

QSR10GU-AX

8x8 + 4x4 DBDC 802.11ax WLAN Chipset Solution

PRODUCT BRIEF



Features

5GHz Modem

- Industry's highest performance 802.11ax/ac/n/a/g/b wireless LAN chipset, combining high PHY/data link speed with reliable high data throughput over the maximum network diameter
- Up to 8.6Gbps PHY/Data Link Speed in 160MHz (11ac) mode
- Up to 8 streams in 8x8 MIMO configuration
- BW support: 20MHz, 40MHz, 80MHz, 80+80MHz (11ac only), 160MHz (11ac only)
- Modulation support: MCS 0-9, with support for 1024 QAM mode
- Support for unequal MCS
- Support for MU-MIMO and up to 4 users per group
- Support Dual Channel, Dual Concurrent Mode
- Support for LDPC, STBC
- HW Support for Singular Value Decomposition (SVD) for explicit Transmit Beamforming
- SuperTx for up to 2x performance for 5GHz on 11ax clients

2.4GHz Modem

- Support for 802.11ax/n/g/b
- Up to 1.15Gbps maximum PHY/Data Link Speed in 40MHz mode
- Up to 4 streams in 4x4 MIMO configuration
- BW support: 20MHz, 40MHz
- Modulation support: MCS 0-76, with support for 1024QAM mode
- Support for 2.4GHz Coexistence
- Support for explicit Transmit Beamforming

Interfaces

Datapath

- RGMII
- SGMII
- PCIe Gen 3.0
- PCIe Gen 2.0
- RXAUI

External Memory

- DDR3
- SPI Flash
- Serial EEPROM

Peripheral

- GPIO
- UARTs
- SPI
- I2C
- PTA

Certifications

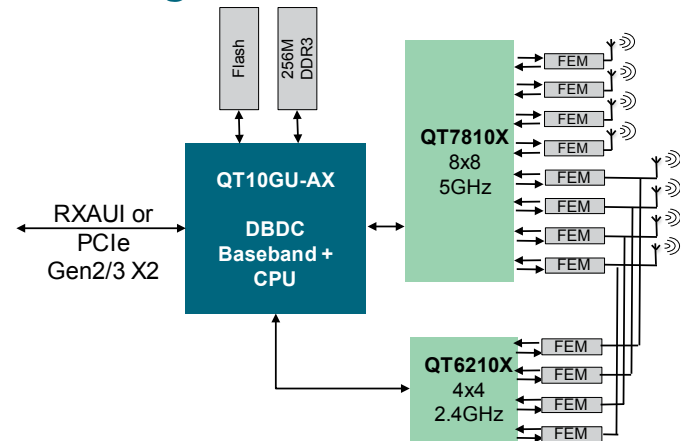
Worldwide Regulatory, Wi-Fi Alliance certifications (WPA, WPA2 Personal/Enterprise, WMM, WMM-PS)

Applications

- Multimedia Home Gateways
- Data Residential Gateways
- Access Points
- Mesh Nodes



Block Diagram



Software Support

Quantenna SDK: Quantenna SDK allows rapidly integrating the most advanced wireless features onto your Linux-based system. A simple Quantenna Configuration and Status API (QCSAPI) allows the management of the Wi-Fi chipset by any Linux Host without complex integration or hardware dependency. The totality of 802.11 MAC is managed onboard Quantenna Baseband.

Integration on Android-based Systems is also possible.

Software Package: Complete software package for standard Access Point/Router/Mesh Node in Linux with standard APIs to allow for easy porting.

VISION: QSR10GU-AX supports ViSiON, a cloud-based service that allows for better remote support, faster field trials and deployment.

Contact

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