

**Source: Nokia**

**Title: New WI Proposal: Improved Receiver Performance Requirements for HSDPA**

**Document for: Approval**

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**Work Item Description**

**Title: Improved Receiver Performance Requirements for HSDPA**

**1 3GPP Work Area**

X	Radio Access
	Core Network
	Services

**2 Linked work items**

*None*

**3 Justification**

Performance requirements for HSDPA capable UE were discussed in RAN WG4, and the requirements for RAKE receiver are currently specified in TS25.101 for the 5 and 10 code UE. As the next step, in order to enhance the benefits of HSDPA as a feature in 3GPP, it is proposed that improved receiver performance requirements should be considered since it can significantly and robustly enhance the coverage, cell capacity and the peak data rate in a HSDPA system.

Therefore, it is proposed that improvement for performance requirements of HSDPA receiver should be discussed, and specified in TS 25.101. It is also proposed that these requirements shall be an optional capability for a HSDPA capable UE.

**4 Objective**

The purpose of this work item is to specify improved receiver performance requirements in realistic environments for HSDPA capable UE, which will enhance system performance and end user service quality. Reference receiver structures for performance enhancements should be agreed in WG4. The specification shall not mandate any specific implementation to meet performance enhancement.

To meet the schedule, the work should progress in phasing as follows:

- TSG RAN WG4#30, simulation assumption and cases agreed.
- TSG RAN WG4#31, review of simulation results, agreements on further simulations to conclude performance requirements.
- TSG RAN WG4#32, review of final results, conclusion of new performance requirements.

**5 Service Aspects**

*None*

**6 MMI-Aspects**

None

**7 Charging Aspects**

None

**8 Security Aspects**

None

**9 Impacts**

<b>Affects :</b>	<b>USI M</b>	<b>ME</b>	<b>AN</b>	<b>CN</b>	<b>Others</b>
<b>Yes</b>		X			
<b>No</b>	X		X	X	X
<b>Don't know</b>					

**10 Expected Output and Time scale**

<b>New specifications</b>						
Spec No.	Title	Prime resp. WG	2ndary resp. WG(s)	Presented for information at plenary#	Approved at plenary#	Comments
<b>Affected existing specifications</b>						
Spec No.	CR	Subject		Approved at plenary#		Comments
25.101		UE Radio transmission and reception (FDD)		RAN#25 (September 2004)		

**11 Work item rapporteurs**

Takehiro Nakamura (NTT DoCoMo)

**12 Work item leadership**

RAN WG 4

**13 Supporting Companies**

TSG RAN  
Nokia, Ericsson,

**14 Classification of the WI (if known)**

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

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

14b The WI is a Building Block: parent Feature is Improvements of Radio Interface.

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