



3x3 5GHz 11ac miniPCIe Radio

Model: WLE900V5-23

Revision:1.03 IL
Date: 2014,11,10

Features

- Qualcomm-Atheros QCA9880,CUS223 (High Power) Reference Design
- 5GHz max 23dBm output power (per chain)
- IEEE 802.11ac complaint & backward compatible with 802.11a/n
- 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
- Supported by either CompexWRT with Atheros Reference Wireless Driver OR OpenWRT with ath10k Wireless Driver on WPJ344

Applications(combined with WPJ344)

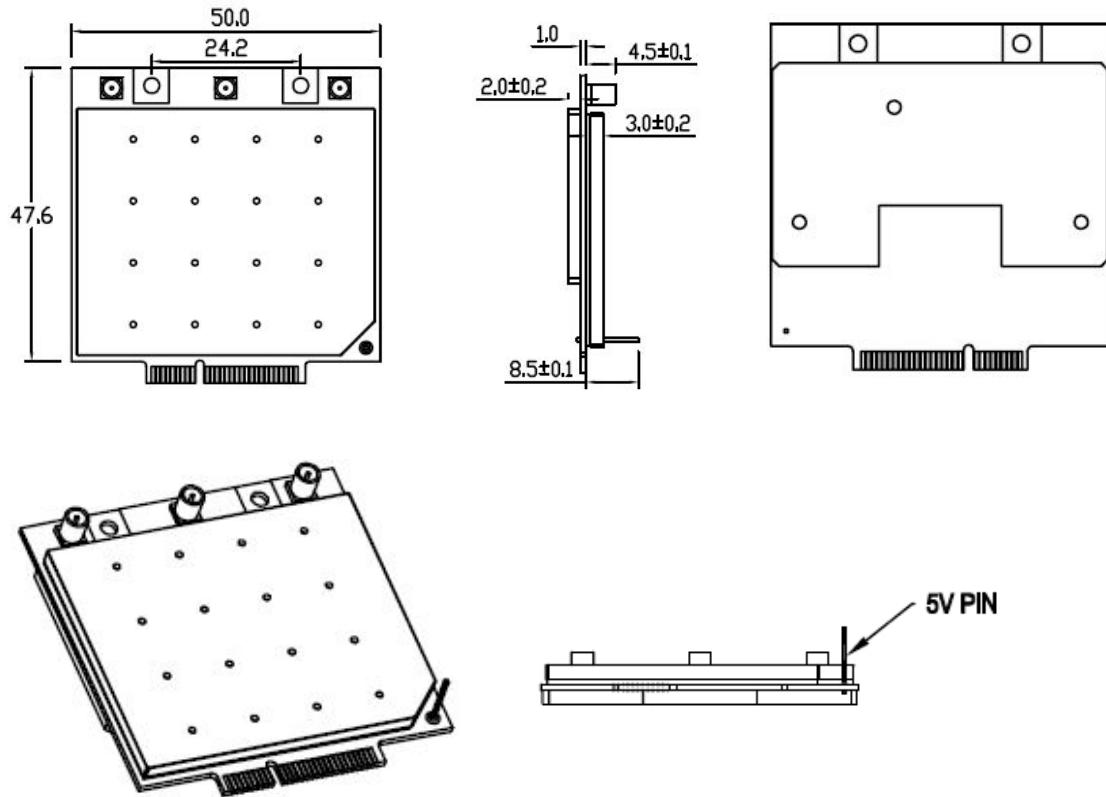
- Indoor AP
- Outdoor AP
- 802.11ac/an CPE
- 802.11ac/an Point to Point
- Base Station

Technical Specifications

System Information									
Chipset	QCA9880								
Host Interface	PCI-Express 1.1 Standard								
Operating Voltage	3.3 VDC, 5V (compulsory and external) ¹								
Power Consumption	7.2W								
Antenna Connector	3 x MMCX								
Frequency Range	5.180 ~ 5.825 GHz								
Modulation Techniques	OFDM: BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM								
RoHS Compliance	Yes								
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 (mm)	50.95 x 50 x 3.2 (H x W x D)								
TX Specifications									
	Data Rate	TX Power (per chain)	TX Power (3 chains)	Tolerance		Data Rate	TX Power (per chain)	TX Power (3 chains)	Tolerance
802.11a	6Mbps	23dBm	28dBm	±2dB	11n HT20	MCS 0	23dBm	28dBm	±2dB
	54Mbps	19dBm	24dBm	±2dB		MCS 7	19dBm	24dBm	±2dB
11n HT40	MCS 0	23dBm	28dBm	±2dB	11ac HT20	MCS 0	23dBm	28dBm	±2dB
	MCS 7	19dBm	24dBm	±2dB		MCS 9	16dBm	21dBm	±2dB
11ac HT40	MCS 0	23dBm	23dBm	±2dB	11ac HT80	MCS 0	23dBm	23dBm	±2dB
	MCS 9	15dBm	20dBm	±2dB		MCS 9	15dBm	20dBm	±2dB
RX Specifications									
	DataRate	Sensitivity	Tolerance		DataRate	Sensitivity	Tolerance		
802.11a	6Mbps	-96dBm	±2dB	11n	MCS 0	-95dBm	±2dB		
	54Mbps	-84dBm	±2dB		MCS 7	-77dBm	±2dB		
11n HT40	MCS 0	-92dBm	±2dB	11ac	MCS 0	-94dBm	±2dB		
	MCS 7	-77dBm	±2dB		MCS 9	-70dBm	±2dB		
11ac HT40	MCS 0	-91dBm	±2dB	11ac	MCS 0	-90dBm	±2dB		
	MCS 9	-65dBm	±2dB		MCS 9	-61dBm	±2dB		

¹ Customers have to connect a 5V power supply to the pin on WLE900V5-23

Dimension Drawing



Ordering Information

Item Code	Chipset	Form factor	Card Informations
WLE900V5-23 8AA000	Atheros 9880	Wide size	3x3 11ac 5GHz High Power PCIe mini card
WLE900V5-23 8AB000	Atheros 9880	Wide size	3x3 11ac 5GHz High Power PCIe mini card
WLE900V5-23 8BB000	Atheros 9890	Wide size	3x3 11ac 5GHz High Power PCIe mini card