3GPP TSG RAN#8 ***RP (00)0314***
Dusseldorf, Germany, **21 -23 June, 2000**

Agenda Item: **6**

Source: **CWTS**

To: **RAN#8**

Title: **Proposed WI "Smart antenna"**

Document for: **Approval**

Work Item Description

Title

Smart antenna

1 3GPP Work Area

X	Radio Access
	Core Network
	Services

2 Linked work items

Low Chip Rate TDD physical layer
Low chip rate TDD layer2 and layer3 protocol aspects
Low chip rate TDD UTRAN architecture aspects
RF Radio Transmission/Reception, System Performance Requirements and Conformance Testing
Low chip rate TDD UE radio access capabilities

3 Justification

The integration of TDD low chip rate option in Release 2000 was discussed and approved in RAN#6. The work plan of the integration of low chip rate TDD in R00 was discussed in RAN#7. As a feature, the low chip rate TDD is sub-divided into several building blocks via the email discussion. The smart antennas are the essential part of the low chip rate TDD option enhancing the system capacity , and this has particular impact on the physical and high layers. This paper is to describe one of the low chip rate TDD building blocks – smart antenna.

4 Objective

The objective of this work item is to clarify the technology of smart antenna and the impact of smart antenna on other layers. And as a building block, it will most affect the physical layer specification.

Task	**Planned Start**	**Planned Finish**
Complete TR for physical layer	01/2000	05/2000
Approval of the TR	06/2000	06/2000
Possible Change Request or new specification	06/2000	09/2000
Possible remaining corrections and clarifications	09/2000	12/2000

5 Service Aspects

None

6 MMI-Aspects

None

7 Charging Aspects

None

8 Security Aspects

None

9 Impacts

Affects :	USIM	ME	AN	CN	Others
Yes		X	X		
No	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

Affected existing specifications

Spec No.	CR	Subject	Approved at plenary#	Comments
25.201		Physical layer – General description	RAN#9	
25.221		Physical channels and mapping of transport channels onto physical channels (TDD)	RAN#9	
25.222		Multiplexing and channel coding (TDD)	RAN#9	
25.223		Spreading and modulation (TDD)	RAN#9	
25.224		TDD; physical layer procedures	RAN#9	
25.225		Physical layer; measurements	RAN#9	
25.302		Services Provided by the physical layer	RAN#9	

11 Work item raporteurs

Mr. Guiliang Yang (CATT/CWTS)

12 Work item leadership

RAN WG1

13 Supporting Companies

Ericsson, Fujitsu, IDC, LG, NTT DoCoMo, Panasonic, RFI, Samsung, Siemens

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

low chip rate TDD

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

(one Work Item identified as a building block)