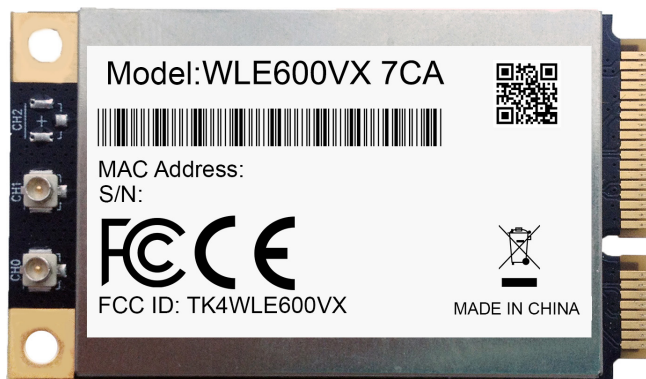


Dual Band 2.4GHz/5GHz 2x2 MIMO 802.11ac Mini PCIe WiFi Module Designed for Dual Band Wireless Access Points

Model: WLE600VX-I (85C)



KEY FEATURES

- Qualcomm Atheros QCA9892
- Industrial Grade Chipset
- 2.4GHz max 21dBm & 5GHz max 18dBm output power (per chain)
- IEEE 802.11ac compliant & backward compatible with 802.11a/b/g/n
- 2x2 MIMO Technology, up to 867Mbps
- Mini PCI Express edge connector
- Supports Spatial Multiplexing, Cyclic-Delay Diversity (CDD), Low-Density Parity Check (LDPC) Codes, Maximal Ratio Combining (MRC), Space Time Block Code (STBC)
- Supports IEEE 802.11d, e, h, i, r, v time stamp, and w standards
- Supports Dynamic Frequency Selection (DFS)
- Cards are individually calibrated for Quality Assurance
- Supports 4.9GHz operation

Specifications

| | |
|----------------------------|---|
| Chipset | QCA9892 |
| Reference Design | XB140 |
| Supported Operating System | Supported by either CompexWRT with Atheros Reference Wireless Driver OR OpenWRT with ath10k Wireless Driver on WPJ344 |
| Host Interface | Mini PCI Express 1.2 Standard |
| Operating Voltage | 3.3V DC |
| Antenna Connector | 2x U.FL |
| Frequency Range | 2.4GHz: 2.412 ~ 2.472 GHz 5GHz: 4.920 ~ 5.825 GHz |
| Certification | FCC & CE Certified, RoHS Compliant |
| Power Consumption | 3.5W (Max) |
| Modulation Techniques | OFDM: BPSK, QPSK, DBPSK, DQPSK, CCK, 16-QAM, 64-QAM, 256-QAM |
| Temperature Range | Operating: -40°C to 85°C Storage: -40°C to 90°C |
| Humidity | Operating: 5% to 95% (non-condensing) Storage: Max. 90% (non-condensing) |
| ESD Sensitivity | Class 1C |
| Dimensions (W x H x D) | 30 x 51 x 3.2 mm |

RF Performance Table

| | Data Rate | TX Power (per chain) | TX Power (2 chains) | Tolerance |
|---------------------------|-----------|----------------------|---------------------|-----------|
| 2.4GHz 802.11b | 1Mbps | 20dBm | 23dBm | ±2dB |
| | 2Mbps | 20dBm | 23dBm | ±2dB |
| | 5.5Mbps | 20dBm | 23dBm | ±2dB |
| | 11Mbps | 20dBm | 23dBm | ±2dB |
| 2.4GHz 802.11g | 6Mbps | 21dBm | 24dBm | ±2dB |
| | 9Mbps | 21dBm | 24dBm | ±2dB |
| | 12Mbps | 21dBm | 24dBm | ±2dB |
| | 18Mbps | 21dBm | 24dBm | ±2dB |
| | 24Mbps | 21dBm | 24dBm | ±2dB |
| | 36Mbps | 20dBm | 23dBm | ±2dB |
| | 48Mbps | 19dBm | 22dBm | ±2dB |
| | 54Mbps | 18dBm | 21dBm | ±2dB |
| 2.4GHz 802.11n HT20 | MCS 0 | 21dBm | 24dBm | ±2dB |
| | MCS 1 | 21dBm | 24dBm | ±2dB |
| | MCS 2 | 21dBm | 24dBm | ±2dB |
| | MCS 3 | 20dBm | 23dBm | ±2dB |
| | MCS 4 | 20dBm | 23dBm | ±2dB |
| | MCS 5 | 20dBm | 23dBm | ±2dB |
| | MCS 6 | 18dBm | 21dBm | ±2dB |
| | MCS 7 | 16dBm | 19dBm | ±2dB |
| 2.4GHz 802.11n HT40 | MCS 0 | 20dBm | 23dBm | ±2dB |
| | MCS 1 | 20dBm | 23dBm | ±2dB |
| | MCS 2 | 20dBm | 23dBm | ±2dB |
| | MCS 3 | 19dBm | 22dBm | ±2dB |
| | MCS 4 | 19dBm | 22dBm | ±2dB |
| | MCS 5 | 19dBm | 22dBm | ±2dB |
| | MCS 6 | 18dBm | 21dBm | ±2dB |
| | MCS 7 | 16dBm | 19dBm | ±2dB |

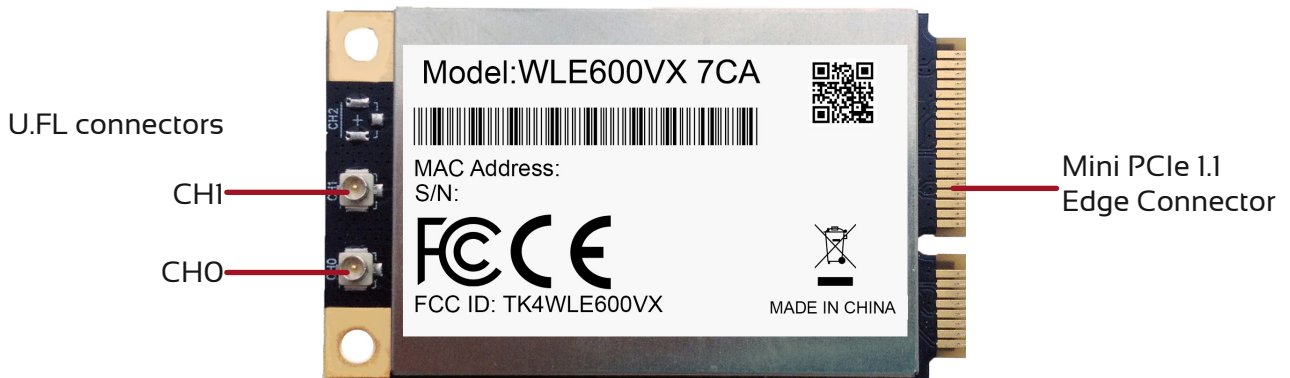
| | Data Rate | RX Specifications Sensitivity | Tolerance |
|---------------------------|-----------|-------------------------------|-----------|
| 2.4GHz 802.11b | 1Mbps | -95dBm | ±2dB |
| | 2Mbps | -94dBm | ±2dB |
| | 5.5Mbps | -92dBm | ±2dB |
| | 11Mbps | -90dBm | ±2dB |
| 2.4GHz 802.11g | 6Mbps | -94dBm | ±2dB |
| | 9Mbps | -93dBm | ±2dB |
| | 12Mbps | -92dBm | ±2dB |
| | 18Mbps | -90dBm | ±2dB |
| | 24Mbps | -88dBm | ±2dB |
| | 36Mbps | -85dBm | ±2dB |
| | 48Mbps | -81dBm | ±2dB |
| | 54Mbps | -80dBm | ±2dB |
| 2.4GHz 802.11n HT20 | MCS 0 | -93dBm | ±2dB |
| | MCS 1 | -91dBm | ±2dB |
| | MCS 2 | -89dBm | ±2dB |
| | MCS 3 | -84dBm | ±2dB |
| | MCS 4 | -83dBm | ±2dB |
| | MCS 5 | -78dBm | ±2dB |
| | MCS 6 | -78dBm | ±2dB |
| | MCS 7 | -76dBm | ±2dB |
| 2.4GHz 802.11n HT40 | MCS 0 | -92dBm | ±2dB |
| | MCS 1 | -88dBm | ±2dB |
| | MCS 2 | -85dBm | ±2dB |
| | MCS 3 | -82dBm | ±2dB |
| | MCS 4 | -79dBm | ±2dB |
| | MCS 5 | -75dBm | ±2dB |
| | MCS 6 | -75dBm | ±2dB |
| | MCS 7 | -73dBm | ±2dB |

RF Performance Table

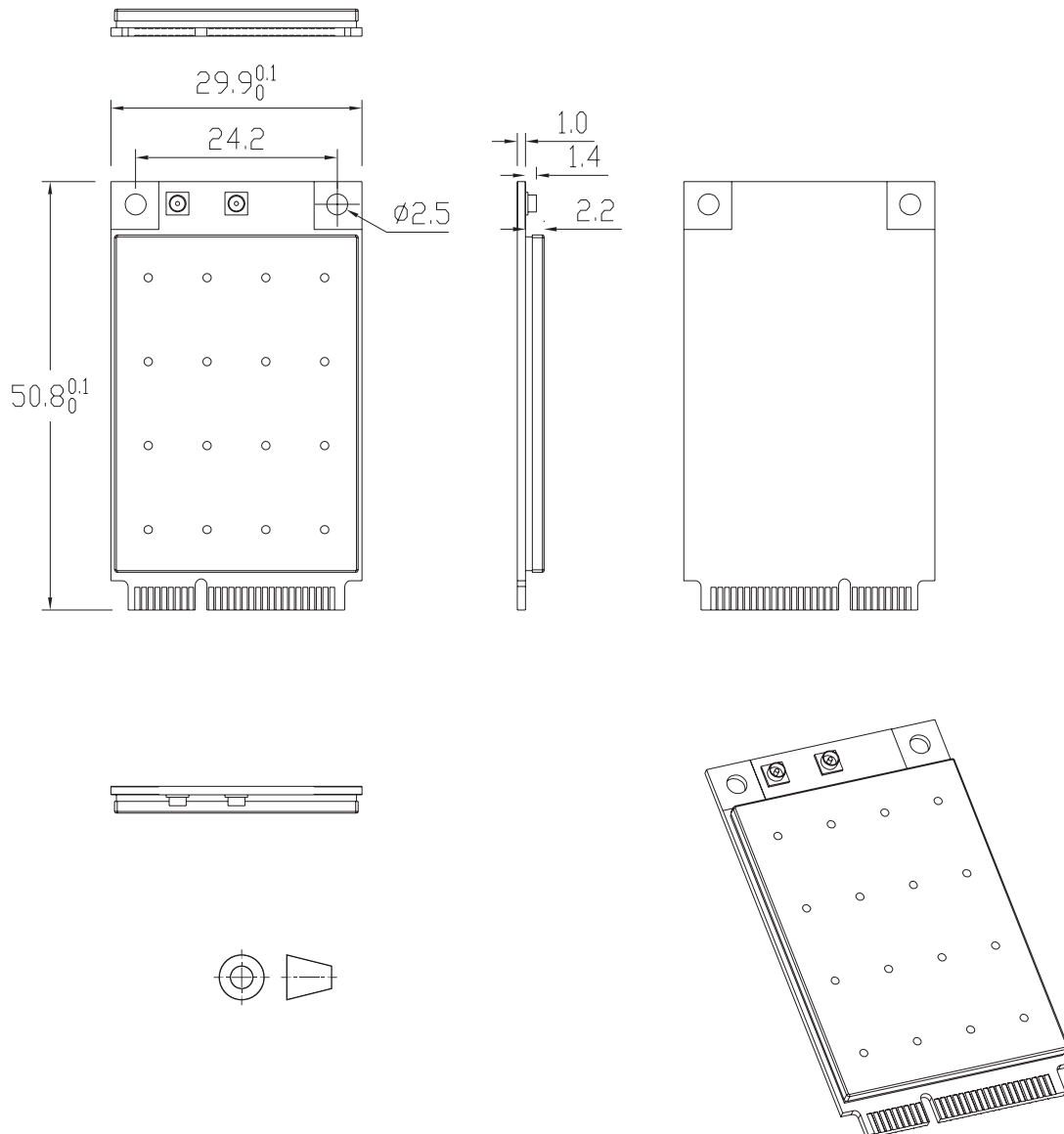
| | Data Rate | TX Power (per chain) | TX Power (2 chains) | Tolerance |
|-----------------------------|-----------|----------------------|---------------------|-----------|
| 5GHz 802.11a | 6Mbps | 18dBm | 21dBm | ±2dB |
| | 9Mbps | 18dBm | 21dBm | ±2dB |
| | 12Mbps | 18dBm | 21dBm | ±2dB |
| | 18Mbps | 18dBm | 21dBm | ±2dB |
| | 24Mbps | 18dBm | 21dBm | ±2dB |
| | 36Mbps | 18dBm | 21dBm | ±2dB |
| | 48Mbps | 16dBm | 19dBm | ±2dB |
| | 54Mbps | 15dBm | 18dBm | ±2dB |
| | MCS 0 | 18dBm | 21dBm | ±2dB |
| 5GHz 802.11n/ac VHT20 | MCS 1 | 18dBm | 21dBm | ±2dB |
| | MCS 2 | 18dBm | 21dBm | ±2dB |
| | MCS 3 | 18dBm | 21dBm | ±2dB |
| | MCS 4 | 18dBm | 21dBm | ±2dB |
| | MCS 5 | 17dBm | 20dBm | ±2dB |
| | MCS 6 | 16dBm | 19dBm | ±2dB |
| | MCS 7 | 14dBm | 17dBm | ±2dB |
| | MCS 8 | 13dBm | 16dBm | ±2dB |
| | MCS 0 | 18dBm | 21dBm | ±2dB |
| 5GHz 802.11n/ac VHT40 | MCS 1 | 18dBm | 21dBm | ±2dB |
| | MCS 2 | 18dBm | 21dBm | ±2dB |
| | MCS 3 | 17dBm | 20dBm | ±2dB |
| | MCS 4 | 17dBm | 20dBm | ±2dB |
| | MCS 5 | 16dBm | 19dBm | ±2dB |
| | MCS 6 | 15dBm | 18dBm | ±2dB |
| | MCS 7 | 14dBm | 17dBm | ±2dB |
| | MCS 8 | 13dBm | 16dBm | ±2dB |
| | MCS 9 | 13dBm | 16dBm | ±2dB |
| | MCS 0 | 18dBm | 21dBm | ±2dB |
| 5GHz 802.11ac VHT80 | MCS 1 | 18dBm | 21dBm | ±2dB |
| | MCS 2 | 18dBm | 21dBm | ±2dB |
| | MCS 3 | 17dBm | 20dBm | ±2dB |
| | MCS 4 | 17dBm | 20dBm | ±2dB |
| | MCS 5 | 16dBm | 19dBm | ±2dB |
| | MCS 6 | 15dBm | 18dBm | ±2dB |
| | MCS 7 | 14dBm | 17dBm | ±2dB |
| | MCS 8 | 13dBm | 16dBm | ±2dB |
| | MCS 9 | 13dBm | 16dBm | ±2dB |

| | Data Rate | RX Specifications Sensitivity | Tolerance |
|-----------------------------|-----------|-------------------------------|-----------|
| 5GHz 802.11a | 6Mbps | -94dBm | ±2dB |
| | 9Mbps | -94dBm | ±2dB |
| | 12Mbps | -92dBm | ±2dB |
| | 18Mbps | -90dBm | ±2dB |
| | 24Mbps | -86dBm | ±2dB |
| | 36Mbps | -84dBm | ±2dB |
| | 48Mbps | -81dBm | ±2dB |
| | 54Mbps | -80dBm | ±2dB |
| | MCS 0 | -93dBm | ±2dB |
| 5GHz 802.11n/ac VHT20 | MCS 1 | -90dBm | ±2dB |
| | MCS 2 | -87dBm | ±2dB |
| | MCS 3 | -83dBm | ±2dB |
| | MCS 4 | -80dBm | ±2dB |
| | MCS 5 | -77dBm | ±2dB |
| | MCS 6 | -74dBm | ±2dB |
| | MCS 7 | -73dBm | ±2dB |
| | MCS 8 | -71dBm | ±2dB |
| | MCS 0 | -90dBm | ±2dB |
| 5GHz 802.11n/ac VHT40 | MCS 1 | -88dBm | ±2dB |
| | MCS 2 | -85dBm | ±2dB |
| | MCS 3 | -82dBm | ±2dB |
| | MCS 4 | -79dBm | ±2dB |
| | MCS 5 | -75dBm | ±2dB |
| | MCS 6 | -73dBm | ±2dB |
| | MCS 7 | -73dBm | ±2dB |
| | MCS 8 | -69dBm | ±2dB |
| | MCS 9 | -66dBm | ±2dB |
| | MCS 0 | -88dBm | ±2dB |
| 5GHz 802.11ac VHT80 | MCS 1 | -86dBm | ±2dB |
| | MCS 2 | -84dBm | ±2dB |
| | MCS 3 | -81dBm | ±2dB |
| | MCS 4 | -77dBm | ±2dB |
| | MCS 5 | -74dBm | ±2dB |
| | MCS 6 | -73dBm | ±2dB |
| | MCS 7 | -70dBm | ±2dB |
| | MCS 8 | -67dBm | ±2dB |
| | MCS 9 | -65dBm | ±2dB |

Connector Map



Mechanical Dimensions



Packaging Content

| Item | Quantity |
|----------------------------------|----------|
| WLE600VX-I (85C) Wireless Module | 1 |

Ordering Configuration

| Item Code | Chipset | Form Factor | Card Information |
|--------------------|---------|--------------------|-------------------------------------|
| WLE600VX 7CA000S-I | QCA9892 | Standard size card | 2x2 802.11ac/a/b/g/n 2.4GHz/5GHz |

Packaging Information

| Packaging Type | Dimensions | Gross Weight | Dimensional Weight |
|------------------------|--------------------|--------------|--------------------|
| Carton Box (250 units) | 422 x 410 x 240 mm | 4.62 kg | 8.5 kg |