

Status Report for WI to TSG

Work Item Name: Improved minimum performance requirements for HSDPA UE categories 7 & 8

SOURCE: Rapporteur

TSG: RAN

WG: 4

E-mail address rapporteur: jussi.numminen@nokia.com

Ref. to WI sheet: RP-040375.doc, TSGRP#25 (2004)

Progress Report since the last TSG (for all involved WGs):

RAN WG4:

During RAN-WG4#34 meeting, in total of 18 documents were presented, mainly on simulation results based on assumptions agreed in RAN-WG4#33 and in RAN-WG4 HSDPA email reflector.

In RAN-WG4#34 HSDPA AdHoc session was held. Minutes of the Adhoc session can be found R4-050250. In Adhoc session the provided results were seen to have alignment and it was agreed to proceed to Phase 2 with selected cases.

- Agreement was to define enhanced receiver performance requirements based on chip-level equaliser for single transmit antenna case in Pedestrian B 3km/h and Vehicular A 30km/h.
- Need for enhanced performance requirements in Pedestrian A 3km/h and Vehicular A 120 km/h was decided to be further evaluated at the RAN4 HSDPA email reflector.
- Based on the presented results it was agreed that new enhanced performance requirements are not needed with open loop transmit diversity and that existing minimum requirements will apply.
- For closed loop transmit diversity it was agreed to gather more results without implementation imperfections at the RAN4 HSDPA email reflector in order to verify the need for enhanced requirements.

Results accounting implementation imperfections for the agreed cases are to be presented in next RAN-WG4 meeting.

List of Completed elements (for complex work items):

- Simulation Parameters
- Conditions for enhanced performance requirements with single transmit antenna in Pedestrian B 3km/h and Vehicular A 30km/h

List of open issues:

- Further evaluation of need for enhanced performance requirements with single transmit antenna in Pedestrian A 3km/h and Vehicular A 120km/h
- Conditions for performance assessment for Closed loop transmit diversity
- Performance requirements

Estimates of the level of completion (when possible):

50%

WI completion date review resulting from the discussion at the working group:

RAN#28 (June 2005)

References to WG's internal documentation and/or TRs:

RAN-WG4#34:

- R4-050250, Minutes of HSDPA simulation Ad Hoc, Qualcomm
- R4-050003, Simulation results for LMMSE performance, Texas Instruments
- R4-050013, LMMSE equalizer simulation results for FRC H-set 6, Sony Ericsson
- R4-050082, LMMSE equalizer simulation results for FRC H-set 6, NEC
- R4-050085, Simulation Results of FRC test for 10-code UE capability with LMMSE reference architecture, Panasonic
- R4-050099, Simulation results for Fixed Reference Channel H-Set 6 with LMMSE chip-rate-equalizer, Intel Corp.
- R4-050112, Modified channel models and channelisation codes for LMMSE simulations, Nokia
- R4-050113, Simulation results for LMMSE chip level equaliser with FRC H-Set 6, Nokia
- R4-050117, LMMSE equalizer simulation results for FRC H-Set 6, NTT DoCoMo
- R4-050156, LMMSE Equalizer Simulation Results for FRC H-Set 6, Fujitsu
- R4-050164, LMMSE equalizer FRC results with Tx Diversity, NTT DoCoMo
- R4-050194, Simulation results for FRC H-Set 6 with LMMSE equalizer, Qualcomm Europe
- R4-050209, Simulation results for LMMSE chip level equaliser and OL transmit diversity with FRC H-Set 6, Nokia
- R4-050210, Simulation results for LMMSE chip level equaliser and CL transmit diversity with FRC H-Set 6, Nokia
- R4-050211, Simulation results for LMMSE chip level equaliser with HS-SCCH, Nokia
- R4-050216, LMMSE simulation results for FRC H-set 6, InterDigital
- R4-050217, Summary spreadsheet for LMMSE Simulation results for FRC H-set 6, InterDigital
- R4-050219, HSDPA: LMMSE Simulation Results FRC H-Set 6, Motorola
- R4-050230, LMMSE equalizer simulation results without implementation margin for FRC H-Set 6, LG

RAN-WG4#33

- R4-040770, Minutes of HSDPA simulation Ad Hoc, HSDPA Ad Hoc
- R4-040668, Simulation assumptions for LMMSE performance requirements, Panasonic
- R4-040678, LMMSE Performance Requirements & Ideal Simulation Assumptions, Motorola
- R4-040680, HSDPA improvements for UE categories 7 and 8, Nokia
- R4-040711, Simulation Assumptions for HSDPA improvements for UE categories 7 and 8, InterDigital
- R4-040717, Simulation results for CQI requirements with LMMSE chip-level equalizer, Nokia
- R4-040718, Simulation results for different LMMSE chip level equaliser lengths, Nokia