

**Source: TSG-RAN WG2.**

**Title: CRs to 25.993 (R'99 affected, Rel-6 version)**

The following CRs are in RP-040475:

<b>Spec</b>	<b>CR</b>	<b>Rev</b>	<b>Phase</b>	<b>Subject</b>	<b>Cat</b>	<b>Version-Current</b>	<b>Version-New</b>	<b>Doc-2nd-Level</b>	<b>Workitem</b>
25.993	033	-	Rel-6	Addition RAB combinations for UL>DL PS rates	F	6.7.0	6.8.0	R2-042267	TEI6
25.993	034	-	Rel-6	Radio bearer combination for PS streaming in section 7.1.74	F	6.7.0	6.8.0	R2-042575	TEI6
25.993	035	1	Rel-6	Correct TFCS used in 128DL RAB	F	6.7.0	6.8.0	R2-042682	TEI6

## CHANGE REQUEST

# 25.993 CR 033 # rev - # Current version: 6.7.0 #

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 RAB combinations for UL>DL PS rates		
<b>Source:</b>	# RAN WG2		
<b>Work item code:</b>	# TEI6	<b>Date:</b>	# 07/10/2004
<b>Category:</b>	# <b>F</b>	<b>Release:</b>	# Rel-6
	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>	# Current RAB combinations do not include UL at 128 or 384 for a DL 64k		
<b>Summary of change:</b>	# Add 3 additional RAB combos: 1. Interactive or background / UL: 128 DL:64kbps / PS RAB + UL: 3.4 DL 3.4 kbps SRBs for DCCH 2. Interactive or background / UL: 384 DL:64kbps / 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:128 DL:64 kbps / PS RAB + UL:3.4 DL:3.4 kbps SRBs for DCCH.		
<b>Consequences if not approved:</b>	# High UL rates for 64k will not be considered by terminal vendors and may curtail services that operators wish to support.		

<b>Clauses affected:</b>	# 5, 6, 7.1										
<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>	#										

**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.

Clause 5 List of RABS and SRBs.

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

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

56	Conversational	Speech	UL:(12.65 8.85 6.6) DL:(12.65 8.85 6.6)	CS
57	Conversational	Unknown	UL:42.8 DL:42.8	PS
58	<a href="#">Interactive or Background</a>	<a href="#">N/A</a>	<a href="#">UL:128 DL:64</a>	<a href="#">PS</a>
59	<a href="#">Interactive or Background</a>	<a href="#">N/A</a>	<a href="#">UL:384 DL:64</a>	<a href="#">PS</a>

...unchanged text.

## 6 Combinations of RABs

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

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

List of RAB combinations:

Combinations on DPCH

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

- 16) Conversational / unknown / UL:64 DL:64 kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 17) Conversational / unknown / UL:32 DL:32 kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 18) Streaming / unknown / UL:14.4 DL:14.4 kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 19) Streaming / unknown / UL:28.8 DL:28.8 kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 20) Streaming / unknown / UL:57.6 DL:57.6 kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 21) Streaming / unknown / UL:0 DL:64 kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 22) Streaming / unknown / UL:64 DL:0 kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 23) Interactive or background / UL:32 DL:8 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 24) Interactive or background / UL:8 DL:8 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 25) Interactive or background / UL:16 DL:16 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH. (FDD)
- 26) Interactive or background / UL:32 DL:32 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH. (FDD)
- 27) Interactive or background / UL:32 DL:32 kbps / PS RAB (20 ms TTI, RLC PDU size 320, alt. 640)  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH. (FDD)
- 28) Interactive or background / UL:64 DL:8 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 29) Interactive or background / UL:32 DL: 64 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 30) Interactive or background / UL:64 DL: 64 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 31) Interactive or background / UL:64 DL:128 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 32) Interactive or background / UL:128 DL:128 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 33) Interactive or background / UL:64 DL:144 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 34) Interactive or background / UL:144 DL:144 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 35) Interactive or background / UL:64 DL:256 kbps / PS RAB  
+ UL:3.4 DL: 3.4 kbps SRBs for DCCH.
- 36) Interactive or background / UL:64 DL:384 kbps / PS RAB  
+ UL:3.4 DL: 3.4 kbps SRBs for DCCH.
- 37) Interactive or background / UL:128 DL:384 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

- 38) Interactive or background / UL:384 DL:384 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 39) Interactive or background / UL:64 DL:2048 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 40) Interactive or background / UL:128 DL:2048 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 41) Interactive or background / UL:384 DL:2048 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 42) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ Interactive or background / UL:32 DL:8 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 43) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ Interactive or background / UL:0 DL:0 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH (FDD)
- 44) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ Interactive or background / UL:8 DL:8 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH (FDD)
- 45) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ Interactive or background / UL:32 DL:32 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH (FDD)
- 45a) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ Interactive or background / UL:32 DL:32 kbps / PS RAB (20ms TTI)  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH (FDD)
- 46) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ Interactive or background / UL:64 DL:64 kbps / PS RAB  
+ Interactive or background / UL:64 DL:64 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH (FDD)
- 47) Conversational / speech / UL:(12.2 7.95 5.9 4.75) DL:(12.2 7.95 5.9 4.75) kbps / CS RAB  
+ Interactive or background / UL:0 DL:0 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH. (FDD)
- 48) Conversational / speech / UL:(12.2 7.95 5.9 4.75) DL:(12.2 7.95 5.9 4.75) kbps / CS RAB  
+ Interactive or background / UL:8 DL:8 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH. (FDD)
- 49) Conversational / speech / UL:(12.2 7.95 5.9 4.75) DL:(12.2 7.95 5.9 4.75) kbps / CS RAB  
+ Interactive or background / UL:16 DL:16 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH. (FDD)
- 50) Conversational / speech / UL:(12.2 7.95 5.9 4.75) DL:(12.2 7.95 5.9 4.75) kbps / CS RAB  
+ Interactive or background / UL:32 DL:32 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH. (FDD)
- 51) Conversational / speech / UL:(12.2 7.95 5.9 4.75) DL:(12.2 7.95 5.9 4.75) kbps / CS RAB  
+ Interactive or background / UL:64 DL:64 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH. (FDD)
- 52) Conversational / speech / UL:(12.2 7.95 5.9 4.75) DL:(12.2 7.95 5.9 4.75) kbps / CS RAB  
+ Interactive or background / UL:64 DL:128 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH. (FDD)
- 53) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ Interactive or background / UL:32 DL:64 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.

- 54) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ Interactive or background / UL:64 DL:64 kbps / PS RAB  
+ UL:3.4 DL: 3.4 kbps SRBs for DCCH.
- 55) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ Interactive or background / UL:64 DL:128 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 56) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ Interactive or background / UL:64 DL:256 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 57) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ Interactive or background / UL:64 DL:384 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 58) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ Interactive or background / UL:64 DL:2048 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 59) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ Interactive or background / UL:128 DL:2048 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 60) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ Streaming / unknown / UL:57.6 DL:57.6 kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 61) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ Streaming / unknown / UL:0 DL:64 kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 62) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ Conversational / unknown / UL:64 DL:64 kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 63) Conversational / speech / UL:(12.2 7.95 5.9 4.75) DL:(12.2 7.95 5.9 4.75) kbps / CS RAB  
+ Conversational / unknown / UL:64 DL:64 kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH. (FDD)
- 64) Conversational / unknown / UL:64 DL:64 kbps / CS RAB  
+ Conversational / unknown / UL:64 DL:64 kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 65) Conversational / unknown / UL:64 DL:64 kbps / CS RAB  
+ Interactive or background / UL:64 DL:64 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 66) Conversational / unknown / UL:64 DL:64 kbps / CS RAB  
+ Interactive or Background / UL:8 DL:8 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH. (FDD)
- 67) Conversational / unknown / UL:64 DL:64 kbps / CS RAB  
+ Interactive or Background / UL:16 DL:64 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH. (FDD)
- 68) Conversational / unknown / UL:64 DL:64 kbps / CS RAB  
+ Interactive or background / UL:64 DL:128 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 69) Conversational / unknown / UL:64 DL:64 kbps / CS RAB  
+ Interactive or background / UL:128 DL:128 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH.



- 70) Interactive or /background / UL:64 kbps DL:128 kbps / PS RAB  
 + Streaming / unknown / UL:0 DL:64 kbps / CS RAB  
 + UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 71) Interactive or background / UL:8 DL:8 kbps / PS RAB  
 + Interactive or background / UL:8 DL:8 kbps / PS RAB  
 + UL:3.4 DL:3.4 kbps SRBs for DCCH. (FDD)
- 72) Interactive or background / UL:64 DL:64 kbps / PS RAB  
 + Interactive or background / UL:64 DL:64 kbps / PS RAB  
 + UL:3.4 DL:3.4 kbps SRBs for DCCH. (FDD)
- 73) Streaming / unknown / UL:16 DL:64 kbps / PS RAB  
 + Interactive or background / UL:8 DL:8 kbps / PS RAB  
 + UL:3.4 DL:3.4 kbps SRBs for DCCH. (FDD)
- 74) Streaming / unknown / UL:16 DL:128 kbps / PS RAB  
 + Interactive or background / UL:8 DL:8 kbps / PS RAB  
 + UL:3.4 DL:3.4 kbps SRBs for DCCH.
- 75) Conversational / unknown / UL:8 DL:8 kbps / PS RAB  
 + Interactive or Background / UL:8 DL:8 kbps / PS RAB +  
 + UL:3.4 DL:3.4 kbps SRBs for DCCH

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

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

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

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

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

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

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

- 79) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
 + Interactive or Background / UL:0 DL:0 kbps / PS RAB  
 + Interactive or Background / UL:0 DL:0 kbps / PS RAB  
 + UL:3.4 DL:3.4 kbps SRBs for DCCH
- 80) Conversational / unknown / UL:64 DL:64 kbps / CS RAB  
 + Interactive or Background / UL:8 DL:8 kbps / PS RAB  
 + Interactive or Background / UL:8 DL:8 kbps / PS RAB  
 + UL:3.4 DL:3.4 kbps SRBs for DCCH
- 81) Streaming / unknown / UL:8 DL:16 kbps / PS RAB  
 + Interactive or Background / UL:8 DL:8 kbps / PS RAB  
 + UL:3.4 DL:3.4 kbps SRBs for DCCH
- 82) Streaming / unknown / UL:8 DL:32 kbps / PS RAB +  
 Interactive or Background / UL:8 DL:8 kbps / PS RAB +  
 UL:3.4 DL:3.4 kbps SRBs for DCCH
- 83) Streaming / unknown / UL:32 DL:256 kbps / PS RAB +  
 Interactive or Background / UL:8 DL:8 kbps / PS RAB +  
 UL:3.4 DL:3.4 kbps SRBs for DCCH

- 84) Interactive or background / UL:16 DL:16 kbps / PS RAB +  
Interactive or Background / UL:16 DL:16 kbps / PS RAB +  
UL:3.4 DL:3.4 kbps SRBs for DCCH
- 85) Interactive or background / UL:64 DL:8 kbps / PS RAB +  
Interactive or Background / UL:64 DL:8 kbps / PS RAB +  
UL:3.4 DL:3.4 kbps SRBs for DCCH
- 86) Interactive or Background / UL:64 DL:128 kbps / PS RAB  
+ Interactive or Background / UL:64 DL:128 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH
- 87) Interactive or Background / UL:64 DL:384 kbps / PS RAB  
+ Interactive or Background / UL:64 DL:384 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH
- 88) Interactive or background / UL:128 DL:128 kbps / PS RAB +  
Interactive or Background / UL:128 DL:128 kbps / PS RAB +  
UL:3.4 DL:3.4 kbps SRBs for DCCH
- 89) Interactive or background / UL:128 DL:32 kbps / PS RAB +  
Interactive or Background / UL:128 DL:32 kbps / PS RAB +  
UL:3.4 DL:3.4 kbps SRBs for DCCH
- 90) Streaming / unknown / UL: 16 DL:16 kbps / PS RAB  
+ Interactive or background / UL:8 DL:8 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH
- 91) Streaming / unknown / UL: 16 DL:32 kbps / PS RAB  
+ Interactive or background / UL:8 DL:8 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH
- 92) Interactive or background / UL: 16 DL:32 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH
- 93) Interactive or background / UL: 16 DL:64 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH
- 94) Interactive or background / UL: 16 DL:128 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH
- 95) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ Streaming / unknown / UL: 16 DL:128 kbps / PS RAB  
+ Interactive or background / UL:8 DL:8 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH
- 96) Conversational / speech / UL:12.2 DL:12.2 kbps / CS RAB  
+ Streaming / unknown / UL: 128 DL:16 kbps / PS RAB  
+ Interactive or background / UL:8 DL:8 kbps / PS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH
- 97) Conversational / speech / UL:(12.65 8.85 6.6) DL:(12.65 8.85 6.6) kbps / CS RAB  
+ UL:3.4 DL:3.4 kbps SRBs for DCCH + DL:0.15 kbps SRB#5 for DCCH
- 98) Interactive or background / UL:32 DL:64 kbps / PS RAB  
+ Interactive or background / UL:32 DL:64 kbps / PS RAB  
+ UL:3.4 DL: 3.4 kbps SRBs for DCCH (L1 multiplexing) (FDD)
- 99) [Interactive or background / UL: 128 DL:64kbps / PS RAB  
+ UL: 3.4 DL 3.4 kbps SRBs for DCCH](#)
- 100) [Interactive or background / UL: 384 DL:64kbps / PS RAB  
+ UL: 3.4 DL 3.4 kbps SRBs for DCCH](#)

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

... Unchanged text

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

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

This is supported in Release '99.

**7.1.98.1 Uplink**

**7.1.98.1.1 Transport channel parameters**

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

See clause 6.10.2.4.1.23.1.1.1 of [1].

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

See clause 6.10.2.4.1.23.1.1.1 of [1].

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

See clause 6.10.2.4.1.2.1.1.1 of [1].

**7.1.98.1.1.4 TFCS**

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

**7.1.98.1.2 Physical channel parameters**

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

7.1.98.2 Downlink

7.1.98.2.1 Transport channel parameters

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

See clause 6.10.2.4.1.25.2.1.1 of [1].

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

See clause 6.10.2.4.1.25.2.1.1 of [1].

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

See clause 6.10.2.4.1.2.2.1.1 of [1].

7.1.98.2.1.4 TFCS

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

7.1.98.2.2 Physical channel parameters

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

[7.1.99 Interactive or background / UL:128 DL: 64k / PS RAB + UL:3.4 DL: 3.4 kbps SRBs for DCCH](#)

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

[7.1.99.1 Uplink](#)

[7.1.99.1.1 Transport channel parameters](#)

[7.1.99.1.1.1 Transport channel parameters for Interactive or background / UL:128 kbps / PS RAB](#)

[See clause 6.10.2.4.1.28.1.1.1 of \[1\]](#)

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

[See clause 6.10.2.4.1.2.1.1.1. of \[1\]](#)

[7.1.99.1.1.3 TFCS](#)

[See clause 6.10.2.4.1.28.1.1.3 of \[1\]](#)

[7.1.99.1.2 Physical channel parameters](#)

[See clause 6.10.2.4.1.28.1.2 of \[1\]](#)

[7.1.99.2 Downlink](#)[7.1.99.2.1 Transport channel parameters](#)[7.1.99.2.1.1 Transport channel parameters for Interactive or background / DL:64 kbps / PS RAB](#)

[See clause 6.10.2.4.1.25.2.1.1 of \[1\]](#)

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

[See clause 6.10.2.4.1.2.2.1.1. of \[1\]](#)

[7.1.99.2.1.3 TFCS](#)

[See clause 6.10.2.4.1.25.2.1.3 of \[1\].](#)

[7.1.99.2.2 Physical channel parameters](#)

[See clause 6.10.2.4.1.25.2.2 of \[1\]](#)

[7.1.100 Interactive or background / UL:384 DL: 64k / PS RAB + UL:3.4 DL: 3.4 kbps SRBs for DCCH](#)

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

[7.1.100.1 Uplink](#)[7.1.100.1.1 Transport channel parameters](#)[7.1.100.1.1.1 Transport channel parameters for Interactive or background / UL:384 kbps / PS RAB](#)

[See clause 6.10.2.4.1.34.1.1.1 of \[1\]](#)

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

[See clause 6.10.2.4.1.2.1.1.1. of \[1\]](#)

[7.1.100.1.1.3 TFCS](#)

[See clause 6.10.2.4.1.34.1.1.3 of \[1\]](#)

[7.1.100.1.2 Physical channel parameters](#)

[See clause 6.10.2.4.1.34.1.2 of \[1\]](#)

[7.1.100.2 Downlink](#)[7.1.100.2.1 Transport channel parameters](#)[7.1.100.2.1.1 Transport channel parameters for Interactive or background / DL:64 kbps / PS RAB](#)

[See clause 6.10.2.4.1.25.2.1.1 of \[1\]](#)

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

[See clause 6.10.2.4.1.2.2.1.1. of \[1\]](#)

[7.1.100.2.1.3 TFCS](#)

[See clause 6.10.2.4.1.25.2.1.3 of \[1\].](#)

[7.1.100.2.2 Physical channel parameters](#)

[See clause 6.10.2.4.1.25.2.2 of \[1\]](#)

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

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

[7.1.101.1 Uplink](#)[7.1.101.1.1 Transport channel parameters](#)[7.1.101.1.1.1 Transport channel parameters for Conversational / speech / UL:12.2 kbps / CS RAB](#)

[See clause 6.10.2.4.1.4.1.1.1. of \[1\]](#)

[7.1.101.1.1.2 Transport channel parameters for Interactive or background / UL:128 kbps / PS RAB](#)

[See clause 6.10.2.4.1.28.1.1.1 of \[1\]](#)

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

[See clause 6.10.2.4.1.2.1.1.1 of \[1\].](#)

[7.1.101.1.1.4 TFCS](#)

[See clause 6.10.2.4.1.44.1.1.4 of \[1\]](#)

[7.1.101.1.2 Physical channel parameters](#)

[See clause 6.10.2.4.1.44.1.2 of \[1\]](#)

[7.1.101.2 Downlink](#)

[7.1.101.2.1 Transport channel parameters](#)

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

[See clause 6.10.2.4.1.4.2.1.1 of \[1\]](#).

[7.1.101.2.1.2 Transport channel parameters for Interactive or background / DL:64 kbps / PS RAB](#)

[See clause 6.10.2.4.1.25.2.1.1 of \[1\]](#)

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

[See clause 6.10.2.4.1.2.2.1.1 of \[1\]](#)

[7.1.101.2.1.4 TFCS](#)

[See clause 6.10.2.4.1.39.2.1.4 of \[1\]](#).

[7.1.101.2.2 Physical channel parameters](#)

[See clause 6.10.2.4.1.39.2.2 of \[1\]](#)

## CHANGE REQUEST

# 25.993 CR 034 # rev # Current version: 6.7.0 #

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>	# Radio bearer combination for PS streaming in section 7.1.74		
<b>Source:</b>	# RAN WG2		
<b>Work item code:</b>	# TEI6	<b>Date:</b>	# 15/11/2004
<b>Category:</b>	# <b>F</b>	<b>Release:</b>	# Rel-6
	Use <u>one</u> of the following categories:		Use <u>one</u> of the following releases:
	<b>F</b> (correction)		<b>Ph2</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>Rel-7</b> (Release 7)

<b>Reason for change:</b>	# At the T1#25 meeting, TSG T WG1 agreed a CR (T1-041685) to include the reference radio bearer combination for "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" into 34.108. The parameters used in 34.108 are the same as currently specified in TR 25.993 section 7.1.74. To avoid redundant information in TR 25.993 and TS 34.108, the details in section 7.1.74 in TR25.993 should be replaced by a reference to 34.108.
<b>Summary of change:</b>	# Section 7.1.74: Replaced details with a reference to 34.108, section 6.10.2.4.1.58a
<b>Consequences if not approved:</b>	# Redundant information in TR 25.993 remains.

<b>Clauses affected:</b>	# 7.1.74				
<b>Other specs affected:</b>	<table border="1" style="display: inline-table; vertical-align: middle;"> <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 # <input type="checkbox"/>	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; vertical-align: middle;"> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> </table> Test specifications # <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		
<input type="checkbox"/>	<input checked="" type="checkbox"/>				
	<table border="1" style="display: inline-table; vertical-align: middle;"> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> </tr> </table> O&M Specifications # <input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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.

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

[See subclause 6.10.2.4.1.58a of \[1\].](#)

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

This is supported in Release '99.

### ~~7.1.74.1 Uplink~~

#### ~~7.1.74.1.1 Transport channel parameters~~

##### ~~7.1.74.1.1.1 Transport channel parameters for Streaming / unknown / UL:16 kbps / PS RAB~~

~~See subclause 6.10.2.4.1.58.1.1.1 of [1]~~

##### ~~7.1.74.1.1.2 Transport channel parameters for Interactive or background / UL:8 kbps / PS RAB~~

~~See subclause 6.10.2.4.1.38b.1.1.1 of [1].~~

##### ~~7.1.74.1.1.3 Transport channel parameters for UL:3.4 kbps SRBs for DCCH~~

~~See subclause 6.10.2.4.1.2.1.1.1 of [1].~~

##### ~~7.1.74.1.1.4 TFCS~~

~~See subclause 6.10.2.4.1.58.1.1.4 of [1].~~

#### ~~7.1.74.1.2 Physical channel parameters~~

~~See subclause 6.10.2.4.1.58.1.2 of [1].~~

## 7.1.74.2 Downlink

### 7.1.74.2.1 Transport channel parameters

#### 7.1.74.2.1.1 Transport channel parameters for Streaming / unknown / DL:128 kbps / PS-RAB

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

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

See subclause 6.10.2.4.1.38b.2.1.1 of [1].

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

See subclause 6.10.2.4.1.2.2.1.1 of [1].

#### 7.1.74.2.1.4 TFCS

TFCS size	20
TFCS	{128 kbps-RAB, 8 kbps-RAB, DCCH}= (TF0,TF0,TF0), (TF1,TF0,TF0), (TF2,TF0,TF0), (TF3,TF0,TF0), (TF4,TF0,TF0), (TF0,TF1,TF0), (TF1,TF1,TF0), (TF2,TF1,TF0), (TF3,TF1,TF0), (TF4,TF1,TF0), (TF0,TF0,TF1), (TF1,TF0,TF1), (TF2,TF0,TF1), (TF3,TF0,TF1), (TF4,TF0,TF1), (TF0,TF1,TF1), (TF1,TF1,TF1), (TF2,TF1,TF1), (TF3,TF1,TF1), (TF4,TF1,TF1);

### 7.1.74.2.2 Physical channel parameters

DPCH Downlink	DTX position		Flexible	
	Spreading factor		16	
	DPCCH	Number of TFCl 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		

CR-Form-v7.1

## CHANGE REQUEST

№ **25.993 CR 035** № rev **1** № Current version: **6.7.0** №

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>	№ Correct TFCS used in 128DL RAB.		
<b>Source:</b>	№ RAN WG2		
<b>Work item code:</b>	№ TEI6	<b>Date:</b>	№ 10/11/04
<b>Category:</b>	№ <b>F</b>	<b>Release:</b>	№ Rel-6
	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>	№ The 128k RAB has TF0 to 4, whereas the TFCS shows only 0 to 3 transport formats being used.
<b>Summary of change:</b>	№ Add Transport formats to TFCS to support up to 128k DL. <a href="#">Reference updated according to TR 25.993 CR 034.</a>
<b>Consequences if not approved:</b>	№ The UE will have a max rate of 96kbps.

<b>Clauses affected:</b>	№ 7.1.95						
<b>Other specs affected:</b>	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px;">Y</td> <td style="width: 20px;">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;">Y</td> <td style="width: 20px;">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> Test 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;">Y</td> <td style="width: 20px;">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> O&M Specifications	Y	N	<input type="checkbox"/>	<input checked="" type="checkbox"/>	№	
Y	N						
<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.

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

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

This is supported in release '99.

**7.1.95.1 Uplink**

**7.1.95.1.1 Transport channel parameters**

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

See subclause 6.10.2.4.1.4.1.1.1 of [1].

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

See subclause 6.10.2.4.1.58.1.1.1 of [1].

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

See subclause 6.10.2.4.1.38b.1.1.2 of [1].

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

See subclause 6.10.2.4.1.2.1.1.1 of [1].

**7.1.95.1.1.5 TFCS**

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

**7.1.95.1.2 Physical channel parameters**

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

**7.1.95.2 Downlink**

**7.1.95.2.1 Transport channel parameters**

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

See subclause 6.10.2.4.1.4.2.1.1 of [1]

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

See subclause [6.10.2.4.1.58a.2.1.1 of \[1\]](#), ~~7.1.74.2.1.1.~~

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

See subclause 6.10.2.4.1.38b.2.1.2 of [1]

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

See subclause 6.10.2.4.1.2.2.1.1 of [1].

7.1.95.2.1.5 TFCS

TFCS size	<a href="#">4860</a>
TFCS	(RAB subflow#1, RAB subflow#2, RAB subflow#3, 128 kbps RAB, 8 kbps RAB, DCCH)= (TF0,TF0,TF0,TF0,TF0,TF0), (TF1,TF0,TF0,TF0,TF0,TF0), (TF2,TF1,TF1,TF0,TF0,TF0), (TF0,TF0,TF0,TF1,TF0,TF0), (TF1,TF0,TF0,TF1,TF0,TF0), (TF2,TF1,TF1,TF1,TF0,TF0), (TF0,TF0,TF0,TF2,TF0,TF0), (TF1,TF0,TF0,TF2,TF0,TF0), (TF2,TF1,TF1,TF2,TF0,TF0), (TF0,TF0,TF0,TF3,TF0,TF0), (TF1,TF0,TF0,TF3,TF0,TF0), (TF2,TF1,TF1,TF3,TF0,TF0), <a href="#">(TF0,TF0,TF0,TF4,TF0,TF0)</a> , <a href="#">(TF1,TF0,TF0,TF4,TF0,TF0)</a> , <a href="#">(TF2,TF1,TF1,TF4,TF0,TF0)</a> , (TF0,TF0,TF0,TF0,TF1,TF0), (TF1,TF0,TF0,TF0,TF1,TF0), (TF2,TF1,TF1,TF0,TF1,TF0), (TF0,TF0,TF0,TF1,TF1,TF0), (TF1,TF0,TF0,TF1,TF1,TF0), (TF2,TF1,TF1,TF1,TF1,TF0), (TF0,TF0,TF0,TF2,TF1,TF0), (TF1,TF0,TF0,TF2,TF1,TF0), (TF2,TF1,TF1,TF2,TF1,TF0), (TF0,TF0,TF0,TF3,TF1,TF0), (TF1,TF0,TF0,TF3,TF1,TF0), (TF2,TF1,TF1,TF3,TF1,TF0), <a href="#">(TF0,TF0,TF0,TF4,TF1,TF0)</a> , <a href="#">(TF1,TF0,TF0,TF4,TF1,TF0)</a> , <a href="#">(TF2,TF1,TF1,TF4,TF1,TF0)</a> , (TF0,TF0,TF0,TF0,TF0,TF1), (TF1,TF0,TF0,TF0,TF0,TF1), (TF2,TF1,TF1,TF0,TF0,TF1), (TF0,TF0,TF0,TF1,TF0,TF1), (TF1,TF0,TF0,TF1,TF0,TF1), (TF2,TF1,TF1,TF1,TF0,TF1), (TF0,TF0,TF0,TF2,TF0,TF1), (TF1,TF0,TF0,TF2,TF0,TF1), (TF2,TF1,TF1,TF2,TF0,TF1), (TF0,TF0,TF0,TF3,TF0,TF1), (TF1,TF0,TF0,TF3,TF0,TF1), (TF2,TF1,TF1,TF3,TF0,TF1), <a href="#">(TF0,TF0,TF0,TF4,TF0,TF1)</a> , <a href="#">(TF1,TF0,TF0,TF4,TF0,TF1)</a> , <a href="#">(TF2,TF1,TF1,TF4,TF0,TF1)</a> , (TF0,TF0,TF0,TF0,TF1,TF1), (TF1,TF0,TF0,TF0,TF1,TF1), (TF2,TF1,TF1,TF0,TF1,TF1), (TF0,TF0,TF0,TF1,TF1,TF1), (TF1,TF0,TF0,TF1,TF1,TF1), (TF2,TF1,TF1,TF1,TF1,TF1), (TF0,TF0,TF0,TF2,TF1,TF1), (TF1,TF0,TF0,TF2,TF1,TF1), (TF2,TF1,TF1,TF2,TF1,TF1), (TF0,TF0,TF0,TF3,TF1,TF1), (TF1,TF0,TF0,TF3,TF1,TF1), (TF2,TF1,TF1,TF3,TF1,TF1), <a href="#">(TF0,TF0,TF0,TF4,TF1,TF1)</a> , <a href="#">(TF1,TF0,TF0,TF4,TF1,TF1)</a> , <a href="#">(TF2,TF1,TF1,TF4,TF1,TF1)</a>

7.1.95.2.2 Physical channel parameters

DPCH Downlink	DTX position		Flexible
	Spreading factor		
DPCCH	Number of TFCl 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