

QSR5GU-AX Plus

5x5 + 4x4 DBDC 802.11ax Wireless LAN Chipset Solution



PRODUCT BRIEF

Features

5GHz Modem

- Industry's highest performance 5x5 802.11ax/ac/n/a wireless LAN chipset, combining high PHY/data link speed with reliable high data throughput over the maximum network diameter
- Up to 5.4Gbps PHY/Data Link Speed in 160MHz (11ac) mode
- Up to 5 streams in 5x5 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 for LDPC, STBC
- Transmit Beamforming: support for 802.11ax, 802.11ac and 802.11n
- HW Support for explicit Transmit Beamforming.
- SuperTx for up to 2x performance for 5GHz on 11ax clients

2.4GHz Modem

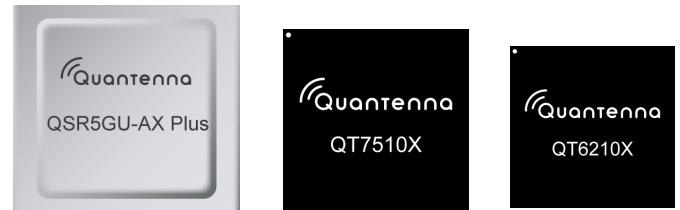
- Support for 802.11ax/n/g/b.
- Up to 1.15Gbps maximum PHY/Data Link Speed in 40MHz mode.
- Up to 4 streams in 4x4 MIMO configuration.
- BW support: 20MHz, 40MHz.
- Modulation support: MCS 0-76, with support for 1024QAM mode.
- Support for 2.4GHz Coexistence using PTA interface.
- Support for explicit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

Interfaces

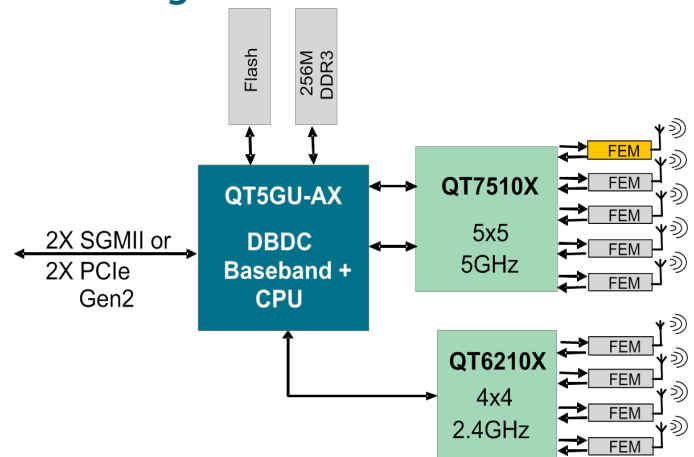
Datapath	External Memory	Peripheral
<ul style="list-style-type: none">• SGMII• PCIe Gen 2.0	<ul style="list-style-type: none">• DDR3• SPI Flash• Serial EEPROM	<ul style="list-style-type: none">• GPIO• UARTs• SPI• I2C• PTA

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: QSR5GU-AX Plus supports ViSiON, a cloud-based service that allows for better remote support, faster field trials and deployment.

Certifications

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

Contact

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