

5GHz 2x2 MU-MIMO 802.11ac Mini PCIe WiFi Module

Designed for Next Generation 802.11ac Wave 2 Access Points



Model: YBTE5V9888-25

KEY FEATURES

- Qualcomm Atheros QCA9888
- IEEE 802.11ac compliant & backward compatible with 802.11a/n
- Heat sink allows free air operation
- 2x2 MIMO Technology, up to 867Mbps
- 2 spatial streams (2SS) at 80MHz bandwidth
- 1 spatial stream (1SS) at 80+80MHz bandwidth
- Built-in ESD Protection with ESD/EMP Immunity Threshold: 15KeV^[1]
- 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, k, r, v time stamp, and w standards
- Supports Dynamic Frequency Selection (DFS)

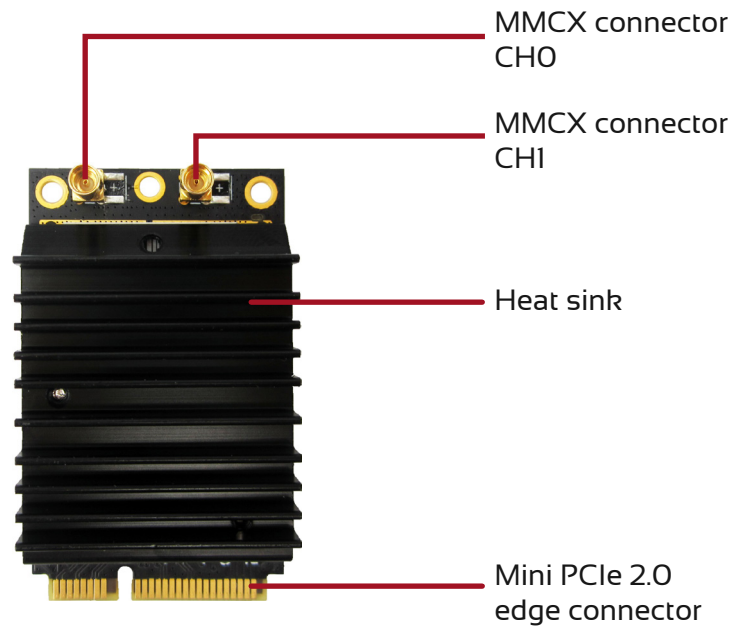
Specifications

Chipset	QCA9888 ^[2]
System Memory	256Kbit serial I ² C bus EEPROM
Host Interface	Mini PCI Express 2.0 Standard
Operating Voltage	DC 3.3V, 5V ^[3]
Antenna Connector	2x MMCX
Frequency Range	5.180 ~ 5.825 GHz
Power Consumption	9.49W (Max)
Modulation Techniques	OFDM: BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM
Supported Operating System	CompexWRT or OpenWRT/LEDE
Temperature Range	Operating: -20°C to 70°C Storage: -40°C to 90°C
Humidity	Operating: 5% to 95% (non-condensing) Storage: Max. 90% (non-condensing)
ESD Sensitivity	Class 1B
Dimensions (H x W x D)	50.8mm x 29.9mm x 12.2mm

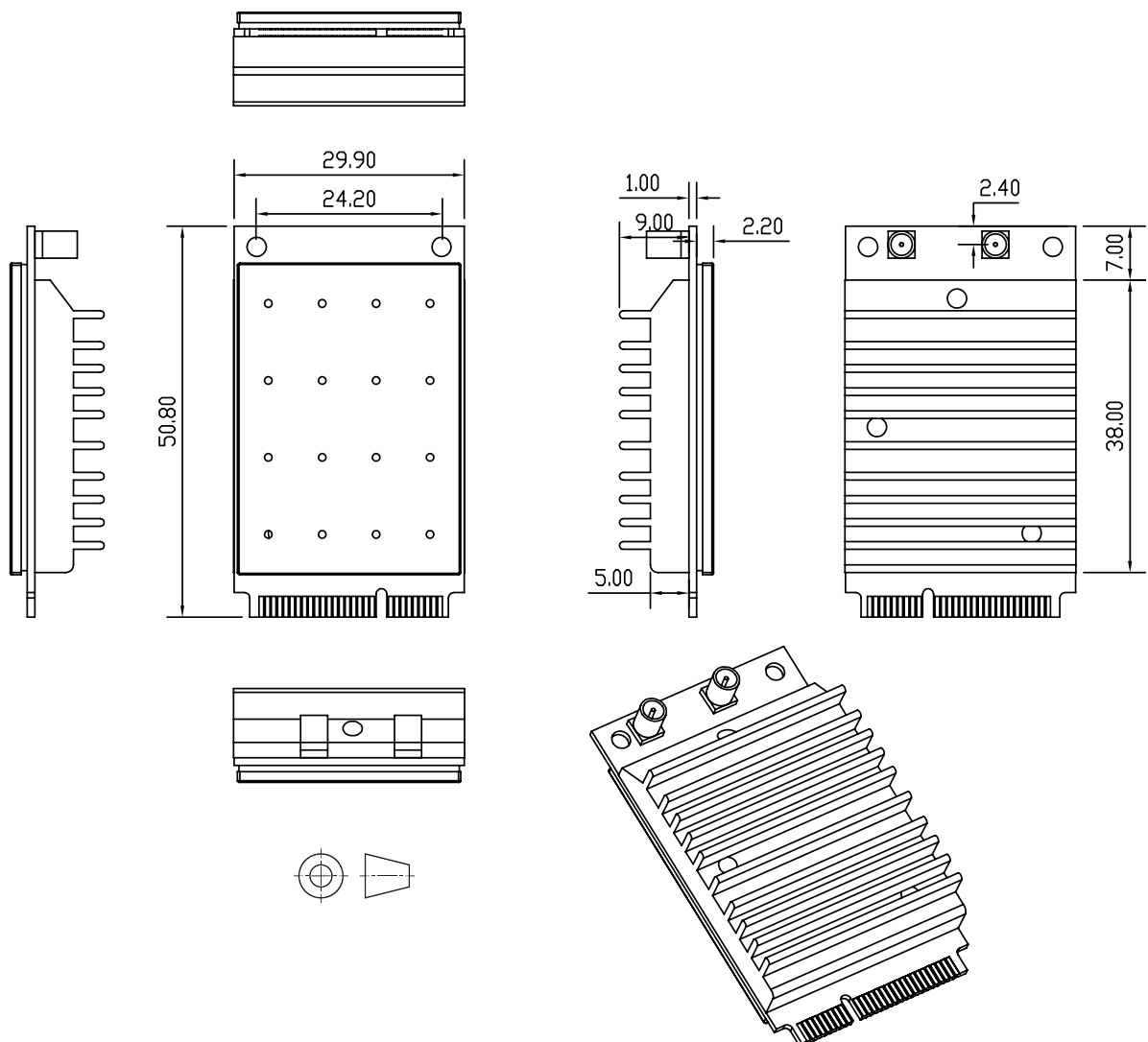
RF Performance Table

	Data Rate	TX Power (per chain)	TX Power (2 chains)	Tolerance
5GHz 802.11a	6Mbps	25dBm	28dBm	±2dB
	9Mbps	25dBm	28dBm	±2dB
	12Mbps	25dBm	28dBm	±2dB
	18Mbps	25dBm	28dBm	±2dB
	24Mbps	24dBm	27dBm	±2dB
	36Mbps	23dBm	26dBm	±2dB
	48Mbps	22dBm	25dBm	±2dB
	54Mbps	21dBm	24dBm	±2dB
5GHz 802.11n/ac VHT20	MCS 0	25dBm	28dBm	±2dB
	MCS 1	25dBm	28dBm	±2dB
	MCS 2	25dBm	28dBm	±2dB
	MCS 3	24dBm	27dBm	±2dB
	MCS 4	23dBm	26dBm	±2dB
	MCS 5	22dBm	25dBm	±2dB
	MCS 6	21dBm	24dBm	±2dB
	MCS 7	20dBm	23dBm	±2dB
5GHz 802.11n/ac VHT40	MCS 8	18dBm	21dBm	±2dB
	MCS 0	25dBm	28dBm	±2dB
	MCS 1	25dBm	28dBm	±2dB
	MCS 2	25dBm	28dBm	±2dB
	MCS 3	24dBm	27dBm	±2dB
	MCS 4	23dBm	26dBm	±2dB
	MCS 5	22dBm	25dBm	±2dB
	MCS 6	21dBm	24dBm	±2dB
5GHz 802.11ac VHT80	MCS 7	20dBm	23dBm	±2dB
	MCS 8	19dBm	22dBm	±2dB
	MCS 9	18dBm	21dBm	±2dB
	MCS 0	25dBm	28dBm	±2dB
	MCS 1	25dBm	28dBm	±2dB
	MCS 2	25dBm	28dBm	±2dB
	MCS 3	24dBm	27dBm	±2dB
	MCS 4	23dBm	26dBm	±2dB
5GHz 802.11ac VHT80+80	MCS 5	22dBm	25dBm	±2dB
	MCS 6	21dBm	24dBm	±2dB
	MCS 7	20dBm	23dBm	±2dB
	MCS 8	18dBm	21dBm	±2dB
	MCS 9	17dBm	20dBm	±2dB
	MCS 0	24dBm	27dBm	±2dB
	MCS 1	24dBm	27dBm	±2dB

Connector Map



Mechanical Dimensions



Packaging Content

Item	Quantity
YBTE5V9888-25 Wireless Module	1

Ordering Configuration

Item Code	Chipset	Form Factor	Card Information
YBTE5V9888-25	QCA9888	Standard size card	2X2 802.11ac 5GHz 2x MMCX

Packaging Information

Packaging Type	Dimensions	Weight	Dimensional Weight
Packing Box (50 units)	385 x 207 x 76 mm	1.6 kg	1.5 kg
Carton Box (5 packing boxes / 250 units)	422 x 410 x 240 mm	8.7 kg	9 kg