

# 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 rates with reliable high speed data coverage over the entire network
- Up to 5.4Gbps PHY/Data Link Speed in 160MHz mode
- Up to 5 streams in 5x5 MIMO configuration
- BW support: 20MHz, 40MHz, 80MHz, 80+80MHz (11ac only), 160MHz (11ac only)
- Modulation support: MCS 0-11, 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 11ac 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

- SGMII
- PCIe Gen 2.0

#### External Memory

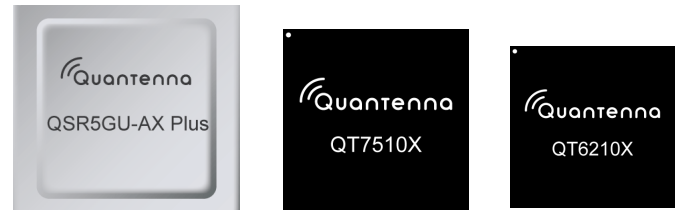
- DDR3
- SPI Flash
- Serial EEPROM

#### Peripheral

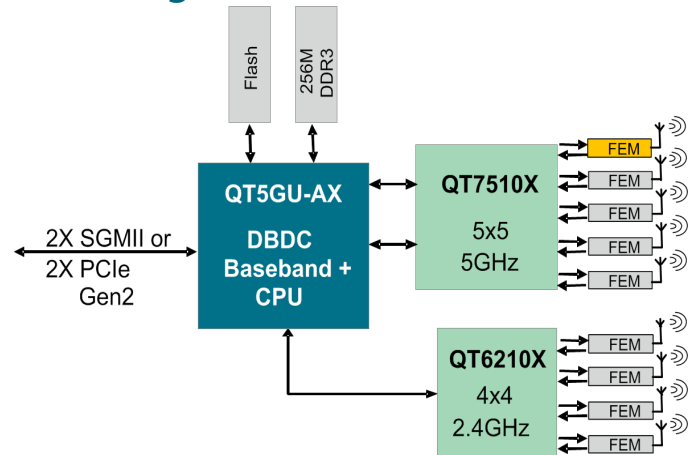
- GPIO
- UARTs
- SPI
- I2C
- PTA

### Applications

- Multimedia Home Gateways
- Data Residential Gateways
- Access Points
- Repeaters



### 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's Baseband.

Integration on Android-based systems is also possible.

**Software Package:** Complete software package for standard Access Point/Router/Repeater 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), etc.

### Contact

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