

Single Band 5GHz 3x3 MIMO 802.11ac Mini PCI-e Module Designed for High Power Enterprise Wireless Access Points

Model: WLE900V5-27



KEY FEATURES

- Qualcomm-Atheros QCA9880
- CUS223 (High Power) Reference Design
- 5GHz max 27dBm output power (per chain) , 32dBm (aggregate)
- IEEE 802.11ac compliant & backward compatible with 802.11a/b/g/n
- 3x3 MIMO Technology, up to 1.3Gbps
- Built-in ESD Protection with ESD/EMP Immunity Threshold: 15KeV
- MiniPCI Express 1.1 interface
- 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)
- Cards are individually calibrated for Quality Assurance
- Supported by OpenWRT with ath10k driver on WPJ344

Specifications

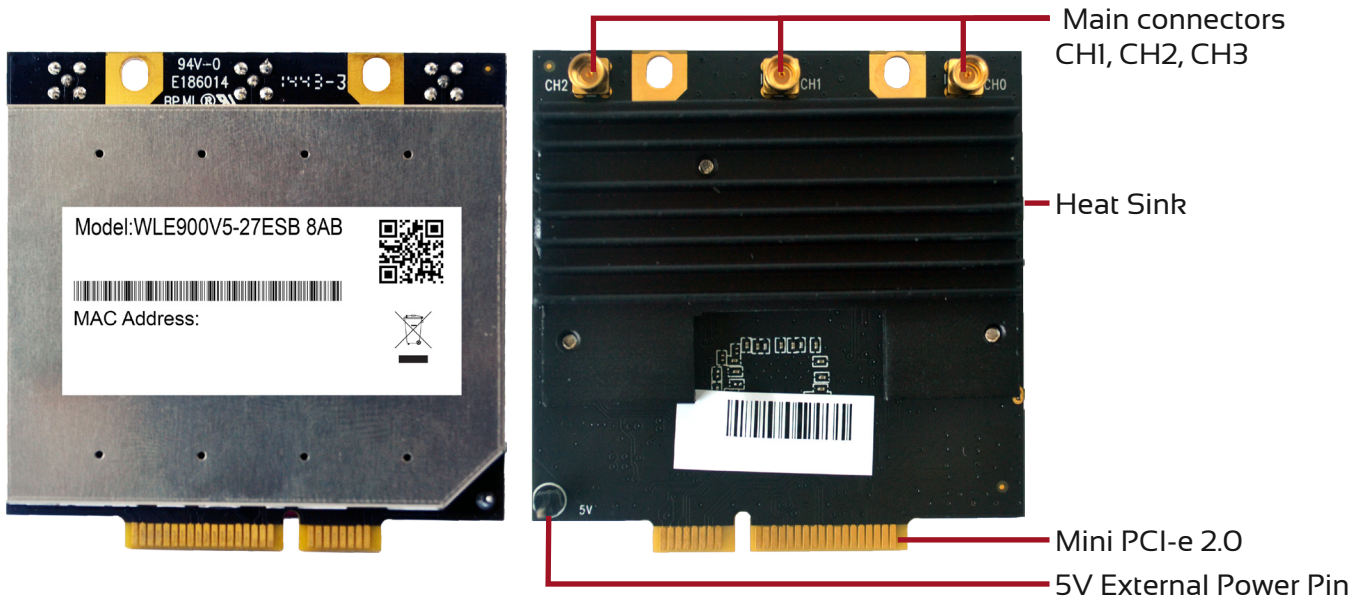
Chipset	QCA9880
Host Interface	MiniPCI-Express 1.1 Standard
Operating Voltage	3.3V DC
Antenna Connector	3 x U.FL
Frequency Range	2.412 ~ 2.472 GHz 5.180 ~ 5.825 GHz
Certification	RoHS Compliant
Power Consumption	10W (Max)
Modulation Techniques	OFDM: BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM
Temperature Range	Operating: -20°C to 70°C Storage: -40°C to 90°C
Humidity	Operating: 5% to 95% (non-condensing) Storage: Max. 90% (non-condensing)
Dimensions (W x H x D)	50 x 50.95 x 8.5 mm

RF Performance Table

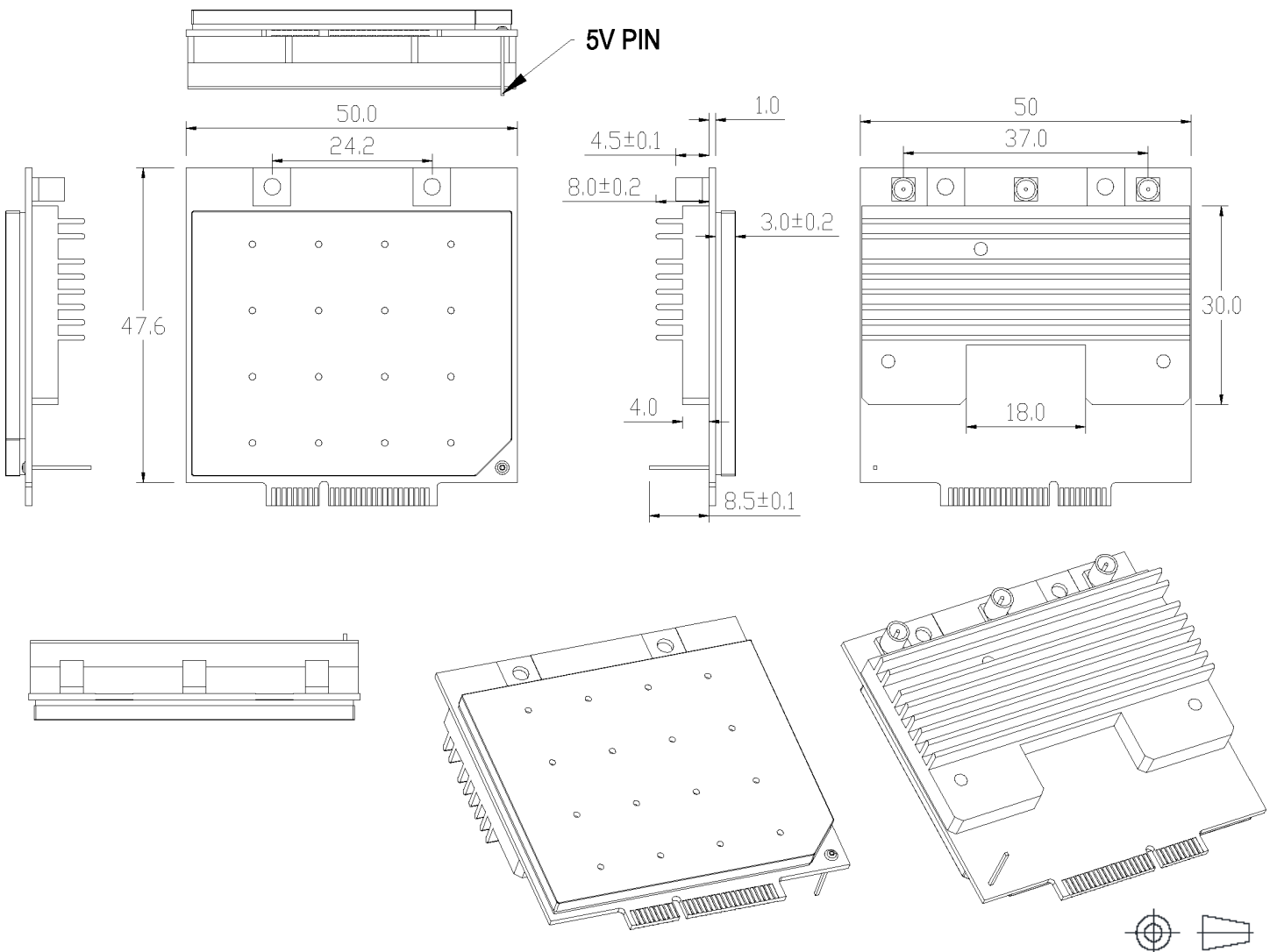
	Data Rate	TX Power (per chain)	TX Power (2 chains)	Tolerance
802.11a	6Mbps	27dBm	32dBm	±2dB
	9Mbps	27dBm	32dBm	±2dB
	12Mbps	27dBm	32dBm	±2dB
	18Mbps	27dBm	32dBm	±2dB
	24Mbps	27dBm	32dBm	±2dB
	36Mbps	26dBm	31dBm	±2dB
	48Mbps	25dBm	30dBm	±2dB
	54Mbps	24dBm	29dBm	±2dB
5GHz 11n/ac HT20	MCS 0	26dBm	31dBm	±2dB
	MCS 1	25dBm	30dBm	±2dB
	MCS 2	25dBm	30dBm	±2dB
	MCS 3	25dBm	30dBm	±2dB
	MCS 4	25dBm	30dBm	±2dB
	MCS 5	24dBm	29dBm	±2dB
	MCS 6	23dBm	28dBm	±2dB
	MCS 7	22dBm	27dBm	±2dB
	MCS 8	22dBm	27dBm	±2dB
	MCS 9	21dBm	26dBm	±2dB
5GHz 11n/ac HT40	MCS 0	27dBm	32dBm	±2dB
	MCS 1	26dBm	31dBm	±2dB
	MCS 2	26dBm	31dBm	±2dB
	MCS 3	25dBm	30dBm	±2dB
	MCS 4	25dBm	30dBm	±2dB
	MCS 5	24dBm	29dBm	±2dB
	MCS 6	23dBm	28dBm	±2dB
	MCS 7	22dBm	27dBm	±2dB
	MCS 8	22dBm	27dBm	±2dB
	MCS 9	21dBm	26dBm	±2dB
5GHz 11ac HT80	MCS 0	26dBm	31dBm	±2dB
	MCS 1	25dBm	30dBm	±2dB
	MCS 2	25dBm	30dBm	±2dB
	MCS 3	25dBm	30dBm	±2dB
	MCS 4	25dBm	30dBm	±2dB
	MCS 5	24dBm	29dBm	±2dB
	MCS 6	23dBm	28dBm	±2dB
	MCS 7	22dBm	27dBm	±2dB
	MCS 8	22dBm	27dBm	±2dB
	MCS 9	21dBm	26dBm	±2dB

	Data Rate	RX Specifications Sensitivity	Tolerance
802.11a	6Mbps	-94dBm	±2dB
	9Mbps	-94dBm	±2dB
	12Mbps	-94dBm	±2dB
	18Mbps	-92dBm	±2dB
	24Mbps	-89dBm	±2dB
	36Mbps	-86dBm	±2dB
	48Mbps	-82dBm	±2dB
	54Mbps	-80dBm	±2dB
5GHz 11n/ac HT20	MCS 0	-93dBm	±2dB
	MCS 1	-91dBm	±2dB
	MCS 2	-90dBm	±2dB
	MCS 3	-85dBm	±2dB
	MCS 4	-82dBm	±2dB
	MCS 5	-78dBm	±2dB
	MCS 6	-77dBm	±2dB
	MCS 7	-75dBm	±2dB
	MCS 8	-73dBm	±2dB
	MCS 9	-71dBm	±2dB
5GHz 11n/ac HT40	MCS 0	-94dBm	±2dB
	MCS 1	-94dBm	±2dB
	MCS 2	-92dBm	±2dB
	MCS 3	-88dBm	±2dB
	MCS 4	-84dBm	±2dB
	MCS 5	-81dBm	±2dB
	MCS 6	-78dBm	±2dB
	MCS 7	-77dBm	±2dB
	MCS 8	-74dBm	±2dB
	MCS 9	-71dBm	±2dB
5GHz 11ac HT80	MCS 0	-89dBm	±2dB
	MCS 1	-88dBm	±2dB
	MCS 2	-85dBm	±2dB
	MCS 3	-81dBm	±2dB
	MCS 4	-79dBm	±2dB
	MCS 5	-75dBm	±2dB
	MCS 6	-74dBm	±2dB
	MCS 7	-72dBm	±2dB
	MCS 8	-70dBm	±2dB
	MCS 9	-68dBm	±2dB

Connector Map



Mechanical Dimensions



Packaging Content

Item	Quantity	Remark
WLE900V5-27 Wireless Module	1	

Ordering Configuration

Item Code	Chipset	Form factor	Card Informations
WLE900V5-27 8AB000ESD	Atheros 9880	Wide size	3x3 11ac 5GHz High Power