

QHS710 IEEE 802.11a/n Wireless LAN Chipset Solution



Features

- 4x4 MIMO
- Implicit/Explicit dynamic digital beamforming
- Up to 600 Mbps PHY data rate
- Support for 4 spatial streams with unequal modulation per stream
- Dual on-chip ARC processors
- Dual RGMII/MII ports
- PCI-e Interface
- SPI Flash
- 4 port RFIC
- Support for concurrent dual-band (2.4GHz and 5GHz) operation
- Low-Density Parity Check (LDPC)
- Space Time Block Coding (STBC)
- Internet Group Management Protocol (IGMP) snooping
- Multiple Basic Service Set Identifiers (BSSIDs)
- QoS: WMM
- Security: WPA2/WPA/AES/WEP-128/WEP-64
- Wi-Fi Protected Setup (WPS)
- FCC/CE DFS certifiable and Wi-Fi certifiable
- Ultra-simplified setup, auto detection of access point and bridge mode
- HTTP-based GUI management

World's first chipset with 4x4 MIMO, dynamic digital beamforming, and support for 4 spatial streams with unequal modulation

Overview

The QHS710 chipset combines Quantenna's QT2018B Baseband Chip and QT2518B Radio Frequency (RF) Chip. The fully compliant 802.11n QHS710 chipset supports 4x4 MIMO (4Tx 4Rx) with implicit/explicit transmit beamforming and operates in the 5GHz frequency band. The chipset has a wide variety of interfaces including dual RGMII/MII, PCI-e and SPI flash, and its dual embedded ARC processors provide full wireless Media Access Control (MAC) and network processing support.



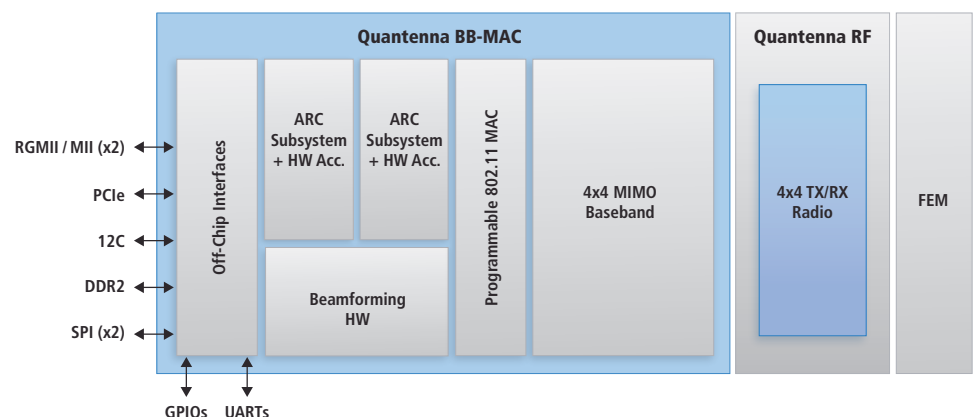
Support for 4 spatial streams with unequal modulation per stream enables up to 600 Mbps PHY data rates and best-in-class performance. Support for Low-Density Parity Check (LDPC) enables efficient error correction coding for superior coverage and improved range.

As the core chipset, the QHS710 device enables applications such as high-definition video content delivery to wireless HDTVs, wireless routers, wireless video bridges for Set-top Boxes (STB), HDTVs with integrated video decoders, residential gateways (cable, fiber, xDSL), media servers and Home Network Storage (NAS) appliances with integrated Access Points (APs).

Specifications

- Frequency Band: 4.900-5.850 GHz
- Supported Client Device Network Standards: 802.11a/n
- Standards: 802.11a, 802.11d, 802.11e (WMM, WMM-PS), 802.11h, 802.11i (WEP, WPA/WPA2, RADIUS), 802.11j, 802.11k, 802.11n, draft 802.11s
- Channel Bandwidth: 20MHz, 40MHz
- I/O interfaces: PCI-e, RGMII/MII (x2)
- Peripheral interfaces: I2C, SPI
- Memory interface: DDR2 DRAM
- Antenna connectors: Four 50 ohm, 5GHz U.FL

QHS710 BLOCK DIAGRAM



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