TSG RAN meeting#19 **RP-0300186**

Birmingham, UK, 11th-14th of March 2003,

Agenda Item: 9.10

Source: Nokia

Title: WI proposal for UMTS 1700/2100 MHz

Document for: Approval

Work Item Description

Title: **UMTS 1.7/2.1 GHz**

1 3GPP Work Area

X	Radio Access
	Core Network
	Services

2 Linked work items

None

3 Justification

In the WRC 2000, additional spectrum was identified for IMT-2000, including the band 1710-1885 MHz. As a result of this decision the UMTS1800 work was concluded in rel-5 time frame in TSG RAN.

Recently there have been initiatives taken by one Administration in Region 2 that allows the band pairing between 1710 MHz UL and 2110 MHz DL. It is expected that other Administrations will follow.
3GPP has specified the band 2110-2170 MHz in its original rel-99 activity, and is also well suited for using with 1710-1770 MHz as uplink. Such an urgent specification work in 3GPP will allow for a timely global WCDMA arrangement so that the entire 2x60 MHz paired spectrum bands 1710-1770 and 2110-2170 MHz or parts of these bands may also be used with a consistent 400 MHz frequency separation between the uplink and the downlink.

While working with UMTS 1.7/2.1 GHz, 3GPP TSG RAN WG4 should consider information made available by FCC and Committee T1 (T1P1) concerning band plans, and ITU Region 2 implementation issues what may consider this new frequency allocation in North America.

4 Objective

The purpose of this work item is to generate necessary information of 1.7/2.1 GHz FDD system for potential deployment only in ITU Region 2 detailed below:

4.1 Generate a report summarizing a study of radio requirements UTRA FDD in the 1.7/2.1 GHz Band

- ?? 1710 – 1770 MHz: Up-link (UE transmit, Node B receive)
- ?? 2110 – 2170 MHz: Down-link (Node B transmit, UE receive)

It has to be noted that this WRC 1.7/2.1 GHz Band includes the current FCC band allocation given below for information

1710 – 1755 MHz: Up-link (UE transmit, Node B receive)

2110 – 2155 MHz: Down-link (Node B transmit, UE receive)

This report, while considering the radio requirements for UTRA FDD in the 1.7/2.1 GHz Band, shall investigate

- ?? The need of 2 sets of Node B's requirements : One for the full band and another one for the restricted FCC bands given above.
- ?? Scenarios about the use of UE's operating over 2*60 MHz in North America with possible interferers in 1755-1770 MHz and 2155-2170 MHz.

4.2 Generate CR's to update the appropriate documents.

4.3 TSG RAN WG2 - study any issues related to UMTS at 1.7/2.1 GHz FDD band-signalling aspects.

4.4 TSG RAN WG3 - study any possible interface impacts to UMTS networks.

4.5 Any additional related issues.

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

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
25.101		UE Radio transmission and reception (FDD)	RAN#22 (December 2003)	
25.104		UTRA (BS) FDD; Radio transmission and reception	RAN#22 (December 2003)	
25.113		Base Station Electromagnetic compatibility	RAN#22 (December 2003)	
25.133		Requirements for Support of Radio Resource Management (FDD)	RAN#22 (December 2003)	
25.141		Base station conformance testing (FDD)	RAN#22 (December 2003)	
25.331		RRC Protocol	RAN#22 (December 2003)	
25.942		RF System Scenarios	RAN#22 (December 2003)	
25.306		Radio UE capability	RAN#22 (December 2003)	
25.307		Requirements on UEs supporting a Release Independent Frequency Band	RAN#22 (December 2003)	
34.121		Terminal Conformance Specification, Radio Transmission and Reception	T#23 (March 2004)	

11 Work item raporteurs

Nokia, Jussi Numminen .

12 Work item leadership

RAN WG 4

13 Supporting Companies

Cingular Wireless LLC, Nokia, Siemens, Nortel Networks, Ericsson

14 Classification of the WI (if known)

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

14b The WI is a Building Block:

This WI is a building block part of the radio interface improvement feature.