3GPP TSG RAN **Tdoc RP-000145**
13 - 15 March 1999
Madrid, Spain

Source: **RAN WG4 Chairman**

Title : **Status report for RAN WG4**

1 Introduction

This document contains the status report of 3GPP TSG RAN WG4 at RAN#7.

The progress has been good since RAN#6. The work has been split between corrections to the BTS and UE specifications, and starting work on the RRM documents.

2 physical meeting, one joint adhoc (RRM), 325 input documents, 80 delegates per meeting, 117 approved CR to be presented to RAN.

The following contains the status for each report or specification from RAN WG4

Spec	Title	Ver	No CRs	After RAN ver
25.101	UE Radio transmission and reception (FDD)	3.1.0	20	3.2.0
25.102	UE Radio transmission and reception (TDD)	3.1.0	11	3.2.0
25.104	BTS Radio transmission and reception (FDD)	3.1.0	15	3.2.0
25.105	BTS Radio transmission and reception (TDD)	3.1.0	13	3.2.0
25.123	Support of RF parameters in Radio Resource Management	3.0.0	7	3.1.0
25.133	Support of RF parameters in Radio Resource Management	3.0.0	9	3.1.0
25.141	Basestation conformance testing (FDD)	3.0.0	26	3.1.0
25.142	Basestation conformance testing (TDD)	3.0.0	12	3.1.0
25.113	Basestation EMC	3.0.0	3	3.1.0
25.941	Document Structure	3.1.0	0	3.1.0
25.942	RF System scenarios	2.1.3		2.2.0
25.943	Deployment scenarios	0.1.0		2.0.0

2 Items that require actions from RAN plenary

2.1 Handling of uncompleted work

Certain areas of the specifications have still not been completed. But it is unclear to the RAN4 chairman how items that are part of the release 99 specifications and not completed should be handled.

As an example the performance specifications for all the physical channels are not finalized, and for some have not even begun. Since the physical channels are part of the R99 specifications should we move the performance requirements into R00, along with the tests that may be needed, or keep them in R99.

2.2 Split of work between groups

The whole area of radio resource management is still far from being finalised within RAN 4.

We have agreed with RAN 1 to transfer the physical layer measurement specifications (25.215 and 25.225) to RAN4 where the expertise lies.

The RRM analysis and requirement setting from a system and operator perspective is still unclear for a large number of delegates. In San Diego RAN 4 discussed the likely cause of the problem, which is the fact that many of the more general RRM system requirements are covered in RAN2 specifications. There was a general consensus that progress could be faster, and RRM work of higher quality if at least the radio issues were dealt with in a single group. The suggestion was that it should at least be considered to move parts of chapter 14 of 25.331 and parts of clauses 5.2 and 5.3 to RAN4 specifications. This may not be exhaustive.

3 25.101

3.1 Status of the document

Work concluded since last RAN meeting

- Propagation models
- Min TX power
- Spurious
- Modulation accuracy
- Blind rate detection
- CPCH (seen as desirable and required for R00)
- Out of Synch
- More performance results

Items still not completed

- Power control
- A limited number of compressed modes
- Performance results

3.2 Change Requests presented for approval

The following CRs are in RP-000015

Spec	CR	Re	Phas	Subject	Cat	Version-
25.101	020		R99	Clarifications to measurement channels	F	3.1.0
25.101	021		R99	Power measurement definitions for wanted signal (in-channel	D	3.1.0
25.101	022		R99	Change of propagation conditions for Case 2	F	3.1.0

25.101	023		R99	Editorial corrections	D	3.1.0
25.101	024		R99	Birth-Death tap delays	F	3.1.0
25.101	025		R99	Out-of-synchronisation handling of the UE	C	3.1.0
25.101	026		R99	UE Modulation performance requirements	F	3.1.0
25.101	027		R99	Measurement channel for UE PCDE test	F	3.1.0
25.101	028		R99	CR for performance requirement of BTFD	F	3.1.0
25.101	029		R99	CPCH	B	3.1.0
25.101	030		R99	Clarification of ACLR	D	3.1.0
25.101	031		R99	Correction for reference measurement channel in TS 25.101	F	3.1.0
25.101	032		R99	Modifications to requirements for power control steps in uplink	F	3.1.0
25.101	033		R99	Performance requirement	F	3.1.0
25.101	034		R99	Power Control in downlink, constant BLER target	F	3.1.0
25.101	035		R99	UE Minimum TX power change	F	3.1.0
25.101	036		R99	Performance requirements for demodulation of DCH in Site	F	3.1.0
25.101	037		R99	Reference compressed mode patterns	F	3.1.0
25.101	038		R99	384kbps measurement channel is replaced with 10ms TTI	F	3.1.0
25.101	039		R99	Modification to the handling of measurement equipment	F	3.1.0

4 25.102

4.1 Status of the document

Work concluded since last RAN meeting

- Diversity performance results
- Corrections

Items still not completed

- Link level simulation

4.2 Change Requests presented for approval

The following CRs are in RP-000016:

Spec	CR	Re	Phas	Subject	Cat	Version-
25.102	015		R99	Description of Signal Levels for Receiver Characteristics	D	3.1.0
25.102	016		R99	Editorial corrections	D	3.1.0
25.102	017		R99	Spurious emission correction	F	3.1.0
25.102	018		R99	Performance requirement for base station transmit diversity	C	3.1.0
25.102	019		R99	Corrections for UE TDD Blocking Requirements	F	3.1.0
25.102	020		R99		F	3.1.0
25.102	021		R99	Clarification of ACLR	F	3.1.0
25.102	022		R99	Clock Accuracy	C	3.1.0
25.102	023		R99	Peak Code Domain Error	C	3.1.0
25.102	024		R99	Modulation Accuracy	C	3.1.0
25.102	025		R99	Out-of-synchronization handling of the UE in TS 25.102	C	3.1.0

5 25.104

5.1 Status of the document

Work concluded since last RAN meeting

- Treatment of external RF devices
- Modulation accuracy
- More performance results

Work not completed

- Performance results

5.2 Change Requests presented for approval

The following CRs are in RP-000017:

Spec	CR	Re	Phas	Subject	Cat	Version-
25.104	022		R99	Clarification of Receiver Dynamic Range requirement	F	3.1.0
25.104	023		R99	Change of propagation conditions for Case 2	F	3.1.0
25.104	024		R99	Removal of chapter 6.6.2.3 in 25.104	F	3.1.0
25.104	025		R99	Editorial changes to 25.104	D	3.1.0
25.104	026		R99	Corrections of spurious emissions aligning to GSM for UTRA:	F	3.1.0
25.104	027	1	R99	Regional requirements in TS 25.104	D	3.1.0
25.104	028		R99	Specifications applicable in case of use of RF devices external	F	3.1.0
25.104	029		R99	Clarification for maximum output power and rated output power	F	3.1.0
25.104	030		R99	UL Performance requirement in multipath case 3	F	3.1.0
25.104	031		R99	ACLR	D	3.1.0
25.104	032		R99	Spectrum emission mask	F	3.1.0
25.104	033		R99	Rx spurious emissions measurement bandwidth	F	3.1.0
25.104	034		R99	Clarification for Peak code domain error	D	3.1.0
25.104	035		R99	Corrections for BS FDD Modulation Accuracy	F	3.1.0
25.104	036		R99	Modification to the handling of measurement equipment	F	3.1.0
25.104	037		R99	Update to downlink test models	D	3.0.0
25.104	038		R99	Birth-Death tap delays	F	3.1.0

The following CR is in RP-000144

Spec	CR	Re	Phas	Subject	Cat	Version-
25.104	0xx		R99	Data clock accuracy	F	3.1.0

6 25.105

6.1 Status of the document

Work concluded since last RAN meeting

- Corrections

Work not completed

- Performance results

6.2 Change Requests presented for approval by category

The following CRs are in RP-000018:

Spec	CR	Re	Phas	Subject	Cat	Version-
25.105	019	1	R99	Corrections for TDD BS blocking requirements	F	3.1.0
25.105	020		R99	Revised Spurious Emission Requirements	F	3.1.0
25.105	021		R99	Corrections of spurious emissions aligning to GSM for UTRA:	F	3.1.0
25.105	022		R99	Editorial corrections	D	3.1.0
25.105	023		R99	Spurious emission correction	F	3.1.0
25.105	024		R99	Protection outside a licensee's frequency block	F	3.1.0
25.105	025		R99	Definition of Rated Output Power and Pmax	F	3.1.0
25.105	026		R99	Primary CCPCH Power	F	3.1.0
25.105	027		R99	BS Transmit OFF power	F	3.1.0
25.105	028		R99	Corrected reference sensitivity value for the TDD BS	F	3.1.0
25.105	029		R99	ACLR	F	3.1.0
25.105	030		R99	Spectrum emission mask	F	3.1.0
25.105	031		R99	Clock Accuracy	C	3.1.0

7 25.941

7.1 Status of the document

Document is stable and complete.

7.2 Change Requests presented for approval

None

8 25.113

Work completed since last RAN meeting

- Editorial corrections
- Base station EMC

Work not completed

- None known

8.1 Change Requests presented for approval

The following CRs are in RP-000019:

Spec	CR	Re	Phas	Subject	Cat	Version-
25.113	001		R99	Corrections to TS 25.113	F	3.0.0
25.113	002		R99	Definitions for TS 25.113	F	3.0.0
25.113	003		R99	Corrections and additions to TS 25.113	F	3.0.0

9 25.123 / 25.133

Work since last RAN meeting

- Major improvements made in the RRM area
- Measurement accuracy
- Compressed mode
- Handover
- Radio link failure
- Cell selection/reselection

Conclusions

- CPICH SIR removed
- Simulation assumptions

Work not completed

- Most performance results in all sections

9.1 Change Requests presented for approval

The following CRs are in RP-000020 and RP-000021:

Spec	CR	Re	Phas	Subject	Cat	Version-
25.123	001		R99	Update of test requirements for TDD/TDD Handover	F	3.0.0
25.123	002		R99	Update of the requirements for TDD/FDD Handover	F	3.0.0
25.123	003		R99	Update of Cell Selection and Re-selection sections	C	3.0.0
25.123	004		R99	Update of Power management and Radio Link Surveillance	F	3.0.0
25.123	005		R99	Update of measurements performance requirements	F	3.0.0
25.123	006		R99	Inclusion of transport channel BER	F	3.0.0
25.123	007		R99	Receiver Timing Advance	F	3.0.0
25.133	001		R99	Modification of RL Failure Requirement	F	3.0.0
25.133	002		R99	Idle Mode Tasks	C	3.0.0
25.133	003		R99	Revised UE handover requirements	F	3.0.0
25.133	004		R99	Editorial corrections	D	3.0.0
25.133	005		R99	UE measurement requirement update	F	3.0.0
25.133	006		R99	TDD Measurements Performance Requirements for TS25.133	B	3.0.0
25.133	007		R99	UTRAN measurement requirement update	F	3.0.0
25.133	008		R99	Requirements on parallel measurements	F	3.0.0
25.133	009		R99	Inclusion on transport channel BER.	F	3.0.0

10 25.141

Work concluded since last RAN meeting

- Most test cases
- Handling of measurement uncertainty

Work not completed

- Tests running around 1 WG meeting behind core specifications

10.1 Change Requests presented for approval

The following CRs are in RP-000022:

Spec	CR	Re	Phas	Subject	Cat	Version-
25.141	001		R99	Clarification of Receiver Dynamic Range requirement	F	3.0.0
25.141	002		R99	Editorial changes	D	3.0.0
25.141	003		R99	Occupied bandwidth measurement	F	3.0.0
25.141	004		R99	Clarification of "random" in relation to injected bit errors	F	3.0.0
25.141	005		R99	Test Models for transmitter	B	3.0.0
25.141	006	1	R99	Regional requirements in TS 25.104	D	3.0.0
25.141	007		R99	Blocking test	F	3.0.0
25.141	008		R99	ACLR measurement	F	3.0.0
25.141	009		R99	Peak code domain error measurement	F	3.0.0
25.141	010		R99	Test point & set of specifications for use of external RF devices	F	3.0.0
25.141	011		R99	CR for Performance requirement in TS 25.141	F	3.0.0
25.141	012		R99	Spectrum emission mask	F	3.0.0
25.141	013		R99	BS configurations	B	3.0.0
25.141	014		R99	Test models	F	3.0.0
25.141	015		R99	Update to Downlink Test Models	F	3.0.0
25.141	016		R99	Remove revision marks in annex A	D	3.0.0
25.141	017		R99	Format and interpretation of tests	D	3.0.0
25.141	018		R99	Modifications for system set-up's TS25.141v3.0.0	F	3.0.0
25.141	019		R99	Intermodulation test	F	3.0.0
25.141	020		R99	Modifications for test models	C	3.0.0
25.141	021		R99	Receiver diversity	C	3.0.0
25.141	023		R99	Spectrum emission mask	F	3.0.0
25.141	024		R99	Rx spurious emissions measurement bandwidth	F	3.0.0
25.141	025		R99	Modification to the handling of measurement equipment	F	3.0.0
25.141	026		R99	Test models	F	3.0.0

11 25.142

Work concluded since last RAN meeting

- Most test cases
- Handling of measurement uncertainty

Work not completed

- Tests running around 1 WG meeting behind core specifications

11.1 Change Requests presented for approval

The following CRs are in RP-000023:

Spec	CR	Re	Phas	Subject	Cat	Version-
25.142	001		R99	Conformance test descriptions for spectrum emission mask and	C	3.0.0
25.142	002		R99	Conformance test description for Adjacent Channel Selectivity	F	3.0.0
25.142	003		R99	Conformance test description for blocking characteristics	F	3.0.0
25.142	004	1	R99	Conformance test description for performance requirements	F	3.0.0
25.142	005		R99	Protection outside a licensee's frequency block	F	3.0.0
25.142	006		R99	ACLR	F	3.0.0
25.142	007		R99	Corrected reference sensitivity value	F	3.0.0
25.142	008		R99	Conformance test description for Tx spurious emissions	F	3.0.0
25.142	009		R99	Clause 5: General test conditions and declarations	F	3.0.0
25.142	010		R99	Conformance test description for Primary CCPCH power	F	3.0.0
25.142	011		R99	Conformance test description for transmit OFF power	F	3.0.0
25.142	012		R99	Conformance test description for Rx spurious emissions	F	3.0.0

12 25.942

The document is presented for information, this in an internal report. Document is RP-.

13 25.943

The document is presented for information it is for release 00. Document is RP-.

14 Release 99 submission forms

None.

15 Miscellaneous

The major red flag through out the specifications is the simulation work, for both the UE and BTS specifications and the RRM area. It is the aim of RAN4 to completion this work by the next RAN meeting, simulation assumptions have been agreed. Compressed mode is another open area. The choice of a few optimum patterns has proved difficult, again it is hoped to complete this by the next RAN meeting.

16 Concluding remarks

RAN WG4 has achieved considerable progress in our work over the last RAN meeting, and all companies and delegates must be acknowledged for their hard work and fruitful collaboration.

17 Items for release 00

Technical corrections
Repeaters
FDD Base Station Classification
TDD Base Station Classification
Low chip rate option
TDD node B synchronisation
Deployment Scenarios

18 RAN WG4 meetings in 2000

Year	Meeting	Dates	Location	Country	Host
2000	RAN #7	13 - 15 March	Madrid	Spain	Telefónica Moviles
2000	WG4 #12	22 - 26 May	Turku	Finland	Nokia
2000	RAN #8	19 - 21 June	Düsseldorf	Germany	Mannesman
2000	WG4 #13	11 - 16 September	Milan	Italy	Omnitel
2000	RAN #9	27 - 29 September	Hawaii	USA	T1/ARIB/TTC
2000	WG4 #14	20 - 24 Nov	Bangalore	India	SAS
2000	RAN #10	6 - 8 December	Bangkok	Tailand	Unisys/ARIB