

Nanjing MAXON O.E. TECH. CO., LTD

Add: 6/F, Building A3, Zidong International Creative Park, Zidong Road, Qixia District, Nanjing, China.

MX-520VX Dual-Band 2GHz & 5GHz 2x2 MIMO 802.11ac Wireless modules

Features

- Specifically designed for dual-band wireless access points
- Qualcomm® Atheros QCA9880
- Maximum output power: 2.4GHz: 21dBm , 5GHz: 20dBm (per chain)
- Compatible with IEEE 802.11ac and backward compatible with 802.11a/b/g/n/ac
- 2x2 MIMO, rate up to 867Mbps
- Mini PCI Express connector
- Supports Spatial Multiplexing, Cyclic Delay Diversity (CDD), Low-Density Parity Check (LDPC) codes, Maximum Ratio Combining (MRC), - Space Time Block Code (STBC)
- Supports IEEE 802.11d, e, h, i, k, r, v timestamp and w standards
- Support Dynamic Frequency Selection (DFS)
- Cards are individually calibrated for the guaranteed quality



Specification

| | |
|---------------------------|---|
| CHIP | QCA9880 |
| REFERENCE DESIGN | XB140-020 |
| HOST CONNECTOR | Mini PCI Express 1.1 standard |
| WORKING VOLTAGE | 3.3V DC |
| ANTENNA CONNECTOR | 2xU.FL |
| FREQUENCY RANGE | optional dual-band, 2.4GHz: 2.412GHz~2.472GHz or 5GHz: 5.150GHz~5.825GHz |
| CERTIFICATIONS | FCC & CE certification, REACH & RoHS compliance |
| MAXIMUM POWER CONSUMPTION | 3.5W |

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| | |
|--------------------------------|---|
| SUPPORTED OPERATING SYSTEMS | Qualcomm® Atheros Wireless LAN Driver or OpenWrt/LEDE with ath10k wireless driver |
| MODULATION METHODS | OFDM: BPSK, QPSK, DBPSK, DQPSK, 16-QAM, 64-QAM, 256-QAM |
| AMBIENT TEMPERATURE | Operating: -20°C~70°C / -4 ~ 158°F; Storage: -40°C~90°C/ -40 ~ 194°F |
| AMBIENT HUMIDITY | Operating: 5% ~ 95%; Storage: maximum 90% |
| ESD SENSITIVITY CLASSIFICATION | 1C |
| DIMS (L×W×H) | 50.9 × 30.0 × 3.2mm |

Radio Frequency Parameters (2.4GHz)

| | RATE | TRANSMIT POWER (PER CHAIN) | TOLERANCE | RECEIVE SENSITIVITY | TOLERANCE |
|-------------------|---------|----------------------------|-----------|---------------------|-----------|
| 2.4GHz 802.11b | 1Mbps | 21dBm | ±1.5dB | -95dBm | ±1.5dB |
| | 2Mbps | 21dBm | ±1.5dB | -94dBm | ±1.5dB |
| | 5.5Mbps | 21dBm | ±1.5dB | -92dBm | ±1.5dB |
| | 11Mbps | 20dBm | ±1.5dB | -90dBm | ±1.5dB |
| 2.4GHz 802.11g | 6Mbps | 21dBm | ±1.5dB | -94dBm | ±1.5dB |
| | 9Mbps | 21dBm | ±1.5dB | -93dBm | ±1.5dB |
| | 12Mbps | 21dBm | ±1.5dB | -92dBm | ±1.5dB |
| | 18Mbps | 21dBm | ±1.5dB | -90dBm | ±1.5dB |
| | 24Mbps | 21dBm | ±1.5dB | -88dBm | ±1.5dB |
| | 36Mbps | 20dBm | ±1.5dB | -85dBm | ±1.5dB |
| | 48Mbps | 19dBm | ±1.5dB | -81dBm | ±1.5dB |
| | 54Mbps | 18dBm | ±1.5dB | -75dBm | ±1.5dB |

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| | RATE | TRANSMIT POWER (PER CHAIN) | TOLERANCE | RECEIVE SENSITIVITY | TOLERANCE |
|------------------------|--------|----------------------------|-----------|---------------------|-----------|
| 2.4GHz 802.11n HT20 | MCS 0 | 21dBm | ±1.5dB | -93dBm | ±1.5dB |
| | MCS 1 | 21dBm | ±1.5dB | -91dBm | ±1.5dB |
| | MCS 2 | 21dBm | ±1.5dB | -89dBm | ±1.5dB |
| | MCS 3 | 20dBm | ±1.5dB | -84dBm | ±1.5dB |
| | MCS 4 | 20dBm | ±1.5dB | -83dBm | ±1.5dB |
| | MCS 5 | 20dBm | ±1.5dB | -78dBm | ±1.5dB |
| | MCS 6 | 18dBm | ±1.5dB | -78dBm | ±1.5dB |
| | MCS 7 | 16dBm | ±1.5dB | -73dBm | ±1.5dB |
| 2.4GHz 802.11n HT40 | MCS 0 | 20dBm | ±1.5dB | -92dBm | ±1.5dB |
| | MCS 1 | 20dBm | ±1.5dB | -88dBm | ±1.5dB |
| | MCS 2 | 20dBm | ±1.5dB | -85dBm | ±1.5dB |
| | MCS 3 | 19dBm | ±1.5dB | -82dBm | ±1.5dB |
| | MCS 4 | 19dBm | ±1.5dB | -79dBm | ±1.5dB |
| | MCS 5 | 19dBm | ±1.5dB | -75dBm | ±1.5dB |
| | MCS 6 | 18dBm | ±1.5dB | -75dBm | ±1.5dB |
| | MCS 7 | 16dBm | ±1.5dB | -71dBm | ±1.5dB |
| 5GHz 802.11a | 6Mbps | 20dBm | ±1.5dB | -94dBm | ±1.5dB |
| | 9Mbps | 20dBm | ±1.5dB | -94dBm | ±1.5dB |
| | 12Mbps | 20dBm | ±1.5dB | -92dBm | ±1.5dB |
| | 18Mbps | 20dBm | ±1.5dB | -90dBm | ±1.5dB |
| | 24Mbps | 20dBm | ±1.5dB | -86dBm | ±1.5dB |
| | 36Mbps | 18dBm | ±1.5dB | -84dBm | ±1.5dB |
| | 48Mbps | 16dBm | ±1.5dB | -81dBm | ±1.5dB |
| | 54Mbps | 15dBm | ±1.5dB | -77dBm | ±1.5dB |

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Radio Frequency Parameters (5.8GHz)

| | RATE | TRANSMIT POWER (PER CHAIN) | TOLERANCE | RECEIVE SENSITIVITY | TOLERANCE |
|-----------------------------|-------|----------------------------|-----------|---------------------|-----------|
| 5GHz 802.11n/ac VHT20 | MCS 0 | 19dBm | ±1.5dB | -93dBm | ±1.5dB |
| | MCS 1 | 19dBm | ±1.5dB | -90dBm | ±1.5dB |
| | MCS 2 | 19dBm | ±1.5dB | -87dBm | ±1.5dB |
| | MCS 3 | 18dBm | ±1.5dB | -83dBm | ±1.5dB |
| | MCS 4 | 18dBm | ±1.5dB | -80dBm | ±1.5dB |
| | MCS 5 | 17dBm | ±1.5dB | -77dBm | ±1.5dB |
| | MCS 6 | 16dBm | ±1.5dB | -74dBm | ±1.5dB |
| | MCS 7 | 14dBm | ±1.5dB | -73dBm | ±1.5dB |
| | MCS 8 | 13dBm | ±1.5dB | -70dBm | ±1.5dB |
| 5GHz 802.11n/ac VHT40 | MCS 0 | 18dBm | ±1.5dB | -90dBm | ±1.5dB |
| | MCS 1 | 18dBm | ±1.5dB | -88dBm | ±1.5dB |
| | MCS 2 | 18dBm | ±1.5dB | -85dBm | ±1.5dB |
| | MCS 3 | 17dBm | ±1.5dB | -82dBm | ±1.5dB |
| | MCS 4 | 17dBm | ±1.5dB | -79dBm | ±1.5dB |
| | MCS 5 | 16dBm | ±1.5dB | -75dBm | ±1.5dB |
| | MCS 6 | 15dBm | ±1.5dB | -73dBm | ±1.5dB |
| | MCS 7 | 14dBm | ±1.5dB | -73dBm | ±1.5dB |
| | MCS 8 | 13dBm | ±1.5dB | -69dBm | ±1.5dB |
| | MCS 9 | 13dBm | ±1.5dB | -66dBm | ±1.5dB |

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|---------------------------|-------|----------------------------|-----------|---------------------|-----------|
| 5GHz 802.11ac VHT80 | MCS 0 | 18dBm | ±1.5dB | -88dBm | ±1.5dB |
| | MCS 1 | 18dBm | ±1.5dB | -86dBm | ±1.5dB |
| | MCS 2 | 18dBm | ±1.5dB | -84dBm | ±1.5dB |
| | MCS 3 | 17dBm | ±1.5dB | -81dBm | ±1.5dB |
| | MCS 4 | 17dBm | ±1.5dB | -77dBm | ±1.5dB |
| | MCS 5 | 16dBm | ±1.5dB | -74dBm | ±1.5dB |
| | MCS 6 | 15dBm | ±1.5dB | -73dBm | ±1.5dB |
| | MCS 7 | 14dBm | ±1.5dB | -70dBm | ±1.5dB |
| | MCS 8 | 13dBm | ±1.5dB | -67dBm | ±1.5dB |
| | MCS 9 | 13dBm | ±1.5dB | -62dBm | ±1.5dB |

Connector



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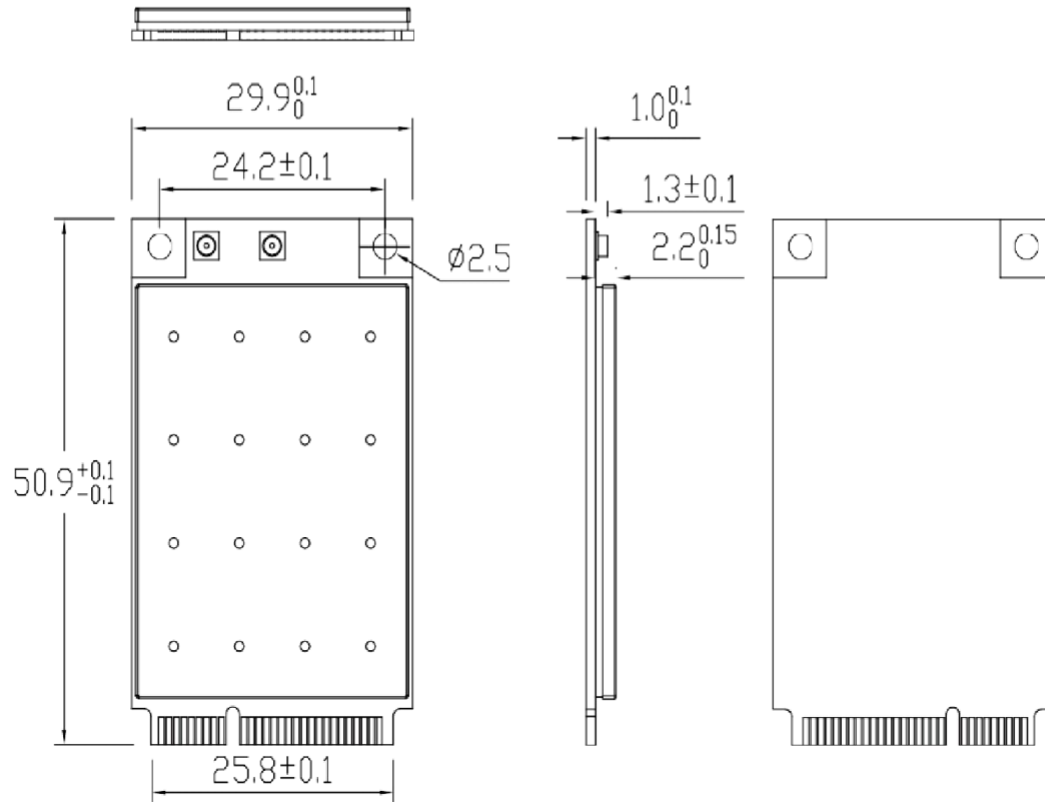
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Dimensions



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