



Turbo-based Multi-Gigabit Wireless software platform and multiple interface management (OMEGA project)

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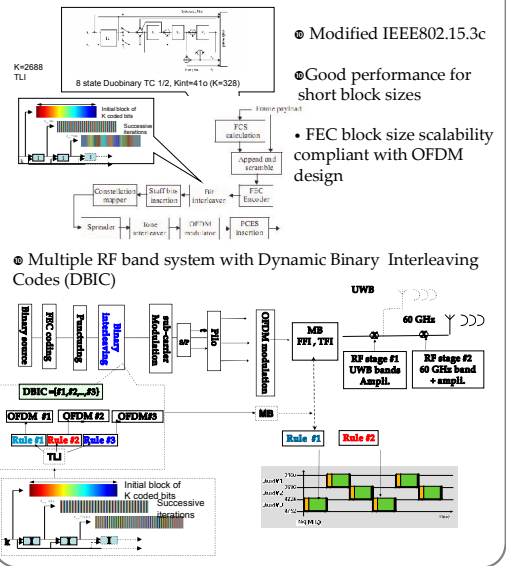


Abstract

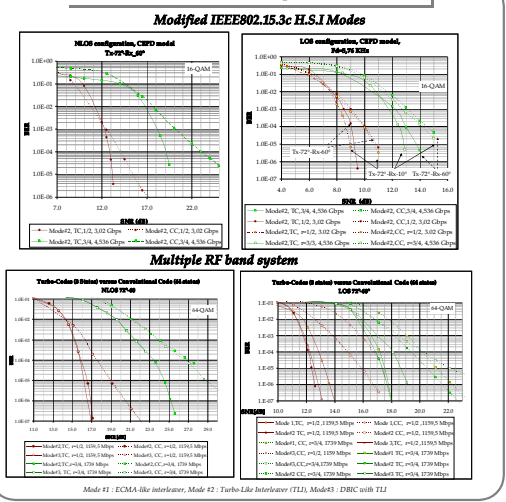
- Optimization of WPAN MGWS oriented on Turbo FEC coding combined with advanced Turbo Interleaving techniques
- Advanced Interleaving techniques based on dynamic process to reduce complexity and improve coexistence
- Multiple Interface management for MGWS using a PHY generic green metric radio metric allowing transmission mode selection for multiple interface system.

WPAN PHY layer optimization

Turbo processing and dynamic process

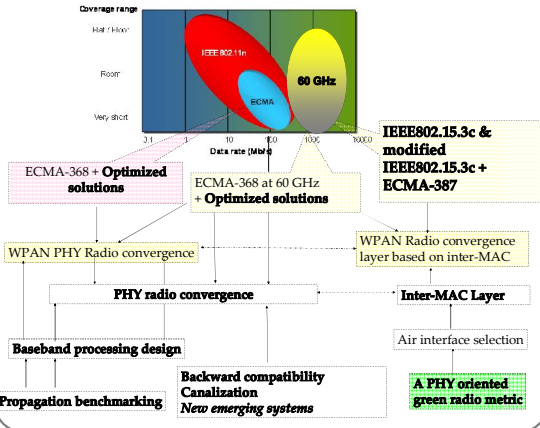


WPAN Turbo PHY performance

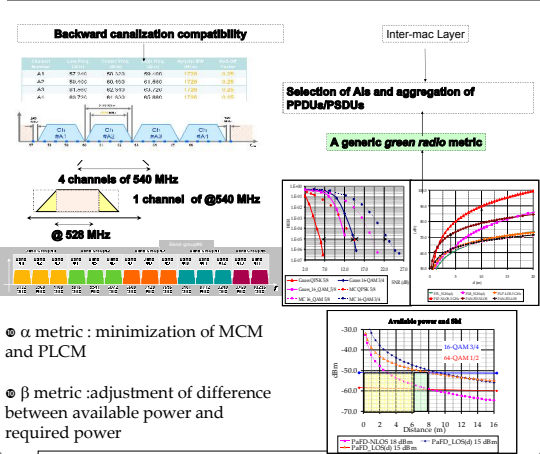


Multiple interface management and coexistence

Multi-Gigabit PHY radio convergence



Multiple interface management and coexistence



Conclusions and perspectives

- DBIC: Latency and complexity reduction (factor x6)
- TL1 combined with TC : gains up to 1 dB. Outer Interleaving size adjusted to Inner TC Interleaving size thanks to DBIC
- Multiple interface management : a green radio metric based on Multipath Channel Margin and Path-Loss Channel Margin combined with EIRP adjustment

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