

QV840C

4x4 802.11ac Wave 2 Wireless LAN Client Solution



PRODUCT BRIEF

Features

- Member of High Performance QSR1000 product family, QV840C is most adapted for Highest Performance Wireless Clients such as Ultra HD Set-Top-Boxes.
- 802.11ac Wave 2 MIMO 4x4:4 Spatial Streams
- 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
- Host SoC Full Offload
- Supports Repeater mode with Zero CPU cycle on Host SoC
- MU-MIMO Client
- 802.11 standards
 - o 802.11a/n/ac
 - o 802.11e QoS
 - o 802.11h DFS and TPC for Station DFS support
 - o 802.11i MAC Security Enhancements
 - o 802.11k Radio Resource Management
 - o 802.11w Protected Management Frames
- Quantenna universal Repeater
- MAUI-ready for Cloud-based Wi-Fi Management

Interfaces

Host	External Memory	Peripheral
<ul style="list-style-type: none">• 2 RGMII/MII• PCIe Gen 2.0	<ul style="list-style-type: none">• DDR2/3 support: Reference designs use 128MB or 256MB 16-bits DDR• SPI Flash• Serial EEPROM	<ul style="list-style-type: none">• GPIO• UARTs• SPI• I2C

Certifications

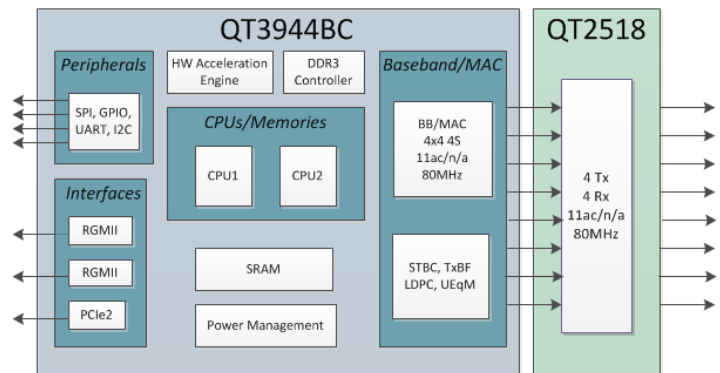
Wi-Fi Alliance Certifications in Quantenna name (model number QHS840)

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

Worldwide Regulatory Domains compatible.



Block Diagram



Applications

Thanks to its full-offload Wi-Fi capability and interfaces, QV840C 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

QV840C is particularly suitable Set-Top-Boxes operating in Repeater mode.

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.

Contact

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