TSG-RAN Meeting #28 **RP-~~050200~~050387**
Quebec, Canada, 1-3 June 2005

Title: **SID: UTRA FDD TMA**
Agenda: **8.14**
Document for: **Approval**

Study Item Description

Title: UTRA Tower Mounted Amplifier (FDD)

1 3GPP Work Area

X	Radio Access
	Core Network
	Services

2 Linked work items

None

3 Justification

Tower Mounted Amplifiers (TMA) are external low noise RX amplifier and are an important part of the radio network, reducing the system noise figure and improving the sensitivity of the Node B.

The TMA has currently a vendor specific performance and characteristic, whereas the overall system performance is covered by requirements and tests according to the concept of different test ports (TS 25.104, TS 25.141). Radio characteristics are specified at the BS antenna connector. If any external apparatus such as RX amplifier, a filter or the combination of such devices is used, requirements apply at the far end antenna connector.

TMA solutions as to the current date are either vendor specific delivered as a whole site solution or are proprietary from different suppliers and hence a mix of TMA and base stations of different supplier is not possible without loosing flexibility for the operator.

This study item proposes to study different alternatives how external low noise RX amplifier radio requirements for UTRA FDD could be standardized.

4 Objective

The objectives of this study item are:

- Identification of the radio requirements, which need to be standardized for external low noise RX amplifier (TMA) for UTRA FDD.
- The feasibility of splitting the radio requirements between base station and UTRA FDD TMA.
- Alternatives how UTRA FDD TMA radio requirements could be standardized.
- How to structure UTRA FDD TMA radio requirements (e.g. a single set of UTRA FDD TMA requirements supporting all BS configurations or multiple sets of requirements?)
- Impact on current specifications TS 25.104 ~~and~~, TS 25.141, and TR 25.942.
- Impact on RRM measurements.
- Impact on conformance testing and overall system responsibility.

5 Service Aspects

None

6 MMI-Aspects

None

7 Charging Aspects

None

8 Security Aspects

None

9 Impacts

Affects:	UICC apps	ME	AN	CN	Others
Yes			X		
No	X	X		X	X
Don't know					

10 Expected Output and Time scale (to be updated at each plenary)

New specifications						
Spec No.	Title	Prime rsp. WG	2ndary rsp. WG(s)	Presented for information at plenary#	Approved at plenary#	Comments
TR 25.8xx	UTRA Tower Mounted Amplifier (FDD)	R4			RAN#31	New Technical Report (March 2006)
Affected existing specifications						
Spec No.	CR	Subject		Approved at plenary#		Comments

11 Work item rapporteur(s)

Klas.Sjerling@ericsson.com

12 Work item leadership

TSG RAN WG4

13 Supporting Companies

TSG RAN
Alcatel, Ericsson, Kathrein, Nokia, Telefonica, TIM, T-Mobile, Vodafone

14 Classification of the WI (if known)

	Feature (go to 14a)
X	Building Block (go to 14b)
	Work Task (go to 14c)

14a The WI is a Feature: List of building blocks under this feature

(list of Work Items identified as building blocks)

14b The WI is a Building Block: parent Feature

RAN Improvement

14c The WI is a Work Task: parent Building Block

(one Work Item identified as a building block)