QV940
2x4 802.11ac Wave 2 Wireless LAN Chipset Solution
PRODUCT BRIEF

Features

- Member of high performance QSR1000 product family, QV940 is most adapted for wireless Clients such as Ultra HD Set-Top-Boxes
- 802.11ac Wave 2 MIMO 2x4: 4 Spatial Streams
- Operating Frequencies: 4.90 to 5.85GHz
- Max modulation 256-QAM (MCS9)
- Channel width 20/40/80MHz
- Reception path 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
- ViSiON-ready for Cloud-based Wi-Fi Management

Interfaces

Host
- 2 RGMII/MII
- PCIe Gen 2.0

Peripheral
- GPIO
- UARTs
- SPI
- I2C

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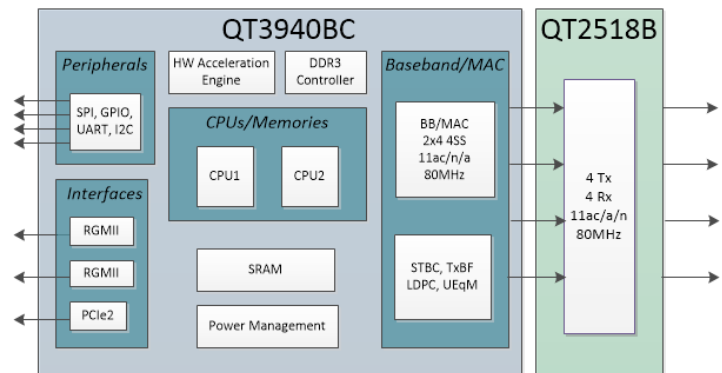- SPI Flash
- Serial EEPROM

Applications

Thanks to its full-offload Wi-Fi capability and interfaces, QV940 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 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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