

Progress Report WP2

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Testbed Outlook

Long-term Testbed Strategy

- Integration of a subset of advanced MIMO detection algorithms (e.g., Ordered SIC, COSIC, Sphere)
- Collision-based MU-MIMO uplink

Next Steps

- Stabilization and parameter adjustments for MASCOT testbed
- Testing of MIMO-MAC algorithms (D2.3.2b)
- Integration of existing MMSE-SQRD ASIC in MASCOT testbed combined with a simple non-linear MIMO detector (e.g., Ordered SIC or COSIC)

VHDL Library of Reference Designs

Selected Algorithms

- Sorted QR Decomposition [Luethi et al.; 2007]
- Singular Value Decomposition [Studer et al.; 2007]
- Lattice-reduction aided precoding using Brun's algorithm [Burg, Seethaler, and Matz; 2006]
- 425 Mbps K-BEST decoder for MIMO and Multi-User detection [Wenk et al.; 2006]

VHDL Library of Reference Designs

Form of Dissemination

- Order by email - no active support
- Contains MATLAB model, VHDL source code, and VHDL testbench
- High-level description in form of publication and/or architectural block-diagram
- No liability