

### Features

- Ultra reliable in-home video delivery
- Distributes concurrent High Definition video streams of up to 1080p to multiple destinations
- 4x4 MIMO
- Implicit/Explicit digital beamforming
- Up to 4 spatial streams with support for unequal modulation per stream
- Up to 600 Mbps PHY data rate
- Superior performance over 3x3 solution
- Near-zero Packet Error Rate (PER)
- FCC/CE DFS support
- Wi-Fi certifiable
- Low-Density Parity Check (LDPC)
- Ultra-simplified setup, auto detection of access point and bridge mode
- Wi-Fi Protected Setup (WPS) push-button
- Real-time monitoring of PHY layer statistics

### Reference Design Description

The QHS700 Video Bridge (VB) evaluation kit consists of two devices, one AP device and one client device. It enables the wireless delivery of high definition video content to multiple destinations simultaneously. Operating on the 5GHz frequency band, the QHS700 VB evaluation kit transfers quality HD content (up to 1080) to every corner of the house.

Support for 4x4 MIMO, Implicit/Explicit transmit beamforming, Low-Density Parity Check (LDPC) and up to 4 spatial streams with unequal modulation per stream enables up to 600 Mbps PHY data rate and superior reliability and performance.

The Quantenna Software Development Kit (SDK) includes an HTTP-based GUI which allows access to the QHS700 VB evaluation board through an Ethernet interface for monitoring, configuration and system management.



### Interfaces

| Datapath    | External Memory | Peripheral |
|-------------|-----------------|------------|
| • RGMII/MII | • DDR2          | • GPIO     |
| • PCIe      | • SPI Flash     | • UARTs    |
|             | • Serial EEPROM | • SPI      |
|             |                 | • I2C      |

### Applications

- 5GHz wireless HD Video Bridge
- Wireless HDTV
- Wireless video bridge module for:
  - Set-Top Boxes
  - HDTV with integrated video decoder
  - Residential Gateway
  - Video Surveillance
  - Home Network Attached Storage(NAS) with AP

### Software Support

**Quantenna OS:** Quantenna OS running on the integrated network processor enables equipment vendors to develop and port their own features and enhancements for value-add and additional BOM cost reduction.

**Software Package:** Complete software package for standard Access Point/Router and Vector Mesh Router in Linux with standard APIs to allow for easy porting.

**Certifications:** Worldwide Regulatory, Wi-Fi 802.11n/a (WPA, WPA2 Personal/Enterprise, WMM, WMM-PS).

### Physical Specifications

**Baseband (QT2018BC):**

14.0mm x 14.0mm BGA, 387 balls

**RFIC (QT2518B):**

8.0mm x 8.0mm BGA, 121 balls

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