

# QSR10GU

8x8 + 4x4 DBDC Wireless LAN Chipset Solution



## PRODUCT BRIEF

### Features

#### 5GHz Modem

- Industry's highest performance 802.11ac/n/a 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 mode
- Up to 8 streams in 8x8 MIMO configuration.
- BW support: 20MHz, 40MHz, 80MHz, 80+80MHz, 160MHz
- Modulation support: MCS 0-9, with support for proprietary 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 802.11ac and 802.11n
- HW Support for Singular Value Decomposition (SVD) for explicit Transmit Beamforming
- Smart DFS: separate chains allocated for DFS or Off Channel Scanning

#### 2.4GHz Modem

- Support for 802.11n/g/b
- Up to 1.0Gbps 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 proprietary 1024QAM mode
- Support for 2.4GHz Coexistence
- Support for explicit Transmit Beamforming
- Support 256QAM and 1024QAM

### Applications

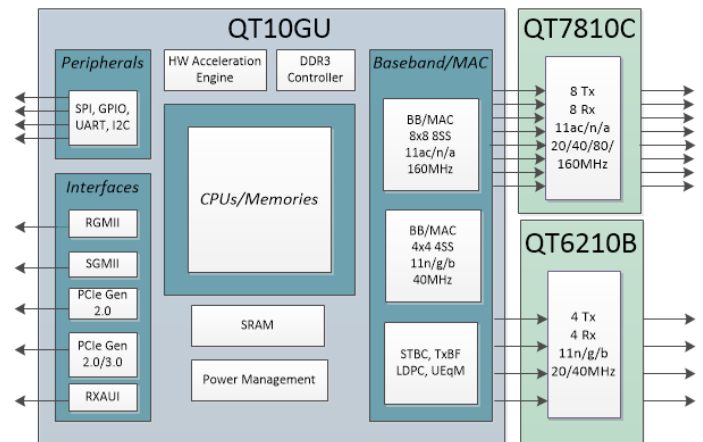
- Multimedia Home Gateways
- Data Residential Gateways
- Access Points
- Mesh Nodes

### Interfaces

Datapath	External Memory	Peripheral
• RGMII	• DDR3	• GPIO
• SGMII	• SPI Flash	• UARTs
• PCIe Gen 2.0 x1/x2	• Serial EEPROM	• SPI
• PCIe Gen 3.0 x1/x2		• I2C
• RXAUI		



### 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 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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