QV864

802.11ac Wave 2 Solution for Tri-Band Extender

PRODUCT BRIEF

Features

- Member of high performance QSR1000 product family, QV864 offers state-of-the-art 802.11ac 4x4 performance in Full Duplex mode.
- QV864 offers one dedicated 802.11ac link to the Master AP/Gateway, another 802.11ac link and an 802.11n 2.4GHz to Stations
- 802.11ac Wave 2 MIMO 4x4:4 Spatial Streams in 5GHz (2 radios)
- 802.11n MIMO 2x2 in 2.4GHz (3rd party)
- 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 Client & 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 via external switch

Peripheral

- GPIO
- UARTs
- SPI
- I2C

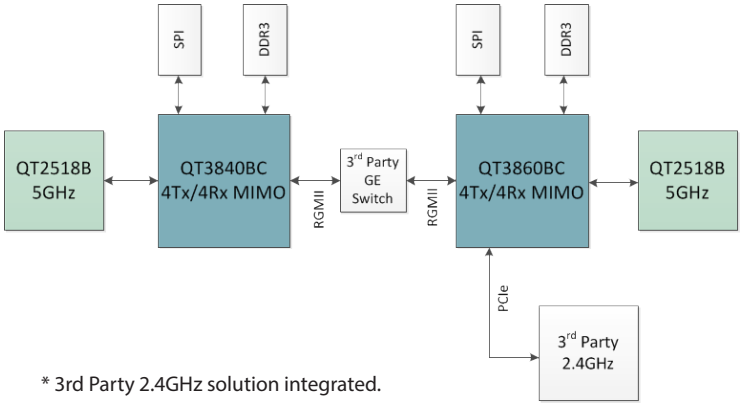
External Memory

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

Applications

QV864 powers tri-band stand alone products for hight performance full duplex repeaters and Mesh nodes.

Block Diagram



* 3rd Party 2.4GHz solution integrated.

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

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