

QV860

802.11ac Wave 2 Solution for Compact DBDC AP & Extender



PRODUCT BRIEF

Features

- Member of high performance QSR1000 product family, QV860 offers state-of-the-art 802.11ac 4x4 performance while hosting an 802.11n 2x2 2.4GHz for compact and cost effective Dual Band Dual Concurrent application
- QV860 can operate as a stand-alone Video Bridge, Access Point, Repeater, Mesh Node without the need for an external network processor
- 802.11ac Wave 2 MIMO 4x4: 4 Spatial Streams in 5GHz
- 802.11n MIMO 2X2 IN 2.4GHz (3rd party hosted by QV860 baseband)
- 5GHz Band Operating Frequencies: 4.90 to 5.85GHz
- Max modulation 256-QAM (MCS9)
- Channel width 20/40 /80MHz
- Up to 1.733Gbps Phy rate in 80MHz mode
- Digital Transmit Beamforming: both Explicit and Implicit
- Dual-Core ARC-based network processor with hardware assist blocks managing multiple 802.11 connections
- Embedded DSP Engine to hardware accelerate, Aggregation, De-Aggregation and packet re-ordering
- Wi-Fi Alliance Certified MU-MIMO Access Point
- 802.11 standards (5GHz band)
 - 802.11a/n/ac
 - 802.11e QoS
 - 802.11h DFS and TPC
 - 802.11i MAC Security Enhancements
 - 802.11k Radio Resource Management
 - 802.11r Fast BSS Transitions
 - 802.11u Interworking with External Networks
 - 802.11v Wireless Network Management
 - 802.11w Protected Management Frames
- Quantenna Smart Channel Selection (Dynamic selection at runtime)
- Quantenna SuperDFS for optimized Spectrum usage (includes Seamless DFS Re-Entry)
- Quantenna iQStream for Advanced Video-grade QoS
- Quantenna Universal Repeater
- ViSiON-ready for Cloud-based Wi-Fi Management

Interfaces

Host (if any needed)

- 2 RGMII/MII
- PCIe Gen 2.0

Peripheral

- GPIO
- UARTs
- SPI
- I2C

External Memory

- DDR2/3 support:
 - Reference designs use 128MB or 256MB 16-bits DDR
- SPI Flash
- Serial EEPROM

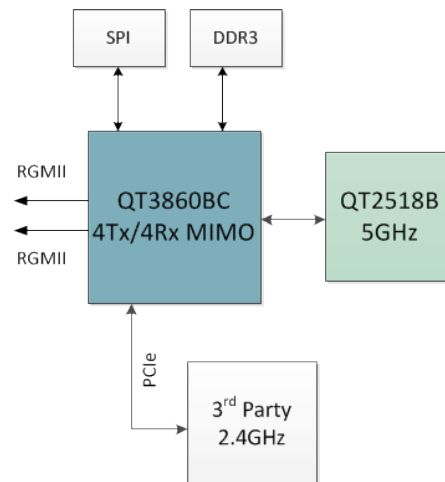
Applications

QV860 is most adapted to Multi-AP extended Home Network architectures:

- Video Bridges
- Stand-Alone Access Points
- Repeaters, Extenders, Mesh nodes



Block Diagram



Software Support

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.

Certifications

Wi-Fi Alliance Certifications in Quantenna name (model number QHS840)

- Wi-Fi Certified a/n/ac Wave 2
- WPA2-Personal
- WMM

Additional Compliance for Certification by System Integrator

- Worldwide Regulatory Domains compatible.

Contact

Quantenna Communications, Inc.

1704 Automation Parkway
San Jose, CA 95131 USA
www.quantenna.com