



# 802.11ac 2.4/5GHz miniPCIe Radio

## Model : YBTEXV9880

### FEATURES

- Qualcomm-Atheros QCA9880 Version 2, XB140 Reference Design
- 2.4GHz max 19dBm output power & 5GHz max 18dBm output power (per chain)
- IEEE 802.11ac compliant & backward compatible with 802.11a/b/g/n
- Dual-band 3X3 MIMO Technology & up to 1.3Gbps
- MiniPCI Express 1.1 interface
- Supports Spatial Multiplexing, Cyclic-Delay Diversity (CDD), low-density parity check (LDPC), Maximal Ratio Combining (MRC), Space Time Block Code (STBC)
- Supports IEEE 802.11d, e, h, I, k, RO, v time stamp, and w standards
- Supports Dynamic Frequency Selection (DFS)
- Cards are individually calibrated for Quality Assurance

### APPLICATIONS

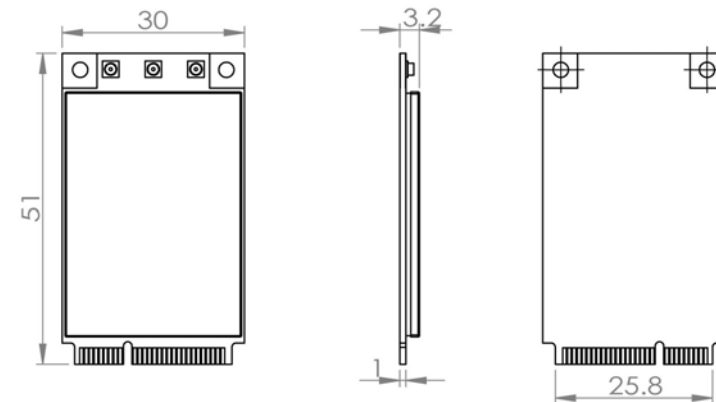
- Indoor AP
- Outdoor AP
- 802.11ac CPE
- 802.11ac Point to Point

\*Supported by either CompexWRT with Atheros Reference Wireless Driver OR OpenWRT with ath10k Wireless Driver on WPJ344.

### TECHNICAL SPECIFICATIONS

SYSTEM INFORMATION	
<b>Chipset</b>	QCA9880 Version 2
<b>Host Interface</b>	PCI-Express 1.1 Standard
<b>Operating Voltage</b>	3.3 VDC
<b>Power Consumption</b>	5W
<b>Antenna Connector</b>	3 x U.FL
<b>Frequency Range</b>	2.412 ~ 2.484GHz & 5.150 ~ 5.875 GHz
<b>Modulation Techniques</b>	OFDM: BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM
<b>RoHS Compliance</b>	Yes
<b>Temperature Range</b>	Operating: -20°C to 70°C; Storage: -40°C to 90°C
<b>Humidity</b>	Operating: 5% to 95% (non-condensing) Storage: Max.90% (non-condensing)
<b>Dimensions (mm)</b>	50.95 x 30 x 3.2 (H x W x D)

### DIMENSION DRAWING



TX SPECIFICATIONS					RX SPECIFICATIONS				TX SPECIFICATIONS					RX SPECIFICATIONS			
	Data Rate	TX Power (per chain)	TX Power (3 chains)	Tolerance		Data Rate	Sensitivity	Tolerance		Data Rate	TX Power (per chain)	TX Power (3 chains)	Tolerance		Data Rate	Sensitivity	Tolerance
<b>802.11 b/g</b>	6-24Mbps	19dBm	23dBm	±2dB	<b>802.11 b/g</b>	6Mbps	-94dBm	±2dB	<b>5 GHz 11n/ac HT20</b>	MCS0	18dBm	23dBm	±2dB	<b>5 GHz 11n/ac HT20</b>	MCS0	-93dBm	±2dB
	36Mbps	17dBm	22dBm	±2dB		36Mbps	-86dBm	±2dB		MCS1	18dBm	23dBm	±2dB		MCS1	-91dBm	±2dB
	48Mbps	17dBm	22dBm	±2dB		48Mbps	-82dBm	±2dB		MCS2	18dBm	23dBm	±2dB		MCS2	-90dBm	±2dB
	54Mbps	15dBm	20dBm	±2dB		54Mbps	-80dBm	±2dB		MCS3	17dBm	22dBm	±2dB		MCS3	-85dBm	±2dB
<b>2.4 GHz 11n HT20</b>	MCS 0	19dBm	24dBm	±2dB	<b>2.4 GHz 11n HT20</b>	MCS 0	-94dBm	±2dB		MCS4	17dBm	22dBm	±2dB		MCS4	-82dBm	±2dB
	MCS 1	19dBm	24dBm	±2dB		MCS 1	-94dBm	±2dB		MCS5	14dBm	19dBm	±2dB		MCS5	-78dBm	±2dB
	MCS 2	19dBm	24dBm	±2dB		MCS 2	-92dBm	±2dB		MCS6	13dBm	18dBm	±2dB		MCS6	-77dBm	±2dB
	MCS 3	18dBm	23dBm	±2dB		MCS 3	-88dBm	±2dB		MCS7	13dBm	18dBm	±2dB		MCS7	-75dBm	±2dB
	MCS 4	18dBm	23dBm	±2dB		MCS 4	-84dBm	±2dB		MCS8	12dBm	17dBm	±2dB		MCS8	-73dBm	±2dB
	MCS 5	18dBm	23dBm	±2dB		MCS 5	-81dBm	±2dB		MCS9	12dBm	17dBm	±2dB		MCS9	-71dBm	±2dB
	MCS 6	15dBm	20dBm	±2dB		MCS 6	-78dBm	±2dB		MCS0	18dBm	23dBm	±2dB		MCS0	-93dBm	±2dB
	MCS 7	13dBm	18dBm	±2dB		MCS 7	-77dBm	±2dB		MCS1	18dBm	23dBm	±2dB		MCS1	-91dBm	±2dB
<b>2.4 GHz 11n HT40</b>	MCS 0	18dBm	23dBm	±2dB	<b>2.4 GHz 11n HT40</b>	MCS 0	-93dBm	±2dB	MCS2	18dBm	23dBm	±2dB	MCS2	-90dBm	±2dB		
	MCS 1	18dBm	23dBm	±2dB		MCS 1	-91dBm	±2dB	MCS3	16dBm	21dBm	±2dB	MCS3	-85dBm	±2dB		
	MCS 2	18dBm	23dBm	±2dB		MCS 2	-90dBm	±2dB	MCS4	16dBm	21dBm	±2dB	MCS4	-82dBm	±2dB		
	MCS 3	17dBm	22dBm	±2dB		MCS 3	-85dBm	±2dB	MCS5	13dBm	18dBm	±2dB	MCS5	-78dBm	±2dB		
	MCS 4	17dBm	22dBm	±2dB		MCS 4	-82dBm	±2dB	MCS6	12dBm	17dBm	±2dB	MCS6	-77dBm	±2dB		
	MCS 5	17dBm	22dBm	±2dB		MCS 5	-78dBm	±2dB	MCS7	12dBm	17dBm	±2dB	MCS7	-75dBm	±2dB		
	MCS 6	15dBm	20dBm	±2dB		MCS 6	-77dBm	±2dB	MCS8	11dBm	16dBm	±2dB	MCS8	-73dBm	±2dB		
	MCS 7	13dBm	18dBm	±2dB		MCS 7	-75dBm	±2dB	MCS9	11dBm	16dBm	±2dB	MCS9	-71dBm	±2dB		
<b>802.11 a</b>	6-24Mbps	18dBm	23dBm	±2dB	<b>802.11 a</b>	6Mbps	-94dBm	±2dB	<b>5 GHz 11ac HT80</b>	MCS0	18dBm	23dBm	±2dB	<b>5 GHz 11ac HT80</b>	MCS0	-89dBm	±2dB
	36Mbps	17dBm	22dBm	±2dB		36Mbps	-86dBm	±2dB		MCS1	18dBm	23dBm	±2dB		MCS1	-88dBm	±2dB
	48Mbps	16dBm	21dBm	±2dB		48Mbps	-82dBm	±2dB		MCS2	18dBm	23dBm	±2dB		MCS2	-85dBm	±2dB
	54Mbps	15dBm	20dBm	±2dB		54Mbps	-80dBm	±2dB		MCS3	15dBm	20dBm	±2dB		MCS3	-81dBm	±2dB
								MCS4		15dBm	20dBm	±2dB	MCS4		-79dBm	±2dB	
								MCS5		12dBm	17dBm	±2dB	MCS5		-75dBm	±2dB	
								MCS6		11dBm	16dBm	±2dB	MCS6		-74dBm	±2dB	
								MCS7		11dBm	16dBm	±2dB	MCS7		-72dBm	±2dB	
								MCS8		10dBm	15dBm	±2dB	MCS8		-70dBm	±2dB	
								MCS9		10dBm	15dBm	±2dB	MCS9		-68dBm	±2dB	