

Work item sheet : Multiple Input, Multiple Output Antennas (MIMO)

1 3GPP Work Area

X	Radio Access
	Core Network
	Services

2 Linked work items

High Speed Downlink Packet Access

3 Justification

Within the HSDPA study item, it has been agreed that MIMO offers significant performance gains with acceptable impact to both UE and UTRAN. MIMO shall be optional at the UE.

4 Objective

The purpose of this work item is to improve the downlink performance by means of multiple antennas at both UE and UTRAN.

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 endorsement at plenary#	Approved at plenary#	Comments
25.876	Multiple-Input Multiple Output Antenna Processing for HSDPA	WG1		RAN#18	RAN#20	
25.996	Spatial channel model for multiple input multiple output simulations	WG1			RAN#20	
Affected existing specifications						
Spec No.	CR	Subject		Approved at plenary#		Comments
25.211		Physical channels and mapping of transport channels onto physical channels (FDD)		RAN #20		
25.212		Multiplexing and channel coding (FDD)		RAN #20		
25.213		Spreading and modulation (FDD)		RAN #20		
25.214		FDD : Physical layer procedures		RAN #20		
25.215		Physical layer measurements (FDD)		RAN #20		
25.221		Physical channels and mapping of transport channels onto physical channels (TDD)		RAN #20		
25.222		Multiplexing and channel coding (TDD)		RAN #20		
25.223		Spreading and modulation (TDD)		RAN #20		
25.224		Physical layer procedures (TDD)		RAN # 20		
25.225		Physical layer: Measurements (TDD)		RAN #20		
25.331		Radio Resource Control (RRC) Protocol Specification		RAN #20		

11 Work item raporteurs

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12 Work item leadership

TSG RAN WG1

13 Supporting Companies

TSG-RAN

14 Classification of the WI (if known)

	Feature (go to 14a)
	Building Block (go to 14b)
X	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

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

This is a work task - part of the HSDPA building block.