

Development of Dependable Wireless System and Device

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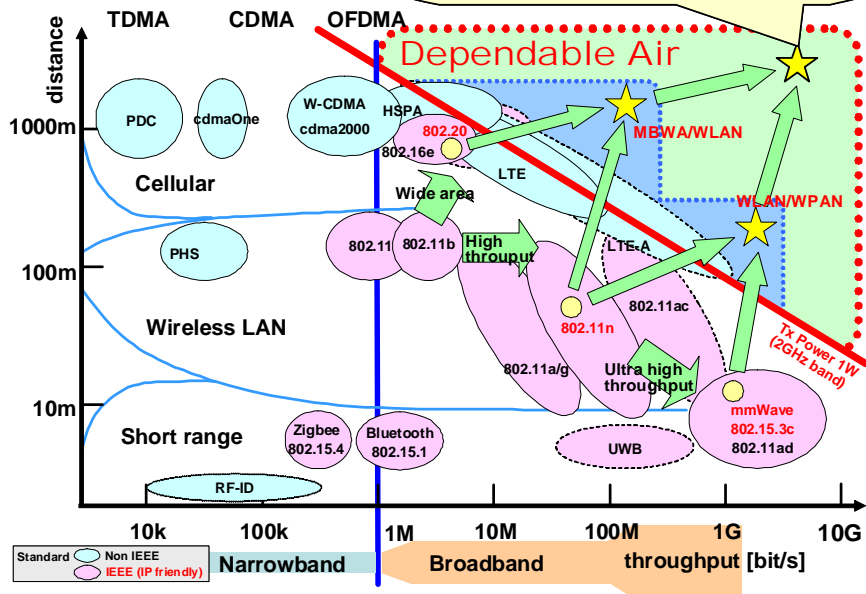
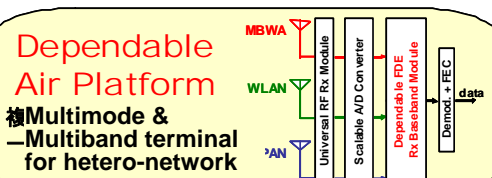
Dependable Air: High-Reliability and High-Speed Hetero-Wireless Network

Realizing high-reliability and high-speed wireless access connection using optimum selection method of heterogeneous wireless interfaces

Major Results:

- (1) Design and implementation of dependable frequency domain equalization (FDE) LSI
- (2) World record high-speed and low-power ADC: 250fJ/conv. at 6bit and 700Msample/s
- (3) Millimeter-wave-band 90nm CMOS Tx chip: High-output power 12.5dBm, High gain 40dB, Low phase-noise -89dBc/Hz@1MHz
- (4) Multiband 90nm CMOS Rx chip: Broadband 60GHz- and 5GHz-band RF LSI

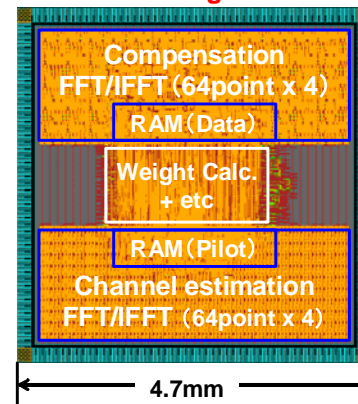
Dependable Air



Dependable FDE LSI

Design and implementation of dependable FDE LSI for optimal channel and modulation control

ASIC Implementation (180nm CMOS)
2-ch Real-time Signal Processing



BER

