

QV842C

4x4 802.11ac Wave 2 Dual Band Selectable Solution

PRODUCT BRIEF



Features

- Member of high performance QSR2000C product family, QV842C delivers the power of Quantenna solutions on both 5GHz and 2.4GHz for the most demanding Client applications
- QV842C based Clients offer best-in-class performance against any AP on either band
- 802.11a/n/ac Wave 2 MIMO 4x4: 4 Spatial Streams (5GHz)
- 802.11b/g/n MIMO 4x4: 4 Spatial Streams (2.4GHz)
- Operating frequencies: 2.412 to 2.484GHz and 4.90 to 5.85GHz
- Max modulation 256-QAM (MCS9)
- Channel width 20 / 40 / 80MHz (for 5GHz band)
- 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
- Host SoC Full Offload
- Packet Traffic Arbitration (PTA) interface to co-exist with other 2.4GHz wireless technologies such as BLE, Zigbee, and Thread.
- Supports Repeater mode with Zero CPU cycle on Host SoC
- MU-MIMO Client
- 802.11 Standards:
 - 802.11a/n/ac & 802.11b/g/n
 - 802.11e QoS
 - 802.11h DFS and TPC for Station DFS support
 - 802.11i MAC Security Enhancements
 - 802.11k Radio Resource Management
 - 802.11w Protected Management Frames
- Quantenna Universal Repeater
- ViSiON-ready for Cloud-based Wi-Fi Management

Interfaces

Host

- 2 RGMII/MII
- PCIe Gen 2.0

Peripheral

- GPIO
- UARTs
- SPI
- I2C

External Memory

- DDR2/DDR3 support: Reference Designs use 128MB or 256MB 16-bits DDR
- SPI Flash
- Serial EEPROM

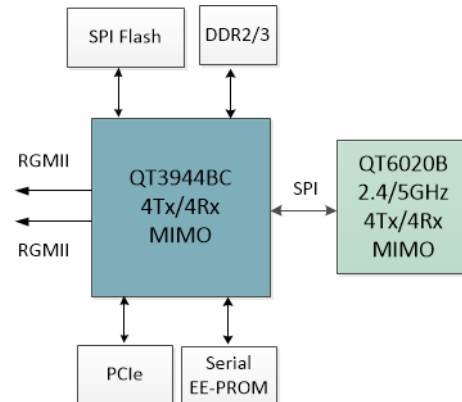
Applications

Thanks to its full-offload Wi-Fi capability and interfaces, QV842C can be hosted by most host processors, including basic Video SoC, and offer a maximum performance for applications such as:

- HD and UHD Set-Top-Boxes
- OTT Boxes
- Media Players



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: QSR2000C supports ViSiON, a cloud-based service that allows for better remote support, faster field trials and deployment.

Certifications

- Wi-Fi Certified a/n/ac Wave 2 (model number QHS840)
- WPA2-Personal (QHS842)
- Wi-Fi Certified b/g/n (QHS842)
- WMM (QHS842)

Worldwide Regulatory Domains compatible.

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