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#35 meeting, in total of 17 documents were presented, focusing on the results including the implementation margins as agreed in RAN-WG4#34. In RAN-WG4#35 HSDPA Ad Hoc session was held. The minutes of the Ad hoc session can be found in R4-050541. Based on the results new improved performance requirements for single link case were agreed in CR430 (R4-050538). As sufficient amount of results were not available to be able to conclude the performance requirements for CL mode 1, it was still agreed to provide more results at 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
- Performance requirements for single link case

List of open issues:

- Performance requirements for CL mode 1

Estimates of the level of completion (when possible):

90%

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#35:
R4-050541, Summary LMMSE discussions, Interdigital
R4-050290, LMMSE performance with implementation margin, TI
R4-050291, Throughput improvement using LMMSE based receiver for VA120 channel, TI
R4-050427, Improved HSDPA Receiver Performance with Implementation Margin, Qualcomm, Noted
R4-050428, LMMSE Receiver Performance for HSDPA with Closed-Loop Transmit Diversity (Mode 1), Qualcomm
R4-050442, Throughput results for H-Set 6 assuming chip level equaliser with implementation imperfections, Nokia
R4-050443, Throughput results for H-Set 6 assuming chip level equaliser with implementation imperfections (VA120), Nokia
R4-050473, Simulation results with LMMSE equalizer including implementation margin, Intel Corp.
R4-050475, LMMSE Simulation Results with Implementation Margin PA3, PB3, VA30, Motorola
R4-050491, Performance Requirements of FRC test for "Enhanced Requirements Type 2" without transmit diversity, Panasonic

R4-050492, Performance Requirements of FRC test for "Enhanced Requirements Type 2" in VA120, Panasonic
R4-050493, Performance Requirements of FRC test for "Enhanced Requirements Type 2" with Closed Loop Transmit Diversity, Panasonic
R4-050501, InterDigital LMMSE results for FRC H-set 6 with implementation impairments, InterDigital
R4-050502, Summary spreadsheet of LMMSE results for FRC H-set 6 with implementation impairments, InterDigital, et.al.
R4-050508, LMMSE equalizer simulation results for FRC H-Set 6 without implementation margin, Fujitsu
R4-050509, LMMSE equalizer simulation results for FRC H-Set 6 with implementation margin, Fujitsu
R4-050513, LMMSE equalizer FRC results with implementation margin, NTT DoCoMo
R4-050514, LMMSE equalizer FRC results with Closed Loop Transmit Diversity, NTT DoCoMo
R4-050530, Summary of ideal simulation results for LMMSE CLE, Nokia
R4-050538, Specification of enhanced performance requirements type 2, CR 430, 25 101, Rel-6

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 Performace 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