<a href="#">Higher Layer</a>	<a href="#">RAB/Signalling RB</a>	<a href="#">RAB</a>	
<a href="#">RLC</a>	<a href="#">Logical channel type</a>	<a href="#">DTCH</a>	
	<a href="#">RLC mode</a>	<a href="#">AM</a>	
	<a href="#">Payload sizes, bit</a>	<a href="#">640</a>	
	<a href="#">Max data rate, bps</a>	<a href="#">128000</a>	
	<a href="#">AM PDU header, bit</a>	<a href="#">16</a>	
<a href="#">MAC</a>	<a href="#">MAC header, bit</a>	<a href="#">0</a>	
	<a href="#">MAC multiplexing</a>	<a href="#">N/A</a>	
<a href="#">Layer 1</a>	<a href="#">TrCH type</a>	<a href="#">DCH</a>	
	<a href="#">TB sizes, bit</a>	<a href="#">656</a>	
	<a href="#">TFS</a>	<a href="#">TF0, bits</a>	<a href="#">0x656</a>
		<a href="#">TF1, bits</a>	<a href="#">1x656</a>
		<a href="#">TF2, bits</a>	<a href="#">2x656</a>
		<a href="#">TF3, bits</a>	<a href="#">3x656</a>
		<a href="#">TF4, bits</a>	<a href="#">4x656</a>
	<a href="#">TTI, ms</a>	<a href="#">20</a>	
	<a href="#">Coding type</a>	<a href="#">TC</a>	
	<a href="#">CRC, bit</a>	<a href="#">16</a>	
	<a href="#">Max number of bits/TTI after channel coding</a>	<a href="#">8076</a>	
<a href="#">RM attribute</a>	<a href="#">125-165</a>		

[6.10.2.4.1.58a.2.1.2 Transport channel parameters for Interactive or background / DL:8 kbps / PS RAB](#)

[See subclause 6.10.2.4.1.38b.2.1.1.](#)

[6.10.2.4.1.58a.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.](#)

[6.10.2.4.1.58a.2.1.4 TFCS](#)

<a href="#">TFCS size</a>	<a href="#">20</a>
<a href="#">TFCS</a>	<a href="#">(128 kbps RAB, 8 kbps RAB, DCCH)= (TF0,TF0,TF0), (TF1,TF0,TF0), (TF2,TF0,TF0), (TF3,TF0,TF0), (TF4,TF0,TF0), (TF0,TF1,TF0), (TF1,TF1,TF0), (TF2,TF1,TF0), (TF3,TF1,TF0), (TF4,TF1,TF0), (TF0,TF0,TF1), (TF1,TF0,TF1), (TF2,TF0,TF1), (TF3,TF0,TF1), (TF4,TF0,TF1), (TF0,TF1,TF1), (TF1,TF1,TF1), (TF2,TF1,TF1), (TF3,TF1,TF1), (TF4,TF1,TF1),</a>

[6.10.2.4.1.58a.2.2 Physical channel parameters](#)

<a href="#">DPCH Downlink</a>	<a href="#">DTX position</a>	<a href="#">Flexible</a>	
	<a href="#">Spreading factor</a>	<a href="#">16</a>	
	<a href="#">DPCCH</a>	<a href="#">Number of TFCI bits/slot</a>	<a href="#">8</a>
		<a href="#">Number of TPC bits/slot</a>	<a href="#">8</a>
		<a href="#">Number of Pilot bits/slot</a>	<a href="#">16</a>
	<a href="#">DPDCH</a>	<a href="#">Number of data bits/slot</a>	<a href="#">288</a>
		<a href="#">Number of data bits/frame</a>	<a href="#">4320</a>

<End of modified section>

CR-Form-v7

## CHANGE REQUEST

**34-108 CR 371 rev -** Current version: **5.2.0**

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

<b>Title:</b>	Correction of section 6.1 (Simulated network environment)		
<b>Source:</b>	Ericsson		
<b>Work item code:</b>	TEI	<b>Date:</b>	22/10/2004
<b>Category:</b>	<b>F</b>	<b>Release:</b>	Rel-5
	Use <u>one</u> of the following categories: <b>F</b> (correction) <b>A</b> (corresponds to a correction in an earlier release) <b>B</b> (addition of feature), <b>C</b> (functional modification of feature) <b>D</b> (editorial modification) Detailed explanations of the above categories can be found in 3GPP <a href="#">TR 21.900</a> .		Use <u>one</u> of the following releases: 2 (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) Rel-4 (Release 4) Rel-5 (Release 5) Rel-6 (Release 6)

<b>Reason for change:</b>	Intra-frequency Cell 11 is used by RF test cases in 34.121. At T1#24 the system information for Cell 11 was added but section 6.1 was not updated.
<b>Summary of change:</b>	Updated section 6.1 adding Cell 11.
<b>Consequences if not approved:</b>	Inconsistency remains

<b>Clauses affected:</b>	6.1										
<b>Other specs affected:</b>	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> </table>	Y	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Other core specifications Test specifications O&M Specifications	
Y	N										
<input type="checkbox"/>	<input checked="" type="checkbox"/>										
<input type="checkbox"/>	<input checked="" type="checkbox"/>										
<input type="checkbox"/>	<input checked="" type="checkbox"/>										
<b>Other comments:</b>	Affects Rel 99, Rel4 and Rel5 UEs.										

### 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:

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

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

---

## 6 Reference System Configurations

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

### 6.1 Simulated network environments

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

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

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

- Cell 1, Cell 2, Cell 3, Cell 7, ~~and~~ Cell 8 and Cell 11 are associated with FDD/TDD cells using frequency f1;
- Cell 4, Cell 5 and Cell 6 are associated with FDD/TDD cells using frequency f2; and
- Cell 9 and Cell 10 are associated with GSM cells.

For [protocol testing in](#) FDD and TDD intra- and inter-frequency cell environment Cell 1 to Cell 8 are used.

[For RF and RRM in FDD and TDD intra- and inter-frequency cell environment Cell 1 to Cell 8 and Cell 11 are used.](#)

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

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

## CHANGE REQUEST

⌘ **34.108 CR 372** ⌘ rev **-** ⌘ Current version: **5.2.0** ⌘

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

<b>Title:</b>	<span>⌘</span> Correction to generic Call Setup procedure for mobile terminating circuit switched calls		
<b>Source:</b>	<span>⌘</span> Anite		
<b>Work item code:</b>	<span>⌘</span> TEI	<b>Date:</b>	<span>⌘</span> 21/10/2004
<b>Category:</b>	<span>⌘</span> <b>F</b>	<b>Release:</b>	<span>⌘</span> Rel-5
	Use <u>one</u> of the following categories: <b>F</b> (correction) <b>A</b> (corresponds to a correction in an earlier release) <b>B</b> (addition of feature), <b>C</b> (functional modification of feature) <b>D</b> (editorial modification) Detailed explanations of the above categories can be found in 3GPP <a href="#">TR 21.900</a> .		Use <u>one</u> of the following releases: 2 (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) Rel-4 (Release 4) Rel-5 (Release 5) Rel-6 (Release 6)

**Reason for change:** ⌘ [H] In the expected sequence shown for the generic Call Setup procedure for mobile terminating circuit switched calls, in section **7.2.3.1.3**, ALERTING is expected only after the Radio Bearer Setup Message. This sequence maps to the case in which the *Signal* information element is not sent in the SETUP message. This distinction is not clear in the current prose description.




This is as per **24.008, section 5.2.2.3.2**:  
 "The call control entity of the mobile station having entered the "mobile terminating call confirmed" state, if the call is accepted at the called user side, the mobile station proceeds as described in 5.2.2.5. Otherwise, **if the signal information element was present in the SETUP message user alerting is initiated at the mobile station side**; if the signal information element was not present in the SETUP message, user alerting is initiated when an appropriate channel is available"  
 Note: This CR aligns the Prose to the TTCN.

**Summary of change:** ⌘ The following note is added in the expected sequence for the SETUP message:  
*The Signal information element is not included in the SETUP message*

**Consequences if not approved:** ⌘ Inconsistency will remain between TTCN implementation & Prose.

**Clauses affected:** ⌘ Section 7.2.3.1.3


Y  N

<b>Other specs affected:</b>		<input checked="" type="checkbox"/>	Other core specifications		
		<input checked="" type="checkbox"/>	Test specifications		
		<input checked="" type="checkbox"/>	O&M Specifications		
<b>Other comments:</b>		Affects Rel-5, Rel-4 and R99 UEs.			

### How to create CRs using this form:

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Below is a brief summary:

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

<<START OF Modified Section>>

7.2.3.1.3 Procedure

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

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

[NOTE 1: The iSignal information element is not included in the SETUP message.](#)

<<End OF Modified Section>>

## CHANGE REQUEST

**34.108 CR 373** rev - Current version: **5.2.0**

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

<b>Title:</b>	CR to 34.108 Rel-5; Corrections to the default RADIO BEARER SETUP message for HSDPA		
<b>Source:</b>	Ericsson, NTT DoCoMo		
<b>Work item code:</b>	HSDPA	<b>Date:</b>	28/10/2004
<b>Category:</b>	<b>F</b> Use <u>one</u> of the following categories: <b>F</b> (correction) <b>A</b> (corresponds to a correction in an earlier release) <b>B</b> (addition of feature), <b>C</b> (functional modification of feature) <b>D</b> (editorial modification) Detailed explanations of the above categories can be found in 3GPP <a href="#">TR 21.900</a> .	<b>Release:</b>	<b>Rel-5</b> Use <u>one</u> of the following releases: 2 (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) Rel-4 (Release 4) Rel-5 (Release 5) Rel-6 (Release 6)

**Reason for change:** Currently we have two different sets of multiplexing options for the high-speed DTCH in the default RADIO BEARER SETUP message for HSDPA tests.

One set includes three multiplex options:  
DCH (UL) / HS-DSCH (DL)  
DCH (UL) / DCH (DL)  
RACH (UL) / FACH (DL)  
This set is currently the default when establishing the radio bearer from CELL\_DCH state, reflected in condition A9.

The other set includes only one multiplex option:  
DCH (UL) / HS-DSCH (DL)  
This set is currently the default when establishing the radio bearer from CELL\_FACH state (to CELL\_DCH state) reflected in condition A10.

As being discussed between 3GPP T1 and 3GPP RAN2 (refer to the LS from RAN2, R2-041840), the configuration of  $i3$  TrCHs (DCH for DCCH, DCH for DTCH and HS-DSCH for DTCH) and  $i2$  TrCHs (DCH for DCCH and HS-DSCH for DTCH) should both be included for HSDPA tests. Here,  $i3$  TrCHs corresponds to the set of three multiplexing options (condition A9).  $i2$  TrCHs corresponds to the set of one multiplexing option (condition A10).

The two sets of multiplexing options should not necessarily be tied to from which state the radio bearer is established (CELL\_DCH or CELL\_FACH). For test coverage, both combinations of multiplexing option sets and states should be tested. This would mean that there is a need to use the set with one option also when establishing the radio bearer from CELL\_DCH, and use the set with three



options when establishing the radio bearer from CELL\_FACH. However, the definitions of conditions A9 and A10 do not reflect that possibility.

**Summary of change:** ⓘ The definitions of conditions A9 and A10 in the default RADIO BEARER SETUP message are modified to allow a more flexible use of those conditions. A9 is defined for the case when three multiplexing options are configured. A10 is defined for the case when one multiplexing option is configured. To minimize the changes to the existing test cases, while still keeping the purpose of increasing test coverage, the current usage is still the default when not otherwise stated in the test cases.

The value of the IE "Scrambling code change" in "DL Information for each RLI" has been corrected from "Not Needed" to "No code change".

**Consequences if not approved:** ⓘ Unnecessary limitations would exist of which type of multiplexing options that are tested for the high-speed DTCH.

**Clauses affected:** ⓘ 9.1.1

**Other specs affected:**

	Y	N
ⓘ		X
		X
		X

Other core specifications ⓘ  
 Test specifications  
 O&M Specifications

**Other comments:** ⓘ

**How to create CRs using this form:**

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

## 9.1.1 Default RRC Message Contents (FDD)

<Ö>

Contents of RADIO BEARER SETUP message: AM or UM

Information Element	Condition	Value/remark	Version
Message Type	A1, A2, A3, A4, A5, A6, A7, A8, A11 , A9, A10		REL-5
RRC transaction identifier		Arbitrarily selects an integer between 0 and 3	
Integrity check info - message authentication code		SS calculates the value of MAC-I for this message and writes to this IE. The first/ leftmost bit of the bit string contains the most significant bit of the MAC-I.	
- RRC message sequence number		SS provides the value of this IE, from its internal counter.	
Integrity protection mode info		Not Present	
Ciphering mode info		Not Present	
Activation time	A1, A2, A3, A11 , A9	(256+CFN-(CFN MOD 8 + 8))MOD 256	REL-5
Activation time	A4, A5, A6, A7, A8 A10	Not Present	REL-5
New U-RNTI	A1, A2, A3, A4, A5, A6, A7, A8, A11 , A9, A10	Not Present	REL-5
New C-RNTI	A1, A2, A3, A4, A7, A8, A11 , A9, A10	Not Present	REL-5
New C-RNTI	A5, A6	'1010 1010 1010 1010'	
New DSCH-RNTI	A1, A2, A3, A4, A5, A6, A7, A8, A11 , A9, A10	Not Present	REL-5
New H-RNTI	A1, A2, A3, A4, A5, A6, A7, A8, A11	Not Present	REL-5
New H-RNTI	A9, A10	'1010 1010 1010 1010'	REL-5
RRC State indicator	A1, A2, A3, A4, A7, A8, A11 , A9, A10	CELL_DCH	REL-5
RRC State indicator	A5, A6	CELL_FACH	
UTRAN DRX cycle length coefficient	A1, A2, A3, A4, A5, A6, A7, A8, A11 , A9, A10	Not Present	REL-5
CN information info		Not Present	
URA identity		Not Present	
- Signalling RB information to setup		Not Present	
- RAB information for setup	A1, A7	0000 0001B	
- RAB info		The first/ leftmost bit of the bit string contains the most significant bit of the RAB identity.	
- RAB identity		CS domain	
- CN domain identity			

Information Element	Condition	Value/remark	Version
<ul style="list-style-type: none"> <li>- NAS Synchronization Indicator</li> <li>- Re-establishment timer</li> <li>- RB information to setup</li> <li>- RB identity</li> <li>- PDCP info</li> <li>- CHOICE RLC info type</li> <li>- CHOICE Uplink RLC mode</li> <li>- Transmission RLC discard</li> <li>- Segmentation indication</li> <li>- CHOICE Downlink RLC mode</li> <li>- Segmentation indication</li> <li>- RB mapping info</li> <li>- Information for each multiplexing option</li> <li>- RLC logical channel mapping indicator</li> <li>- Number of uplink RLC logical channels</li> <li>- Uplink transport channel type</li> <li>- UL Transport channel identity</li> <li>- Logical channel identity</li> <li>- CHOICE RLC size list</li> <li>- MAC logical channel priority</li> <li>- Downlink RLC logical channel info</li> <li>- Number of downlink RLC logical channels</li> <li>- Downlink transport channel type</li> <li>- DL DCH Transport channel identity</li> <li>- DL DSCH Transport channel identity</li> <li>- Logical channel identity</li> </ul>		<p>Not Present useT314</p> <p>10</p> <p>Not Present RLC info TM RLC</p> <p>Not Present FALSE TM RLC FALSE</p> <p>Not Present</p> <p>1 DCH</p> <p>1 Not Present Configured 7</p> <p>1</p> <p>DCH 6 Not Present Not Present</p>	
<ul style="list-style-type: none"> <li>- RAB information for setup</li> <li>- RAB info</li> <li>- RAB identity</li> <li>- CN domain identity</li> <li>- NAS Synchronization Indicator</li> <li>- Re-establishment timer</li> <li>- RB information to setup</li> <li>- RB identity</li> <li>- PDCP info</li> <li>- CHOICE RLC info type</li> <li>- CHOICE Uplink RLC mode</li> <li>- Transmission RLC discard</li> <li>- Segmentation indication</li> <li>- CHOICE Downlink RLC mode</li> <li>- Segmentation indication</li> <li>- RB mapping info</li> <li>- Information for each multiplexing option</li> <li>- RLC logical channel mapping indicator</li> <li>- Number of uplink RLC logical channels</li> <li>- Uplink transport channel type</li> <li>- UL Transport channel identity</li> <li>- Logical channel identity</li> <li>- CHOICE RLC size list</li> <li>- MAC logical channel priority</li> <li>- Downlink RLC logical channel info</li> <li>- Number of downlink RLC logical channels</li> <li>- Downlink transport channel type</li> <li>- DL DCH Transport channel identity</li> <li>- DL DSCH Transport channel identity</li> <li>- Logical channel identity</li> <li>- RB identity</li> <li>- PDCP info</li> <li>- CHOICE RLC info type</li> <li>- CHOICE Uplink RLC mode</li> <li>- Transmission RLC discard</li> <li>- Segmentation indication</li> </ul>	A2, A8	<p>0000 0001B The first/ leftmost bit of the bit string contains the most significant bit of the RAB identity. CS domain</p> <p>Not Present useT314</p> <p>10</p> <p>Not Present RLC info TM RLC</p> <p>Not Present FALSE TM RLC FALSE</p> <p>Not Present</p> <p>1 DCH</p> <p>1 Not Present Configured 6</p> <p>1</p> <p>DCH 6 Not Present Not Present</p> <p>11 Not Present RLC info TM RLC</p> <p>Not Present FALSE</p>	

Information Element	Condition	Value/remark	Version
<ul style="list-style-type: none"> <li>- CHOICE Downlink RLC mode</li> <li>- Segmentation indication</li> <li>- RB mapping info</li> <li>- Information for each multiplexing option</li> <li>- RLC logical channel mapping indicator</li> <li>- Number of uplink RLC logical channels</li> <li>- Uplink transport channel type</li> <li>- UL Transport channel identity</li> <li>- Logical channel identity</li> <li>- CHOICE RLC size list</li> <li>- MAC logical channel priority</li> <li>- Downlink RLC logical channel info</li> <li>- Number of downlink RLC logical channels</li> <li>- Downlink transport channel type</li> <li>- DL DCH Transport channel identity</li> <li>- DL DSCH Transport channel identity</li> <li>- Logical channel identity</li> <li>- RB identity</li> <li>- PDCP info</li> <li>- CHOICE RLC info type</li> <li>- CHOICE Uplink RLC mode</li> <li>- Transmission RLC discard</li> <li>- Segmentation indication</li> <li>- CHOICE Downlink RLC mode</li> <li>- Segmentation indication</li> <li>- RB mapping info</li> <li>- Information for each multiplexing option</li> <li>- RLC logical channel mapping indicator</li> <li>- Number of uplink RLC logical channels</li> <li>- Uplink transport channel type</li> <li>- UL Transport channel identity</li> <li>- Logical channel identity</li> <li>- CHOICE RLC size list</li> <li>- MAC logical channel priority</li> <li>- Downlink RLC logical channel info</li> <li>- Number of downlink RLC logical channels</li> <li>- Downlink transport channel type</li> <li>- DL DCH Transport channel identity</li> <li>- DL DSCH Transport channel identity</li> <li>- Logical channel identity</li> </ul>		<ul style="list-style-type: none"> <li>TM RLC</li> <li>FALSE</li> <li>Not Present</li> <li>1</li> <li>DCH</li> <li>2</li> <li>Not Present</li> <li>Configured</li> <li>6</li> <li>1</li> <li>DCH</li> <li>7</li> <li>Not Present</li> <li>Not Present</li> <li>12</li> <li>Not Present</li> <li>RLC info</li> <li>TM RLC</li> <li>Not Present</li> <li>FALSE</li> <li>TM RLC</li> <li>FALSE</li> <li>Not Present</li> <li>1</li> <li>DCH</li> <li>8</li> <li>Not Present</li> <li>Not Present</li> </ul>	
<ul style="list-style-type: none"> <li>- RAB information for setup</li> <li>- RAB info</li> <li>- RAB identity</li> <li>- CN domain identity</li> <li>- NAS Synchronization Indicator</li> <li>- Re-establishment timer</li> <li>- RB information to setup</li> <li>- RB identity</li> <li>- PDCP info</li> <li>- Support for lossless SRNS relocation</li> <li>- Max PDCP SN window size</li> <li>- PDCP PDU header</li> <li>- Header compression information</li> <li>- CHOICE RLC info type</li> <li>- CHOICE Uplink RLC mode</li> <li>- Transmission RLC discard</li> <li>- CHOICE SDU discard mode</li> <li>- MAX_DAT</li> <li>- Transmission window size</li> <li>- Timer_RST</li> <li>- Max_RST</li> </ul>	<ul style="list-style-type: none"> <li>A3, A4, A5, A6</li> </ul>	<ul style="list-style-type: none"> <li>(AM DTCH for PS domain)</li> <li>0000 0101B</li> <li>The first/ leftmost bit of the bit string contains the most significant bit of the RAB identity.</li> <li>PS domain</li> <li>Not Present</li> <li>useT315</li> <li>20</li> <li>FALSE</li> <li>Not present</li> <li>Absent</li> <li>Not present</li> <li>RLC info</li> <li>AM RLC</li> <li>No Discard</li> <li>15</li> <li>128</li> <li>500</li> <li>4</li> </ul>	

Information Element	Condition	Value/remark	Version
<ul style="list-style-type: none"> <li>- Polling info</li> <li>- Timer_poll_prohibit</li> <li>- Timer_poll</li> <li>- Poll_PDU</li> <li>- Poll_SDU</li> <li>- Last transmission PDU poll</li> <li>- Last retransmission PDU poll</li> <li>- Poll_Windows</li> <li>- Timer_poll_periodic</li> <li>- CHOICE Downlink RLC mode</li> <li>- In-sequence delivery</li> <li>- Receiving window size</li> <li>- Downlink RLC status info</li> <li>- Timer_status_prohibit</li> <li>- Timer_EPC</li> <li>- Missing PDU indicator</li> <li>- Timer_STATUS_periodic</li> <li>- RB mapping info</li> <li>- Information for each multiplexing option</li> <li>- RLC logical channel mapping indicator</li> <li>- Number of uplink RLC logical channels</li> <li>- Uplink transport channel type</li> <li>- UL Transport channel identity</li> <li>- Logical channel identity</li> <li>- CHOICE RLC size list</li> <li>- MAC logical channel priority</li> <li>- Downlink RLC logical channel info</li> <li>- Number of downlink RLC logical channels</li> <li>- Downlink transport channel type</li> <li>- DL DCH Transport channel identity</li> <li>- DL DSCH Transport channel identity</li> <li>- Logical channel identity</li> <li>- RLC logical channel mapping indicator</li> <li>- Number of uplink RLC logical channels</li> <li>- Uplink transport channel type</li> <li>- UL Transport channel identity</li> <li>- Logical channel identity</li> <li>- CHOICE RLC size list</li> <li>- RLC size index</li> <li>- MAC logical channel priority</li> <li>- Downlink RLC logical channel info</li> <li>- Number of downlink RLC logical channels</li> <li>- Downlink transport channel type</li> <li>- DL DCH Transport channel identity</li> <li>- DL DSCH Transport channel identity</li> <li>- Logical channel identity</li> </ul>		<ul style="list-style-type: none"> <li>200</li> <li>200</li> <li>Not Present</li> <li>1</li> <li>TRUE</li> <li>TRUE</li> <li>99</li> <li>Not Present</li> <li>AM RLC</li> <li>TRUE</li> <li>128</li> <li>200</li> <li>Not Present</li> <li>TRUE</li> <li>Not Present</li> <li>2 RBMuxOptions</li> <li>Not Present</li> <li>1</li> <li>DCH</li> <li>1</li> <li>Not Present</li> <li>Configured</li> <li>8</li> <li>1</li> <li>DCH</li> <li>6</li> <li>Not Present</li> <li>Not Present</li> <li>Not Present</li> <li>1</li> <li>RACH</li> <li>Not Present</li> <li>7</li> <li>Explicit list</li> <li>Reference to TS34.108 clause 6</li> <li>Parameter Set</li> <li>8</li> <li>1</li> <li>FACH</li> <li>Not Present</li> <li>Not Present</li> <li>7</li> </ul>	
<ul style="list-style-type: none"> <li>- RAB information for setup</li> <li>- RAB info</li> <li>- RAB identity</li> <li>- CN domain identity</li> <li>- NAS Synchronization Indicator</li> <li>- Re-establishment timer</li> <li>- RB information to setup</li> <li>- RB identity</li> <li>- PDCP info</li> <li>- Support for lossless SRNS relocation</li> <li>- Max PDCP SN window size</li> <li>- PDCP PDU header</li> <li>- Header compression information</li> <li>- CHOICE RLC info type</li> <li>- CHOICE Uplink RLC mode</li> </ul>	A9	<ul style="list-style-type: none"> <li>(high-speed AM DTCH for PS domain)</li> <li>0000 0110B</li> <li>The first/ leftmost bit of the bit string contains the most significant bit of the RAB identity.</li> <li>PS domain</li> <li>Not Present</li> <li>useT315</li> <li>23</li> <li>FALSE</li> <li>Not present</li> <li>Absent</li> <li>Not present</li> <li>RLC info</li> <li>AM RLC</li> </ul>	REL-5

Information Element	Condition	Value/remark	Version
<ul style="list-style-type: none"> <li>- Transmission RLC discard</li> <li>- CHOICE SDU discard mode                             <ul style="list-style-type: none"> <li>- MAX_DAT</li> </ul> </li> <li>- Transmission window size</li> <li>- Timer_RST</li> <li>- Max_RST</li> <li>- Polling info                             <ul style="list-style-type: none"> <li>- Timer_poll_prohibit</li> <li>- Timer_poll</li> <li>- Poll_PDU</li> <li>- Poll_SDU</li> </ul> </li> <li>- Last transmission PDU poll</li> <li>- Last retransmission PDU poll</li> <li>- Poll_Windows</li> <li>- Timer_poll_periodic</li> <li>- CHOICE Downlink RLC mode                             <ul style="list-style-type: none"> <li>- In-sequence delivery</li> <li>- Receiving window size</li> <li>- Downlink RLC status info                                     <ul style="list-style-type: none"> <li>- Timer_status_prohibit</li> <li>- Timer_EPC</li> </ul> </li> <li>- Missing PDU indicator</li> <li>- Timer_STATUS_periodic</li> </ul> </li> <li>- RB mapping info                             <ul style="list-style-type: none"> <li>- Information for each multiplexing option</li> </ul> </li> <li>- RLC logical channel mapping indicator</li> <li>- Number of uplink RLC logical channels</li> <li>- Uplink transport channel type</li> <li>- UL Transport channel identity</li> <li>- Logical channel identity</li> <li>- CHOICE RLC size list                             <ul style="list-style-type: none"> <li>- MAC logical channel priority</li> </ul> </li> <li>- Downlink RLC logical channel info                             <ul style="list-style-type: none"> <li>- Number of downlink RLC logical channels</li> </ul> </li> <li>channels                             <ul style="list-style-type: none"> <li>- Downlink transport channel type</li> <li>- DL DCH Transport channel identity</li> <li>- DL DSCH Transport channel identity</li> <li>- DL HS-DSCH MAC-d flow identity</li> <li>- Logical channel identity</li> <li>- RLC logical channel mapping indicator</li> <li>- Number of uplink RLC logical channels</li> <li>- Uplink transport channel type</li> <li>- UL Transport channel identity</li> <li>- Logical channel identity</li> <li>- CHOICE RLC size list                                     <ul style="list-style-type: none"> <li>- MAC logical channel priority</li> </ul> </li> <li>- Downlink RLC logical channel info                                     <ul style="list-style-type: none"> <li>- Number of downlink RLC logical channels</li> </ul> </li> </ul> </li> <li>channels                             <ul style="list-style-type: none"> <li>- Downlink transport channel type</li> <li>- DL DCH Transport channel identity</li> <li>- DL DSCH Transport channel identity</li> <li>- DL HS-DSCH MAC-d flow identity</li> <li>- Logical channel identity</li> <li>- RLC logical channel mapping indicator</li> <li>- Number of uplink RLC logical channels</li> <li>- Uplink transport channel type</li> <li>- UL Transport channel identity</li> <li>- Logical channel identity</li> <li>- CHOICE RLC size list                                     <ul style="list-style-type: none"> <li>- RLC size index</li> </ul> </li> <li>- MAC logical channel priority</li> <li>- Downlink RLC logical channel info                                     <ul style="list-style-type: none"> <li>- Number of downlink RLC logical channels</li> </ul> </li> </ul> </li> </ul>		<ul style="list-style-type: none"> <li>No Discard</li> <li>15</li> <li>128</li> <li>500</li> <li>4</li> <li>100</li> <li>100</li> <li>Not Present</li> <li>1</li> <li>TRUE</li> <li>TRUE</li> <li>99</li> <li>Not Present</li> <li>AM RLC</li> <li>TRUE</li> <li>768</li> <li>100</li> <li>Not Present</li> <li>TRUE</li> <li>Not Present</li> <li>3 RBMuxOptions</li> <li>Not Present</li> <li>1</li> <li>DCH</li> <li>1</li> <li>Not Present</li> <li>Configured</li> <li>8</li> <li>1</li> <li>DCH</li> <li>6</li> <li>Not Present</li> <li>Not Present</li> <li>Not Present</li> <li>Not Present</li> <li>1</li> <li>DCH</li> <li>1</li> <li>Not Present</li> <li>Configured</li> <li>8</li> <li>1</li> <li>HS-DSCH</li> <li>Not Present</li> <li>Not Present</li> <li>0</li> <li>Not Present</li> <li>Not Present</li> <li>1</li> <li>RACH</li> <li>Not Present</li> <li>7</li> <li>Explicit list</li> <li>Reference to TS34.108 clause 6</li> <li>Parameter Set</li> <li>8</li> <li>1</li> </ul>	

Information Element	Condition	Value/remark	Version
<ul style="list-style-type: none"> <li>- Downlink transport channel type</li> <li>- DL DCH Transport channel identity</li> <li>- DL DSCH Transport channel identity</li> <li>- Logical channel identity</li> </ul>		FACH Not Present Not Present 7	
<ul style="list-style-type: none"> <li>- RAB information for setup               <ul style="list-style-type: none"> <li>- RAB info</li> <li>- RAB identity</li> </ul> </li> <li>- CN domain identity</li> <li>- NAS Synchronization Indicator</li> <li>- Re-establishment timer</li> <li>- RB information to setup               <ul style="list-style-type: none"> <li>- RB identity</li> </ul> </li> <li>- PDCP info               <ul style="list-style-type: none"> <li>- Support for lossless SRNS relocation</li> <li>- Max PDCP SN window size</li> <li>- PDCP PDU header</li> <li>- Header compression information</li> </ul> </li> <li>- CHOICE RLC info type               <ul style="list-style-type: none"> <li>- CHOICE Uplink RLC mode</li> <li>- Transmission RLC discard                   <ul style="list-style-type: none"> <li>- CHOICE SDU discard mode                       <ul style="list-style-type: none"> <li>- MAX_DAT</li> </ul> </li> </ul> </li> <li>- Transmission window size</li> <li>- Timer_RST</li> <li>- Max_RST</li> <li>- Polling info                   <ul style="list-style-type: none"> <li>- Timer_poll_prohibit</li> <li>- Timer_poll</li> <li>- Poll_PDU</li> <li>- Poll_SDU</li> <li>- Last transmission PDU poll</li> <li>- Last retransmission PDU poll</li> <li>- Poll_Windows</li> <li>- Timer_poll_periodic</li> </ul> </li> <li>- CHOICE Downlink RLC mode                   <ul style="list-style-type: none"> <li>- In-sequence delivery</li> <li>- Receiving window size</li> <li>- Downlink RLC status info                       <ul style="list-style-type: none"> <li>- Timer_status_prohibit</li> <li>- Timer_EPC</li> </ul> </li> <li>- Missing PDU indicator</li> <li>- Timer_STATUS_periodic</li> </ul> </li> </ul> </li> <li>- RB mapping info</li> <li>- Information for each multiplexing option               <ul style="list-style-type: none"> <li>- RLC logical channel mapping indicator</li> <li>- Number of uplink RLC logical channels</li> <li>- Uplink transport channel type</li> <li>- UL Transport channel identity</li> <li>- Logical channel identity</li> <li>- CHOICE RLC size list                   <ul style="list-style-type: none"> <li>- MAC logical channel priority</li> </ul> </li> <li>- Downlink RLC logical channel info                   <ul style="list-style-type: none"> <li>- Number of downlink RLC logical channels                       <ul style="list-style-type: none"> <li>- Downlink transport channel type</li> <li>- DL DCH Transport channel identity</li> <li>- DL DSCH Transport channel identity</li> </ul> </li> </ul> </li> </ul> </li> </ul>	A10	(high-speed AM DTCH for PS domain) 0000 0110B The first/ leftmost bit of the bit string contains the most significant bit of the RAB identity. PS domain Not Present useT315  23  FALSE Not present Absent Not present RLC info AM RLC  No Discard 15 128 500 4  100 100 Not Present 1 TRUE TRUE 99 Not Present AM RLC TRUE 768  100 Not Present TRUE Not Present    1 RBMuxOption  Not present 1 DCH 1 Not Present Configured 8  1  HS-DSCH Not present Not present	REL-5



Information Element	Condition	Value/remark	Version
- DL HS-DSCH MAC-d flow identity - Logical channel identity		0 Not Present	
- RAB information for setup - RAB info - RAB identity  - CN domain identity - NAS Synchronization Indicator - Re-establishment timer - RB information to setup - RB identity - PDCP info - Support for lossless SRNS relocation - Max PDCP SN window size - PDCP PDU header - Header compression information - CHOICE RLC info type - CHOICE Uplink RLC mode - Transmission RLC discard - CHOICE SDU discard mode - MAX_DAT - Transmission window size - Timer_RST - Max_RST - Polling info - Timer_poll_prohibit - Timer_poll - Poll_PDU - Poll_SDU - Last transmission PDU poll - Last retransmission PDU poll - Poll_Windows - Timer_poll_periodic - CHOICE Downlink RLC mode - In-sequence delivery - Receiving window size - Downlink RLC status info - Timer_status_prohibit - Timer_EPC - Missing PDU indicator - Timer_STATUS_periodic - RB mapping info - Information for each multiplexing option - RLC logical channel mapping indicator - Number of uplink RLC logical channels - Uplink transport channel type - UL Transport channel identity - Logical channel identity - CHOICE RLC size list - MAC logical channel priority - Downlink RLC logical channel info - Number of downlink RLC logical channels - Downlink transport channel type - DL DCH Transport channel identity - DL DSCH Transport channel identity - Logical channel identity - RLC logical channel mapping indicator - Number of uplink RLC logical channels - Uplink transport channel type - UL Transport channel identity - Logical channel identity - CHOICE RLC size list - RLC size index	A11	(AM DTCH for PS domain) 0000 0101B The first/ leftmost bit of the bit string contains the most significant bit of the RAB identity. PS domain Not Present useT315  20  FALSE Not present Absent Not present RLC info AM RLC  No Discard 15 128 500 4  200 200 Not Present 1 TRUE TRUE 99 Not Present AM RLC TRUE 128  200 Not Present TRUE Not Present  2 RBMuxOptions Not Present 1 DCH 4 Not Present Configured 8  1  DCH 9 Not Present Not Present Not Present 1 RACH Not Present 7 Explicit list Reference to TS34.108 clause 6 Parameter Set	

Information Element	Condition	Value/remark	Version
<ul style="list-style-type: none"> <li>- MAC logical channel priority</li> <li>- Downlink RLC logical channel info</li> <li>- Number of downlink RLC logical channels</li> <li>- Downlink transport channel type</li> <li>- DL DCH Transport channel identity</li> <li>- DL DSCH Transport channel identity</li> <li>- Logical channel identity</li> </ul>		8  1  FACH Not Present Not Present 7	
RB information to be affected	A1, A2, A3, A4, A5, A6, A7, A8, A11, A9, A10	Not Present	REL-5
Downlink counter synchronisation info	A1, A2, A3, A4, A5, A6, A7, A8, A11, A9, A10	Not Present	REL-5
UL Transport channel information for all transport channels  <ul style="list-style-type: none"> <li>- PRACH TFCS</li> <li>- CHOICE mode</li> <li>- TFC subset</li> <li>- UL DCH TFCS</li> <li>- CHOICE TFCI signalling</li> <li>- TFCI Field 1 information</li> <li>- CHOICE TFCS representation</li> <li>- TFCS complete reconfigure</li> </ul> information <ul style="list-style-type: none"> <li>- CHOICE CTFC Size</li> <li>- CTFC information</li> <li>- CTFC</li> <li>- Power offset information</li> <li>- CHOICE Gain Factors</li> <li>- Gain factor <math>\beta_c</math></li> <li>- Gain factor <math>\beta_d</math></li> <li>- Reference TFC ID</li> <li>- CHOICE mode</li> <li>- Power offset P<sub>p-m</sub></li> </ul> Deleted UL TrCH information	A1, A2, A3, A4, A5, A6, A7, A8, A11, A9, A10	Not Present FDD Not Present  Normal  Complete reconfiguration  Number of bits used must be enough to cover all combinations of CTFC from TS34.108 clause 6.10.2.4 Parameter Set. This IE is repeated for TFC numbers and reference to TS34.108 clause 6.10.2.4 Parameter Set Reference to TS34.108 clause 6.10.2.4 Parameter Set  Computed Gain Factors(The last TFC is set to Signalled Gain Factors) 11 (below 64 kbps) 9 (higher than 64 kbps) (Not Present if the CHOICE Gain Factors is set to Computed Gain Factors) 15 (Not Present if the CHOICE Gain Factors is set to Computed Gain Factors) 0 FDD Not Present Not Present	REL-5
Added or Reconfigured UL TrCH information	A1, A3 A4, A5, A6, A7, A9, A10	1 DCH added, 1 DCH reconfigured (if from cell_DCH) OR 2 DCHs added (if from cell_FACH)	REL-5
- Uplink transport channel type		DCH	

Information Element	Condition	Value/remark	Version
<ul style="list-style-type: none"> <li>- UL Transport channel identity</li> <li>- TFS</li> <li>- CHOICE Transport channel type</li> <li>- Dynamic Transport format information</li> <li>- RLC Size</li> <li>- Number of TBs and TTI List</li> <li>- Transmission Time Interval</li> <li>- Number of Transport blocks</li> <li>- CHOICE Logical Channel list</li> <li>- Semi-static Transport Format information</li> <li>- Transmission time interval</li> <li>- Type of channel coding</li> <li>- Coding Rate</li> <li>- Rate matching attribute</li> <li>- CRC size</li> <li>- Uplink transport channel type</li> <li>- UL Transport channel identity</li> <li>- TFS</li> <li>- CHOICE Transport channel type</li> <li>- Dynamic Transport format information</li> <li>- RLC Size</li> <li>- Number of TBs and TTI List</li> <li>- Transmission Time Interval</li> <li>- Number of Transport blocks</li> <li>- CHOICE Logical Channel list</li> <li>- Semi-static Transport Format information</li> <li>- Transmission time interval</li> <li>- Type of channel coding</li> <li>- Coding Rate</li> <li>- Rate matching attribute</li> <li>- CRC size</li> </ul>		<p>1</p> <p>Dedicated transport channels</p> <p>Reference to TS34.108 clause 6.10 Parameter Set (This IE is repeated for TFI number.)</p> <p>Not Present</p> <p>Reference to TS34.108 clause 6.10 Parameter Set</p> <p>All</p> <p>Reference to TS34.108 clause 6.10 Parameter Set</p> <p>Reference to TS34.108 clause 6.10 Parameter Set</p> <p>Reference to TS34.108 clause 6.10 Parameter Set</p> <p>Reference to TS34.108 clause 6.10 Parameter Set</p> <p>Reference to TS34.108 clause 6.10 Parameter Set</p> <p>DCH</p> <p>5</p> <p>Dedicated transport channels</p> <p>Reference to TS34.108 clause 6.10 Parameter Set (This IE is repeated for TFI number.)</p> <p>Not Present</p> <p>Reference to TS34.108 clause 6.10 Parameter Set</p> <p>All</p> <p>Reference to TS34.108 clause 6.10 Parameter Set</p> <p>Reference to TS34.108 clause 6.10 Parameter Set</p> <p>Reference to TS34.108 clause 6.10 Parameter Set</p> <p>Reference to TS34.108 clause 6.10 Parameter Set</p> <p>Reference to TS34.108 clause 6.10 Parameter Set</p>	
Added or Reconfigured UL TrCH information	A11	1 DCH added for DTCH	
- Uplink transport channel type		DCH	
- UL Transport channel identity		4	
- TFS			
- CHOICE Transport channel type		Dedicated transport channels	
- Dynamic Transport format information			
- RLC Size		Reference to TS34.108 clause 6.10 Parameter Set	
- Number of TBs and TTI List		(This IE is repeated for TFI number.)	
- Transmission Time Interval		Not Present	
- Number of Transport blocks		Reference to TS34.108 clause 6.10 Parameter Set	
- CHOICE Logical Channel list		All	
- Semi-static Transport Format information			
- Transmission time interval		Reference to TS34.108 clause 6.10 Parameter Set	
- Type of channel coding		Reference to TS34.108 clause 6.10 Parameter Set	
- Coding Rate		Reference to TS34.108 clause 6.10 Parameter Set	
- Rate matching attribute		Reference to TS34.108 clause 6.10 Parameter Set	

Information Element	Condition	Value/remark	Version
- CRC size		Reference to TS34.108 clause 6.10 Parameter Set	
Added or Reconfigured UL TrCH information	A2, A8	4 TrCHs(DCH for DCCH and 3DCHs for DTCH) DCH 5  Dedicated transport channels  Reference to TS34.108 clause 6.10 Parameter Set (This IE is repeated for TFI number.) Not Present Reference to TS34.108 clause 6.10 Parameter Set All  Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set DCH 1  Dedicated transport channels  Reference to TS34.108 clause 6.10 Parameter Set (This IE is repeated for TFI number.) Not Present Reference to TS34.108 clause 6.10 Parameter Set All  Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set DCH 2  Dedicated transport channels  Reference to TS34.108 clause 6.10 Parameter Set (This IE is repeated for TFI number.) Not Present Reference to TS34.108 clause 6.10 Parameter Set All  Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set	
<ul style="list-style-type: none"> <li>- Uplink transport channel type</li> <li>- UL Transport channel identity</li> <li>- TFS</li> <li>- CHOICE Transport channel type</li> <li>- Dynamic Transport format information</li> <li>- RLC Size</li>   <li>- Number of TBs and TTI List</li> <li>- Transmission Time Interval</li> <li>- Number of Transport blocks</li>   <li>- CHOICE Logical Channel list</li> <li>- Semi-static Transport Format information</li> <li>- Transmission time interval</li>   <li>- Type of channel coding</li>   <li>- Coding Rate</li>   <li>- Rate matching attribute</li>   <li>- CRC size</li>   <li>- Uplink transport channel type</li> <li>- UL Transport channel identity</li> <li>- TFS</li> <li>- CHOICE Transport channel type</li> <li>- Dynamic Transport format information</li> <li>- RLC Size</li>   <li>- Number of TBs and TTI List</li> <li>- Transmission Time Interval</li> <li>- Number of Transport blocks</li>   <li>- CHOICE Logical Channel list</li> <li>- Semi-static Transport Format information</li> <li>- Transmission time interval</li>   <li>- Type of channel coding</li>   <li>- Coding Rate</li>   <li>- Rate matching attribute</li>   <li>- CRC size</li>   <li>- Uplink transport channel type</li> <li>- UL Transport channel identity</li> <li>- TFS</li> <li>- CHOICE Transport channel type</li> <li>- Dynamic Transport format information</li> <li>- RLC Size</li>   <li>- Number of TBs and TTI List</li> <li>- Transmission Time Interval</li> <li>- Number of Transport blocks</li>   <li>- CHOICE Logical Channel list</li> <li>- Semi-static Transport Format information</li> <li>- Transmission time interval</li>   <li>- Type of channel coding</li> </ul>			

Information Element	Condition	Value/remark	Version
<ul style="list-style-type: none"> <li>- Coding Rate</li> <li>- Rate matching attribute</li> <li>- CRC size</li> <li>- Uplink transport channel type</li> <li>- UL Transport channel identity</li> <li>- TFS</li> <li>- CHOICE Transport channel type</li> <li>- Dynamic Transport format information</li> <li>- RLC Size</li> <li>- Number of TBs and TTI List</li> <li>- Transmission Time Interval</li> <li>- Number of Transport blocks</li> <li>- CHOICE Logical Channel list</li> <li>- Semi-static Transport Format information</li> <li>- Transmission time interval</li> <li>- Type of channel coding</li> <li>- Coding Rate</li> <li>- Rate matching attribute</li> <li>- CRC size</li> </ul>		<p>Reference to TS34.108 clause 6.10 Parameter Set</p> <p>Reference to TS34.108 clause 6.10 Parameter Set</p> <p>Reference to TS34.108 clause 6.10 Parameter Set</p> <p>DCH 3</p> <p>Dedicated transport channels</p> <p>Reference to TS34.108 clause 6.10 Parameter Set (This IE is repeated for TFI number.)</p> <p>Not Present</p> <p>Reference to TS34.108 clause 6.10 Parameter Set</p> <p>All</p> <p>Reference to TS34.108 clause 6.10 Parameter Set</p> <p>Reference to TS34.108 clause 6.10 Parameter Set</p> <p>Reference to TS34.108 clause 6.10 Parameter Set</p> <p>Reference to TS34.108 clause 6.10 Parameter Set</p> <p>Reference to TS34.108 clause 6.10 Parameter Set</p>	
<p>CHOICE <i>mode</i></p> <ul style="list-style-type: none"> <li>- CPCH set ID</li> <li>- Added or Reconfigured TrCH information for DRAC list</li> </ul>	A1, A2, A3, A4, A5, A6, A7, A8, A11, A9, A10	<p>FDD</p> <p>Not Present</p> <p>Not Present</p>	REL-5
<p>DL Transport channel information common for all transport channel</p> <ul style="list-style-type: none"> <li>- SCCPCH TFCS</li> <li>- CHOICE mode</li> <li>- CHOICE DL parameters</li> </ul>	A1, A2, A7, A8	<p>Not Present</p> <p>FDD</p> <p>SameasUL</p>	
<p>DL Transport channel information common for all transport channel</p> <ul style="list-style-type: none"> <li>- SCCPCH TFCS</li> <li>- CHOICE mode</li> <li>- CHOICE DL parameters</li> <li>- DL DCH TFCS</li> <li>- CHOICE TFCI Signalling</li> <li>- TFCI Field 1 Information</li> <li>- CHOICE TFCS representation</li> <li>- TFCS complete reconfigure</li> <li>- CHOICE CTFC Size</li> <li>- CTFC information</li> <li>- CTFC</li> <li>- Power offset information</li> </ul>	A3, A4, A5, A6, A11, A9, A10	<p>Not Present</p> <p>FDD</p> <p>Explicit</p> <p>Normal</p> <p>Complete reconfiguration</p> <p>Number of bits used must be enough to cover all combinations of CTFC from clause TS34.108 clause 6.10.2.4 Parameter Set.</p> <p>This IE is repeated for TFC numbers and reference to TS34.108 clause 6.10.2.4</p> <p>Reference to TS34.108 clause 6.10.2.4 Parameter Set</p> <p>Not Present</p>	REL-5

Information Element	Condition	Value/remark	Version
Deleted DL TrCH information	A1, A2, A3, A4, A5, A6, A7, A8, A9, A10	Not Present	REL-5
Added or Reconfigured DL TrCH information <ul style="list-style-type: none"> <li>- Downlink transport channel type</li> <li>- DL Transport channel identity</li> <li>- CHOICE DL parameters</li> <li>- Uplink transport channel type</li> <li>- UL TrCH identity</li> <li>- DCH quality target</li> <li>- BLER Quality value</li> <li>- Downlink transport channel type</li> <li>- DL Transport channel identity</li> <li>- CHOICE DL parameters</li> <li>- Uplink transport channel type</li> <li>- UL TrCH identity</li> <li>- DCH quality target</li> <li>- BLER Quality value</li> </ul>	A1	1 DCH added, 1 DCH reconfigured DCH 6 Same as UL DCH 1 -2.0 DCH 10 Same as UL DCH 5 -2.0	
Added or Reconfigured DL TrCH information <ul style="list-style-type: none"> <li>- Downlink transport channel type</li> <li>- DL Transport channel identity</li> <li>- CHOICE DL parameters</li> <li>- Uplink transport channel type</li> <li>- UL TrCH identity</li> <li>- DCH quality target</li> <li>- BLER Quality value</li> <li>- Downlink transport channel type</li> <li>- DL Transport channel identity</li> <li>- CHOICE DL parameters</li> <li>- TFS</li> <li>- CHOICE Transport channel type</li> <li>- Dynamic transport format information</li> <li>- RLC Size</li> <li>- Number of TBs and TTI List</li> <li>- Transmission Time Interval</li> <li>- Number of Transport blocks</li> <li>- CHOICE Logical Channel list</li> <li>- Semi-static Transport Format information</li> <li>- Transmission time interval</li> <li>- Type of channel coding</li> <li>- Coding Rate</li> <li>- Rate matching attribute</li> <li>- CRC size</li> <li>- DCH quality target</li> <li>- BLER Quality value</li> </ul>	A3, A4, A5, A6, A7	2 TrCHs(DCH for DCCH and DCH for DTCH) DCH 10 Same as UL DCH 5 -2.0 DCH 6 Explicit Dedicated transport channel Reference to TS34.108 clause 6.10 Parameter Set (This IE is repeated for TFI number.) Not Present Reference to TS34.108 clause 6.10 Parameter Set All Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set	
Added or Reconfigured DL TrCH information <ul style="list-style-type: none"> <li>- Downlink transport channel type</li> <li>- DL Transport channel identity</li> <li>- CHOICE DL parameters</li> <li>- Uplink transport channel type</li> <li>- UL TrCH identity</li> <li>- DCH quality target</li> <li>- BLER Quality value</li> <li>- Downlink transport channel type</li> <li>- DL Transport channel identity</li> <li>- CHOICE DL parameters</li> <li>- TFS</li> </ul>	A2, A8	4 TrCHs(DCH for DCCH and 3DCHs for DTCH) DCH 10 Same as UL DCH 5 2.0 DCH 6 Explicit	

Information Element	Condition	Value/remark	Version
- CHOICE Transport channel type - Dynamic transport format information - RLC Size		Dedicated transport channel	
- Number of TBs and TTI List - Dynamic transport format information - Transmission Time Interval - Number of Transport blocks		Reference to TS34.108 clause 6.10 Parameter Set (This IE is repeated for TFI number.)	
- CHOICE Logical Channel list - Semi-static Transport Format information - Transmission time interval		Not Present Reference to TS34.108 clause 6.10 Parameter Set All	
- Type of channel coding		Reference to TS34.108 clause 6.10 Parameter Set	
- Coding Rate		Reference to TS34.108 clause 6.10 Parameter Set	
- Rate matching attribute		Reference to TS34.108 clause 6.10 Parameter Set	
- CRC size		Reference to TS34.108 clause 6.10 Parameter Set	
- DCH quality target - BLER Quality value - Downlink transport channel type - DL Transport channel identity - CHOICE DL parameters - TFS		Not Present DCH 7 Explicit	
- CHOICE Transport channel type - Dynamic transport format information - RLC Size		Dedicated transport channel	
- Number of TBs and TTI List - Dynamic transport format information - Transmission Time Interval - Number of Transport blocks		Reference to TS34.108 clause 6.10 Parameter Set (This IE is repeated for TFI number.)	
- CHOICE Logical Channel list - Semi-static Transport Format information - Transmission time interval		Not Present Reference to TS34.108 clause 6.10 Parameter Set All	
- Type of channel coding		Reference to TS34.108 clause 6.10 Parameter Set	
- Coding Rate		Reference to TS34.108 clause 6.10 Parameter Set	
- Rate matching attribute		Reference to TS34.108 clause 6.10 Parameter Set	
- CRC size		Reference to TS34.108 clause 6.10 Parameter Set	
- DCH quality target - BLER Quality value - Downlink transport channel type - DL Transport channel identity - CHOICE DL parameters - TFS		Not Present DCH 8 Explicit	
- CHOICE Transport channel type - Dynamic transport format information - RLC Size		Dedicated transport channel	
- Number of TBs and TTI List - Dynamic transport format information - Transmission Time Interval - Number of Transport blocks		Reference to TS34.108 clause 6.10 Parameter Set (This IE is repeated for TFI number.)	
- CHOICE Logical Channel list - Semi-static Transport Format information - Transmission time interval		Not Present Reference to TS34.108 clause 6.10 Parameter Set All	
		Reference to TS34.108 clause 6.10 Parameter Set	

Information Element	Condition	Value/remark	Version
<ul style="list-style-type: none"> <li>- Type of channel coding</li> <li>- Coding Rate</li> <li>- Rate matching attribute</li> <li>- CRC size</li> <li>- DCH quality target</li> <li>- BLER Quality value</li> </ul>		Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set  Not Present	
Added or Reconfigured DL TrCH information  <ul style="list-style-type: none"> <li>- Downlink transport channel type</li> <li>- DL Transport channel identity</li> <li>- CHOICE DL parameters               <ul style="list-style-type: none"> <li>- Uplink transport channel type</li> <li>- UL TrCH identity</li> </ul> </li> <li>- DCH quality target               <ul style="list-style-type: none"> <li>- BLER Quality value</li> </ul> </li> <li>- Downlink transport channel type</li> <li>- DL Transport channel identity</li> <li>- CHOICE DL parameters</li> <li>- TFS</li> <li>- CHOICE Transport channel type</li> <li>- Dynamic transport format information</li> <li>- RLC Size</li>   <li>- Number of TBs and TTI List</li> <li>- Dynamic transport format information               <ul style="list-style-type: none"> <li>- Transmission Time Interval</li> <li>- Number of Transport blocks</li> </ul> </li>   <li>- CHOICE Logical Channel list</li> <li>- Semi-static Transport Format information</li> <li>- Transmission time interval</li>   <li>- Type of channel coding</li> <li>- Coding Rate</li> <li>- Rate matching attribute</li> <li>- CRC size</li> <li>- DCH quality target</li> <li>- BLER Quality value</li> <li>- Downlink transport channel type</li> <li>- DL Transport channel identity</li> <li>- CHOICE DL parameters               <ul style="list-style-type: none"> <li>- HARQ Info                   <ul style="list-style-type: none"> <li>- Number of Processes</li> <li>- CHOICE <i>Memory Partitioning</i></li> </ul> </li> </ul> </li> <li>- Added or reconfigured MAC-d flow               <ul style="list-style-type: none"> <li>- MAC-hs queue to add or reconfigure list                   <ul style="list-style-type: none"> <li>- MAC-hs queue Id</li> <li>- MAC-d Flow Identity</li> <li>- T1</li> <li>- MAC-hs window size</li> <li>- MAC-d PDU size Info                       <ul style="list-style-type: none"> <li>- MAC-d PDU size</li> <li>- MAC-d PDU size index</li> </ul> </li> <li>- MAC-hs queue to delete list</li> </ul> </li> </ul> </li> <li>- DCH quality target</li> </ul>	A9	3 TrCHs (DCH for DCCH and DCH plus HS-DSCH for DTCH) DCH 10 Same as UL DCH 5  -2.0 DCH 6 Explicit  Dedicated transport channel  Reference to TS34.108 clause 6.10 Parameter Set (This IE is repeated for TFI number.)  Not Present Reference to TS34.108 clause 6.10 Parameter Set All  Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set  -2.0 HS-DSCH Not Present HS-DSCH  6 Implicit  (one queue)  0 0 50 16  336 0 Not present Not present	REL-5
Added or Reconfigured DL TrCH information  <ul style="list-style-type: none"> <li>- Downlink transport channel type</li> </ul>	A10	2 TrCHs (DCH for DCCH and HS-DSCH for DTCH) DCH	REL-5



Information Element	Condition	Value/remark	Version
<ul style="list-style-type: none"> <li>- DL Transport channel identity</li> <li>- CHOICE DL parameters                             <ul style="list-style-type: none"> <li>- Uplink transport channel type</li> <li>- UL TrCH identity</li> </ul> </li> <li>- DCH quality target                             <ul style="list-style-type: none"> <li>- BLER Quality value</li> </ul> </li> <li>- Downlink transport channel type</li> <li>- DL Transport channel identity</li> <li>- CHOICE DL parameters                             <ul style="list-style-type: none"> <li>- HARQ Info                                     <ul style="list-style-type: none"> <li>- Number of Processes</li> <li>- CHOICE <i>Memory Partitioning</i></li> </ul> </li> <li>- Added or reconfigured MAC-d flow                                     <ul style="list-style-type: none"> <li>- MAC-hs queue to add or reconfigure</li> </ul> </li> </ul> </li> <li>list                             <ul style="list-style-type: none"> <li>- MAC-hs queue Id</li> <li>- MAC-d Flow Identity</li> <li>- T1</li> <li>- MAC-hs window size</li> <li>- MAC-d PDU size Info                                     <ul style="list-style-type: none"> <li>- MAC-d PDU size</li> <li>- MAC-d PDU size index</li> </ul> </li> <li>- MAC-hs queue to delete list</li> <li>- DCH quality target</li> </ul> </li> </ul>		10 Same as UL DCH 5  -2.0 HS-DSCH Not Present HS-DSCH  6 Implicit  (one queue)  0 0 50 16  336 0 Not present Not present	
Added or Reconfigured DL TrCH information	A11	1 DCH for DTCH	
<ul style="list-style-type: none"> <li>- Downlink transport channel type</li> <li>- DL Transport channel identity</li> <li>- CHOICE DL parameters</li> <li>- TFS</li> <li>- CHOICE Transport channel type</li> <li>- Dynamic transport format information</li> <li>- RLC Size</li>  <li>- Number of TBs and TTI List</li> <li>- Dynamic transport format information</li> <li>- Transmission Time Interval</li> <li>- Number of Transport blocks</li>  <li>- CHOICE Logical Channel list</li> <li>- Semi-static Transport Format information</li> <li>- Transmission time interval</li>  <li>- Type of channel coding</li>  <li>- Coding Rate</li>  <li>- Rate matching attribute</li>  <li>- CRC size</li>  <li>- DCH quality target</li> <li>- BLER Quality value</li> </ul>		DCH 9 Explicit  Dedicated transport channel  Reference to TS34.108 clause 6.10 Parameter Set (This IE is repeated for TFI number.)  Not Present Reference to TS34.108 clause 6.10 Parameter Set All  Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set  -2.0	
Frequency info  <ul style="list-style-type: none"> <li>- UARFCN uplink (Nu)</li>  <li>- UARFCN downlink (Nd)</li> </ul>	A1, A2, A3, A4, A5, A7, A8, 11 , A9, A10	Reference to clause 5.1 Test frequencies if frequency is different from the current frequency otherwise set to Not Present. Reference to clause 5.1 Test frequencies if frequency is different from the current frequency otherwise set to Not Present.	REL-5
Frequency info	A6	Not Present	

Information Element	Condition	Value/remark	Version
Maximum allowed UL TX power	A1, A2, A3, A4, A7, A8, A11, A9, A10	33dBm	REL-5
Maximum allowed UL TX power	A5, A6	Not Present	
CHOICE channel requirement  - Uplink DPCH power control info - DPCCH power offset - PC Preamble - SRB delay - Power Control Algorithm - TPC step size - $\Delta_{NACK}$ - $\Delta_{ACK}$ - Ack-Nack repetition factor - Scrambling code type - Scrambling code number - Number of DPDCH - spreading factor  - TFCI existence  - Number of FBI bit  - Puncturing Limit	A1, A2, A3, A4, A7, A8, A11	Uplink DPCH info  -80dB (i.e. ASN.1 IE value of n40) 1 frame 7 frames Algorithm1 1dB Not Present Not Present Not Present Long 0 (0 to 16777215) Not Present(1) Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set	REL-5 REL-5 REL-5
CHOICE channel requirement	A9, A10	Uplink DPCH info	REL-5
- Uplink DPCH power control info			
- DPCCH power offset		-6dB	
- PC Preamble		1 frame	
- SRB delay		7 frames	
- Power Control Algorithm		Algorithm1	
- TPC step size		1dB	
- $\Delta_{ACK}$		3	
- $\Delta_{NACK}$		3	
- Ack-Nack repetition factor		1	
- Scrambling code type		Long	
- Scrambling code number		0 (0 to 16777215)	
- Number of DPDCH		Not Present(1)	
- spreading factor		Reference to TS34.108 clause 6.10 Parameter Set	
- TFCI existence		Reference to TS34.108 clause 6.10 Parameter Set	
- Number of FBI bit		Reference to TS34.108 clause 6.10 Parameter Set	
- Puncturing Limit		Reference to TS34.108 clause 6.10 Parameter Set	
CHOICE channel requirement	A5,A6	Not Present	
CHOICE Mode	A1, A2, A3, A4, A5, A6, A7, A8, A11, A9, A10	FDD	REL-5
- Downlink PDSCH information		Not Present	
Downlink information common for all radio links  - Downlink DPCH info common for all RL - Timing indicator - CFN-targetSFN frame offset - Downlink DPCH power control information - DPC mode	A1, A2, A3, A11	Maintain Not Present  0 (single)	

Information Element	Condition	Value/remark	Version
<ul style="list-style-type: none"> <li>- CHOICE mode</li> <li>- Power offset <math>P_{\text{Pilot-DPDCH}}</math></li> <li>- DL rate matching restriction information</li> <li>- Spreading factor</li>   <li>- Fixed or Flexible Position</li>   <li>- TFCI existence</li>   <li>- CHOICE SF</li>   <li>- CHOICE mode</li> <li>- DPCH compressed mode info</li> <li>- TX Diversity mode</li> <li>- SSDT information</li> <li>- Default DPCH Offset Value</li> </ul>		FDD 0 Not Present Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set FDD Not Present None Not Present Not Present	
Downlink information common for all radio links	A9		REL-5
- Downlink DPCH info common for all RL			
- Timing indicator		Maintain	
- CFN-targetSFN frame offset		Not Present	
- Downlink DPCH power control information			
- DPC mode		0 (single)	
- CHOICE mode		FDD	
- Power offset $P_{\text{Pilot-DPDCH}}$		0	
- DL rate matching restriction information		Not Present	
- Spreading factor		Reference to TS34.108 clause 6.10 Parameter Set	
- Fixed or Flexible Position		Reference to TS34.108 clause 6.10 Parameter Set	
- TFCI existence		Reference to TS34.108 clause 6.10 Parameter Set	
- CHOICE SF		Reference to TS34.108 clause 6.10 Parameter Set	
- CHOICE mode		FDD	
- DPCH compressed mode info		Not Present	
- TX Diversity mode		None	
- SSDT information		Not Present	
- Default DPCH Offset Value		Not Present	
- MAC-hs reset indicator		TRUE	
Downlink information common for all radio links	A4,A7,A8		
- Downlink DPCH info common for all RL			
- Timing indicator		Initialise	
- CFN-targetSFN frame offset		Not Present	
- Downlink DPCH power control information			
- DPC mode		0 (single)	
- CHOICE mode		FDD	
- Power offset $P_{\text{Pilot-DPDCH}}$		0	
- DL rate matching restriction information		Not Present	
- Spreading factor		Reference to TS34.108 clause 6.10 Parameter Set	
- Fixed or Flexible Position		Reference to TS34.108 clause 6.10 Parameter Set	
- TFCI existence		Reference to TS34.108 clause 6.10 Parameter Set	
- CHOICE SF		Reference to TS34.108 clause 6.10 Parameter Set	
- CHOICE mode		FDD	
- DPCH compressed mode info		Not Present	
- TX Diversity mode		None	
- SSDT information		Not Present	
- Default DPCH Offset Value		Arbitrary set to value 0..306688 by step of 512	
Downlink information common for all radio links	A10		REL-5
- Downlink DPCH info common for all RL			

Information Element	Condition	Value/remark	Version
<ul style="list-style-type: none"> <li>- Timing indicator</li> <li>- CFN-targetSFN frame offset</li> <li>- Downlink DPCH power control information</li> <li>- DPC mode</li> <li>- CHOICE mode</li> <li>- Power offset PPilot-DPDCH</li> <li>- DL rate matching restriction information</li> <li>- Spreading factor</li>   <li>- Fixed or Flexible Position</li>   <li>- TFCI existence</li>   <li>- CHOICE SF</li>   <li>- CHOICE mode</li> <li>- DPCH compressed mode info</li> <li>- TX Diversity mode</li> <li>- SSDT information</li> <li>- Default DPCH Offset Value</li>   <li>- MAC-hs reset indicator</li> </ul>		Initialise Not Present  0 (single) FDD 0 Not Present Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set FDD Not Present None Not Present Arbitrary set to value 0..306688 by step of 512 TRUE	
Downlink HS-PDSCH Information	A1, A2, A3, A4, A5, A6, A7, A8, A11	Not Present	REL-5
Downlink HS-PDSCH Information <ul style="list-style-type: none"> <li>- HS-SCCH Info</li> <li>- CHOICE mode</li> <li>- DL Scrambling Code</li> <li>- HS-SCCH Channelisation Code Information</li> <li>- HS-SCCH Channelisation Code</li> <li>- Measurement Feedback Info</li> <li>- CHOICE mode</li> <li>- POhsdsch</li> <li>- CQI Feedback cycle, k</li> <li>- CQI repetition factor</li> <li>- <math>\Delta_{CQI}</math></li>   <li>- CHOICE mode</li> </ul>	A9, A10	FDD Not present  1  FDD 6 dB 4 ms 1 5 (corresponds to 0dB in relative power offset) FDD (no data)	REL-5
Downlink information common for all radio links	A5,A6	Not Present	
Downlink information for each radio link list <ul style="list-style-type: none"> <li>- Downlink information for each radio link</li> <li>- Choice mode</li> <li>- Primary CPICH info</li> <li>- Primary scrambling code</li>   <li>- PDSCH with SHO DCH info</li> <li>- PDSCH code mapping</li> <li>- Serving HS-DSCH radio link indicator</li> <li>- Downlink DPCH info for each RL</li> <li>- Primary CPICH usage for channel estimation</li> <li>- DPCH frame offset</li>   <li>- Secondary CPICH info</li> <li>- DL channelisation code</li> <li>- Secondary scrambling code</li> <li>- Spreading factor</li>   <li>- Code number</li> <li>- Scrambling code change</li> <li>- TPC combination index</li> </ul>	A1, A2, A3, A4, A7, A8, A11	FDD  Ref. to the Default setting in TS34.108 clause 6.1 (FDD) Not Present Not Present FALSE  Primary CPICH may be used  Set to value Default DPCH Offset Value (as currently stored in SS) mod 38400 Not Present  1 Reference to TS34.108 clause 6.10 Parameter Set 0 <del>Not Needed</del> No code change 0	REL-5

Information Element	Condition	Value/remark	Version
<ul style="list-style-type: none"> <li>- SSDT Cell Identity</li> <li>- Closed loop timing adjustment mode</li> <li>- SCCPCH information for FACH</li> </ul>		Not Present Not Present Not Present	
Downlink information for each radio link list <ul style="list-style-type: none"> <li>- Downlink information for each radio link</li> <li>- Choice mode</li> <li>- Primary CPICH info</li> <li>- Primary scrambling code</li> <li>- PDSCH with SHO DCH info</li> <li>- PDSCH code mapping</li> <li>- Serving HS-DSCH radio link indicator</li> <li>- Downlink DPCH info for each RL</li> <li>- SCCPCH information for FACH</li> </ul>	A5	FDD  Ref. to the Default setting in TS34.108 clause 6.1 (FDD) Not Present Not Present FALSE Not present Not Present	REL-5
Downlink information for each radio link list <ul style="list-style-type: none"> <li>- Downlink information for each radio link</li> <li>- Choice mode</li> <li>- Primary CPICH info</li> <li>- Primary scrambling code</li> <li>- PDSCH with SHO DCH info</li> <li>- PDSCH code mapping</li> <li>- Serving HS-DSCH radio link indicator</li> <li>- Downlink DPCH info for each RL</li> <li>- Primary CPICH usage for channel estimation</li> <li>- DPCH frame offset</li> <li>- Secondary CPICH info</li> <li>- DL channelisation code</li> <li>- Secondary scrambling code</li> <li>- Spreading factor</li> <li>- Code number</li> <li>- Scrambling code change</li> <li>- TPC combination index</li> <li>- SSDT Cell Identity</li> <li>- Closed loop timing adjustment mode</li> <li>- SCCPCH information for FACH</li> </ul>	A9, A10	FDD  Ref. to the Default setting in TS34.108 clause 6.1 (FDD) Not Present Not Present TRUE  Primary CPICH may be used  Set to value Default DPCH Offset Value (as currently stored in SS) mod 38400 Not Present  Not present Reference to TS34.108 clause 6.10 Parameter Set 0 <del>Not Needed</del> <a href="#">No code change</a> 0 Not Present Not Present Not Present	REL-5
Downlink information for each radio link list	A6	Not Present	

Condition	Explanation	Version
A1	This IE is needed for "Non speech to CELL_DCH from CELL_DCH in CS"	
A2	This IE is needed for "Speech to CELL_DCH from CELL_DCH in CS"	
A3	This IE is needed for "Packet to CELL_DCH from CELL_DCH in PS"	
A4	This IE is needed for "Packet to CELL_DCH from CELL_FACH in PS"	
A5	This IE is needed for "Packet to CELL_FACH from CELL_DCH in PS"	
A6	This IE is needed for "Packet to CELL_FACH from CELL_FACH in PS"	
A7	This IE is needed for "Non speech to CELL_DCH from CELL_FACH in CS"	
A8	This IE is needed for "Speech to CELL_DCH from CELL_FACH in CS"	
A9	This IE is needed for " <a href="#">Packet to CELL_DCH / HS-DSCH using three multiplexing options</a> î, or when not stated otherwise, for "Packet to CELL_DCH / HS-DSCH from CELL_DCH in PS"	REL-5
A10	This IE is needed for " <a href="#">Packet to CELL_DCH / HS-DSCH using one multiplexing option</a> î, or when not stated otherwise, for "Packet to CELL_DCH / HS-DSCH from CELL_FACH in PS"	REL-5
A11	This IE is needed for " Packet RAB Setup after Speech RAB Setup in CELL_DCHî"	

## CHANGE REQUEST

¶ **34.108 CR 374** ¶ rev - ¶ Current version: **5.2.0** ¶

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


<b>Title:</b>	¶ Physical layer multiplexing configuration in case of AMR and two PS RABs		
<b>Source:</b>	¶ Nokia, T-Mobile		
<b>Work item code:</b>	¶ TEI	<b>Date:</b>	¶ 1/112004
<b>Category:</b>	¶ <b>F</b>	<b>Release:</b>	¶ Rel-5
	Use <u>one</u> of the following categories: <b>F</b> (correction) <b>A</b> (corresponds to a correction in an earlier release) <b>B</b> (addition of feature), <b>C</b> (functional modification of feature) <b>D</b> (editorial modification) Detailed explanations of the above categories can be found in 3GPP <a href="#">TR 21.900</a> .		Use <u>one</u> of the following releases: <b>Ph2</b> (GSM Phase 2) <b>R96</b> (Release 1996) <b>R97</b> (Release 1997) <b>R98</b> (Release 1998) <b>R99</b> (Release 1999) <b>Rel-4</b> (Release 4) <b>Rel-5</b> (Release 5) <b>Rel-6</b> (Release 6) <b>Rel-7</b> (Release 7)

<b>Reason for change:</b>	¶ Currently there is no test case for physical channel multiplexing option of AMR and two PS RABs and SRBs.
<b>Summary of change:</b>	¶ New test case Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB + Interactive or background / UL:32 DL:32 kbps / PS RAB + Interactive or background / UL:32 DL:32 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH with physical layer multiplexing introduced in the specifications
<b>Consequences if not approved:</b>	¶ No testing coverage for physical channel multiplexing option of AMR and two PS RABs and SRBs, which is possible configuration according the core specifications.

<b>Clauses affected:</b>	¶ 6.10.2.2 and 6.10.2.4										
<b>Other specs affected:</b>	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;">¶ <input type="checkbox"/></td> <td style="text-align: center;">¶ <input checked="" type="checkbox"/></td> </tr> <tr> <td style="text-align: center;">¶ <input checked="" type="checkbox"/></td> <td style="text-align: center;">¶ <input type="checkbox"/></td> </tr> <tr> <td style="text-align: center;">¶ <input type="checkbox"/></td> <td style="text-align: center;">¶ <input checked="" type="checkbox"/></td> </tr> </table> Other core specifications Test specifications O&M Specifications	Y	N	¶ <input type="checkbox"/>	¶ <input checked="" type="checkbox"/>	¶ <input checked="" type="checkbox"/>	¶ <input type="checkbox"/>	¶ <input type="checkbox"/>	¶ <input checked="" type="checkbox"/>	¶	34.123-1, 34.123-2 and 34.123-3
Y	N										
¶ <input type="checkbox"/>	¶ <input checked="" type="checkbox"/>										
¶ <input checked="" type="checkbox"/>	¶ <input type="checkbox"/>										
¶ <input type="checkbox"/>	¶ <input checked="" type="checkbox"/>										
<b>Other comments:</b>	¶										

**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>

## 6.10.2 RAB and signalling RB for FDD

### 6.10.2.1 RABs and signalling RBs

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

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



Table 6.10.2.1.1: Prioritised RABs.

#	Traffic class [15]	SSD [15]	Max. rate, kbps	CS/PS	Version
1	Conversational	Speech	UL:12.2 DL:12.2	CS	R99
1a	Conversational	Speech	UL:(12.2 7.95 5.9 4.75) DL:(12.2 7.95 5.9 4.75)	CS	R99
2	Conversational	Speech	UL:10.2 DL:10.2	CS	R99
2a	Conversational	Speech	UL:(10.2, 6.7, 5.9, 4.75) DL:(10.2, 6.7, 5.9, 4.75)	CS	R99
3	Conversational	Speech	UL:7.95 DL:7.95	CS	R99
4	Conversational	Speech	UL:7.4 DL:7.4	CS	R99
4a	Conversational	Speech	UL:(7.4, 6.7, 5.9, 4.75) DL:(7.4, 6.7, 5.9, 4.75)	CS	R99
5	Conversational	Speech	UL:6.7 DL:6.7	CS	R99
6	Conversational	Speech	UL:5.9 DL:5.9	CS	R99
7	Conversational	Speech	UL:5.15 DL:5.15	CS	R99
8	Conversational	Speech	UL:4.75 DL:4.75	CS	R99
9	Conversational	Unknown	UL:28.8 DL:28.8	CS	R99
10	Conversational	Unknown	UL:64 DL:64	CS	R99
11	Conversational	Unknown	UL:32 DL:32	CS	R99
11a	Conversational	Unknown	UL:8 DL:8	PS	R99
12	Streaming	Unknown	UL:14.4 DL:14.4	CS	R99
13	Streaming	Unknown	UL:28.8 DL:28.8	CS	R99
14	Streaming	Unknown	UL:57.6 DL:57.6	CS	R99
15	Void				
15a	Streaming	Unknown	UL:16 DL:64	PS	R99
16	Void				
17	Void				
18	Void				
19	Void				
20	Interactive or Background	N/A	UL:32 DL:8	PS	R99
20a	Interactive or Background	N/A	UL:8 DL:8	PS	R99
20b	Interactive or Background	N/A	UL:16 DL:16	PS	R99
20c	Interactive or Background	N/A	UL:32 DL:32	PS	R99
21	Void				
22	Interactive or Background	N/A	UL:32 DL:64	PS	R99
23	Interactive or Background	N/A	UL:64 DL:64	PS	R99
24	Interactive or Background	N/A	UL:64 DL:128	PS	R99
25	Interactive or Background	N/A	UL:128 DL:128	PS	R99
26	Interactive or Background	N/A	UL:64 DL:384	PS	R99
27	Interactive or Background	N/A	UL:128 DL:384	PS	R99
28	Interactive or Background	N/A	UL:384 DL:384	PS	R99
29	Interactive or Background	N/A	UL:64 DL:2048	PS	R99
30	Interactive or Background	N/A	UL:128 DL:2048	PS	R99
31	Void				
32	Interactive or Background	N/A	UL:64 DL:256	PS	R99
33	Interactive or Background	N/A	UL:0 DL:32	PS	R99
34	Interactive or Background	N/A	UL:32 DL: 0	PS	R99
35	Interactive or Background	N/A	UL:64 DL:144	PS	R99
36	Interactive or Background	N/A	UL:144 DL:144	PS	R99
37	Conversational	N/A	UL:42.8 DL:42.8	PS	REL-5
38	Conversational	Speech	UL:(12.65 8.85 6.6) DL:(12.65 8.85 6.6)	CS	REL-5
39	Interactive or Background	N/A	UL:64 DL:768	PS	REL-5

Table 6.10.2.1.2: Signalling RBs

#	Maximum rate, kbps	Logical channel	PhyCh onto which SRBs are mapped	Version
1	UL:1.7 DL:1.7	DCCH	DPCH	R99
2	UL:3.4 DL:3.4	DCCH	DPCH	R99
3	UL:13.6 DL:13.6	DCCH	DPCH	R99
4	DL:27.2 (alt. 40.8)	DCCH	SCCPCH	R99
5	UL:16.6	CCCH	PRACH	R99
6	DL:30.4 (alt. 45.6)	CCCH	SCCPCH	R99
7	DL:33.2 (alt. 49.8)	BCCH:	SCCPCH	R99
8	DL:24 (alt. 6.4)	PCCH	SCCPCH	R99
9	DL: 0.15	DCCH	DPCH	REL-5

### 6.10.2.2 Combinations of RABs and Signalling RBs

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

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

#### Combinations on DPCH

- 1) Stand-alone UL:1.7 DL:1.7 kbps SRBs for DCCH.
- 2) Stand-alone UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 3) Stand-alone UL:13.6 DL:13.6 kbps SRBs for DCCH.
- 4) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 4a) Conversational / speech / UL:(12.2 7.95 5.9 4.75) DL:(12.2 7.95 5.9 4.75) kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 5) Conversational / speech / UL:10.2 DL:10.2 kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 5a) Conversational / speech / UL:(10.2, 6.7, 5.9, 4.75) DL:(10.2, 6.7, 5.9, 4.75) kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 6) Conversational / speech / UL:7.95 DL:7.95 kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 7) Conversational / speech / UL:7.4 DL:7.4 kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 7a) Conversational / speech / UL:(7.4, 6.7, 5.9, 4.75) DL:(7.4, 6.7, 5.9, 4.75) kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 8) Conversational / speech / UL:6.7 DL:6.7 kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 9) Conversational / speech / UL:5.9 DL:5.9 kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 10) Conversational / speech / UL:5.15 DL:5.15 kbps / CS RAB  
+ UL:1.7 DL:1.7 kbps SRBs for DCCH.
- 11) Conversational / speech / UL:4.75 DL:4.75 kbps / CS RAB  
+ UL:1.7 DL:1.7 kbps SRBs for DCCH.

- 12) Conversational / unknown / UL:28.8 DL:28.8 kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 13) Conversational / unknown / UL:64 DL:64 kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 14) Conversational / unknown / UL:32 DL:32 kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 15) Streaming / unknown / UL:14.4/DL:14.4 kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 16) Streaming / unknown / UL:28.8/DL:28.8 kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 17) Streaming / unknown / UL:57.6/DL:57.6 kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 18) Void
- 19) Void.
- 20) Void.
- 21) Void.
- 22) Void.
- 23) Interactive or background / UL:32 DL:8 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 23a) Interactive or background / UL:8 DL:8 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 23b) Interactive or background / UL:16 DL:16 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 23c) Interactive or background / UL:32 DL:32 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 23d) Interactive or background / UL:32 DL:32 kbps / PS RAB (20 ms TTI)  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 24) Void
- 25) Interactive or background / UL:32 DL: 64 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 26) Interactive or background / UL:64 DL: 64 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 27) Interactive or background / UL:64 DL:128 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 28) Interactive or background / UL:128 DL:128 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 29) Interactive or background / UL:64 DL:144 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 30) Interactive or background / UL:144 DL:144 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 31) Interactive or background / UL:64 DL:256 kbps / PS RAB  
+ UL:3.4 DL: 3.4 kbps SRBs for DCCH.

- 32) Interactive or background / UL:64 DL:384 kbps / PS RAB  
+ UL:3.4 DL: 3.4 kbps SRBs for DCCH.
- 33) Interactive or background / UL:128 DL:384 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 34) Interactive or background / UL:384 DL:384 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 35) Interactive or background / UL:64 DL:2048 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 36) Void
- 37) Void
- 38) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ Interactive or background / UL:32 DL:8 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 38a) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ Interactive or background / UL:0 DL:0 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 38b) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ Interactive or background / UL:8 DL:8 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 38c) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ Interactive or background / UL:32 DL:32 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 38d) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ Interactive or background / UL:64 DL:64 kbps / PS RAB  
+ Interactive or background / UL:64 DL:64 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 38e) Conversational / speech / UL:(12.2 7.95 5.9 4.75) DL:(12.2 7.95 5.9 4.75) kbps / CS RAB  
+ Interactive or background / UL:0 DL:0 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 38f) Conversational / speech / UL:(12.2 7.95 5.9 4.75) DL:(12.2 7.95 5.9 4.75) kbps / CS RAB  
+ Interactive or background / UL:8 DL:8 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 38g) Conversational / speech / UL:(12.2 7.95 5.9 4.75) DL:(12.2 7.95 5.9 4.75) kbps / CS RAB  
+ Interactive or background / UL:16 DL:16 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 38h) Conversational / speech / UL:(12.2 7.95 5.9 4.75) DL:(12.2 7.95 5.9 4.75) kbps / CS RAB  
+ Interactive or background / UL:32 DL:32 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 38i) Conversational / speech / UL:(12.2 7.95 5.9 4.75) DL:(12.2 7.95 5.9 4.75) kbps / CS RAB  
+ Interactive or background / UL:64 DL:64 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 38j) Conversational / speech / UL:(12.2 7.95 5.9 4.75) DL:(12.2 7.95 5.9 4.75) kbps / CS RAB  
+ Interactive or background / UL:64 DL:128 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- [38k\) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ Interactive or background / UL:32 DL:32 kbps / PS RAB  
+ Interactive or background / UL:32 DL:32 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH \(L1 multiplexing\).](#)

- 39) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ Interactive or background / UL:32 DL:64 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 40) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ Interactive or background / UL:64 DL:64 kbps / PS RAB  
+ UL:3.4 DL: 3.4 kbps SRBs for DCCH.
- 41) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ Interactive or background / UL:64 DL:128 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 42) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ Interactive or background / UL:64 DL:256 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 43) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ Interactive or background / UL:64 DL:384 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 44) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ Interactive or background / UL:128 DL:2048 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 45) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ Streaming / unknown / UL:57.6 DL:57.6 kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 46) Void
- 47) Void.
- 48) Void.
- 49) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ Conversational / unknown / UL:64 DL:64 kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 49a) Conversational / speech / UL:(12.2 7.95 5.9 4.75) DL:(12.2 7.95 5.9 4.75) kbps / CS RAB  
+ Conversational / unknown / UL:64 DL:64 kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 50) Conversational / unknown / UL:64 DL:64 kbps / CS RAB  
+ Conversational / unknown / UL:64 DL:64 kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 51) Conversational / unknown / UL:64 DL:64 kbps / CS RAB  
+ Interactive or background / UL:64 DL:64 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 51a) Conversational / unknown / UL:64 DL:64 kbps / CS RAB  
+ Interactive or Background / UL:8 DL:8 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 51b) Conversational / unknown / UL:64 DL:64 kbps / CS RAB  
+ Interactive or Background / UL:16 DL:64 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 52) Conversational / unknown / UL:64 DL:64 kbps / CS RAB  
+ Interactive or background / UL:64 DL:128 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 53) Conversational / unknown / UL:64 DL:64 kbps / CS RAB  
+ Interactive or background / UL:128 DL:128 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

- 54) Void
- 55) Void.
- 56) Interactive or background / UL:8 DL:8 kbps / PS RAB  
+ Interactive or background / UL:8 DL:8 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 57) Interactive or background / UL:64 DL:64 kbps / PS RAB  
+ Interactive or background / UL:64 DL:64 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 58) Streaming / unknown / UL:16 DL:64 kbps / PS RAB  
+ Interactive or background / UL:8 DL:8 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 59) Conversational / Speech / UL:42.8 DL:42.8 kbps / PS RAB  
+ 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 (REL-5).
- 60) Conversational / Speech / UL:42.8 DL:42.8 kbps / PS RAB  
+ Interactive or background / UL:16 DL:16 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH (REL-5).
- 61) Conversational / unknown / UL:8 DL:8 kbps / PS RAB  
+ Interactive or Background / UL:8 DL:8 kbps / PS RAB +  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH
- 62) 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 (REL-5).
- 63) Interactive or background / UL:64 DL:768 kbps / PS RAB  
+ UL:3.4 DL: 3.4 kbps SRBs for DCCH (REL-5).

#### Combinations on DSCH and DPCH

- 1) Void
- 2) Interactive or background / UL:64 DL:384 kbps / PS RAB  
+ UL:3.4 DL: 3.4 kbps SRBs for DCCH.
- 3) Interactive or background / UL:64 DL:2048 kbps / PS RAB  
+ UL:3.4 DL: 3.4 kbps SRBs for DCCH.
- 4) Void
- 5) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ Interactive or background / UL:64 DL:384 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 6) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ Interactive or background / UL:64 DL:2048 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

#### Combinations on SCCPCH

- 1) Stand-alone 24 kbps SRB for PCCH.
- 2) Interactive or background / DL:32 kbps / PS RAB  
+ SRB for CCCH  
+ SRBs for DCCH  
+ SRB for BCCH.

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

#### Combinations on PRACH

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

#### Combinations on DPCH and HS-PDSCH

- 1) Interactive or background / UL:64 DL: [max bit rate depending on UE category] / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH (REL-5)
- 2) Interactive or background / UL:384 DL: [max bit rate depending on UE category] / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH (REL-5)

<END OF MODIFIED SECTION>

<START OF MODIFIED SECTION>

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

6.10.2.4.1.38.1 Uplink

6.10.2.4.1.38.1.1 Transport channel parameters

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

See clause 6.10.2.4.1.4.1.1.1.

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

See clause 6.10.2.4.1.23.1.1.1.

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

See clause 6.10.2.4.1.2.1.1.1.

6.10.2.4.1.38.1.1.4 TFCS

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

6.10.2.4.1.38.1.2 Physical channel parameters

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

6.10.2.4.1.38.2 Downlink

6.10.2.4.1.38.2.1 Transport channel parameters

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

See clause 6.10.2.4.1.4.2.1.1.

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

See clause 6.10.2.4.1.23.2.1.1.

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

See clause 6.10.2.4.1.2.2.1.



6.10.2.4.1.38.2.1.4 TFCS

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

6.10.2.4.1.38.2.2 Physical channel parameters

DPCH Downlink	DTX position		Flexible
	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

6.10.2.4.1.38a Conversational / speech / 12.2 kbps / CS RAB + Interactive or background / UL:0 DL:0 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.10.2.4.1.38a.1 Uplink

6.10.2.4.1.38a.1.1 Transport channel parameters

6.10.2.4.1.38a.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.

6.10.2.4.1.38a.1.1.2 Transport channel parameters for Interactive or background / UL:0 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	0
	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
	TTI, ms	20
	Coding type	CC
	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

6.10.2.4.1.38a.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.

## 6.10.2.4.1.38a.1.1.4 TFCS

TFCS size	6
TFCS	(RAB subflow#1, RAB subflow#2, RAB subflow#3, 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)

## 6.10.2.4.1.38a.1.2 Physical channel parameters

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

## 6.10.2.4.1.38a.2 Downlink

## 6.10.2.4.1.38a.2.1 Transport channel parameters

## 6.10.2.4.1.38a.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.

## 6.10.2.4.1.38a.2.1.2 Transport channel parameters for Interactive or background / DL:0 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	0
	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
	TTI, ms	20
	Coding type	CC
	CRC, bit	16
	Max number of bits/TTI after channel coding	0
	RM attribute	130-170

## 6.10.2.4.1.38a.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

## 6.10.2.4.1.38a.2.1.4 TFCS

TFCS size	6
TFCS	(RAB subflow#1, RAB subflow#2, RAB subflow#3, 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)

## 6.10.2.4.1.38a.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	

6.10.2.4.1.38b Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB + Interactive or background / UL:8 DL:8 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.10.2.4.1.38b.1 Uplink

6.10.2.4.1.38b.1.1 Transport channel parameters

6.10.2.4.1.38b.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.

6.10.2.4.1.38b.1.1.2 Transport channel parameters for Interactive or background / 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	

6.10.2.4.1.38b.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.

6.10.2.4.1.38b.1.1.4 TFCS

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

## 6.10.2.4.1.38b.1.2 Physical channel parameters

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

## 6.10.2.4.1.38b.2 Downlink

## 6.10.2.4.1.38b.2.1 Transport channel parameters

## 6.10.2.4.1.38b.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.

## 6.10.2.4.1.38b.2.1.2 Transport channel parameters for Interactive or background / DL:8 kbps / PS RAB

Higher Layer	RAB/Signalling RB	RAB	
RLC	Logical channel type	DTCH	
	RLC mode	AM	
	Payload sizes, bit	320	
	Max data rate, bps	8000	
	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	
RM attribute	135-175		

## 6.10.2.4.1.38b.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.

## 6.10.2.4.1.38b.2.1.4 TFCS

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

## 6.10.2.4.1.38b.2.2 Physical channel parameters

DPCH Downlink	DTX position		Flexible
	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	

6.10.2.4.1.38c Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB + Interactive or background / UL:32 DL:32 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.10.2.4.1.38c.1 Uplink

6.10.2.4.1.38c.1.1 Transport channel parameters

6.10.2.4.1.38c.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.

6.10.2.4.1.38c.1.1.2 Transport channel parameters for Interactive or background / UL:32 kbps / PS RAB

See clause 6.2.4.1.23c.1.1.1.

6.10.2.4.1.38c.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.

6.10.2.4.1.38c.1.1.4 TFCS

TFCS size	30
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,TF3,TF0), (TF1,TF0,TF0,TF3,TF0), (TF2,TF1,TF1,TF3,TF0), (TF0,TF0,TF0,TF4,TF0), (TF1,TF0,TF0,TF4,TF0), (TF2,TF1,TF1,TF4,TF0), (TF0,TF0,TF0,TF0,TF1), (TF1,TF0,TF0,TF0,TF1), (TF2,TF1,TF1,TF0,TF1), (TF0,TF0,TF0,TF1,TF1), (TF1,TF0,TF0,TF1,TF1), (TF2,TF1,TF1,TF1,TF1), (TF0,TF0,TF0,TF2,TF1), (TF1,TF0,TF0,TF2,TF1), (TF2,TF1,TF1,TF2,TF1), (TF0,TF0,TF0,TF3,TF1), (TF1,TF0,TF0,TF3,TF1), (TF2,TF1,TF1,TF3,TF1), (TF0,TF0,TF0,TF4,TF1), (TF1,TF0,TF0,TF4,TF1), (TF2,TF1,TF1,TF4,TF1)

6.10.2.4.1.38c.1.2 Physical channel parameters

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

6.10.2.4.1.38c.2 Downlink

6.10.2.4.1.38c.2.1 Transport channel parameters

6.10.2.4.1.38c.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.

## 6.10.2.4.1.38c.2.1.2 Transport channel parameters for Interactive or background / DL:32 kbps / PS RAB

See clause 6.2.4.1.23c.2.1.1.

## 6.10.2.4.1.38c.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.

## 6.10.2.4.1.38c.2.1.4 TFCS

TFCS size	30
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,TF3,TF0), (TF1,TF0,TF0,TF3,TF0), (TF2,TF1,TF1,TF3,TF0), (TF0,TF0,TF0,TF4,TF0), (TF1,TF0,TF0,TF4,TF0), (TF2,TF1,TF1,TF4,TF0), (TF0,TF0,TF0,TF0,TF1), (TF1,TF0,TF0,TF0,TF1), (TF2,TF1,TF1,TF0,TF1), (TF0,TF0,TF0,TF1,TF1), (TF1,TF0,TF0,TF1,TF1), (TF2,TF1,TF1,TF1,TF1), (TF0,TF0,TF0,TF2,TF1), (TF1,TF0,TF0,TF2,TF1), (TF2,TF1,TF1,TF2,TF1), (TF0,TF0,TF0,TF3,TF1), (TF1,TF0,TF0,TF3,TF1), (TF2,TF1,TF1,TF3,TF1), (TF0,TF0,TF0,TF4,TF1), (TF1,TF0,TF0,TF4,TF1), (TF2,TF1,TF1,TF4,TF1)

## 6.10.2.4.1.38c.2.2 Physical channel parameters

DPCH Downlink	DTX position		Flexible
	Spreading factor		32
	DPCCH	Number of TFCl 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

## 6.10.2.4.1.38d Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB + Interactive or background / UL:64 DL:64 kbps / PS RAB + Interactive or background / UL:64 DL:64 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

## 6.10.2.4.1.38d.1 Uplink

## 6.10.2.4.1.38d.1.1 Transport channel parameters

## 6.10.2.4.1.38d.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.

6.10.2.4.1.38d.1.1.2 Transport channel parameters for Interactive or background / UL:64 kbps / PS RAB + UL:64 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	64000	64000	
	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	20		
	Coding type	TC		
	CRC, bit	16		
	Max number of bits/TTI after channel coding	4284		
Uplink: Max number of bits/radio frame before rate matching	2142			
RM attribute	130-170			

6.10.2.4.1.38d.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.

6.10.2.4.1.38d.1.1.4 TFCS

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

6.10.2.4.1.38d.1.2 Physical channel parameters

DPCH Uplink	Min spreading factor	16
	Max number of DPDCH data bits/radio frame	2400
	Puncturing Limit	0.76

6.10.2.4.1.38d.2 Downlink

6.10.2.4.1.38d.2.1 Transport channel parameters

6.10.2.4.1.38d.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.

6.10.2.4.1.38d.2.1.2 Transport channel parameters for Interactive or background / DL:64 kbps / PS RAB + DL:64 kbps / PS RAB

Higher Layer	RAB/Signalling RB		RAB	
RLC	Logical channel type	DTCH	DTCH	
	RLC mode	AM	AM	
	Payload sizes, bit	320	320	
	Max data rate, bps	64000	64000	
	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	0x340	0x340	
		1x340	1x340	
		2x340	2x340	
		3x340	3x340	
		4x340	4x340	
	TTI, ms	20		
	Coding type	TC		
	CRC, bit	16		
	Max number of bits/TTI after channel coding	4284		
RM attribute	130-170			

6.10.2.4.1.38d.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.

6.10.2.4.1.38d.2.1.4 TFCS

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



## 6.10.2.4.1.38d.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	

6.10.2.4.1.38e Conversational / speech / (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

6.10.2.4.1.38e.1 Uplink

6.10.2.4.1.38e.1.1 Transport channel parameters

6.10.2.4.1.38e.1.1.1 Transport channel parameters for Conversational / speech / UL: (12.2 7.95 5.9 4.75) kbps / CS RAB

See clause 6.10.2.4.1.4a.1.1.1.

6.10.2.4.1.38e.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.

6.10.2.4.1.38e.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.

6.10.2.4.1.38e.1.1.4 TFCS

TFCS size	12
TFCS	(RAB subflow#1, RAB subflow#2, RAB subflow#3, 0 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,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)

6.10.2.4.1.38e.1.2 Physical channel parameters

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

6.10.2.4.1.38e.2 Downlink

6.10.2.4.1.38e.2.1 Transport channel parameters

6.10.2.4.1.38e.2.1.1 Transport channel parameters for Conversational / speech / DL: (12.2 7.95 5.9 4.75) kbps / CS RAB

See clause 6.10.2.4.1.4a.2.1.1.

6.10.2.4.1.38e.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

6.10.2.4.1.38e.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

6.10.2.4.1.38e.2.1.4 TFCS

TFCS size	12
TFCS	(RAB subflow#1, RAB subflow#2, RAB subflow#3, 0 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,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),

6.10.2.4.1.38e.2.2 Physical channel parameters

DPCH Downlink	DTX position		Fixed
	Spreading factor		128
	DPCCH	Number of TFCl 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

6.10.2.4.1.38f Conversational / speech / (12.2 7.95 5.9 4.75) kbps / CS RAB + Interactive or background / UL:8 DL:8 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.10.2.4.1.38f.1 Uplink

6.10.2.4.1.38f.1.1 Transport channel parameters

6.10.2.4.1.38f.1.1.1 Transport channel parameters for Conversational / speech / UL: (12.2 7.95 5.9 4.75) kbps / CS RAB

See clause 6.10.2.4.1.4a.1.1.1.

6.10.2.4.1.38f.1.1.2 Transport channel parameters for Interactive or background / UL:8 kbps / PS RAB

See clause 6.10.2.4.1.38b.1.1.2.

6.10.2.4.1.38f.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.

## 6.10.2.4.1.38f.1.1.4 TFCS

TFCS size	24
TFCS	(RAB subflow#1, RAB subflow#2, RAB subflow#3, 8 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,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)

## 6.10.2.4.1.38f.1.2 Physical channel parameters

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

## 6.10.2.4.1.38f.2 Downlink

## 6.10.2.4.1.38f.2.1 Transport channel parameters

## 6.10.2.4.1.38f.2.1.1 Transport channel parameters for Conversational / speech / DL: (12.2 7.95 5.9 4.75) kbps / CS RAB

See clause 6.10.2.4.1.4a.2.1.1.

## 6.10.2.4.1.38f.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

## 6.10.2.4.1.38f.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

## 6.10.2.4.1.38f.2.1.4 TFCS

TFCS size	24
TFCS	(RAB subflow#1, RAB subflow#2, RAB subflow#3, 8 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,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)

## 6.10.2.4.1.38f.2.2 Physical channel parameters

DPCH Downlink	DTX position		Flexible
	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	

6.10.2.4.1.38g Conversational / speech / (12.2 7.95 5.9 4.75) kbps / CS RAB + Interactive or background / UL:16 DL:16 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.10.2.4.1.38g.1 Uplink

6.10.2.4.1.38g.1.1 Transport channel parameters

6.10.2.4.1.38g.1.1.1 Transport channel parameters for Conversational / speech / UL: (12.2 7.95 5.9 4.75) kbps / CS RAB

See clause 6.10.2.4.1.4a.1.1.1.

6.10.2.4.1.38g.1.1.2 Transport channel parameters for Interactive or background / UL:16 kbps / PS RAB

See clause 6.10.2.4.1.23b.1.1.1.

6.10.2.4.1.38g.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.

6.10.2.4.1.38g.1.1.4 TFCS

TFCS size	32
TFCS	(RAB subflow#1, RAB subflow#2, RAB subflow#3, 16 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), (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), (TF3,TF2,TF0,TF2,TF0), (TF4,TF3,TF0,TF2,TF0), (TF5,TF4,TF1,TF2,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), (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), (TF3,TF2,TF0,TF2,TF1), (TF4,TF3,TF0,TF2,TF1), (TF5,TF4,TF1,TF2,TF1)

## 6.10.2.4.1.38g.1.2 Physical channel parameters

DPCH Uplink	Min spreading factor	32
	Max number of DPDCH data bits/radio frame	1200
	Puncturing Limit	0.88

6.10.2.4.1.38g.2 Downlink

6.10.2.4.1.38g.2.1 Transport channel parameters

6.10.2.4.1.38g.2.1.1 Transport channel parameters for Conversational / speech / DL: (12.2 7.95 5.9 4.75) kbps / CS RAB

See clause 6.10.2.4.1.4a.2.1.1.

6.10.2.4.1.38g.2.1.2 Transport channel parameters for Interactive or background / DL:16 kbps / PS RAB

See clause 6.10.2.4.1.23b.2.1.1.

6.10.2.4.1.38g.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

6.10.2.4.1.38g.2.1.4 TFCS

TFCS size	36
TFCS	(RAB subflow#1, RAB subflow#2, RAB subflow#3, 16 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,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)

6.10.2.4.1.38g.2.2 Physical channel parameters

DPCH Downlink	DTX position		Flexible
	Spreading factor		64
	DPCCH	Number of TFCl 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

6.10.2.4.1.38h Conversational / speech / (12.2 7.95 5.9 4.75) kbps / CS RAB + Interactive or background / UL:32 DL:32 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.10.2.4.1.38h.1 Uplink

6.10.2.4.1.38h.1.1 Transport channel parameters

6.10.2.4.1.38h.1.1.1 Transport channel parameters for Conversational / speech / UL: (12.2 7.95 5.9 4.75) kbps / CS RAB

See clause 6.10.2.4.1.4a.1.1.1.

6.10.2.4.1.38h.1.1.2 Transport channel parameters for Interactive or background / UL:32 kbps / PS RAB

See clause 6.10.2.4.1.23c.1.1.1.

## 6.10.2.4.1.38h.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.

## 6.10.2.4.1.38h.1.1.4 TFCS

TFCS size	32
TFCS	(RAB subflow#1, RAB subflow#2, RAB subflow#3, 32 kbps RAB, DCCH)= (TF0,TF0,TF0,TF0,TF0), (TF0,TF0,TF0,TF1,TF0), (TF0,TF0,TF0,TF2,TF0), (TF0,TF0,TF0,TF4,TF0), (TF5,TF4,TF1,TF0,TF0), (TF5,TF4,TF1,TF1,TF0), (TF5,TF4,TF1,TF2,TF0), (TF5,TF4,TF1,TF4,TF0), (TF4,TF3,TF0,TF0,TF0), (TF4,TF3,TF0,TF1,TF0), (TF3,TF2,TF0,TF0,TF0), (TF2,TF1,TF0,TF0,TF0), (TF1,TF0,TF0,TF0,TF0), (TF1,TF0,TF0,TF1,TF0), (TF1,TF0,TF0,TF2,TF0), (TF1,TF0,TF0,TF4,TF0), (TF0,TF0,TF0,TF0,TF1), (TF0,TF0,TF0,TF1,TF1), (TF0,TF0,TF0,TF2,TF1), (TF0,TF0,TF0,TF4,TF1), (TF5,TF4,TF1,TF0,TF1), (TF5,TF4,TF1,TF1,TF1), (TF5,TF4,TF1,TF2,TF1), (TF5,TF4,TF1,TF4,TF1), (TF4,TF3,TF0,TF0,TF1), (TF4,TF3,TF0,TF1,TF1), (TF3,TF2,TF0,TF0,TF1), (TF2,TF1,TF0,TF0,TF1), (TF1,TF0,TF0,TF0,TF1), (TF1,TF0,TF0,TF1,TF1), (TF1,TF0,TF0,TF2,TF1), (TF1,TF0,TF0,TF4,TF1)

## 6.10.2.4.1.38h.1.2 Physical channel parameters

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

## 6.10.2.4.1.38h.2 Downlink

## 6.10.2.4.1.38h.2.1 Transport channel parameters

## 6.10.2.4.1.38h.2.1.1 Transport channel parameters for Conversational / speech / DL: (12.2 7.95 5.9 4.75) kbps / CS RAB

See clause 6.10.2.4.1.4a.2.1.1.

## 6.10.2.4.1.38h.2.1.2 Transport channel parameters for Interactive or background / DL:32 kbps / PS RAB

See clause 6.10.2.4.1.23c.2.1.1.

## 6.10.2.4.1.38h.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

6.10.2.4.1.38h.2.1.4 TFCS

TFCS size	48
TFCS	(RAB subflow#1, RAB subflow#2, RAB subflow#3, 32 kbps RAB, DCCH)= (TF0,TF0,TF0,TF0,TF0), (TF0,TF0,TF0,TF1,TF0), (TF0,TF0,TF0,TF2,TF0), (TF0,TF0,TF0,TF4,TF0), (TF5,TF4,TF1,TF0,TF0), (TF5,TF4,TF1,TF1,TF0), (TF5,TF4,TF1,TF2,TF0), (TF5,TF4,TF1,TF4,TF0), (TF4,TF3,TF0,TF0,TF0), (TF4,TF3,TF0,TF1,TF0), (TF4,TF3,TF0,TF2,TF0), (TF4,TF3,TF0,TF4,TF0), (TF3,TF2,TF0,TF0,TF0), (TF3,TF2,TF0,TF1,TF0), (TF3,TF2,TF0,TF2,TF0), (TF3,TF2,TF0,TF4,TF0), (TF2,TF1,TF0,TF0,TF0), (TF2,TF1,TF0,TF1,TF0), (TF2,TF1,TF0,TF2,TF0), (TF2,TF1,TF0,TF4,TF0), (TF1,TF0,TF0,TF0,TF0), (TF1,TF0,TF0,TF1,TF0), (TF1,TF0,TF0,TF2,TF0), (TF1,TF0,TF0,TF4,TF0), (TF0,TF0,TF0,TF0,TF1), (TF0,TF0,TF0,TF1,TF1), (TF0,TF0,TF0,TF2,TF1), (TF0,TF0,TF0,TF4,TF1), (TF5,TF4,TF1,TF0,TF1), (TF5,TF4,TF1,TF1,TF1), (TF5,TF4,TF1,TF2,TF1), (TF5,TF4,TF1,TF4,TF1), (TF4,TF3,TF0,TF0,TF1), (TF4,TF3,TF0,TF1,TF1), (TF4,TF3,TF0,TF2,TF1), (TF4,TF3,TF0,TF4,TF1), (TF3,TF2,TF0,TF0,TF1), (TF3,TF2,TF0,TF1,TF1), (TF3,TF2,TF0,TF2,TF1), (TF3,TF2,TF0,TF4,TF1), (TF2,TF1,TF0,TF0,TF1), (TF2,TF1,TF0,TF1,TF1), (TF2,TF1,TF0,TF2,TF1), (TF2,TF1,TF0,TF4,TF1), (TF1,TF0,TF0,TF0,TF1), (TF1,TF0,TF0,TF1,TF1), (TF1,TF0,TF0,TF2,TF1), (TF1,TF0,TF0,TF4,TF1)

6.10.2.4.1.38h.2.2 Physical channel parameters

DPCH Downlink	DTX position		Flexible
	Spreading factor		32
	DPCCH	Number of TFCl 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

6.10.2.4.1.38i Conversational / speech / (12.2 7.95 5.9 4.75) kbps / CS RAB + Interactive or background / UL:64 DL:64 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.10.2.4.1.38i.1 Uplink

6.10.2.4.1.38i.1.1 Transport channel parameters

6.10.2.4.1.38i.1.1.1 Transport channel parameters for Conversational / speech / UL: (12.2 7.95 5.9 4.75) kbps / CS RAB

See clause 6.10.2.4.1.4a.1.1.1.

6.10.2.4.1.38i.1.1.2 Transport channel parameters for Interactive or background / UL:64 kbps / PS RAB

See clause 6.10.2.4.1.26.1.1.1.

6.10.2.4.1.38i.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.

## 6.10.2.4.1.38i.1.1.4 TFCS

TFCS size	48
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,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,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,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)

## 6.10.2.4.1.38i.1.2 Physical channel parameters

DPCH Uplink	Min spreading factor	16
	Max number of DPDCH data bits/radio frame	2400
	Puncturing Limit	0.76

## 6.10.2.4.1.38i.2 Downlink

## 6.10.2.4.1.38i.2.1 Transport channel parameters

## 6.10.2.4.1.38i.2.1.1 Transport channel parameters for Conversational / speech / DL: (12.2 7.95 5.9 4.75) kbps / CS RAB

See clause 6.10.2.4.1.4a.2.1.1.

## 6.10.2.4.1.38i.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.

## 6.10.2.4.1.38i.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



6.10.2.4.1.38i.2.1.4 TFCS

TFCS size	60
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,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)

6.10.2.4.1.38i.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

6.10.2.4.1.38j Conversational / speech / (12.2 7.95 5.9 4.75) kbps / CS RAB + Interactive or background / UL:64 DL:128 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH

6.10.2.4.1.38j.1 Uplink

6.10.2.4.1.38j.1.1 Transport channel parameters

See clause 6.10.2.4.1.38i.1.1

6.10.2.4.1.38j.2 Downlink

6.10.2.4.1.38j.2.1 Transport channel parameters

6.10.2.4.1.38j.2.1.1 Transport channel parameters for Conversational / speech / DL: (12.2 7.95 5.9 4.75) kbps / CS RAB

See clause 6.10.2.4.1.4a.2.1.1.

6.10.2.4.1.38j.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.

6.10.2.4.1.38j.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

6.10.2.4.1.38j.2.1.4 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)

6.10.2.4.1.38j.2.2 Physical channel parameters

DPCH Downlink	DTX position		Flexible
	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

[6.10.2.4.1.38k](#) [Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB](#)  
[+ Interactive or background / UL:32 DL:32 kbps / PS RAB](#)  
[+ Interactive or background / UL:32 DL:32 kbps / PS RAB](#)  
[+ UL:3.4 DL:3.4 kbps SRBs for DCCH \(L1 multiplexing\)](#)

[6.10.2.4.1.38k.1](#) [Uplink](#)

[6.10.2.4.1.38k.1.1](#) [Transport channel parameters](#)

[6.10.2.4.1.38k.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.](#)

[6.10.2.4.1.38k.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.](#)

[6.10.2.4.1.38k.1.1.3](#) [Transport channel parameters for Interactive or background / UL:32 kbps / PS RAB](#)

[See clause 6.10.2.4.1.23.1.1.1.](#)

[6.10.2.4.1.38k.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.](#)

[6.10.2.4.1.38k.1.1.5 TFCS](#)

<a href="#">TFCS size</a>	54 (alt. 24)
<a href="#">TFCS</a>	<p>(RAB subflow#1, RAB subflow#2, RAB subflow#3, 32kbps RAB, 32kbps RAB, DCCH)=</p> <p>(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, 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, TF1, TF1, TF0),                  (TF0, TF0, TF0, TF0, TF2, TF0), (TF1, TF0, TF0, TF0, TF2, TF0),                  (TF2, TF1, TF1, TF0, TF2, TF0), (TF0, TF0, TF0, TF1, TF2, TF0),                  (TF1, TF0, TF0, TF1, TF2, TF0), (TF2, TF1, TF1, TF1, TF2, TF0),                  (TF0, TF0, TF0, TF2, TF2, TF0), (TF1, TF0, TF0, TF2, TF2, TF0),                  (TF2, TF1, TF1, TF2, TF2, TF0), (TF0, TF0, TF0, TF0, TF0, TF1),                  (TF1, TF0, TF0, TF0, TF0, TF1), (TF2, TF1, TF1, TF0, TF0, TF1),                  (TF0, TF0, TF0, TF1, TF0, TF1), (TF1, TF0, TF0, TF1, TF0, TF1),                  (TF2, TF1, TF1, TF1, TF0, TF1), (TF0, TF0, TF0, TF2, TF0, TF1),                  (TF1, TF0, TF0, TF2, TF0, TF1), (TF2, TF1, TF1, TF2, TF0, TF1),                  (TF0, TF0, TF0, 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, TF0, TF2, TF1),                  (TF1, TF0, TF0, TF0, TF2, TF1), (TF2, TF1, TF1, TF0, TF2, TF1),                  (TF0, TF0, TF0, TF1, TF2, TF1), (TF1, TF0, TF0, TF1, TF2, TF1),                  (TF2, TF1, TF1, TF1, TF2, TF1), (TF0, TF0, TF0, TF2, TF2, TF1),                  (TF1, TF0, TF0, TF2, TF2, TF1), (TF2, TF1, TF1, TF2, TF2, TF1)</p> <p>(alt. (TF0, TF0, TF0, TF0, TF0, TF0), (TF1, TF0, TF0, TF0, TF0, TF0),                  (TF2, TF1, TF1, TF0, TF0, TF0), (TF0, TF0, TF0, TF1, TF0, TF0),                  (TF1, TF0, TF0, TF1, TF0, TF0), (TF2, TF1, TF1, TF1, TF0, TF0),                  (TF0, TF0, TF0, TF0, TF1, TF0), (TF1, TF0, TF0, TF0, TF1, TF0),                  (TF2, TF1, TF1, TF0, TF1, TF0), (TF0, TF0, TF0, TF1, TF1, TF0),                  (TF1, TF0, TF0, TF1, TF1, TF0), (TF2, TF1, TF1, TF1, TF1, TF0),                  (TF0, TF0, TF0, TF0, 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))</p>

[6.10.2.4.1.38k.1.2 Physical channel parameters](#)

<a href="#">DPCH Uplink</a>	<a href="#">Min spreading factor</a>	16
	<a href="#">Max number of DPDCH data bits/radio frame</a>	2400
	<a href="#">Puncturing Limit</a>	0.8

[6.10.2.4.1.38k.2 Downlink](#)

[6.10.2.4.1.38k.2.1 Transport channel parameters](#)

[6.10.2.4.1.38k.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.](#)

[6.10.2.4.1.38k.2.1.2 Transport channel parameters for Interactive or background / DL:32 kbps / PS RAB](#)

[See clause 6.10.2.4.1.23d.2.1.1.](#)

[6.10.2.4.1.38k.2.1.3 Transport channel parameters for Interactive or background / DL:32 kbps / PS RAB](#)

[See clause 6.10.2.4.1.23d.2.1.1.](#)

[6.10.2.4.1.38k.2.1.4 Transport channel parameters for DL:3.4 kbps SRBs for DCCH](#)

[See clause 6.10.2.4.1.2.2.1.](#)

[6.10.2.4.1.38k.2.1.5 TFCS](#)

<a href="#">TFCS size</a>	54
<a href="#">TFCS</a>	(RAB subflow#1, RAB subflow#2, RAB subflow#3, 32kbps RAB, 32kbps 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, 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, TF0, TF2, TF0), (TF1, TF0, TF0, TF0, TF2, TF0), (TF2, TF1, TF1, TF0, TF2, TF0), (TF0, TF0, TF0, TF1, TF2, TF0), (TF1, TF0, TF0, TF1, TF2, TF0), (TF2, TF1, TF1, TF1, TF2, TF0), (TF0, TF0, TF0, TF2, TF2, TF0), (TF1, TF0, TF0, TF2, TF2, TF0), (TF2, TF1, TF1, TF2, TF2, TF0), (TF0, TF0, TF0, 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, 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, TF0, TF2, TF1), (TF1, TF0, TF0, TF0, TF2, TF1), (TF2, TF1, TF1, TF0, TF2, TF1), (TF0, TF0, TF0, TF1, TF2, TF1), (TF1, TF0, TF0, TF1, TF2, TF1), (TF2, TF1, TF1, TF1, TF2, TF1), (TF0, TF0, TF0, TF2, TF2, TF1), (TF1, TF0, TF0, TF2, TF2, TF1), (TF2, TF1, TF1, TF2, TF2, TF1)

[6.10.2.4.1.38k.2.2 Physical channel parameters](#)

<a href="#">DPCH Downlink</a>	<a href="#">DTX position</a>	<a href="#">Flexible</a>
	<a href="#">Spreading factor</a>	<a href="#">32</a>
<a href="#">DPCCH</a>	<a href="#">Number of TFCI bits/slot</a>	<a href="#">8</a>
	<a href="#">Number of TPC bits/slot</a>	<a href="#">4</a>
	<a href="#">Number of Pilot bits/slot</a>	<a href="#">8</a>
<a href="#">DPDCH</a>	<a href="#">Number of data bits/slot</a>	<a href="#">140</a>
	<a href="#">Number of data bits/frame</a>	<a href="#">2100</a>

<END OF MODIFIED SECTION>

## CHANGE REQUEST

**34.108 CR 375** rev - Current version: **5.2.0**

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

<b>Title:</b>	Addition of new HSDPA RAB configurations		
<b>Source:</b>	Vodafone, Qualcomm		
<b>Work item code:</b>	HSDPA	<b>Date:</b>	19/08/2004
<b>Category:</b>	<b>F</b>	<b>Release:</b>	Rel-5
	Use <u>one</u> of the following categories: <b>F</b> (correction) <b>A</b> (corresponds to a correction in an earlier release) <b>B</b> (addition of feature), <b>C</b> (functional modification of feature) <b>D</b> (editorial modification) Detailed explanations of the above categories can be found in 3GPP <a href="#">TR 21.900</a> .		Use <u>one</u> of the following releases: 2 (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) Rel-4 (Release 4) Rel-5 (Release 5) Rel-6 (Release 6)

<b>Reason for change:</b>	As per now, the UE conformance test specifications only cover the use of single PS RAB for HSDPA. There is not testing of multi-RABs.
<b>Summary of change:</b>	The following new radio bearer configurations are added:  - 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.
<b>Consequences if not approved:</b>	The use of multiple RABs is not covered for HSDPA.

<b>Clauses affected:</b>	6.10.2.2, 6.10.2.4.5								
<b>Other specs affected:</b>	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;">X</td> <td style="text-align: center;">X</td> </tr> <tr> <td style="text-align: center;">X</td> <td style="text-align: center;">X</td> </tr> </table> Other core specifications Test specifications O&M Specifications	Y	N	X	X	X	X		34.123-1, 34.123-2 and 34.123-3
Y	N								
X	X								
X	X								

**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>

### 6.10.2.2 Combinations of RABs and Signalling RBs

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

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

#### Combinations on DPCH

- 1) Stand-alone UL:1.7 DL:1.7 kbps SRBs for DCCH.
- 2) Stand-alone UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 3) Stand-alone UL:13.6 DL:13.6 kbps SRBs for DCCH.
- 4) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 4a) Conversational / speech / UL:(12.2 7.95 5.9 4.75) DL:(12.2 7.95 5.9 4.75) kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 5) Conversational / speech / UL:10.2 DL:10.2 kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 5a) Conversational / speech / UL:(10.2, 6.7, 5.9, 4.75) DL:(10.2, 6.7, 5.9, 4.75) kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 6) Conversational / speech / UL:7.95 DL:7.95 kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 7) Conversational / speech / UL:7.4 DL:7.4 kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 7a) Conversational / speech / UL:(7.4, 6.7, 5.9, 4.75) DL:(7.4, 6.7, 5.9, 4.75) kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 8) Conversational / speech / UL:6.7 DL:6.7 kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 9) Conversational / speech / UL:5.9 DL:5.9 kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 10) Conversational / speech / UL:5.15 DL:5.15 kbps / CS RAB  
+ UL:1.7 DL:1.7 kbps SRBs for DCCH.
- 11) Conversational / speech / UL:4.75 DL:4.75 kbps / CS RAB  
+ UL:1.7 DL:1.7 kbps SRBs for DCCH.
- 12) Conversational / unknown / UL:28.8 DL:28.8 kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 13) Conversational / unknown / UL:64 DL:64 kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 14) Conversational / unknown / UL:32 DL:32 kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 15) Streaming / unknown / UL:14.4/DL:14.4 kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 16) Streaming / unknown / UL:28.8/DL:28.8 kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

- 17) Streaming / unknown / UL:57.6/DL:57.6 kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 18) Void
- 19) Void.
- 20) Void.
- 21) Void.
- 22) Void.
- 23) Interactive or background / UL:32 DL:8 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 23a) Interactive or background / UL:8 DL:8 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 23b) Interactive or background / UL:16 DL:16 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 23c) Interactive or background / UL:32 DL:32 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 23d) Interactive or background / UL:32 DL:32 kbps / PS RAB (20 ms TTI)  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 24) Void
- 25) Interactive or background / UL:32 DL: 64 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 26) Interactive or background / UL:64 DL: 64 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 27) Interactive or background / UL:64 DL:128 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 28) Interactive or background / UL:128 DL:128 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 29) Interactive or background / UL:64 DL:144 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 30) Interactive or background / UL:144 DL:144 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 31) Interactive or background / UL:64 DL:256 kbps / PS RAB  
+ UL:3.4 DL: 3.4 kbps SRBs for DCCH.
- 32) Interactive or background / UL:64 DL:384 kbps / PS RAB  
+ UL:3.4 DL: 3.4 kbps SRBs for DCCH.
- 33) Interactive or background / UL:128 DL:384 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 34) Interactive or background / UL:384 DL:384 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 35) Interactive or background / UL:64 DL:2048 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 36) Void
- 37) Void



- 38) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ Interactive or background / UL:32 DL:8 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 38a) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ Interactive or background / UL:0 DL:0 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 38b) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ Interactive or background / UL:8 DL:8 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 38c) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ Interactive or background / UL:32 DL:32 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 38d) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ Interactive or background / UL:64 DL:64 kbps / PS RAB  
+ Interactive or background / UL:64 DL:64 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 38e) Conversational / speech / UL:(12.2 7.95 5.9 4.75) DL:(12.2 7.95 5.9 4.75) kbps / CS RAB  
+ Interactive or background / UL:0 DL:0 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 38f) Conversational / speech / UL:(12.2 7.95 5.9 4.75) DL:(12.2 7.95 5.9 4.75) kbps / CS RAB  
+ Interactive or background / UL:8 DL:8 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 38g) Conversational / speech / UL:(12.2 7.95 5.9 4.75) DL:(12.2 7.95 5.9 4.75) kbps / CS RAB  
+ Interactive or background / UL:16 DL:16 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 38h) Conversational / speech / UL:(12.2 7.95 5.9 4.75) DL:(12.2 7.95 5.9 4.75) kbps / CS RAB  
+ Interactive or background / UL:32 DL:32 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 38i) Conversational / speech / UL:(12.2 7.95 5.9 4.75) DL:(12.2 7.95 5.9 4.75) kbps / CS RAB  
+ Interactive or background / UL:64 DL:64 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 38j) Conversational / speech / UL:(12.2 7.95 5.9 4.75) DL:(12.2 7.95 5.9 4.75) kbps / CS RAB  
+ Interactive or background / UL:64 DL:128 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 39) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ Interactive or background / UL:32 DL:64 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 40) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ Interactive or background / UL:64 DL:64 kbps / PS RAB  
+ UL:3.4 DL: 3.4 kbps SRBs for DCCH.
- 41) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ Interactive or background / UL:64 DL:128 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 42) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ Interactive or background / UL:64 DL:256 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 43) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ Interactive or background / UL:64 DL:384 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

- 44) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ Interactive or background / UL:128 DL:2048 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 45) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ Streaming / unknown / UL:57.6 DL:57.6 kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 46) Void
- 47) Void.
- 48) Void.
- 49) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ Conversational / unknown / UL:64 DL:64 kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 49a) Conversational / speech / UL:(12.2 7.95 5.9 4.75) DL:(12.2 7.95 5.9 4.75) kbps / CS RAB  
+ Conversational / unknown / UL:64 DL:64 kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 50) Conversational / unknown / UL:64 DL:64 kbps / CS RAB  
+ Conversational / unknown / UL:64 DL:64 kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 51) Conversational / unknown / UL:64 DL:64 kbps / CS RAB  
+ Interactive or background / UL:64 DL:64 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 51a) Conversational / unknown / UL:64 DL:64 kbps / CS RAB  
+ Interactive or Background / UL:8 DL:8 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 51b) Conversational / unknown / UL:64 DL:64 kbps / CS RAB  
+ Interactive or Background / UL:16 DL:64 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 52) Conversational / unknown / UL:64 DL:64 kbps / CS RAB  
+ Interactive or background / UL:64 DL:128 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 53) Conversational / unknown / UL:64 DL:64 kbps / CS RAB  
+ Interactive or background / UL:128 DL:128 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 54) Void
- 55) Void.
- 56) Interactive or background / UL:8 DL:8 kbps / PS RAB  
+ Interactive or background / UL:8 DL:8 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 57) Interactive or background / UL:64 DL:64 kbps / PS RAB  
+ Interactive or background / UL:64 DL:64 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 58) Streaming / unknown / UL:16 DL:64 kbps / PS RAB  
+ Interactive or background / UL:8 DL:8 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 59) Reserved for future use.
- 60) Reserved for future use.

- 61) Conversational / unknown / UL:8 DL:8 kbps / PS RAB  
+ Interactive or Background / UL:8 DL:8 kbps / PS RAB +  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH
- 62) Reserved for future use.
- 63) Reserved for future use.

#### Combinations on DSCH and DPCH

- 1) Void
- 2) Interactive or background / UL:64 DL:384 kbps / PS RAB  
+ UL:3.4 DL: 3.4 kbps SRBs for DCCH.
- 3) Interactive or background / UL:64 DL:2048 kbps / PS RAB  
+ UL:3.4 DL: 3.4 kbps SRBs for DCCH.
- 4) Void
- 5) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ Interactive or background / UL:64 DL:384 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 6) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ Interactive or background / UL:64 DL:2048 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

#### Combinations on SCCPCH

- 1) Stand-alone 24 kbps SRB for PCCH.
- 2) Interactive or background / DL:32 kbps / PS RAB  
+ SRB for CCCH  
+ SRBs for DCCH  
+ SRB for BCCH.
- 3) Interactive or background / DL:32 kbps / PS RAB  
+ SRB for PCCH  
+ SRB for CCCH  
+ SRBs for DCCH  
+ SRB for BCCH.
- 4) RB for CTCH  
+ SRB for CCCH  
+SRB for BCCH

#### Combinations on PRACH

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

#### Combinations on DPCH and HS-PDSCH

- 1) Interactive or background / UL:64 DL: [max bit rate depending on UE category] / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH
- 2) Interactive or background / UL:384 DL: [max bit rate depending on UE category] / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH
- 3) 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

- 4) 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
- 5) 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.

<END OF MODIFIED SECTION>

<START OF MODIFIED SECTION>

#### 6.10.2.4.5 Combinations on DPCH and HS-PDSCH

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

6.10.2.4.5.1.1 Uplink

See clause 6.10.2.4.1.26.1.

6.10.2.4.5.1.2 Downlink

6.10.2.4.5.1.2.1 Transport channel parameters

6.10.2.4.5.1.2.1.1 Transport channel parameters for HS-DSCH

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

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

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

6.10.2.4.5.1.2.1.2 Transport channel parameters for DCH

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

See clause 6.10.2.4.1.2.2.1.1.

6.10.2.4.5.1.2.1.2.2 TFCS

See clause 6.10.2.4.1.2.2.1.2.

6.10.2.4.5.1.2.2 Physical channel parameters

6.10.2.4.5.1.2.2.1 Physical channel parameters on DPCH

See clause 6.10.2.4.1.2.2.2.

6.10.2.4.5.1.2.2.2<sup>4</sup> Physical channel parameters on HS-PDSCH

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

## UE HS-DSCH Physical Layer category 1:

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

## UE HS-DSCH Physical Layer category 2:

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

## UE HS-DSCH Physical Layer category 3:

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

## UE HS-DSCH Physical Layer category 4:

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

## UE HS-DSCH Physical Layer category 5:

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

## UE HS-DSCH Physical Layer category 6:

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

## UE HS-DSCH Physical Layer category 7:

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

## UE HS-DSCH Physical Layer category 8:

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

## UE HS-DSCH Physical Layer category 9:

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

UE HS-DSCH Physical Layer category 10:

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

UE HS-DSCH Physical Layer category 11:

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

UE HS-DSCH Physical Layer category 12:

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

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

6.10.2.4.5.2.1 Uplink

See clause 6.10.2.4.1.34.1.

6.10.2.4.5.2.2 Downlink

6.10.2.4.5.2.2.1 Transport channel parameters

6.10.2.4.5.2.2.1.1 Transport channel parameters for HS-DSCH

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

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

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

6.10.2.4.5.2.2.1.2 Transport channel parameters for DCH

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

See clause 6.10.2.4.1.2.2.1.1.

6.10.2.4.5.2.2.1.2.2 TFCS

See clause 6.10.2.4.1.2.2.1.2.

6.10.2.4.5.2.2.2 Physical channel parameters

6.10.2.4.5.2.2.2.1 Physical channel parameters on DPCH

See clause 6.10.2.4.1.2.2.2.

6.10.2.4.5.2.2.2.2 Physical channel parameters on HS-PDSCH

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

UE HS-DSCH Physical Layer category 1:

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

UE HS-DSCH Physical Layer category 2:

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

UE HS-DSCH Physical Layer category 3:

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

UE HS-DSCH Physical Layer category 4:

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

UE HS-DSCH Physical Layer category 5:

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

UE HS-DSCH Physical Layer category 6:

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



UE HS-DSCH Physical Layer category 7:

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

UE HS-DSCH Physical Layer category 8:

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

UE HS-DSCH Physical Layer category 9:

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

UE HS-DSCH Physical Layer category 10:

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

UE HS-DSCH Physical Layer category 11:

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

UE HS-DSCH Physical Layer category 12:

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

[6.10.2.4.5.3](#) [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](#)

[6.10.2.4.5.3.1](#) [Uplink](#)

[6.10.2.4.5.3.1.1](#) [Transport channel parameters](#)

[6.10.2.4.5.3.1.1.1](#) [Transport channel parameters for Conversational / speech / UL:12.2 kbps / CS RAB](#)

[See clause 6.10.2.4.1.4.1.1.1.](#)

[6.10.2.4.5.3.1.1.2](#) [Transport channel parameters for Interactive or background / UL:384 kbps / PS RAB](#)

[See clause 6.10.2.4.1.34.1.1.1.](#)

[6.10.2.4.5.3.1.1.3](#) [Transport channel parameters for UL:3.4 kbps SRBs for DCCH](#)

[See clause 6.10.2.4.1.2.1.1.1.](#)

6.10.2.4.5.3.1.1.4 TFCS

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

6.10.2.4.5.3.1.2 Physical channel parameters

DPCH Uplink	Min spreading factor	4
	Max number of DPDCH data bits/radio frame	9600
	Number of DPDCH	1
	Puncturing Limit	0.72

6.10.2.4.5.3.2 Downlink

6.10.2.4.5.3.2.1 Transport channel parameters

6.10.2.4.5.3.2.1.1 Transport channel parameters for HS-DSCH

See clause 6.10.2.4.5.1.2.1.1.1.

6.10.2.4.5.3.2.1.2 Transport channel parameters for DCH

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

See clause 6.10.2.4.1.4.2.1.1.

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

See clause 6.10.2.4.1.2.2.1.1.

[6.10.2.4.5.3.2.1.2.3 TFCS](#)

[See clause 6.10.2.4.1.4.2.1.3.](#)

[6.10.2.4.5.3.2.2 Physical channel parameters](#)

[6.10.2.4.5.3.2.2.1 Physical channel parameters on DPCH](#)

[See clause 6.10.2.4.1.4.2.2.](#)

[6.10.2.4.5.3.2.2.2 Physical channel parameters on HS-PDSCH](#)

[See clause 6.10.2.4.5.1.2.2.2.](#)

[6.10.2.4.5.4 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](#)

[6.10.2.4.5.4.1 Uplink](#)

[6.10.2.4.5.4.1.1 Transport channel parameters](#)

[6.10.2.4.5.4.1.1.1 Transport channel parameters for Conversational / speech / UL:64 kbps / CS RAB](#)

[See clause 6.10.2.4.1.13.1.1.1.](#)

[6.10.2.4.5.4.1.1.2 Transport channel parameters for Interactive or background / UL:384 kbps / PS RAB](#)

[See clause 6.10.2.4.1.34.1.1.1.](#)

[6.10.2.4.5.4.1.1.3 Transport channel parameters for UL:3.4 kbps SRBs for DCCH](#)

[See clause 6.10.2.4.1.2.1.1.1.](#)

[6.10.2.4.5.4.1.1.4 TFCS](#)

<a href="#">TFCS size</a>	36 (alt. 24)
<a href="#">TFCS</a>	(64 kbps RAB, 384 kbps RAB, DCCH)= <a href="#">(TF0, TF0, TF0), (TF1, TF0, TF0), (TF0, TF1, TF0), (TF1, TF1, TF0),</a> <a href="#">(TF0, TF2, TF0), (TF1, TF2, TF0), (TF0, TF3, TF0), (TF1, TF3, TF0),</a> <a href="#">(TF0, TF4, TF0), (TF1, TF4, TF0), (TF0, TF5, TF0), (TF1, TF5, TF0),</a> <a href="#">(TF0, TF6, TF0), (TF1, TF6, TF0), (TF0, TF7, TF0), (TF1, TF7, TF0),</a> <a href="#">(TF0, TF8, TF0), (TF1, TF8, TF0), (TF0, TF0, TF1), (TF1, TF0, TF1),</a> <a href="#">(TF0, TF1, TF1), (TF1, TF1, TF1), (TF0, TF2, TF1), (TF1, TF2, TF1),</a> <a href="#">(TF0, TF3, TF1), (TF1, TF3, TF1), (TF0, TF4, TF1), (TF1, TF4, TF1),</a> <a href="#">(TF0, TF5, TF1), (TF1, TF5, TF1), (TF0, TF6, TF1), (TF1, TF6, TF1),</a> <a href="#">(TF0, TF7, TF1), (TF1, TF7, TF1), (TF0, TF8, TF1), (TF1, TF8, TF1)</a> (alt. (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, TF5, TF0), (TF1, TF5, 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), (TF0, TF5, TF1), (TF1, TF5, TF1))

[6.10.2.4.5.4.1.2 Physical channel parameters](#)

<a href="#">DPCH Uplink</a>	<a href="#">Min spreading factor</a>	<a href="#">4</a>
	<a href="#">Max number of DPDCH data bits/radio frame</a>	<a href="#">9600</a>
	<a href="#">Number of DPDCH</a>	<a href="#">1</a>
	<a href="#">Puncturing Limit</a>	<a href="#">0.64</a>

[6.10.2.4.5.4.2 Downlink](#)[6.10.2.4.5.4.2.1 Transport channel parameters](#)[6.10.2.4.5.4.2.1.1 Transport channel parameters for HS-DSCH](#)[See clause 6.10.2.4.5.1.2.1.1.1.](#)[6.10.2.4.5.4.2.1.2 Transport channel parameters for DCH](#)[6.10.2.4.5.4.2.1.2.1 Transport channel parameters for Conversational / unknown / DL:64 kbps / CS RAB](#)[See clause 6.10.2.4.1.13.2.1.1.](#)[6.10.2.4.5.4.2.1.2.2 Transport channel parameters for UL:3.4 DL: 3.4 kbps SRBs for DCCH](#)[See clause 6.10.2.4.1.2.2.1.1.](#)[6.10.2.4.5.4.2.1.2.3 TFCS](#)[See clause 6.10.2.4.1.13.2.1.3.](#)[6.10.2.4.5.4.2.2 Physical channel parameters](#)[6.10.2.4.5.4.2.2.1 Physical channel parameters on DPCH](#)[See clause 6.10.2.4.1.13.2.2.](#)[6.10.2.4.5.4.2.2.2 Physical channel parameters on HS-PDSCH](#)[See clause 6.10.2.4.5.1.2.2.2.](#)

[6.10.2.4.5.5](#) [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](#)

[6.10.2.4.5.5.1](#) [Uplink](#)

[6.10.2.4.5.5.1.1](#) [Transport channel parameters](#)

[6.10.2.4.5.5.1.1.1](#) [Transport channel parameters for Interactive or background / UL:384 kbps / PS RAB + UL: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		
Uplink: Max number of bits/radio frame before rate matching	12828			
RM attribute	110-150			

[6.10.2.4.5.5.1.1.2](#) [Transport channel parameters for UL:3.4 kbps SRBs for DCCH](#)

See clause [6.10.2.4.1.2.1.1.1](#).

[6.10.2.4.5.5.1.1.3](#) [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)

[6.10.2.4.5.5.1.2](#) [Physical channel parameters](#)

DPCH Uplink	Min spreading factor	4
	Max number of DPDCH data bits/radio frame	9600
	Number of DPDCH	1
	Puncturing Limit	0.72

[6.10.2.4.5.5.2 Downlink](#)

[6.10.2.4.5.5.2.1 Transport channel parameters](#)

[6.10.2.4.5.5.2.1.1 Transport channel parameters for HS-DSCH](#)

[6.10.2.4.5.5.2.1.1.1 MAC-d flow parameters for Interactive or background / DL: \[max bit rate depending on UE category\] / PS RAB](#)

[See clause 6.10.2.4.5.1.2.1.1.1.](#)

[6.10.2.4.5.5.2.1.1.2 MAC-d flow parameters for Interactive or background / DL: \[max bit rate depending on UE category\] / PS RAB](#)

[See clause 6.10.2.4.5.1.2.1.1.1.](#)

[6.10.2.4.5.5.2.1.2 Transport channel parameters for DCH](#)

[6.10.2.4.5.5.2.1.2.1 Transport channel parameters for UL:3.4 DL: 3.4 kbps SRBs for DCCH](#)

[See clause 6.10.2.4.1.2.2.1.1.](#)

[6.10.2.4.5.5.2.1.2.2 TFCS](#)

[See clause 6.10.2.4.1.2.2.1.2.](#)

[6.10.2.4.5.5.2.2 Physical channel parameters](#)

[6.10.2.4.5.5.2.2.1 Physical channel parameters on DPCH](#)

[See clause 6.10.2.4.1.2.2.2.](#)

[6.10.2.4.5.5.2.2.2 Physical channel parameters on HS-PDSCH](#)

[See clause 6.10.2.4.5.1.2.2.2.](#)

<END OF MODIFIED SECTION>

CR-Form-v7

## CHANGE REQUEST

⌘ **34.108 CR 376** ⌘ rev - ⌘ Current version: **5.2.0** ⌘

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

<b>Title:</b>	⌘ Introduction of information for tests for Performance requirements for A-GPS.		
<b>Source:</b>	⌘ Spirent Communications		
<b>Work item code:</b>	⌘ A-GPS	<b>Date:</b>	⌘ 3/11/2004
<b>Category:</b>	⌘ <b>B</b>	<b>Release:</b>	⌘ Rel-5
	<i>Use one of the following categories:</i> <b>F</b> (correction) <b>A</b> (corresponds to a correction in an earlier release) <b>B</b> (addition of feature), <b>C</b> (functional modification of feature) <b>D</b> (editorial modification) Detailed explanations of the above categories can be found in 3GPP <a href="#">TR 21.900</a> .		<i>Use one of the following releases:</i> <b>2</b> (GSM Phase 2) <b>R96</b> (Release 1996) <b>R97</b> (Release 1997) <b>R98</b> (Release 1998) <b>R99</b> (Release 1999) <b>Rel-4</b> (Release 4) <b>Rel-5</b> (Release 5) <b>Rel-6</b> (Release 6)

<b>Reason for change:</b>	⌘ There is currently no information for A-GPS minimum performance testing
<b>Summary of change:</b>	⌘ New supporting information added for A-GPS minimum performance testing
<b>Consequences if not approved:</b>	⌘ New test cases in TS 34.XXX for A-GPS testing cannot be run.

<b>Clauses affected:</b>	⌘ 2, 3.2, 7.5, 10.										
<b>Other specs affected:</b>	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="padding: 2px;">Y</td> <td style="padding: 2px;">N</td> </tr> <tr> <td style="padding: 2px;"><input type="checkbox"/></td> <td style="padding: 2px;"><input checked="" type="checkbox"/></td> </tr> <tr> <td style="padding: 2px;"><input checked="" type="checkbox"/></td> <td style="padding: 2px;"><input type="checkbox"/></td> </tr> <tr> <td style="padding: 2px;"><input type="checkbox"/></td> <td style="padding: 2px;"><input checked="" type="checkbox"/></td> </tr> </table>	Y	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Other core specifications	⌘ TS 34.XXX
	Y	N									
	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
<input checked="" type="checkbox"/>	<input type="checkbox"/>										
<input type="checkbox"/>	<input checked="" type="checkbox"/>										
Test specifications											
O&M Specifications											
<b>Other comments:</b>	⌘ TS 34.XXX is created in T1-041849										

### 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.



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## 2 References

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

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.

- [1] 3GPP TS 34.123-1: "User Equipment (UE) conformance specification; Part 1: Protocol conformance specification".
- [2] 3GPP TS 34.121: "Terminal Conformance Specification; Radio transmission and reception (FDD)".
- [3] 3GPP TS 34.123-2: "User Equipment (UE) conformance specification; Part 2: Implementation Conformance Statement (ICS) proforma specification".
- [4] 3GPP TS 34.124: "ElectroMagnetic compatibility (EMC) requirements for Mobile terminals and ancillary equipment".
- [5] 3GPP TS 34.122: "Terminal Conformance Specification; Radio transmission and reception (TDD)".
- [6] 3GPP TS 34.109: "Terminal Logical Test Interface; Special conformance testing functions".
- [8] 3GPP TS 25.214: "Physical layer procedures (FDD)".
- [7] 3GPP TS 25.301 "Radio Interface Protocol Architecture".
- [9] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".
- [10] 3GPP TR 25.990: "Vocabulary".
- [11] 3GPP TS 25.101: "UE Radio transmission and reception (FDD)".
- [12] 3GPP TS 25.102: "UTRA (UE) TDD; Radio transmission and reception".
- [13] 3GPP TS 25.211: "Physical Channels and mapping of Transport Channels onto Physical channels (FDD)".
- [14] 3GPP TS 25.212: "Multiplexing and Channel Coding (FDD)".
- [15] 3GPP TS 23.107: "Quality of Service (QoS) concept and architecture".
- [16] 3GPP TS 26.110: "Codec for Circuit Switched Multimedia Telephony Service; General Description".
- [17] 3GPP TS 29.007: "General requirements on interworking between the Public Land Mobile Network (PLMN) and the Integrated Services Digital Network (ISDN) or Public Switched Telephone Network (PSTN)".
- [18] 3GPP TR 23.910: "Circuit Switched Data Bearer Service".
- [19] Void.
- [20] 3GPP TS 25.104: "UTRA (BS) FDD; Radio Transmission and Reception".
- [21] 3GPP TS 25.105: "UTRA (BS) TDD; Radio Transmission and Reception".

- [22] 3GPP TS 31.101: "UICC-Terminal Interface; Physical and Logical Characteristics".
- [23] 3GPP TS 31.102: "Characteristics of the USIM Application".
- [24] 3GPP TS 33.102: "3G Security; Security Architecture".
- [25] 3GPP TS 33.103: "3G Security; Integration Guidelines".
- [26] 3GPP TS 33.105: "3G Security; Cryptographic Algorithm Requirements".
- [27] 3GPP TS 25.224: "Physical layer procedures (TDD)".
- [28] 3GPP TS 25.221: "Physical Channels and mapping of Transport Channels onto Physical channels (TDD)".
- [29] 3GPP TS 25.222: "Multiplexing and Channel Coding (TDD)".
- [30] 3GPP TS 25.133: "Requirements for support of radio resource management (FDD)".
- [31] 3GPP TS 51.010-1: "GSM/EDGE Radio Access Network; Digital cellular telecommunications system (Phase 2+); Mobile Station (MS) conformance specification; Part 1: Conformance specification".
- [32] 3GPP TS 24.008: "Mobile radio interface layer 3 specification; Core Network Protocols; Stage 3".
- [33] [3GPP TS 25.171: "Requirements for support of A-GPS \(FDD\)".](#)
- [34] [3GPP TS 25.331: "Radio Resource Control \(RRC\); Protocol Specification".](#)

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## 3 Definitions and abbreviations

### 3.1 Definitions

For the purposes of the present document, the terms and definitions given in [9], [10] and the following apply:

**Maximum average power:** average transmitter output power obtained over any specified time interval, including periods with no transmission, when the transmit time slots are at the maximum power setting

### 3.2 Abbreviations

For the purposes of the present document, the abbreviations given in [9], [10] and the following apply:

$I_{oc}$	The power spectral density of a band limited white noise source (simulating interference from other cells) as measured at the UE antenna connector.
AFC	Automatic Frequency Control
<a href="#">A-GPS</a>	<a href="#">Assisted - Global Positioning System</a>
AM	Acknowledgement mode
ATT	Attenuator
BCCH	Broadcast Control Channel
CBS	Cell Broadcast Service
CC	Convolutional coding
CCCH	Common Control Channel
CCTrCH	Coded Composite Transport Channel
CS	Circuit switching
DCCH	Dedicated Control Channel
DL	Downlink
DPCH	Dedicated Physical Channel
DT	Direct transfer
DTCH	Dedicated Traffic Channel
FTM	File tunnelling mode

<a href="#">GPS</a>	<a href="#">Global Positioning System</a>
<a href="#">GSS</a>	<a href="#">GPS System Simulator</a>
HYB	Hybrid
NAS	Non-access stratum
OBW	Occupied Bandwidth
OCNS	Orthogonal Channel Noise Simulator, a mechanism used to simulate the users or control signals on the other orthogonal channels of a downlink.
PRACH	Physical Random Access Channel
PS	Packet switching
RAB	Radio Access Bearer
RB	Radio Bearer
RRC	Radio Resource Control (for sub-Layer of layer 3) but also Root-Raised Cosine (for Filter shape)
SCCPCH	Secondary Common Control Physical Channel
SMS	Short Message Service
SRB	Signalling RB
SS	System Simulator
SSD	Source statistics descriptor
TC	Turbo coding
<a href="#">TLM</a>	<a href="#">TeLeMetry word. It contains an 8-bits preamble (10001011)</a>
TM	Transparent mode
<a href="#">TOW</a>	<a href="#">Time Of Week</a>
<a href="#">TTFF</a>	<a href="#">Time To First Fix</a>
UL	Uplink
UM	Unacknowledgement mode

**NEXT CHANGED SECTION**

7.4.2.9.2.2.3 Procedure

The Call Set-up procedure shall be performed under Ideal radio conditions as defined in clause 5.2 and 6.1 of TS 34.108. Reference Test Conditions.

Step	Direction		Message	Comments
	UE	SS		
1		-->	CM SERVICE REQUEST	MM
2		<--	AUTHENTICATION REQUEST	MM
3		-->	AUTHENTICATION RESPONSE	MM
4		<--	SECURITY MODE COMMAND	RRC
5		-->	SECURITY MODE COMPLETE	RRC
6		-->	SET UP	CC
7		<--	CALL PROCEEDING	CC
8		<--	RADIO BEARER SETUP	RRC RAB SETUP
9		-->	RADIO BEARER SETUP COMPLETE	RRC
10		<--	ALERTING	CC
11		<--	CONNECT	CC
12		-->	CONNECT ACKNOWLEDGE	CC

7.4.2.9.2.2.4 Specific message contents

FFS

[7.5 Test procedures for A-GPS Performance requirements testing](#)

[This section specifies the A-GPS procedures that shall be used for testing of A-GPS Performance requirements.](#)

[7.5.1 Normal UE based A-GPS procedure](#)

[7.5.1.1 Initial conditions](#)

[FFS](#)

### 7.5.1.2 Procedure

FFS

Step	Direction		Message	Comments
	UE	SS		
1	<--		RESET UE POSITIONING STORED INFORMATION	TC
2	<--		RRC MEASUREMENT CONTROL	RRC. (Setup, No Reporting, Nav model Satellites 1,2,3,4,5 (1))
3	<--		RRC MEASUREMENT CONTROL	RRC. (Modify, No Reporting, Nav model Satellites 6,7,8,9 (1), Iono Model)
4	<--		RRC MEASUREMENT CONTROL	RRC. (Modify, Periodical Reporting Criterion, GPS Ref time (1), ReferencePosition (1))
5	-->		RRC MEASUREMENT REPORT	RRC. (Position Estimate), 1 <sup>st</sup> test instance
6	<--		RESET UE POSITIONING STORED INFORMATION	TC
7	<--		RRC MEASUREMENT CONTROL	RRC. (Setup, No Reporting, Nav model Satellites 1,2,3,4,5 (2))
8	<--		RRC MEASUREMENT CONTROL	RRC. (Modify, No Reporting, Nav model Satellites 6,7,8,9 (2), Iono Model)
9	<--		RRC MEASUREMENT CONTROL	RRC. (Modify, Periodical Reporting Criterion, GPS Ref time (2), ReferencePosition (2))
10	-->		RRC MEASUREMENT REPORT	RRC. (Position Estimate), 2 <sup>nd</sup> test instance
11	<--		RESET UE POSITIONING STORED INFORMATION	TC
<u>O</u> <u>n</u>	<u>O</u> <u>--&gt;</u>	<u>O</u> <u>O</u>	<u>RRC MEASUREMENT REPORT</u>	<u>RRC. (Position Estimate), n<sup>th</sup> test instance</u>

### 7.5.1.3 Specific message contents

All assistance data message contents shall be referred to clause 10 "A-GPS assistance data".

Contents of MEASUREMENT CONTROL message: RRC

Information Element	Value/remark
Measurement Reporting Mode	Periodical reporting
Amount of reporting	1
Reporting interval	20 000 ms
Horizontal accuracy	50 m
Vertical accuracy	100 m

Contents of RESET UE POSITIONING STORED INFORMATION message: RRC

Information Element	Value/remark
UE Positioning Technology	AGPS

## 7.5.2 UE based A-GPS procedure for moving scenario and periodic update test case

### 7.5.2.1 Initial conditions

FFS

### 7.5.2.2 Procedure

FFS

<u>Step</u>	<u>Direction</u>		<u>Message</u>	<u>Comments</u>
	<u>UE</u>	<u>SS</u>		
<u>1</u>	<--		<u>RRC MEASUREMENT CONTROL</u>	<u>RRC. (Setup, No Reporting, Nav model Satellites 1,2,3,4,5)</u>
<u>2</u>	<--		<u>RRC MEASUREMENT CONTROL</u>	<u>RRC. (Modify, No Reporting, Nav model Satellites 6,7,8,9, Iono Model)</u>
<u>3</u>	<--		<u>RRC MEASUREMENT CONTROL</u>	<u>RRC. (Modify, Periodical Reporting Criterion, GPS Ref time, ReferencePosition)</u>
<u>4</u>	-->		<u>RRC MEASUREMENT REPORT</u>	<u>RRC. (Position Estimate)</u>
<u>5</u>	-->		<u>RRC MEASUREMENT REPORT</u>	<u>RRC. (Position Estimate)</u>
<u>Ö..</u>	-->		<u>Ö Ö</u>	
<u>n</u>	-->		<u>RRC MEASUREMENT REPORT</u>	<u>RRC. (Position Estimate)</u>

NOTE: In the actual testing the UE may report error messages at step 4 until it has been able to acquire a position estimate.

### 7.5.2.3 Specific message contents

All assistance data message contents shall be referred to clause 10 "A-GPS assistance data".

Contents of MEASUREMENT CONTROL message: RRC

<u>Information Element</u>	<u>Value/remark</u>
<u>Measurement Reporting Mode</u>	<u>Periodical reporting</u>
<u>Amount of reporting</u>	<u>Infinite (see note)</u>
<u>Reporting interval</u>	<u>2 000 ms</u>
<u>Horizontal accuracy</u>	<u>50 m</u>
<u>Vertical accuracy</u>	<u>100 m</u>
	<u>NOTE: Infinite means during the complete test time.</u>

## 7.5.3 UE based A-GPS procedure with failure

### 7.5.3.1 Initial conditions

FFS

### 7.5.3.2 Procedure

FFS

<u>Step</u>	<u>Direction</u>		<u>Message</u>	<u>Comments</u>
	<u>UE</u>	<u>SS</u>		
<u>n</u>	<u>Ö..</u>		<u>Ö Ö.</u>	
<u>n+1</u>	<u>&lt;--</u>		<u>RRC MEASUREMENT CONTROL</u>	<u>RRC. (Setup, No Reporting, Nav model Satellites 1,2,3,4,5)</u>
<u>n+2</u>	<u>&lt;--</u>		<u>RRC MEASUREMENT CONTROL</u>	<u>RRC. (Modify, No Reporting, Nav model Satellites 6,7,8,9, Iono Model)</u>
<u>n+3</u>	<u>&lt;--</u>		<u>RRC MEASUREMENT CONTROL</u>	<u>RRC. (Modify, Periodical Reporting Criterion, GPS Ref time, ReferencePosition)</u>
<u>n+4</u>	<u>--&gt;</u>		<u>RRC MEASUREMENT REPORT</u>	<u>RRC. (Position Error of type: iThere were not enough satellites to be receivedi</u>

### 7.5.3.3 Specific message contents

All assistance data message contents shall be referred to clause 10 "A-GPS assistance data".

## 7.5.4 Normal UE assisted GPS procedure

### 7.5.4.1 Initial conditions

FFS

### 7.5.4.2 Procedure

FFS

Step	Direction		Message	Comments
	UE	SS		
1	<--		RESET UE POSITIONING STORED INFORMATION	TC
2	<--		RRC MEASUREMENT CONTROL	RRC. (Setup, Periodical Reporting Criteria, GPS Ref time)
3	-->		RRC MEASUREMENT REPORT	RRC. (Additional Assistance Data Request)
4	<--		RRC MEASUREMENT CONTROL	RRC. (Modify, No Reporting, Assistance Data Satellites 1,2,3,4,5,6,7,8,9)
5	<--		RRC MEASUREMENT CONTROL	RRC. (Modify, Periodical Reporting Criteria)
6	-->		RRC MEASUREMENT REPORT	RRC. (GPS Measured Results), 1 <sup>st</sup> test instance
7	<--		RESET UE POSITIONING STORED INFORMATION	TC
8	<--		RRC MEASUREMENT CONTROL	RRC. (Setup, Periodical Reporting Criteria, GPS Ref time)
9	-->		RRC MEASUREMENT REPORT	RRC. (Additional Assistance Data Request)
10	<--		RRC MEASUREMENT CONTROL	RRC. (Modify, No Reporting, Assistance Data Satellites 1,2,3,4,5,6,7,8,9)
11	<--		RRC MEASUREMENT CONTROL	RRC. (Modify, Periodical Reporting Criteria)
12	-->		RRC MEASUREMENT REPORT	RRC. (GPS Measured Results), 2 <sup>nd</sup> test instance
13	<--		RESET UE POSITIONING STORED INFORMATION	TC
<u>O.</u>	<u>O</u>	<u>O</u>	<u>RRC MEASUREMENT REPORT</u>	<u>RRC. (GPS Measured Results),</u>
<u>n</u>	-->			<u>n<sup>th</sup> test instance</u>

### 7.5.4.3 Specific message contents

All assistance data message contents shall be referred to clause 10 "A-GPS assistance data".

Contents of MEASUREMENT CONTROL message: RRC

Information Element	Value/remark
Measurement Reporting Mode	Periodical reporting
Amount of reporting	1
Reporting interval	20 000 ms
Horizontal accuracy	50 m
Vertical accuracy	100 m

Contents of RESET UE POSITIONING STORED INFORMATION message: RRC

Information Element	Value/remark
UE Positioning Technology	AGPS



## 7.5.5 UE assisted A-GPS procedure for moving scenario and periodic update test case

### 7.5.5.1 Initial conditions

FFS

### 7.5.5.2 Procedure

FFS

<u>Step</u>	<u>Direction</u>		<u>Message</u>	<u>Comments</u>
	<u>UE</u>	<u>SS</u>		
<u>1</u>		<u>&lt;--</u>	<u>RESET UE POSITIONING STORED INFORMATION</u>	<u>TC</u>
<u>2</u>		<u>&lt;--</u>	<u>RRC MEASUREMENT CONTROL</u>	<u>RRC. (Setup, Periodical Reporting Criteria, GPS Ref time)</u>
<u>3</u>		<u>--&gt;</u>	<u>RRC MEASUREMENT REPORT</u>	<u>RRC. (Additional Assistance Data Request)</u>
<u>4</u>		<u>&lt;--</u>	<u>RRC MEASUREMENT CONTROL</u>	<u>RRC. (Modify, No Reporting, Assistance Data Satellites 1,2,3,4,5,6,7,8,9)</u>
<u>5</u>		<u>&lt;--</u>	<u>RRC MEASUREMENT CONTROL</u>	<u>RRC. (Modify, Periodical Reporting Criteria)</u>
<u>6</u>		<u>--&gt;</u>	<u>RRC MEASUREMENT REPORT</u>	<u>RRC. (GPS Measured Results), 1<sup>st</sup> test instance</u>
<u>7</u>		<u>--&gt;</u>	<u>RRC MEASUREMENT REPORT</u>	<u>RRC. (GPS Measured Results), 2<sup>nd</sup> test instance</u>
<u>Ö..</u>		<u>--&gt;</u>	<u>Ö Ö</u>	
<u>n</u>		<u>--&gt;</u>	<u>RRC MEASUREMENT REPORT</u>	<u>RRC. (GPS Measured Results), n<sup>th</sup> test instance</u>

NOTE: In the actual testing the UE may report error messages at step 6 until it has been able to acquire GPS measured results.

### 7.5.5.3 Specific message contents

All assistance data message contents shall be referred to clause 10 "A-GPS assistance data".

Contents of MEASUREMENT CONTROL message: RRC

<u>Information Element</u>	<u>Value/remark</u>
<u>Measurement Reporting Mode</u>	<u>Periodical reporting</u>
<u>Amount of reporting</u>	<u>Infinite (see note)</u>
<u>Reporting interval</u>	<u>2 000 ms</u>
<u>Horizontal accuracy</u>	<u>50 m</u>
<u>Vertical accuracy</u>	<u>100 m</u>
	<u>NOTE: Infinite means during the complete test time.</u>

Contents of RESET UE POSITIONING STORED INFORMATION message: RRC

<u>Information Element</u>	<u>Value/remark</u>
<u>UE Positioning Technology</u>	<u>AGPS</u>

## NEXT CHANGED SECTION

### Contents of SECURITY MODE COMMAND message: AM

Information Element	Condition	Value/remark
Message Type RRC transaction identifier Integrity check info <ul style="list-style-type: none"> <li>- Message authentication code</li> <li>- RRC Message Sequence Number</li> </ul> Security capability <ul style="list-style-type: none"> <li>- Ciphering algorithm capability</li> <li>- UEA0</li> <li>- UEA1</li> <li>- Spare</li> <li>- Integrity protection algorithm capability</li> <li>- UIA1</li> <li>- Spare</li> </ul> Ciphering mode info <ul style="list-style-type: none"> <li>- Ciphering mode command</li> <li>- Ciphering algorithm</li> <li>- Ciphering activation time for DPCH</li> <li>- Radio bearer downlink ciphering activation time info</li> <li>- Radio bearer activation time</li> <li>- RB identity</li> <li>- RLC sequence number</li> <li>- RB identity</li> <li>- RLC sequence number</li> <li>- RB identity</li> <li>- RLC sequence number</li> <li>- RB identity</li> <li>- RLC sequence number</li> </ul> Integrity protection mode info <ul style="list-style-type: none"> <li>- Integrity protection mode command</li> <li>- Downlink integrity protection activation info</li> <li>- Integrity protection algorithm</li> <li>- Integrity protection initialisation number</li> </ul> CN domain identity UE system specific security capability	A1, A2	Arbitrarily selects an integer between 0 and 3  Set to an arbitrarily selected 32-bits integer. The first/ leftmost bit of the bit string contains the most significant bit of the MAC-I. Set to an arbitrarily selected integer between 0 and 15  If the UE has indicated support for ciphering algorithm UEA0 in the IE "security capability" in the RRC CONNECTION SETUP COMPLETE message, this IE is set to TRUE. If the UE has indicated support for ciphering algorithm UEA1 in the IE "security capability" in the RRC CONNECTION SETUP COMPLETE message, this IE is set to TRUE. Spare 2-15 = FALSE 000000000000010B (UIA1) TRUE Spare 0 and Spare 2-15 = FALSE This presence of this IE is dependent on IXIT statements in TS 34.123-2. If ciphering is indicated to be active, this IE present with the values of the sub IEs as stated below. Else, this IE is omitted. Start/restart UEA0 or UEA1. The indicated algorithm must be one of the algorithms supported by the UE as indicated in the IE "security capability" in the RRC CONNECTION SETUP COMPLETE message. Use the same ciphering algorithm specified in "ciphering" <ul style="list-style-type: none"> <li>Not Present</li> <li>1 Current RLC SN+2</li> <li>2 Current RLC SN+2</li> <li>3 Current RLC SN + 2</li> <li>4 Current RLC SN + 2</li> </ul> Start Not Present UIA1 SS selects an arbitrary 32 bits number for FRESH CS or PS Not Checked
UE system specific security capability <ul style="list-style-type: none"> <li>- Inter-RAT UE security capability</li> <li>- CHOICE system</li> <li>- GSM security capability</li> </ul>	A2	GSM The indicated algorithms must be the same

	as the algorithms supported by the UE as indicated in the IE " UE system specific capability " in the RRC CONNECTION SETUP COMPLETE message.
--	--

Condition	Explanation
A1	UE not supporting GSM
A2	UE supporting GSM

## 10 A-GPS Assistance Data

### 10.1 General

This section defines the assistance data IEs which shall be available for use as specified in all A-GPS Performance test cases. The assistance data shall be given for all satellites visible in the tests. [Editor's note: this last statement conflicts with section 10.1.1]

The information elements are given with reference to 3GPP TS 25.331 [34], where the details are defined.

Clauses 10.2 and 10.3 list the assistance data IEs required for testing of UE-based mode, and clauses 10.4 and 10.5 list the assistance data available for testing of UE-assisted mode. Clause 10.6 lists the values of the fields.

The A-GPS minimum performance requirements are defined by assuming that all relevant and valid assistance data is received by the UE in order to perform GPS measurements and/or position calculation. This clause does not include nor consider delays occurring in the various signalling interfaces of the network.

#### 10.1.1 Satellite constellation

The satellite constellation shall consist of 24 satellites. Almanac assistance data shall be available for all these 24 satellites. At least 9 of the satellites shall be visible to the UE (that is above 15 degrees elevation with respect to the UE). Other assistance data shall be available for 9 of these visible satellites. In each test, signals are generated for only a sub-set of these satellites for which other assistance data is available. The number of satellites in this sub-set is specified in the test. The HDOP for the test shall be calculated using this sub-set of satellites. The selection of satellites for this sub-set shall be random and consistent with achieving the required HDOP for the test.

### 10.2 Information elements required for normal UE based testing

The following A-GPS assistance data IEs and fields shall be present for each test. Fields not specified shall not be present. The values of the fields are specified in clause 10.6.

- a) UE positioning GPS reference time IE.** This information element is defined in subclause 10.3.7.96 of 3GPP TS 25.331 [34].

Name of the IE	Fields of the IE
UE positioning GPS reference time	GPS Week
	GPS TOW msec
	GPS TOW Assist
	SatID
	TLM Message
	TLM Reserved
	Alert
	Anti-Spoof

**b) UE positioning GPS reference UE position IE.** This information element is defined in subclause 10.3.8.4c of 3GPP TS 25.331 [34].

<u>Name of the IE</u>	<u>Fields of the IE</u>
<u>Reference Location</u>	<u>Ellipsoid point with Altitude and uncertainty ellipsoid</u>

**c) UE positioning GPS navigation model IE.** This information element is defined in subclause 10.3.7.94 of 3GPP TS 25.331 [34].

<u>Name of the IE</u>	<u>Fields of the IE</u>
<u>Navigation Model</u>	<u>All satellite information</u>

**d) UE positioning GPS ionospheric model IE.** This information element is defined in subclause 10.3.7.92 of 3GPP TS 25.331 [34].

<u>Name of the IE</u>	<u>Fields of the IE</u>
<u>Ionospheric Model</u>	<u>All</u>

### 10.3 Information elements required for UE based Sensitivity Fine Time Assistance test case

The A-GPS assistance data IEs and fields that shall be present for the Sensitivity Fine Time Assistance test case shall be those specified in clause 10.2 with the following exception. Fields not specified shall not be present. The values of the fields are specified in clause 10.6.

**UE positioning GPS reference time IE.** This information element is defined in subclause 10.3.7.96 of 3GPP TS 25.331 [34].

<u>Name of the IE</u>	<u>Fields of the IE</u>
<u>UE positioning GPS reference time</u>	
	<u>GPS Week</u>
	<u>GPS TOW msec</u>
	<u>UTRAN GPS reference time</u>
	<u>&gt;UTRAN GPS timing of cell frames</u>
	<u>&gt;CHOICE mode</u>
	<u>&gt;&gt;FDD</u>
	<u>&gt;&gt;&gt;Primary CPICH Info</u>
	<u>&gt;SFN</u>
	<u>SFN-TOW Uncertainty</u>
	<u>TUTRAN-GPS drift rate</u>
	<u>GPS TOW Assist</u>
	<u>SatID</u>
	<u>TLM Message</u>
	<u>TLM Reserved</u>
	<u>Alert</u>
	<u>Anti-Spoof</u>

### 10.4 Information elements available for normal UE assisted testing

The following A-GPS assistance data IEs and fields shall be available for use in each test. Fields not specified shall not be present. The values of the fields are specified in clause 10.6.

a) **UE positioning GPS reference time IE.** This information element is defined in subclause 10.3.7.96 of 3GPP TS 25.331 [34].

<u>Name of the IE</u>	<u>Fields of the IE</u>
<u>UE positioning GPS reference time</u>	
	<u>GPS Week</u>
	<u>GPS TOW msec</u>
	<u>GPS TOW Assist</u>
	<u>SatID</u>
	<u>TLM Message</u>
	<u>TLM Reserved</u>
	<u>Alert</u>
	<u>Anti-Spoof</u>

b) **UE positioning GPS reference UE position IE.** This information element is defined in subclause 10.3.8.4c of 3GPP TS 25.331 [34].

<u>Name of the IE</u>	<u>Fields of the IE</u>
<u>Reference Location</u>	<u>Ellipsoid point with Altitude and uncertainty ellipsoid</u>

c) **UE positioning GPS almanac** This information element is defined in subclause 10.3.7.89 of 3GPP TS 25.331 [34].

<u>Name of the IE</u>	<u>Fields of the IE</u>
<u>UE positioning GPS almanac</u>	
	<u>Almanac Reference Week</u>
	<u>All Satellite information</u>

d) **UE positioning GPS navigation model IE.** This information element is defined in subclause 10.3.7.94 of 3GPP TS 25.331 [34].

<u>Name of the IE</u>	<u>Fields of the IE</u>
<u>Navigation Model</u>	<u>All satellite information</u>

e) **UE positioning GPS acquisition assistance IE.** This information element is defined in subclause 10.3.7.88 of 3GPP TS 25.331 [34].

<u>Name of the IE</u>	<u>Fields of the IE</u>
<u>Acquisition Assistance</u>	
<u>=</u>	<u>GPS TOW msec</u>
<u>=</u>	<u>Satellite information</u>
<u>=</u>	<u>&gt;SatID</u>
	<u>&gt;Doppler (0<sup>th</sup> order term)</u>
	<u>&gt;Extra Doppler</u>
	<u>&gt;&gt;Doppler (1<sup>st</sup> order term)</u>
	<u>&gt;&gt;Doppler Uncertainty</u>
	<u>&gt;Code Phase</u>
	<u>&gt;Integer Code Phase</u>
	<u>&gt;GPS Bit number</u>
	<u>&gt;Code Phase Search Window</u>
	<u>&gt;Azimuth and Elevation</u>
	<u>&gt;&gt; Azimuth</u>
	<u>&gt;&gt; Elevation</u>

## 10.5 Information elements available for UE assisted Sensitivity Fine Time Assistance test case

The A-GPS assistance data IEs and fields that shall be available for use for the Sensitivity Fine Time Assistance test case shall be those specified in clause 10.4 with the following exceptions. Fields not specified shall not be present. The values of the fields are specified in clause 10.6.

a) **UE positioning GPS reference time IE.** This information element is defined in subclause 10.3.7.96 of 3GPP TS 25.331 [34].

Name of the IE	Fields of the IE
UE positioning GPS reference time	
	GPS Week
	GPS TOW msec
	UTRAN GPS reference time
	>UTRAN GPS timing of cell frames
	>CHOICE mode
	>>FDD
	>>>Primary CPICH Info
	>SFN
	SFN-TOW Uncertainty
	TUTRAN-GPS drift rate
	GPS TOW Assist
	SatID
	TLM Message
	TLM Reserved
	Alert
	Anti-Spoof

b) **UE positioning GPS acquisition assistance IE.** This information element is defined in subclause 10.3.7.88 of 3GPP TS 25.331 [34].

Name of the IE	Fields of the IE
Acquisition Assistance	
-	GPS TOW msec
-	UTRAN GPS reference time
-	>UTRAN GPS timing of cell frames
-	>CHOICE mode
-	>>FDD
-	>>>Primary CPICH Info
-	>SFN
-	Satellite information
-	>SatID
	>Doppler (0 <sup>th</sup> order term)
	>Extra Doppler
	>>Doppler (1 <sup>st</sup> order term)
	>>Doppler Uncertainty
	>Code Phase
	>Integer Code Phase
	>GPS Bit number
	>Code Phase Search Window
	>Azimuth and Elevation
	>> Azimuth
	>> Elevation

## 10.6 Contents of Information elements

[Editors note: It is expected that the notes below will be deleted as the IEs are specified in detail]

### Contents of UE positioning GPS reference time IE

<u>Information Element</u>	<u>Value/remark</u>	<u>Version</u>
<u>GPS Week</u>	<u>FFS</u>	
<u>GPS TOW msec</u>	<u>FFS</u>	
<u>UTRAN GPS reference time</u>	<u>FFS</u>	
<u>&gt;UTRAN GPS timing of cell frames</u>	<u>FFS</u>	
<u>&gt;CHOICE mode</u>	<u>FFS</u>	
<u>&gt;&gt;FDD</u>	<u>FFS</u>	
<u>&gt;&gt;&gt;Primary CPICH Info</u>	<u>FFS</u>	
<u>&gt;&gt;TDD</u>	<u>Not present</u>	
<u>&gt;&gt;&gt;cell parameters id</u>	<u>Not present</u>	
<u>&gt;SFN</u>	<u>FFS</u>	
<u>SFN-TOW Uncertainty</u>	<u>FFS</u>	
<u>TUTRAN-GPS drift rate</u>	<u>0</u>	
<u>GPS TOW Assist</u>	<u>lessThan10</u>	
<u>SatID</u>	<u>FFS</u>	
<u>TLM Message</u>	<u>FFS</u>	
<u>TLM Reserved</u>	<u>FFS</u>	
<u>Alert</u>	<u>FFS</u>	
<u>Anti-Spoof</u>	<u>FFS</u>	

Note: For every Test Instance in each TTFF test case, the GPS reference time shall be advanced so that, at the time the fix is made, it is at least 2 minutes later than the previous fix.

Note: For every Test Instance in each TTFF test case, the IE GPS TOW ms shall have a random offset, relative to GPS system time, within the allowed uncertainty of Coarse Time Assistance defined in [33]subclause 4.4. This offset value shall have a uniform random distribution.

Note: In addition, for every Fine Time Assistance Test Instance the IE UTRAN GPS timing of cell frames shall have a random offset, relative to the true value of the relationship between the two time references, within the allowed uncertainty of Fine Time Assistance defined in [33]subclause 4.4. This offset value shall have a uniform random distribution.

Note: For the Moving Scenario and Periodic Update Test Case the values of the IEs GPS TOW ms and IE UTRAN GPS timing of cell frames shall be set to the nominal values.

### Contents of UE positioning GPS reference UE position IE

<u>Information Element</u>	<u>Value/remark</u>	<u>Version</u>
<u>Ellipsoid point with Altitude and uncertainty ellipsoid</u>	<u>FFS</u>	

Note: There is no limitation on the selection of the reference location, consistent with achieving the required HDOP for the Test Case. For each test instance the reference location shall change sufficiently such that the UE shall have to use the new assistance data. The uncertainty of the semi-major axis is 3 km. The uncertainty of the semi-minor axis is 3 km. The orientation of major axis is 0 degrees. The uncertainty of the altitude information is 500 m. The confidence factor is 68 %.

### Contents of UE positioning GPS navigation model IE

<u>Information Element</u>	<u>Value/remark</u>	<u>Version</u>
<a href="#">All satellite information</a>	FFS	

[Contents of UE positioning GPS ionospheric model IE](#)

<u>Information Element</u>	<u>Value/remark</u>	<u>Version</u>
<a href="#">All</a>	FFS	

[Note: Typical Ionospheric and Tropospheric delays shall be simulated and the corresponding values inserted into the Ionospheric Model IEs.](#)

[Contents of UE positioning GPS almanac](#)

<u>Information Element</u>	<u>Value/remark</u>	<u>Version</u>
<a href="#">Almanac Reference Week</a>	FFS	
<a href="#">Satellite information</a>	FFS	

[Contents of UE positioning GPS acquisition assistance IE](#)

<u>Information Element</u>	<u>Value/remark</u>	<u>Version</u>
<a href="#">GPS TOW msec</a>	FFS	
<a href="#">UTRAN GPS reference time</a>	FFS	
<a href="#">&gt;UTRAN GPS timing of cell frames</a>	FFS	
<a href="#">&gt;CHOICE mode</a>	FFS	
<a href="#">&gt;&gt;FDD</a>	FFS	
<a href="#">&gt;&gt;&gt;Primary CPICH Info</a>	FFS	
<a href="#">&gt;SFN</a>	FFS	
<a href="#">Satellite information</a>	FFS	
<a href="#">&gt;SatID</a>	FFS	
<a href="#">&gt;Doppler (0<sup>th</sup> order term)</a>	FFS	
<a href="#">&gt;Extra Doppler</a>	FFS	
<a href="#">&gt;&gt;Doppler (1<sup>st</sup> order term)</a>	FFS	
<a href="#">&gt;&gt;Doppler Uncertainty</a>	FFS	
<a href="#">&gt;Code Phase</a>	FFS	
<a href="#">&gt;Integer Code Phase</a>	FFS	
<a href="#">&gt;GPS Bit number</a>	FFS	
<a href="#">&gt;Code Phase Search Window</a>	FFS	
<a href="#">&gt;Azimuth and Elevation</a>	FFS	
<a href="#">&gt;&gt; Azimuth</a>	FFS	
<a href="#">&gt;&gt; Elevation</a>	FFS	

[Note: There is no limitation on the selection of the reference location, consistent with achieving the required HDOP for the Test Case. For each test instance the reference location shall change sufficiently such that the UE shall have to use the new assistance data. The uncertainty of the semi-major axis is 3 km. The uncertainty of the semi-minor axis is 3 km. The orientation of major axis is 0 degrees. The uncertainty of the altitude information is 500 m. The confidence factor is 68 %.](#)



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## Annex A (informative): Void

3GPP TSG-T1 Meeting #25  
St Paul's Bay, Malta, 1<sup>st</sup> - 5<sup>th</sup> November 2004

Tdoc **T1-041874**

CR-Form-v7
<h2 style="margin: 0;">CHANGE REQUEST</h2>
<span>⌘</span> <b>34.108 CR</b> <span>377</span> <span>⌘</span> <b>rev</b> - <span>⌘</span> Current version: <b>5.2.0</b> <span>⌘</span>

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

<b>Title:</b>	<span>⌘</span> Introduction of UMTS-850 MHz band V		
<b>Source:</b>	<span>⌘</span> Motorola		
<b>Work item code:</b>	<span>⌘</span> TEI	<b>Date:</b>	<span>⌘</span> 08/10/2004
<b>Category:</b>	<span>⌘</span> <b>F</b>	<b>Release:</b>	<span>⌘</span> Rel-5
	Use <u>one</u> of the following categories:		Use <u>one</u> of the following releases:
	<b>F</b> (correction)	<b>2</b> (GSM Phase 2)	
	<b>A</b> (corresponds to a correction in an earlier release)	<b>R96</b> (Release 1996)	
	<b>B</b> (addition of feature),	<b>R97</b> (Release 1997)	
	<b>C</b> (functional modification of feature)	<b>R98</b> (Release 1998)	
	<b>D</b> (editorial modification)	<b>R99</b> (Release 1999)	
	Detailed explanations of the above categories can be found in 3GPP <a href="#">TR 21.900</a> .		<b>Rel-4</b> (Release 4)
			<b>Rel-5</b> (Release 5)
			<b>Rel-6</b> (Release 6)

<b>Reason for change:</b>	<span>⌘</span> The introduction of UMTS-850 MHz band V
<b>Summary of change:</b>	<span>⌘</span> FDD reference test frequencies for Operating Band V is added.
<b>Consequences if not approved:</b>	<span>⌘</span> The feature UMTS-850 MHz band V would not be tested.

<b>Clauses affected:</b>	<span>⌘</span> 5.1												
<b>Other specs affected:</b>	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 30px; text-align: center;">Y</td> <td style="width: 30px; text-align: center;">N</td> <td></td> </tr> <tr> <td style="text-align: center;">⌘</td> <td style="text-align: center;">X</td> <td>Other core specifications <span>⌘</span></td> </tr> <tr> <td style="text-align: center;">⌘</td> <td style="text-align: center;">X</td> <td>Test specifications</td> </tr> <tr> <td style="text-align: center;">⌘</td> <td style="text-align: center;">X</td> <td>O&amp;M Specifications</td> </tr> </table>	Y	N		⌘	X	Other core specifications <span>⌘</span>	⌘	X	Test specifications	⌘	X	O&M Specifications
Y	N												
⌘	X	Other core specifications <span>⌘</span>											
⌘	X	Test specifications											
⌘	X	O&M Specifications											
<b>Other comments:</b>	<span>⌘</span> This CR is applicable for UEis supporting this release independent feature.												

**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.

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Error! No text of specified style in document.

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

## 5 Reference Test Conditions

### 5.1 Test frequencies

The test frequencies are based the UMTS frequency bands defined in the core specifications.

To avoid interference with adjacent frequency bands the lowest test frequency (downlink and uplink) needs to be offset upwardly by at least 2,6 MHz since the channel's width is 5 MHz for FDD and 3.84 Mcps TDD option, and 0.8 MHz for 1.28 Mcps TDD option since the channel's width is 1.6 MHz. The raster spacing is 200KHz. Similarly the highest test frequency (downlink and uplink) needs to be offset downwardly by at least 2.6 MHz for FDD and 3.84 Mcps TDD option, and 0.8 MHz for 1.28 Mcps TDD option.

NOTE1: Additional regulations concerning interferences to frequency bands used by different systems may also exist. Those regulations are specific to the country where the test equipment is used and need to be taken into account if they require a higher offset than 2,6 MHz from the edge frequencies for FDD and 3.84 Mcps TDD option, and 0.8 MHz for 1.28 Mcps TDD option.

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

#### 5.1.1 FDD Mode Test frequencies

UTRA/FDD is designed to operate in one of three paired bands [11]. The reference test frequencies for the common test environment for each of the [4](#)[5](#) operating bands are defined in the following tables:

##### 5.1.1.1 FDD reference test frequencies for Operating Band I

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

##### 5.1.1.2 FDD reference test frequencies for Operating Band II

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

##### 5.1.1.3 FDD reference test frequencies for Operating Band III

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

5.1.1.4 Void5.1.1.5 FDD reference test frequencies for Operating Band V

<u>Test Frequency ID</u>	<u>UARFCN</u>	<u>Frequency of Uplink</u>	<u>UARFCN</u>	<u>Frequency of Downlink</u>
<u>Low Range</u>	<u>4133</u>	<u>826.6 MHz</u>	<u>4358</u>	<u>871.6 MHz</u>
<u>Mid Range</u>	<u>4182</u>	<u>834.4 MHz</u>	<u>4407</u>	<u>879.4 MHz</u>
<u>High Range</u>	<u>4232</u>	<u>842.4 MHz</u>	<u>4457</u>	<u>887.4 MHz</u>

5.1.1.6<sup>4</sup> FDD reference test frequencies for Operating Band VI

<b>Test Frequency ID</b>	<b>UARFCN</b>	<b>Frequency of Uplink</b>	<b>UARFCN</b>	<b>Frequency of Downlink</b>
Low Range	812	832.5 MHz	1 037	877.5 MHz
Mid Range	4175	835.0MHz	4400	880.0 MHz
High Range	837	837.5 MHz	1 062	882.5 MHz

CR-Form-v7.1

## CHANGE REQUEST

⌘ **34.108 CR 378** ⌘ rev - ⌘ Current version: **5.2.0** ⌘

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

<b>Title:</b>	⌘ CR to TS34.108 Rel-5; Adding a new test condition for RADIO BEARER RELEASE Procedure (Revision of T1-041716).		
<b>Source:</b>	⌘ NTT DoCoMo		
<b>Work item code:</b>	⌘ TEI	<b>Date:</b>	⌘ 01/11/2004
<b>Category:</b>	⌘ <b>F</b>	<b>Release:</b>	⌘ Rel-5
	<p>Use <u>one</u> of the following categories:</p> <p><b>F</b> (correction)  <b>A</b> (corresponds to a correction in an earlier release)  <b>B</b> (addition of feature),  <b>C</b> (functional modification of feature)  <b>D</b> (editorial modification)</p> <p>Detailed explanations of the above categories can be found in 3GPP <a href="#">TR 21.900</a>.</p>		<p>Use <u>one</u> of the following releases:</p> <p>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)</p>

<b>Reason for change:</b> ⌘	<p>1) The following condition is missing in the default RADIO BEARER RELEASE message;</p> <p style="padding-left: 40px;">Packet to CELL_FACH from CELL_DCH / HS-DSCH in PS</p> <p>2) In the current test spec, there are two different sets of multiplexing options for the high-speed DTCH in the default RADIO BEARER SETUP message for HSDPA tests. (Refer to the LS from RAN2, <a href="#">T1-041766</a>)</p> <p>One set includes three multiplex options:</p> <p style="padding-left: 40px;">DCH (UL) / HS-DSCH (DL)  DCH (UL) / DCH (DL)  RACH (UL) / FACH (DL)</p> <p>This set is currently the default when establishing the radio bearer from CELL_DCH state, reflected in condition A9 in the default RADIO BEARER SETUP message.</p> <p>The other set includes only one multiplex option:</p> <p style="padding-left: 40px;">DCH (UL) / HS-DSCH (DL)</p> <p>This set is currently the default when establishing the radio bearer from</p>
-----------------------------	--

CELL\_FACH state (to CELL\_DCH state) reflected in condition A10 in the default RADIO BEARER SETUP message.

The two sets of multiplexing options would be impacted not only on the establishing procedure, but also on the releasing procedure.

- If the UE uses there multiplexing options stated as A9 to establish PS bearer, it could delete two TrCHs (DCH, HS-DSCH for DTCH) when it releases PS bearer. This option is already covered in condition A9 of the default RADIO BEARER RELEASE message, but not defined clearly.
- If the UE uses one multiplexing option stated as A10 to establish PS bearer, it could delete only one TrCH (HS-DSCH for DTCH) when it releases PS bearer. This option is not covered and defined in the current conditions.

In the current test spec, there is no explanation about the multiplexing options for the default RADIO BEARER RELEASE message, we could not distinguish which configuration options should be used in RADIO BEARER RELEASE procedure. It is needed to make it clear.

**Summary of change:** ⓘ

- 1) Adding a new condition  $\hat{i}$ Packet to CELL\_FACH from CELL\_DCH / HS-DSCH in PS $\hat{i}$  as A10 in the default message.
- 2) The definition of condition A9 in the default RADIO BEARER RELEASE message is modified to allow a more flexible use of those conditions. A9 is defined for the case when three multiplexing options are configured. A new condition A10 is defined not only for  $\hat{i}$ Packet to CELL\_FACH from CELL\_DCH / HS-DSCH in PS $\hat{i}$  but also for the case when one multiplexing option is configured.

**Consequences if not approved:** ⓘ

- 1) There is no suitable test condition for RADIO BEARER RELEASE Procedure.
- 2) It affects on another new CR T1-041935. The proposal condition  $\hat{i}$ Packet to CELL\_FACH from CELL\_DCH / HS-DSCH $\hat{i}$  is referred in the CR.
- 3) It is unclear which configured options should be used in RADIO BEARER RELEASE procedure.

**Clauses affected:** ⓘ

9.1.1

**Other specs affected:** ⓘ

	Y	N
Other core specifications		X
Test specifications	X	
O&M Specifications		X

ⓘ TS34.123-1

**Other comments:** ⓘ

Affects Rel-5.

**How to create CRs using this form:**

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### 9.1.1 Default RRC Message Contents (FDD)

<Ö>

Contents of RADIO BEARER RELEASE message: AM or UM

Information Element		Value/remark	Version
Message Type	A1, A2, A3, A4, A5, A6, A7, A8, A9, <a href="#">A10</a>		REL-5
RRC transaction identifier		Arbitrarily selects an integer between 0 and 3	
Integrity check info - message authentication code		SS calculates the value of MAC-I for this message and writes to this IE. The first/ leftmost bit of the bit string contains the most significant bit of the MAC-I.	
- RRC message sequence number		SS provides the value of this IE, from its internal counter.	
Integrity protection mode info		Not Present	
Ciphering mode info		Not Present	
Activation time	A1, A2, A3, A7, A8, A9, <a href="#">A10</a>	$(256+CFN-(CFN \text{ MOD } 8 + 8)) \text{ MOD } 256$	REL-5
Activation time New U-RNTI	A4, A5, A6	Not Present Not Present	
New C-RNTI	A1,A2,A3, A4, A9	Not Present	REL-5
New C-RNTI	A5, A6, A7, A8, <a href="#">A10</a>	'1010 1010 1010 1010'	<a href="#">REL-5</a>
New DSCH-RNTI	A1, A2, A3, A4, A5, A6, A7, A8, A9, <a href="#">A10</a> ,	Not Present	REL-5
RRC State indicator	A1,A2, A3, A4, A9	CELL_DCH	REL-5
RRC State indicator	A5, A6, A7, A8, <a href="#">A10</a>	CELL_FACH	<a href="#">REL-5</a>
UTRAN DRX cycle length coefficient	A1,A2,A3, A4,A5,A6, A7, A8, A9, <a href="#">A10</a>	Not Present	REL-5
CN information info		Not Present	
Signalling Connection release indication		Not Present	
URA identity		Not Present	
RAB information to reconfigure list		Not Present	
RB information to release - RB identity	A1,A2, A7, A8	10	
RB information to release - RB identity	A2, A8	11	
RB information to release - RB identity	A2, A8	12	
RB information to release - RB identity	A3, A4, A5, A6	20	
RB information to release - RB identity	A9, <a href="#">A10</a>	23	REL-5
RB information to be affected	A1,A2, A3,A4,A5, A6, A7, A8, A9, <a href="#">A10</a>	Not Present	REL-5
Downlink counter synchronisation info	A1,A2,A3, A4,A5,A6, A7, A8, A9, <a href="#">A10</a>	Not Present	REL-5

Information Element		Value/remark	Version
UL Transport channel information for all transport channels	A1, A2, A3, A4, A5, A6, A7, A8, A9, <a href="#">A10</a>	TFCS reconfigured to fit the new transport channel configuration.	REL-5
Deleted UL TrCH Information  - Uplink transport channel type - Transport channel identity	A1, A2, A3, A4, A5, A6, A7, A8, A9, <a href="#">A10</a>	DCH 1	REL-5
Deleted UL TrCH Information - Uplink transport channel type - Transport channel identity	A2, A8	DCH 2	
Deleted UL TrCH Information - Uplink transport channel type - Transport channel identity	A2, A8	DCH 3	
Added or Reconfigured UL TrCH information	A5, A6, A7, A8, <a href="#">A10</a>	Not Present	<a href="#">REL-5</a>
Added or Reconfigured UL TrCH information	A1, A2, A3, A4, A9	TrCHs(DCH for DCCH )	REL-5
- Uplink transport channel type		DCH	
- UL Transport channel identity		5	
- TFS			
- CHOICE Transport channel type		Dedicated transport channels	
- Dynamic Transport format information			
- RLC Size		According to TS34.108 clause 6.10.2.4.1.3 (standalone 13.6 kbps signalling radio bearer)	
- Number of TBs and TTI List		(This IE is repeated for TFI number.)	
- Transmission Time Interval		According to TS34.108 clause 6.10.2.4.1.3 (standalone 13.6 kbps signalling radio bearer)	
- Number of Transport blocks		According to TS34.108 clause 6.10.2.4.1.3 (standalone 13.6 kbps signalling radio bearer)	
- CHOICE Logical Channel list		All	
- Semi-static Transport Format information			
- Transmission time interval		According to TS34.108 clause 6.10.2.4.1.3 (standalone 13.6 kbps signalling radio bearer)	
- Type of channel coding		According to TS34.108 clause 6.10.2.4.1.3 (standalone 13.6 kbps signalling radio bearer)	
- Coding Rate		According to TS34.108 clause 6.10.2.4.1.3 (standalone 13.6 kbps signalling radio bearer)	
- Rate matching attribute		According to TS34.108 clause 6.10.2.4.1.3 (standalone 13.6 kbps signalling radio bearer)	
- CRC size		According to TS34.108 clause 6.10.2.4.1.3 (standalone 13.6 kbps signalling radio bearer)	
DL Transport channel information for all transport channels	A1, A2, A3, A4, A5, A6, A7, A8, A9, <a href="#">A10</a>	TFCS reconfigured to fit the new transport channel configuration.	REL-5
Deleted DL TrCH Information  - Downlink transport channel type - Transport channel identity	A1, A2, A3, A4, A5, A6, A7, A8, A9	DCH 6	REL-5
Deleted DL TrCH Information	A2, A8		

Information Element		Value/remark	Version
- Downlink transport channel type - Transport channel identity		DCH 7	
Deleted DL TrCH Information - Downlink transport channel type - Transport channel identity	A2, A8	DCH 8	
Deleted DL TrCH Information - Downlink transport channel type - DL HS-DSCH MAC-d flow identity	A9, <a href="#">A10</a>	HS-DSCH 0	REL-5
Added or Reconfigured DL TrCH information	A5, A6, A7, A8 <a href="#">, A10</a>	Not Present	<a href="#">REL-5</a>
Added or Reconfigured DL TrCH information	A1, A2, A3, A4 , A9	1 TrCHs(DCH for DCCH)	REL-5
- Downlink transport channel type		DCH	
- DL Transport channel identity		10	
- CHOICE DL parameters		Same as UL	
- Uplink transport channel type		DCH	
- UL TrCH identity		5	
- DCH quality target			
- BLER Quality value		Not Present	
Frequency info  - UARFCN uplink (Nu)  - UARFCN downlink (Nd)  Maximum allowed UL TX power	A1,A2,A3, A4,A5, A7, A8 , A9, <a href="#">A10</a>	Reference to clause 5.1 Test frequencies Reference to clause 5.1 Test frequencies 33dBm	REL-5
Frequency info	A6	Not Present	
CHOICE <i>channel requirement</i>	A5, A6, A7, A8 <a href="#">, A10</a>	Not Present	<a href="#">REL-5</a>
CHOICE channel requirement  - Uplink DPCH power control info - DPCCH power offset - PC Preamble - SRB delay - Power Control Algorithm - $\Delta_{ACK}$ - $\Delta_{NACK}$ - Ack-Nack repetition factor - TPC step size - Scrambling code type - Scrambling code number - Number of DPDCH - spreading factor  - TFCI existence  - Number of FBI bit  - Puncturing Limit	A1,A2,A3, A4 , A9	Uplink DPCH info  -80dB (i.e. ASN.1 IE value of n40) 1 frame 7 frames Algorithm1 Not Present Not Present Not Present 1dB Long 0 (0 to 16777215) Not Present(1) Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set	REL-5  REL-5 REL-5 REL-5
CHOICE Mode  - Downlink PDSCH information	A1,A2,A3, A4,A5,A6, A7, A8 , A9, <a href="#">A10</a>	FDD  Not Present	REL-5
Downlink HS-PDSCH Information	A1, A2, A3, A4, A5, A6, A7, A8, A9, <a href="#">A10</a>	Not Present	REL-5

Information Element		Value/remark	Version
	<a href="#">A10</a>		
Downlink information common for all radio links	A5, A6, A7, A8, <a href="#">A10</a>	Not Present	<a href="#">REL-5</a>
Downlink information common for all radio links <ul style="list-style-type: none"> <li>- Downlink DPCH info common for all RL</li> <li>- Timing indicator</li> <li>- CFN-targetSFN frame offset</li> <li>- Downlink DPCH power control information</li> <li>- DPC mode</li> <li>- CHOICE mode</li> <li>- Power offset <math>P_{Pilot-DPCH}</math></li> <li>- DL rate matching restriction information</li> <li>- Spreading factor</li> <li>- Fixed or Flexible Position</li> <li>- TFCI existence</li> <li>- CHOICE SF</li> <li>- DPCH compressed mode info</li> <li>- TX Diversity mode</li> <li>- SSDT information</li> <li>- Default DPCH Offset Value</li> </ul>	A1,A2, A3, A9	Maintain Not Present  0 (single) FDD 0 Not Present Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Not Present None Not Present Not Present	REL-5
- MAC-hs reset indicator		Not Present	REL-5
Downlink information common for all radio links <ul style="list-style-type: none"> <li>- Downlink DPCH info common for all RL</li> <li>- Timing indicator</li> <li>- CFN-targetSFN frame offset</li> <li>- Downlink DPCH power control information</li> <li>- DPC mode</li> <li>- CHOICE mode</li> <li>- Power offset <math>P_{Pilot-DPCH}</math></li> <li>- DL rate matching restriction information</li> <li>- Spreading factor</li> <li>- Fixed or Flexible Position</li> <li>- TFCI existence</li> <li>- CHOICE SF</li> <li>- DPCH compressed mode info</li> <li>- TX Diversity mode</li> <li>- SSDT information</li> <li>- Default DPCH Offset Value</li> </ul>	A4	Initialise Not Present  0 (single) FDD 0 Not Present Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Reference to TS34.108 clause 6.10 Parameter Set Not Present None Not Present Arbitrary set to value 0..306688 by step of 512	
- MAC-hs reset indicator		Not Present	REL-5
Downlink information for each radio link list <ul style="list-style-type: none"> <li>-Downlink information for each radio link <ul style="list-style-type: none"> <li>- Choice mode</li> <li>- Primary CPICH info</li> <li>- Primary scrambling code</li> </ul> </li> <li>- PDSCH with SHO DCH info</li> <li>- PDSCH code mapping</li> <li>- Serving HS-DSCH radio link indicator</li> <li>- Downlink DPCH info for each RL <ul style="list-style-type: none"> <li>- Primary CPICH usage for channel estimation</li> </ul> </li> <li>- DPCH frame offset</li> </ul>	A1,A2,A3, A9	FDD  Ref. to the Default setting in TS34.108 clause 6.1 (FDD) Not Present Not Present FALSE  Primary CPICH may be used  Set to value Default DPCH Offset Value (as currently stored in SS) mod 38400	REL-5       REL-5

Information Element		Value/remark	Version
<ul style="list-style-type: none"> <li>- Secondary CPICH info</li> <li>- Secondary scrambling code</li> <li>- channelisation code</li> <li>- DL channelisation code</li> <li>- Secondary scrambling code</li> <li>- Spreading factor</li>   <li>- Code number</li> <li>- Scrambling code change</li> <li>- TPC combination index</li> <li>- SS DT Cell Identity</li> <li>- Closed loop timing adjustment mode</li> <li>- SCCPCH information for FACH</li> </ul>		<p>Not Present</p> <p>3 Reference to TS34.108 clause 6.10 Parameter Set</p> <p>0 No change</p> <p>0 Not Present</p> <p>Not Present</p> <p>Not Present</p>	
<p>Downlink information for each radio link list</p> <ul style="list-style-type: none"> <li>-Downlink information for each radio link <ul style="list-style-type: none"> <li>- Choice mode</li> <li>- Primary CPICH info</li> <li>- Primary scrambling code</li> </ul> </li>   <li>- PDSCH with SHO DCH info</li> <li>- PDSCH code mapping</li> <li>- Serving HS-DSCH radio link indicator</li> <li>- Downlink DPCH info for each RL <ul style="list-style-type: none"> <li>- Primary CPICH usage for channel estimation</li> </ul> </li> <li>- DPCH frame offset</li>   <li>- Secondary CPICH info</li> <li>- Secondary scrambling code</li> <li>- channelisation code</li> <li>- DL channelisation code</li> <li>- Secondary scrambling code</li> <li>- Spreading factor</li>   <li>- Code number</li> <li>- Scrambling code change</li> <li>- TPC combination index</li> <li>- SS DT Cell Identity</li> <li>- Closed loop timing adjustment mode</li> <li>- SCCPCH information for FACH</li> </ul>	A4	<p>FDD</p> <p>Ref. to the Default setting in TS34.108 clause 6.1 (FDD)</p> <p>Not Present</p> <p>Not Present</p> <p>FALSE</p> <p>Primary CPICH may be used</p> <p>Set to value : Default DPCH Offset Value mod 38400</p> <p>Not Present</p> <p>3 Reference to TS34.108 clause 6.10 Parameter Set</p> <p>0 No change</p> <p>0 Not Present</p> <p>Not Present</p> <p>Not Present</p>	REL-5
<ul style="list-style-type: none"> <li>- Downlink information for each radio link</li> <li>- Choice mode</li> <li>- Primary CPICH info</li> <li>- Primary scrambling code</li>   <li>- PDSCH with SHO DCH info</li> <li>- PDSCH code mapping</li> <li>- Serving HS-DSCH radio link indicator</li> <li>- Downlink DPCH info for each RL</li> <li>- SCCPCH information for FACH</li> </ul>	A5, A7, A8	<p>FDD</p> <p>Ref. to the Default setting in TS34.108 clause 6.1 (FDD)</p> <p>Not Present</p> <p>Not Present</p> <p>FALSE</p> <p>Not present</p> <p>Not Present</p>	REL-5
<ul style="list-style-type: none"> <li>- Downlink information for each radio link</li> </ul>	A6, <a href="#">A10</a>	Not Present	

Condition	Explanation	Version
A1	This IE need for "Non speech in CS"	
A2	This IE need for "Speech in CS"	
A3	This IE need for "Packet to CELL_DCH from CELL_DCH in PS"	
A4	This IE need for "Packet to CELL_DCH from CELL_FACH in PS"	
A5	This IE need for "Packet to CELL_FACH from CELL_DCH in PS"	
A6	This IE need for "Packet to CELL_FACH from CELL_FACH in PS"	
A7	This IE need for "Non speech to CELL_FACH from CELL_DCH in CS"	
A8	This IE need for "Speech to CELL_FACH from CELL_DCH in CS"	
A9	This IE is needed <a href="#">for "Packet to CELL_DCH / HS-DSCH using three multiplexing optionsî, or when not stated otherwise.</a> for "Packet to CELL_DCH from CELL_DCH / HS-DSCH in PS"	REL-5
<a href="#">A10</a>	<a href="#">This IE is needed for îPacket to CELL_DCH / HS-DSCH using one multiplexing optionî, or when not stated otherwise, for îPacket to CELL_FACH from CELL_DCH / HS-DSCH in PSî</a>	<a href="#">REL-5</a>

## CHANGE REQUEST

⌘ **34.108 CR 379** ⌘ rev **-** ⌘ Current version: **5.2.0** ⌘

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

<b>Title:</b>	Update of Reference Radio Bearer for Conversational / speech / UL:5.9 DL:5.9 kbps / CS RAB for DL SF=256		
<b>Source:</b>	Cingular Wireless, Ericsson, Lucent, Siemens		
<b>Work item code:</b>	TEI	<b>Date:</b>	3/11/2004
<b>Category:</b>	<b>F</b>	<b>Release:</b>	Rel-5
	Use <u>one</u> of the following categories: <b>F</b> (correction) <b>A</b> (corresponds to a correction in an earlier release) <b>B</b> (addition of feature), <b>C</b> (functional modification of feature) <b>D</b> (editorial modification) Detailed explanations of the above categories can be found in 3GPP <a href="#">TR 21.900</a> .		Use <u>one</u> 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)

<b>Reason for change:</b>	Enhancements to the UMTS system capacity provided by the operation of the 5.9 codec require to be able to operate on more than 128 codes on the DL. This is not possible when operating a speech 5.9 RB with DL SF=128. As a result, the system would be artificially code limited. Using a SF of 256 in the DL remove that potential code limitation. Currently there is no test coverage of speech 5.9 RB with DL SF=128.
<b>Summary of change:</b>	Update of physical radio bearer parameter in section 6.10.2.4.1.9.2.2 for SF=256
<b>Consequences if not approved:</b>	No test coverage of speech 5.9 RB with DL SF=256

<b>Clauses affected:</b>	6.10.2.2 and 6.10.2.4.1.6						
<b>Other specs affected:</b>	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> </table> Other core specifications	Y	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
Y	N						
<input type="checkbox"/>	<input checked="" type="checkbox"/>						
	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">X</td> </tr> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> </table> Test specifications	X	<input checked="" type="checkbox"/>				
X							
<input checked="" type="checkbox"/>							
	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">X</td> </tr> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> </table> O&M Specifications	X	<input checked="" type="checkbox"/>				
X							
<input checked="" type="checkbox"/>							
<b>Other comments:</b>	Affects Rel 99, Rel4 and Rel5 UEs.						

**How to create CRs using this form:**

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

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



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

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

6.10.2.4.1.9.1 Uplink

6.10.2.4.1.9.1.1 Transport channel parameters

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

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

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

See clause 6.10.2.4.1.2.1.1.1.

6.10.2.4.1.9.1.1.3 TFCS

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

6.10.2.4.1.9.1.2 Physical channel parameters

DPCH Uplink	Min spreading factor	64
	Max number of DPDCH data bits/radio frame	600
	Puncturing Limit	0.96

## 6.10.2.4.1.9.2 Downlink

## 6.10.2.4.1.9.2.1 Transport channel parameters

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

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

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

See clause 6.10.2.4.1.2.2.1.1

## 6.10.2.4.1.9.2.1.3 TFCS

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

## 6.10.2.4.1.9.2.2 Physical channel parameters

DPCH Downlink	DTX position	Fixed
DPCCH	Spreading factor	<del>256</del> 128
	Number of bits/slot	0
		2
		4
DPDCH	Number of data bits/slot	<del>14</del> 34
	Number of data bits/frame	<del>210</del> 510

## CHANGE REQUEST

34.108 CR 380 rev - Current version: 5.2.0

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

<b>Title:</b>	CR to 34.108: Correction to the maximum bit rate for HS-PDSCH		
<b>Source:</b>	Nortel Networks		
<b>Work item code:</b>	TEI	<b>Date:</b>	15/09/2004
<b>Category:</b>	<b>F</b>	<b>Release:</b>	Rel-5
Use <u>one</u> of the following categories: <b>F</b> (correction) <b>A</b> (corresponds to a correction in an earlier release) <b>B</b> (addition of feature), <b>C</b> (functional modification of feature) <b>D</b> (editorial modification) Detailed explanations of the above categories can be found in 3GPP <a href="#">TR 21.900</a> .		Use <u>one</u> of the following releases: 2 (GSM Phase 2) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) Rel-4 (Release 4) Rel-5 (Release 5) Rel-6 (Release 6)	

**Reason for change:** The maximum bit rate indicated in clause 6.10.2.4.5.1.2.2.21 (for HS-PDSCH) was calculated using the old maximum Transport Block size values. June 2003 CR068 (on TS25.306) modified the max TB size per UE category to align it to the values that can be signalled according to TS25.321, thus changing the maximum HS-PDSCH bit rate.

For information:

UE category	Old max TB size	New max TB size (from June 2003)
Category 1	7300	7298
Category 2	7300	7298
Category 3	7300	7298
Category 4	7300	7298
Category 5	7300	7298
Category 6	7300	7298
Category 7	14600	14441
Category 8	14600	14441
Category 9	20432	20251
Category 10	28776	27952
Category 11	3650	3630
Category 12	3650	3630

**Summary of change:** Maximum bit rate per UE category for HS-PDSCH is corrected.

**Consequences if** Inconsistency between test specs and core specs.

**not approved:**

<b>Clauses affected:</b>	⌘	6.10											
<b>Other specs affected:</b>		<table border="1"><tr><td>Y</td><td>N</td></tr><tr><td>⌘</td><td>X</td></tr><tr><td></td><td>X</td></tr><tr><td></td><td></td><td>X</td></tr></table>	Y	N	⌘	X		X			X	Other core specifications	⌘
	Y	N											
	⌘	X											
	X												
		X											
		X	Test specifications										
		X	O&M Specifications										
<b>Other comments:</b>	⌘	Applicable from Rel-5											

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

6.10.2.4.5 Combinations on DPCH and HS-PDSCH

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

6.10.2.4.5.1.1 Uplink

See clause 6.10.2.4.1.26.1.

6.10.2.4.5.1.2 Downlink

6.10.2.4.5.1.2.1 Transport channel parameters

6.10.2.4.5.1.2.1.1 Transport channel parameters for HS-DSCH

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

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

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

6.10.2.4.5.1.2.1.2 Transport channel parameters for DCH

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

See clause 6.10.2.4.1.2.2.1.1.

6.10.2.4.5.1.2.1.2.2 TFCS

See clause 6.10.2.4.1.2.2.1.2.

6.10.2.4.5.1.2.2 Physical channel parameters

6.10.2.4.5.1.2.2.1 Physical channel parameters on DPCH

See clause 6.10.2.4.1.2.2.2.

6.10.2.4.5.1.2.2.1 Physical channel parameters on HS-PDSCH

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

UE HS-DSCH Physical Layer category 1:

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

UE HS-DSCH Physical Layer category 2:

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

UE HS-DSCH Physical Layer category 3:

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

UE HS-DSCH Physical Layer category 4:

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

UE HS-DSCH Physical Layer category 5:

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

UE HS-DSCH Physical Layer category 6:

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

UE HS-DSCH Physical Layer category 7:

HS-PDSCH	Number of processes	6, (alt. 8)
	Process memory size	Split equally among all processes
	Max Data Rate	<del>7.37.2</del> Mbps, (alt. 7.2Mbps)

UE HS-DSCH Physical Layer category 8:

HS-PDSCH	Number of processes	6, (alt. 8)
	Process memory size	Split equally among all processes
	Max Data Rate	<del>7.37.2</del> Mbps, (alt. <del>7.37.2</del> Mbps)

UE HS-DSCH Physical Layer category 9:

HS-PDSCH	Number of processes	6, (alt. 8)
	Process memory size	Split equally among all processes
	Max Data Rate	<del>10.210.1</del> Mbps, (alt. <del>10.210.1</del> Mbps)

UE HS-DSCH Physical Layer category 10:

HS-PDSCH	Number of processes	6, (alt. 8)
	Process memory size	Split equally among all processes
	Max Data Rate	<del>14.4</del> 14.0Mbps, (alt. 10.8Mbps)

UE HS-DSCH Physical Layer category 11:

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

UE HS-DSCH Physical Layer category 12:

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

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

6.10.2.4.5.2.1 Uplink

See clause 6.10.2.4.1.34.1.

6.10.2.4.5.2.2 Downlink

6.10.2.4.5.2.2.1 Transport channel parameters

6.10.2.4.5.2.2.1.1 Transport channel parameters for HS-DSCH

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

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

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

6.10.2.4.5.2.2.1.2 Transport channel parameters for DCH

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

See clause 6.10.2.4.1.2.2.1.1.



6.10.2.4.5.2.2.1.2.2 TFCS

See clause 6.10.2.4.1.2.2.1.2.

6.10.2.4.5.2.2.2 Physical channel parameters

6.10.2.4.5.2.2.2.1 Physical channel parameters on DPCH

See clause 6.10.2.4.1.2.2.2.

6.10.2.4.5.2.2.2.2 Physical channel parameters on HS-PDSCH

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

UE HS-DSCH Physical Layer category 1:

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

UE HS-DSCH Physical Layer category 2:

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

UE HS-DSCH Physical Layer category 3:

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

UE HS-DSCH Physical Layer category 4:

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

UE HS-DSCH Physical Layer category 5:

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

UE HS-DSCH Physical Layer category 6:

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

UE HS-DSCH Physical Layer category 7:

HS-PDSCH	Number of processes	6, (alt. 8)
	Process memory size	Split equally among all processes
	Max Data Rate	7.23Mbps, (alt. 7.2Mbps)

UE HS-DSCH Physical Layer category 8:

HS-PDSCH	Number of processes	6, (alt. 8)
	Process memory size	Split equally among all processes
	Max Data Rate	7.23Mbps, (alt. 7.23Mbps)

UE HS-DSCH Physical Layer category 9:

HS-PDSCH	Number of processes	6, (alt. 8)
	Process memory size	Split equally among all processes
	Max Data Rate	10.12Mbps, (alt. 10.12Mbps)

UE HS-DSCH Physical Layer category 10:

HS-PDSCH	Number of processes	6, (alt. 8)
	Process memory size	Split equally among all processes
	Max Data Rate	14.044Mbps, (alt. 10.8Mbps)

UE HS-DSCH Physical Layer category 11:

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

UE HS-DSCH Physical Layer category 12:

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

## CHANGE REQUEST

**34.108 CR 381** rev - Current version: **5.2.0**

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

<b>Title:</b>	Alignment of Prose to TTCN for RRC Connection Release (Cell DCH state) and RRC Connection Setup Message (Cell FACH State).	
<b>Source:</b>	Anite	
<b>Work item code:</b>	TEI	<b>Date:</b> 03/11/2004
<b>Category:</b>	<b>F</b>	<b>Release:</b> Rel-5
	<p>Use <u>one</u> of the following categories:</p> <p><b>F</b> (correction)</p> <p><b>A</b> (corresponds to a correction in an earlier release)</p> <p><b>B</b> (addition of feature),</p> <p><b>C</b> (functional modification of feature)</p> <p><b>D</b> (editorial modification)</p> <p>Detailed explanations of the above categories can be found in 3GPP <a href="#">TR 21.900</a>.</p>	<p>Use <u>one</u> of the following releases:</p> <p>2 (GSM Phase 2)</p> <p>R96 (Release 1996)</p> <p>R97 (Release 1997)</p> <p>R98 (Release 1998)</p> <p>R99 (Release 1999)</p> <p>Rel-4 (Release 4)</p> <p>Rel-5 (Release 5)</p> <p>Rel-6 (Release 6)</p>

<b>Reason for change:</b>	<p>Revision of T1-041585. Added explanation of 'Deprecated alternative value' in clause 9.1.1. Declared changes 1) and 2a) below to be Deprecated alternative values.</p> <ol style="list-style-type: none"> <li>1) TS 34.108 section 9.1.1 specifies that the default content for the RRC Connection Release message for the Cell DCH state should have N308 set to 2.  However in the Approved TTCN it is set to 1.</li> <li>2) There is inconsistency between the approved TTCN and TS 34.108 section 9.1.1 concerning the default content for the RRC Connection Setup message for the Cell FACH state as detailed below:             <ol style="list-style-type: none"> <li>a) RB Identity IE should be 'Not Present', however, in the TTCN RB Identity is sent for Signalling RB information to setup in RRC Connection Setup for SRB 1 to 4</li> <li>b) For SRB1 the UM RB transmissionRLC_Discard should be Not Present, however, in the TTCN UM RB transmissionRLC_Discard is set to timerBasedNoExplicit : dt50.</li> <li>c) RLC size should be of type OctetMode, however in the TTCN it is set as BitMode.</li> <li>d) 'Number of TBs and TTI List' IE should be a list with Single List Entry. In the TTCN two transport format blocks are transmitted.</li> <li>e) Rate Matching Attribute should be set to 160, in the TTCN it is set</li> </ol> </li> </ol>
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	as 170.
<b>Summary of change:</b> ☹	<ol style="list-style-type: none"> <li>1) In the Default content for RRC Connection Release message for Cell DCH state changed value for N308 from 2 to 1.</li> <li>2) In the Default content for RRC Connection Setup message for Cell FACH state the following changes are made: <ol style="list-style-type: none"> <li>a) RB Identity for SRB 1 to 4 is added.</li> <li>b) UM RB transmissionRLC_Discard is set to timerBasedNoExplicit : dt50 for SRB 1</li> <li>c) RLC size mode changed from Octet to Bit Mode.</li> <li>d) iNumber of TBs and TTI Listi changed to a list with two entries.</li> <li>e) Rate Matching Attribute set to 170.</li> </ol> </li> </ol>
<b>Consequences if not approved:</b>	☹ Inconsistency will remain between TTCN implementation & Prose.

<b>Clauses affected:</b>	☹ Section 9.1.1								
<b>Other specs affected:</b>	<table border="1"> <thead> <tr> <th>Y</th> <th>N</th> </tr> </thead> <tbody> <tr> <td>☹</td> <td>X</td> </tr> <tr> <td></td> <td>X</td> </tr> <tr> <td></td> <td>X</td> </tr> </tbody> </table> Other core specifications ☹ Test specifications O&M Specifications	Y	N	☹	X		X		X
Y	N								
☹	X								
	X								
	X								
<b>Other comments:</b>	☹ Affects Rel-5, Rel-4 and R99 UEs.								

**How to create CRs using this form:**

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

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

## 9 Default Message Contents

### 9.1 Default Message Contents for Signalling

#### 9.1.1 Default RRC Message Contents (FDD)

This clause contains the default values of common messages, which unless indicated otherwise in specific clauses of TS 34.123-1, shall be transmitted and checked by the system simulator.

In order to permit stability in test implementations certain alternative values, although less desirable, shall be permitted for a limited transitional period. Such values are indicated below, and in TS 34.123-1, by the term "Deprecated alternative value". Normal document modification procedures will be used to remove, on a case by case basis, the permission to use such alternative values.

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

The necessary L3 messages are listed in alphabetic order, with the exception of the SYSTEM INFORMATION messages, where it is the information elements which are listed in alphabetic order (this is because some information elements occur in several SYSTEM INFORMATION types).

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Contents of RRC CONNECTION RELEASE message: UM

Information Element	Value/remark	Version
Message Type U-RNTI	This IE is set to the following value when the message is transmitted on the CCCH. When transmitted on DCCH, this is absent. 0000 0000 0001B	R99, REL-4
- SRNC identity - S-RNTI	0000 0000 0000 0000 0001B	
CHOICE identity type	This IE is set to the following value when the message is transmitted on the CCCH. When transmitted on DCCH, this is absent.	REL-5
- U-RNTI - SRNC identity - S-RNTI	0000 0000 0001B 0000 0000 0000 0000 0001B	
- Group identity - Group release information	[FFS] [FFS]	
RRC transaction identifier	Arbitrarily selects an integer between 0 and 3	
Integrity check info	This IE is present when this message is transmitted on downlink DCCH. Else, this IE and the sub-IEs are omitted.	
- Message authentication code	SS calculates the value of MAC-I for this message and writes to this IE. The first/ leftmost bit of the bit string contains the most significant bit of the MAC-I.	
- RRC Message sequence number	SS provides the value of this IE, from its internal counter.	
N308	2 (for CELL_DCH state). <u>(Deprecated alternative value i11)</u> .	
Release cause	Not Present (for UE in other connected mode states).	
Rplmn information	Normal event Not Present	

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Contents of RRC CONNECTION SETUP message: UM (Transition to CELL\_FACH)

Information Element	Value/remark	Version
Message Type		
Initial UE identity	Select the same identity as in the IE "Initial UE Identity" in received RRC CONNECTION REQUEST" message	
RRC transaction identifier	Arbitrarily selects an integer between 0 and 3	
Activation time	Not Present (Now)	
New U-RNTI		
- SRNC identity	0000 0000 0001B	
- S-RNTI	0000 0000 0000 0000 0001B	
New C-RNTI	0000 0000 0000 0001B	
RRC state indicator	CELL_FACH	
UTRAN DRX cycle length coefficient	9	
Capability update requirement		
- UE radio access FDD capability update requirement	TRUE	
- UE radio access TDD capability update requirement	FALSE	
- System specific capability update requirement list	GSM	
CHOICE <i>specification mode</i>	Complete specification	REL-5
- Complete specification		REL-5
- Signalling RB information to setup	(UM DCCH for RRC)	
- RB identity	Not present ( <a href="#">Deprecated alternative value i1i</a> )	
- CHOICE RLC info type	RLC info	
- CHOICE Uplink RLC mode	UM RLC	
- Transmission RLC discard	<del>Not present</del> <a href="#">timerBasedNoExplicit : dt50</a>	
- SDU discard mode	Not present	
- CHOICE Downlink RLC mode	UM RLC	
- RB mapping info		
- Information for each multiplexing option	2 RBMuxOptions	
- RLC logical channel mapping indicator	Not Present	
- Number of uplink RLC logical channels	1	
- Uplink transport channel type	DCH	
- UL Transport channel identity	5	
- Logical channel identity	1	
- CHOICE RLC size list	Configured	
- MAC logical channel priority	1	
- Downlink RLC logical channel info		
- Number of downlink RLC logical channels	1	
- Downlink transport channel type	DCH	
- DL DCH Transport channel identity	10	
- DL DSCH Transport channel identity	Not Present	
- Logical channel identity	1	
- RLC logical channel mapping indicator	Not Present	
- Number of uplink RLC logical channels	1	
- Uplink transport channel type	RACH	
- UL Transport channel identity	Not Present	
- Logical channel identity	1	
- CHOICE RLC size list	Explicit list	
- RLC size index	According to TS34.108 clause 6.10.2.4.4.1	
- MAC logical channel priority	1	
- Downlink RLC logical channel info		
- Number of downlink RLC logical channels	1	
- Downlink transport channel type	FACH	
- DL DCH Transport channel identity	Not Present	
- DL DSCH Transport channel identity	Not Present	
- Logical channel identity	1	
- Signalling RB information to setup	(AM DCCH for RRC)	
- RB identity	Not Present ( <a href="#">Deprecated alternative value i2i</a> )	
- CHOICE RLC info type	RLC info	
- CHOICE Uplink RLC mode	AM RLC	
- Transmission RLC discard		
- SDU discard mode	No Discard	
- MAX_DAT	15	
- Transmission window size	32	
- Timer_RST	500	
- Max_RST	1	

Information Element	Value/remark	Version
- Polling info		
- Timer_poll_prohibit	200	
- Timer_poll	200	
- Poll_PDU	Not Present	
- Poll_SDU	1	
- Last transmission PDU poll	TRUE	
- Last retransmission PDU poll	TRUE	
- Poll_Windows	99	
- Timer_poll_periodic	Not Present	
- CHOICE Downlink RLC mode	AM RLC	
- In-sequence delivery	TRUE	
- Receiving window size	32	
- Downlink RLC status info		
- Timer_status_prohibit	200	
- Timer_EPC	Not Present	
- Missing PDU indicator	TRUE	
- Timer_STATUS_periodic	Not Present	
- RB mapping info		
- Information for each multiplexing option	2 RBMuxOptions	
- RLC logical channel mapping indicator	Not Present	
- Number of uplink RLC logical channels	1	
- Uplink transport channel type	DCH	
- UL Transport channel identity	5	
- Logical channel identity	2	
- CHOICE RLC size list	Configured	
- MAC logical channel priority	2	
- Downlink RLC logical channel info		
- Number of downlink RLC logical channels	1	
- Downlink transport channel type	DCH	
- DL DCH Transport channel identity	10	
- DL DSCH Transport channel identity	Not Present	
- Logical channel identity	2	
- RLC logical channel mapping indicator	Not Present	
- Number of uplink RLC logical channels	1	
- Uplink transport channel type	RACH	
- UL Transport channel identity	Not Present	
- Logical channel identity	2	
- CHOICE RLC size list	Explicit list	
- RLC size index	According to TS34.108 clause 6.10.2.4.4.1	
- MAC logical channel priority	2	
- Downlink RLC logical channel info		
- Number of downlink RLC logical channels	1	
- Downlink transport channel type	FACH	
- DL DCH Transport channel identity	Not Present	
- DL DSCH Transport channel identity	Not Present	
- Logical channel identity	2	
Signalling RB information to setup	(AM DCCH for NAS_DT High priority)	
- RB identity	Not present <a href="#">(Deprecated alternative value i3f)</a>	
- CHOICE RLC info type	RLC info	
- CHOICE Uplink RLC mode	AM RLC	
- Transmission RLC discard		
- SDU discard mode	No Discard	
- MAX_DAT	15	
- Transmission window size	32	
- Timer_RST	500	
- Max_RST	1	
- Polling info		
- Timer_poll_prohibit	200	
- Timer_poll	200	
- Poll_PDU	Not Present	
- Poll_SDU	1	
- Last transmission PDU poll	TRUE	
- Last retransmission PDU poll	TRUE	
- Poll_Windows	99	
- Timer_poll_periodic	Not Present	
- CHOICE Downlink RLC mode	AM RLC	
- In-sequence delivery	TRUE	

Information Element	Value/remark	Version
- Receiving window size	32	
- Downlink RLC status info		
- Timer_status_prohibit	200	
- Timer_EPC	Not Present	
- Missing PDU indicator	TRUE	
- Timer_STATUS_periodic	Not Present	
- RB mapping info		
- Information for each multiplexing option	2 RBMuxOptions	
- RLC logical channel mapping indicator	Not Present	
- Number of uplink RLC logical channels	1	
- Uplink transport channel type	DCH	
- UL Transport channel identity	5	
- Logical channel identity	3	
- CHOICE RLC size list	Configured	
- MAC logical channel priority	3	
- Downlink RLC logical channel info		
- Number of downlink RLC logical channels	1	
- Downlink transport channel type	DCH	
- DL DCH Transport channel identity	10	
- DL DSCH Transport channel identity	Not Present	
- Logical channel identity	3	
- RLC logical channel mapping indicator	Not Present	
- Number of uplink RLC logical channels	1	
- Uplink transport channel type	RACH	
- UL DCH Transport channel identity	Not Present	
- Logical channel identity	3	
- CHOICE RLC size list	Explicit list	
- RLC size index	According to TS34.108 clause 6.10.2.4.4.1	
- MAC logical channel priority	3	
- Downlink RLC logical channel info		
- Number of downlink RLC logical channels	1	
- Downlink transport channel type	FACH	
- DL DCH Transport channel identity	Not Present	
- DL DSCH Transport channel identity	Not Present	
- Logical channel identity	3	
- Signalling RB information to setup	(AM DCCH for NAS_DT Low priority)	
- RB identity	Not Present <a href="#">(Deprecated alternative value i4f)</a>	
- CHOICE RLC info type	RLC info	
- CHOICE Uplink RLC mode	AM RLC	
- Transmission RLC discard		
- SDU discard mode	No Discard	
- MAX_DAT	15	
- Transmission window size	32	
- Timer_RST	500	
- Max_RST	1	
- Polling info		
- Timer_poll_prohibit	200	
- Timer_poll	200	
- Poll_PDU	Not Present	
- Poll_SDU	1	
- Last transmission PDU poll	TRUE	
- Last retransmission PDU poll	TRUE	
- Poll_Windows	99	
- Timer_poll_periodic	Not Present	
- CHOICE Downlink RLC mode	AM RLC	
- In-sequence delivery	TRUE	
- Receiving window size	32	
- Downlink RLC status info		
- Timer_status_prohibit	200	
- Timer_EPC	Not Present	
- Missing PDU indicator	TRUE	
- Timer_STATUS_periodic	Not Present	
- RB mapping info		
- Information for each multiplexing option	2 RBMuxOptions	
- RLC logical channel mapping indicator	Not Present	
- Number of uplink RLC logical channels	1	
- Uplink transport channel type	DCH	



Information Element	Value/remark	Version
- UL Transport channel identity	5	
- Logical channel identity	4	
- CHOICE RLC size list	Configured	
- MAC logical channel priority	4	
- Downlink RLC logical channel info		
- Number of downlink RLC logical channels	1	
- Downlink transport channel type	DCH	
- DL DCH Transport channel identity	10	
- DL DSCH Transport channel identity	Not Present	
- Logical channel identity	4	
- RLC logical channel mapping indicator	Not Present	
- Number of uplink RLC logical channels	1	
- Uplink transport channel type	RACH	
- UL Transport channel identity	Not Present	
- Logical channel identity	4	
- CHOICE RLC size list	Explicit list	
- RLC size index	According to TS34.108 clause 6.10.2.4.4.1	
- MAC logical channel priority	4	
- Downlink RLC logical channel info		
- Number of downlink RLC logical channels	1	
- Downlink transport channel type	FACH	
- DL DCH Transport channel identity	Not Present	
- DL DSCH Transport channel identity	Not Present	
- Logical channel identity	4	
UL Transport channel information for all transport channels		
- PRACH TFCS	Not Present	
- CHOICE Mode	FDD	
- TFC subset	Not Present	
- UL DCH TFCS		
- CHOICE TFCI signalling	Normal	
- TFCI Field 1 information		
- CHOICE TFCS representation	Complete	
- TFCS complete reconfigure		
- CHOICE CTFC Size	2bit CTFC	
- CTFC information	This IE is repeated for TFC numbers according to TS34.108 clause 6.10.2.4.1.3 (standalone 13.6 kbps signalling radio bearer)	
- CTFC	According to TS34.108 clause 6.10.2.4.1.3 (standalone 13.6 kbps signalling radio bearer)	
- Power offset information		
- CHOICE Gain Factors	Computed Gain Factors (The last TFC is set to Signalled Gain Factors)	
- Gain factor flc	11 (below 64 kbps) 9 (higher than 64 kbps) (Not Present if the above is set to Computed Gain Factors)	
- Gain factor fld	15 (Not Present if the above is set to Computed Gain Factors)	
- Reference TFC ID	0	
- CHOICE mode	FDD	
- Power offset Pp-m	Not Present	
Added or Reconfigured TrCH information list	TS 25.331 specifies that "Although this IE is not required when the IE "RRC state indicator" is set to "CELL_FACH", need is MP to align with ASN.1"	
- Added or Reconfigured UL TrCH information		
- Uplink transport channel type	DCH	
- UL Transport channel identity	5	
- TFS		

Information Element	Value/remark	Version
- CHOICE Transport channel type	Dedicated transport channels	
- Dynamic Transport format information		
- RLC Size	<del>Value 16 results in an RLC size of 144 bits;</del> <del>OctetModeType1 ((8*sizeType1)+16).</del> <del>bitMode sizeType2 {part1 2, part2 OMIT}</del> <del>This results in an RLC size of 144 bits</del>	
- Number of TBs and TTI List	<del>List with single entry</del> List with two entry	
- Transmission Time Interval	Not Present	
- Number of Transport blocks	0	
- <u>Transmission Time Interval</u>	<u>Not Present</u>	
- <u>Number of Transport blocks</u>	<u>1</u>	
- CHOICE Logical Channel List	ALL	
- Semi-static Transport Format information		
- Transmission time interval	40 ms	
- Type of channel coding	Convolutional	
- Coding Rate	1/3	
- Rate matching attribute	<del>160-170</del>	
- CRC size	16	
DL Transport channel information common for all transport channel		
- SCCPCH TFCS	Not Present	
- CHOICE mode	FDD	
- CHOICE DL parameters	Same as UL	
Added or Reconfigured TrCH information list	TS 25.331 specifies that "Although this IE is not required when the IE "RRC state indicator" is set to "CELL_FACH", need is MP to align with ASN.1"	
- Added or Reconfigured DL TrCH information		
- Downlink transport channel type	DCH	
- DL Transport channel identity	10	
- CHOICE DL parameters	Same as UL	
- Uplink Transport channel type	DCH	
- UL TrCH identity	5	
- DCH quality target	Not Present	
Frequency info	Not present	
Maximum allowed UL TX power	Not present	
CHOICE channel requirement	Not Present	
Downlink information common for all radio links	Not Present	
Downlink information for each radio link list	Not present	

<<End OF Modified Section>>