TSG RAN Meeting #25 **RP-040317**
Palm Springs, CA USA, 7 - 9 September 2004

Title **CRs (Rel-5 and Rel-6 Category A) to TS25.211 for correction for the slot range of DL DPCCH power control preamble for CPCH**
Source **TSG RAN WG1**
Agenda Item **7.2.5**

RAN1 Tdoc	Spec	CR	Rev	Phase	Cat	Current Version	Subject	Workitem	Remarks
R1-040874	25.211	191	-	Rel-5	F	5.5.0	Correction for the slot range of DL DPCCH power control preamble for CPCH		
R1-040874	25.211	192	-	Rel-6	A	6.1.0	Correction for the slot range of DL DPCCH power control preamble for CPCH		

3GPP TSG- RAN WG1 Meeting #38
Prague, Czech, Aug 16-20 2004

Tdoc ⌘R1-040874

CR-Form-v7.1

CHANGE REQUEST

⌘	**25.211**	**CR**	**191**	⌘ **rev**	**-**	⌘	Current version:	**5.5.0**	⌘

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

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

Title:	⌘	Correction for the slot range of DL DPCCH power control preamble for CPCH		
Source:	⌘	RAN WG1		
Work item code:	⌘		***Date:*** ⌘	09/08/2004
Category:	⌘	**F**	***Release:*** ⌘	Rel-5
		Use <u>one</u> of the following categories: ***F*** *(correction)* ***A*** *(corresponds to a correction in an earlier release)* ***B*** *(addition of feature),* ***C*** *(functional modification of feature)* ***D*** *(editorial modification)* Detailed explanations of the above categories can be found in 3GPP TR 21.900.		*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)*

Reason for change:	⌘	The length of DL DPCCH power control preamble for CPCH is $L_{pc\text{-}preamble}$, which is same as the length of CPCH power control preamble. However, the pilot patterns are defined in the range from slot #(15-N_{pcp}) to slot #14. Because N_{pcp} is the length of UL DPCCH power control preamble, the range is not matched to the length of DL DPCCH power control preamble for CPCH.
Summary of change:	⌘	'slot #(15-N_{pcp})' in the pilot pattern description of DL DPCCH power control preamble for CPCH, is replaced by 'slot #(15-$L_{pc\text{-}preamble}$)'
Consequences if not approved:	⌘	Number of slots where pilot patterns are specifically described for the DL DPCCH power control preamble for CPCH is not correct. This may bring about improper system operation. Isolated Impact Analysis: Impact restricted to DL DPCCH power control preamble for CPCH. UE or node B implementing Rel 99 or Rel 4 may not operate correctly or will be degraded in performance during initial power control time, due to obscurely defined pilot patterns. No impact on any other behaviours.

Clauses affected:	⌘	5.3.2.3				
		Y	**N**			
Other specs affected:	⌘		**X**	Other core specifications	⌘	
			X	Test specifications		
			X	O&M Specifications		

Other comments: ⌘	

How to create CRs using this form:

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

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

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

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

5.3.2.3 DL-DPCCH for CPCH

The downlink DPCCH for CPCH is a special case of downlink dedicated physical channel of the slot format #0 in table 11. The spreading factor for the DL-DPCCH is 512. Figure 12 shows the frame structure of DL-DPCCH for CPCH.

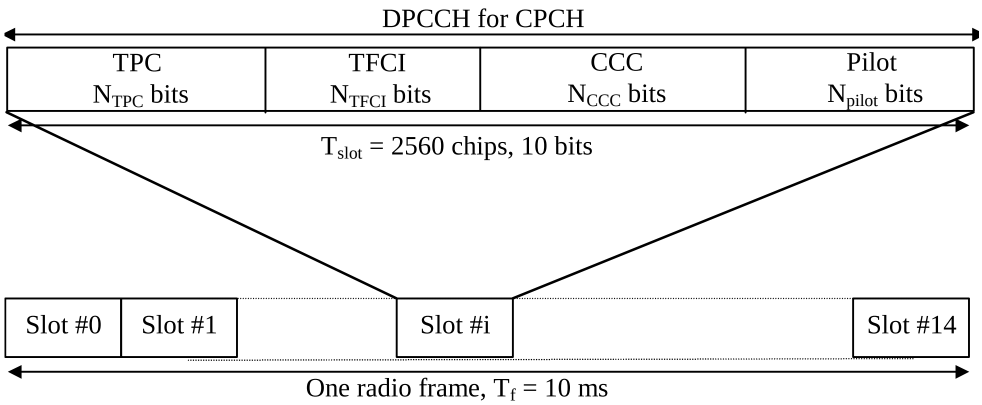

Figure 12: Frame structure for downlink DPCCH for CPCH

DL-DPCCH for CPCH consists of known pilot bits, TFCI, TPC commands and CPCH Control Commands (CCC). CPCH control commands are used to support CPCH signalling. There are two types of CPCH control commands: Layer 1 control command such as Start of Message Indicator, and higher layer control command such as Emergency Stop command. The exact number of bits of DL DPCCH fields (N_{pilot}, N_{TFCI}, N_{CCC} and N_{TPC}) is determined in Table 16. The pilot bit pattern for N_{pilot}=4 of table 12 is used for DPCCH for CPCH.

Table 16: DPCCH fields for CPCH message transmission

Slot Format #i	Channel Bit Rate (kbps)	Channel Symbol Rate (ksps)	SF	Bits/ Slot	DPCCH Bits/Slot				Transmitted slots per radio frame N_{Tr}
					N_{TPC}	N_{TFCI}	N_{CCC}	N_{Pilot}	
0	15	7.5	512	10	2	0	4	4	15

The DL DPCCH power control preamble for CPCH shall take the same slot format as afterwards, as given in Table 16. The length of the power control preamble is a higher-layer parameter, $L_{pc\text{-}preamble}$ (see [5], section 6.2), signalled by the network. When $L_{pc\text{-}preamble} > 0$, the pilot patterns from slot #(15 – $L_{pc\text{-}preamble}$)~~slot #(15 – N_{pcp})~~ to slot #14 of table 12 shall be used for the power control preamble pilot patterns. The TFCI field is filled with "1" bits.

3GPP TSG- RAN WG1 Meeting #38
Prague, Czech, 16-20 Aug 2004

Tdoc ⌘R1-040874

CR-Form-v7.1

CHANGE REQUEST

⌘	**25.211**	**CR**	**192**	⌘ **rev**	**-**	⌘ Current version:	**6.1.0** ⌘

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

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

Title:	⌘	Correction for the slot range of DL DPCCH power control preamble for CPCH
Source:	⌘	RAN WG1
Work item code:	⌘	
Date:	⌘	09/08/2004
Category:	⌘	**A**
Release:	⌘	Rel-6

Use one of the following categories:
- ***F*** *(correction)*
- ***A*** *(corresponds to a correction in an earlier release)*
- ***B*** *(addition of feature),*
- ***C*** *(functional modification of feature)*
- ***D*** *(editorial modification)*

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

Use one of the following releases:

Ph2	*(GSM Phase 2)*
R96	*(Release 1996)*
R97	*(Release 1997)*
R98	*(Release 1998)*
R99	*(Release 1999)*
Rel-4	*(Release 4)*
Rel-5	*(Release 5)*
Rel-6	*(Release 6)*
Rel-7	*(Release 7)*

Reason for change:	⌘	The length of DL DPCCH power control preamble for CPCH is $L_{pc\text{-}preamble}$, which is same as the length of CPCH power control preamble. However, the pilot patterns are defined in the range from slot #(15-N_{pcp}) to slot #14. Because N_{pcp} is the length of UL DPCCH power control preamble, the range is not matched to the length of DL DPCCH power control preamble for CPCH.
Summary of change:	⌘	'slot #(15-N_{pcp})' in the pilot pattern description of DL DPCCH power control preamble for CPCH, is replaced by 'slot #(15-$L_{pc\text{-}preamble}$)'
Consequences if not approved:	⌘	Number of slots where pilot patterns are specifically described for the DL DPCCH power control preamble for CPCH is not correct. This may bring about improper system operation. Isolated Impact Analysis: Impact restricted to DL DPCCH power control preamble for CPCH. UE or node B implementing Rel 99 or Rel 4 may not operate correctly or will be degraded in performance during initial power control time, due to obscurely defined pilot patterns. No impact on any other behaviours.

Clauses affected:	⌘	5.3.2.3

Other specs affected: ⌘

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

Other comments: ⌘	

How to create CRs using this form:

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

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

5.3.2.3 DL-DPCCH for CPCH

The downlink DPCCH for CPCH is a special case of downlink dedicated physical channel of the slot format #0 in table 11. The spreading factor for the DL-DPCCH is 512. Figure 12 shows the frame structure of DL-DPCCH for CPCH.

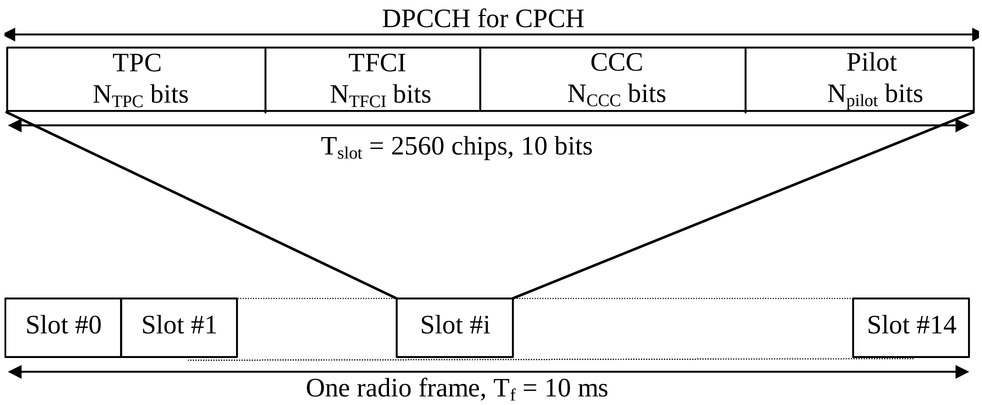

Figure 12: Frame structure for downlink DPCCH for CPCH

DL-DPCCH for CPCH consists of known pilot bits, TFCI, TPC commands and CPCH Control Commands (CCC). CPCH control commands are used to support CPCH signalling. There are two types of CPCH control commands: Layer 1 control command such as Start of Message Indicator, and higher layer control command such as Emergency Stop command. The exact number of bits of DL DPCCH fields (N_{pilot}, N_{TFCI}, N_{CCC} and N_{TPC}) is determined in Table 16. The pilot bit pattern for N_{pilot}=4 of table 12 is used for DPCCH for CPCH.

Table 16: DPCCH fields for CPCH message transmission

Slot Format #i	Channel Bit Rate (kbps)	Channel Symbol Rate (ksps)	SF	Bits/ Slot	DPCCH Bits/Slot				Transmitted slots per radio frame N_{Tr}
					N_{TPC}	N_{TFCI}	N_{CCC}	N_{Pilot}	
0	15	7.5	512	10	2	0	4	4	15

The DL DPCCH power control preamble for CPCH shall take the same slot format as afterwards, as given in Table 16. The length of the power control preamble is a higher-layer parameter, $L_{pc\text{-}preamble}$ (see [5], section 6.2), signalled by the network. When $L_{pc\text{-}preamble} > 0$, the pilot patterns from slot #(15 – $L_{pc\text{-}preamble}$)~~slot #(15 – N_{pcp})~~ to slot #14 of table 12 shall be used for the power control preamble pilot patterns.