

TSG-RAN Working Group 1 meeting #7  
Hannover, Germany  
August 30 – September 03, 1999

*TSGR1#7(99)c03*

**Agenda Item:**

**Source:** Fujitsu, Hitachi, Japan Telecom, Mitsubishi Electric, NEC,  
NTT DoCoMo, Panasonic, Sharp, Texas Instruments, Toshiba

**Title:** Additional open issues to be discussed in R1  
(Revision of Tdoc R1-99868)

**Document for:** Information

---

1. Introduction

This document shows a list of additional open issues, which is a revision of Tdoc R1-99868. The status of each item is also added. Because the coming WG1 meeting, as you know, is the last meeting (officially) before the RAN meeting #5, these open issues should be solved in the meeting. We hope each Ad Hoc checks the list.

## 2. List of additional open issues

### Items to be clarified from tacit consent level to specific description level

1. ~~CPICH exists for all carrier frequency. (AH15)~~  
Note: Relating e-mail discussion on “set of common channels for each carrier” is ongoing. We seem to reach a consensus that CPICH exists for all carrier frequency.
2. ~~CPICH exists for primary scrambling code but doesn't exist for secondary scrambling code. (AH15)~~  
Note: In the discussion on R1-99904, it was agreed that the Primary CPICH is scrambled by the primary scrambling code. This has already been reflected in TS 25.211 (V2.2.1).
3. ~~Discontinuous Compressed mode uses integer number of slots for transmission period excluding, e.g. 7.5 slots (AH8)~~  
Note: Ad Hoc #8 agreed to the maximum TGL per frame of 7 slots (R1-99a50).

### Issues with high priority

#	Open issues	Ad Hoc	<u>Current status</u>
1	<del>RACH: Definition / Number of Access slot, DL/UL offset</del>	3 (15)	<u>We agreed to 15 access slots / 2 frame (R1-99786, R1-99896) and DL/UL offset = 1 slot (R1-99897).</u>
4	RACH: The details of preamble spreading are not clear.	3	<u>The preamble structure of R1-99893 was accepted. The scrambling scheme of R1-99893 is WA. R1-99990 is FFS.</u>
5	RACH: How is the scramble code phase of a message part defined, based on the frame boundary or the head of the access slot?	3	<u>Depends on Item #4.</u>
6	<del>RACH: What's the relation of the TX powers between the preamble part and the message part?</del>	3	<u>(Move to low priority items)</u>
7	Whether UE needs to receive AICH and FACH from plural Node Bs simultaneously or not, in order to decide the best UL BTS at the initial transmission of RACH and CPCH.	3 (11), WG2	
3	The number of PL symbols for DPCH, especially whether zero symbols are allowed or not.	4 (15, 7)	<u>R1-99968 proposed no pilot symbol to support EVRC.</u>
8	Channel multiplexing and coding scheme for AMR Voice service.	4 (5)	<u>R1-99887, R1-99991, and R1-99a01 were presented.</u>
9	Channel multiplexing and coding scheme for UDI service.	4 (5)	
10	Channel multiplexing and coding scheme for Packet service.	4 (5, 14)	
11	Channel multiplexing and coding scheme for DCCH.	4 (5)	
12	BCH - PCCPCH mapping: The mapping details such as number of bits for transport channels, number of CRC bits, and necessity of Rate matching are unclear. Is the 1st interleaving necessary if two frames are paired to apply STTD encoding?	4	<u>Item #22 has a relation to this item.</u>
13	(PCH, FACH) - SCCPCH mapping Is the mapping the same as that of DCH mapping? Is Rate matching needed? Are FACH and PCH	4	

	multiplexed within a frame, and signaled by TFCI? Or are they not multiplexed within a frame? Is the PCH a fixed rate and a fixed format? Is the FACH a fixed rate and a fixed format when indicating L23 ACK/NACK signal for a RACH message?		
14	Multiplexing scheme for different size of FACH Transport blocks	4 (should liaise to WG2 and 3)	
15	Multiplexing scheme for different size of RACH Transport blocks ( <u>Multiplexing scheme should not be needed?</u> )	4 (should liaise to WG2 and 3)	
16	Transport block size of each transport channel	4 (should liaise to WG2 and 3)	
17	The maximum number of transport block and transport block set size	4	
18	How can we know whether “Fixed position” or “Flexible position” in DL?	4	
19	TFCI composition rule for transmitter side.	4	<u>R1-99582 was submitted. What’s the status?</u>
22	SFN transmission scheme	7 ( <u>4</u> )	<u>R1-99955, R1-99a36. LS (R1-99a63) was sent to WG2 and WG3.</u>
2	CPICH: Transmission method from each antenna in TX Diversity	6 (15)	<u>Proposals from NEC and Sony.</u>
20	How to use the 2 bits FBI fields.	6	<u>Sharing between TxAA and SSDT was accepted (R1-99925, R1-99843).</u>
21	Requirement of TX diversity control procedure in case of HO initiation and termination	6 ( <u>7</u> ) (should liaise to WG2)	<u>Switching of the UL DPCCH structure should also be considered.</u>
	<u>Tx diversity operation in compressed mode</u>	<u>6 (8)</u>	<u>Open item #4 of AH06 (R1-99790).</u>
23 a	Compressed Mode: length of idle period, <u>frame structure for UL compressed mode, puncturing method for interleaving sizes larger than 10ms</u>	8	<u>Table in 7.1.3.3.4.1 in TS 25.231 is still blank. Tables 6 and 7 in TS 25.212 should be updated.</u>
23 b	<u>Compressed mode: Power control method, outer loop power control in compressed mode</u>	9 ( <u>8</u> )	<u>Fixed step size is WA. Recovery length is FFS. LS (R1-99a53) was sent to WG2 on outer loop power control.</u>
25	The value of “ $\delta$ ” for DL multi-code transmission. Is the definition of “ $\delta$ ” clear?	9	<u>Section 4.2.13 in TS 25.212 was deleted. Is the definition of <math>\delta</math> not needed in L1 specs?</u>
	<u>How to calculate UL DPCCH / DPDCH power ratios, i.e. <math>\beta</math> values.</u>	<u>9</u>	<u>Second bulletin of Open item #8 of AH09 (R1-99a09).</u>
26	Whether scrambling code is common to all codes in DL multicode transmission for one user or not.	10	<u>R1-99a21 waits discussed. R1-99915 is under discussion.</u>
27	The maximum number of physical channels for DL multicode transmission related with SF.	10	<u>R1-99a21 waits discussed.</u>
28	<del>Whether SF is unique or not for all DPCHs allocated to one user in DL multicode transmission.</del>	10	<u>All SFs are the same within one CCTrCH (R1-99877).</u>
29	Secondary SCH: code grouping 32 or 256?	12	

30	Cell search in case of compressed mode for IFHO	12, 8	
24	Whether SIR measurement method is specified or not. Is the definition of "S" clear?	<a href="#">916</a>	<a href="#">R1-99933 is discussed in the new Ad Hoc, AH16.</a>
31	<del>PICH: Mux method</del>		<a href="#">R1-99848 is WA.</a>

### **Issues with low priority**

#	Open issues	Ad Hoc	Current status
(6)	<a href="#">RACH: What's the relation of the TX powers between the preamble and the message parts?</a>	<a href="#">3 (9)</a>	<a href="#">Open item #15 of AH09 (R1-99a09).</a>
	<a href="#">RACH: What's the range and step of P<sub>0</sub> and P<sub>1</sub> for preamble power ramping?</a>	<a href="#">3</a>	<a href="#">Open item #13 of AH09 (R1-99a09).</a>
1	The maximum number of coding chains multiplexed, in both DL and UL.	4	
2	Correspondence between UE physical layer capability and maximal symbol rate of SCCPCH to be implemented.	11	
3	Correspondence between UE physical layer capability and maximal symbol rate of PRACH to be implemented.	11	
4	CPCH: How is the transmission timing relation between the preamble and the message parts?	14	<a href="#">AH14 adopted R1-99a48. Some new proposals are submitted.</a>
5	<del>FAUSCH: Is FAUSCH included in R-99 or not?</del>	14	<a href="#">Not included in R-99.</a>
6	Positioning: When will the L1-related positioning method proposed by Ericsson be decided to adopt or not? We need information for the parameters and the detail description of how to measure the timing difference between BTSs.	<a href="#">Plenary17</a>	<a href="#">Under discussion in the new Ad Hoc, AH17.</a>
7	<del>Ciphering algorithm</del>	WG2	
8	NACK for RACH Message: Who decides NACK, and how?	WG2	<a href="#">Await LS back from WG2.</a>
9	Whether it is possible for MS to handle both common channel (RACH/FACH) and dedicated channel simultaneously. This function will be needed in multicast situation.	?	

## Issues to be confirmed

1. Is code multiplex applicable for DCHs?

There seems to be a contradiction between two descriptions below.

Note: The description in TS 25.212 is correct, and may be copied to TS 25.211.

Document	Section	Page	Proposed Text
TS25.211 (V2.1.0)	5.3.2 Dedicated downlink physical channels	p.19, last paragraph	Multiple codes may also transmitted in order to transmit different transport channels on different codes (code multiplex)
TS25.212 (V1.1.0)	4.2 Dedicated downlink physical channels	p.11	This code multiplexing is used only for downlink DSCHs. For the other transport channels including downlink DCHs, the code multiplexing shall not be used.

2. ~~Are FACH and PCH mapped to separate SCCPCH, even when they belong to the same CCTrCH?~~

Note: This has been solved. Section 5.3.3.2 was updated in TS 25.211 V2.2.1 where the former Section 5.3.3.2 is now Section 5.3.3.3.

Document	Section	Page	Proposed Text
TS25.211 (V2.1.0)	5.3.3.2 Secondary Common Control Physical Channel	p.24, 3 <sup>rd</sup> paragraph from the bottom	The FACH and PCH are mapped to separate Secondary CCPCHs.
TS25.211 (V2.1.0)	6.1 Multiplexing of different transport channels onto one CCTrCH, and mapping of one CCTrCH onto physical	p.32	6) For the common transport channels, only the FACH and PCH may belong to the same CCTrCH.

3. CCPCH may have open power control facility, when it carries FACH, doesn't it?

Since FACH is mapped on to CCPCH and FACH can be power controlled, CCPCH shall have power control facility. (Rather editorial comment)

Note: The sentence in Section 5.3.3.2 had better be changed to "... CCPCH is not closed-loop power controlled."

Document	Section	Page	Proposed Text
TS25.211 (V2.1.0)	5.3.3.2 Secondary Common Control Physical Channel	P.24, 3 <sup>rd</sup> paragraph from the bottom	The main difference between a CCPCH and a downlink dedicated physical channel is that a CCPCH is not power controlled.
TS25.211 (V2.1.0)	4.1.1. DCH-Dedicated Channel	P.6	The FACH uses slow power control and requires in-band identification of the UEs.

4. ~~Does "service specific coding" have CRC attachment procedure?~~

~~If it is not the case, i.e. CRC attachment is not applied, diversity selection in uplink shall not be achieved. The question is only for clarification. But some proper notification seems to be needed.~~

Note: This has been solved. Service specific coding has been removed.

Document	Section	Page	Proposed Text
TS25.212 (V2.1.0)	4.2.3.3 Service specific coding	p.20	In the simplest case it can mean that there is no channel coding at all.