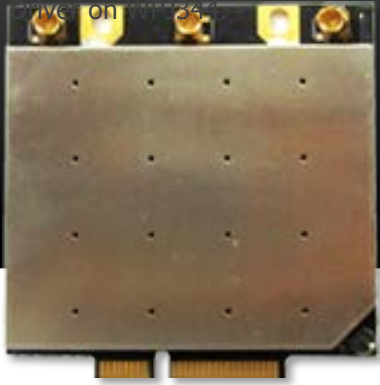


*Supported by either CompexWRT with Atheros Reference Wireless Driver OR OpenWRT with ath10k Wireless Driver on WPJ344.



802.11ac 5GHz miniPCIe Radio

Model: WLE900V5-23

FEATURES

- Qualcomm-Atheros QCA9880 Version 2, CUS223 (High Power) Reference Design
- Maximum 23dBm output power (per chain), 28dBm (aggregate)
- IEEE 802.11ac compliant & 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

APPLICATIONS (combined with WPJ344)

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



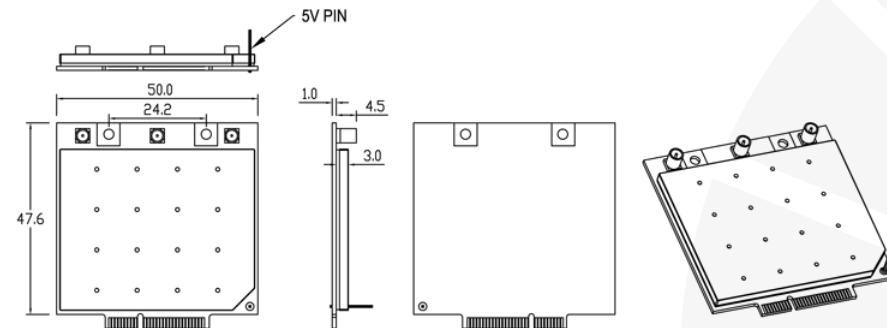
*Supported by either CompexWRT with Atheros Reference Wireless Driver OR OpenWRT with ath10k Wireless Driver on WPJ344.

TECHNICAL SPECIFICATIONS

SYSTEM INFORMATION	
Chipset	QCA9880 Version 2
Host Interface	PCI-Express 1.1 Standard
Operating Voltage	3.3 VDC, 5V (compulsory and external) ¹
Power Consumption	7W
Antenna Connector	3 x MMCX Antenna Connector
Frequency Range	5.150 ~ 5.875 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)

¹Customers have to connect a 5V power supply to the pin on WLE900N5-23.

DIMENSION DRAWING



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TX SPECIFICATIONS

	DataRate	TX Power (per chain)	TX Power (3 chains)	Tolerance		DataRate	TX Power (per chain)	TX Power (3 chains)	Tolerance	
802.11a	6Mbps	23dBm	28dBm	±2dB	5GHz 11n/11ac HT20	MCS 0	23dBm	28dBm	±2dB	
	9Mbps	23dBm	28dBm	±2dB		MCS 1	23dBm	28dBm	±2dB	
	12Mbps	23dBm	28dBm	±2dB		MCS 2	23dBm	28dBm	±2dB	
	18Mbps	23dBm	28dBm	±2dB		MCS 3	23dBm	28dBm	±2dB	
	24Mbps	23dBm	28dBm	±2dB		MCS 4	23dBm	28dBm	±2dB	
	36Mbps	23dBm	28dBm	±2dB		MCS 5	23dBm	28dBm	±2dB	
	48Mbps	21dBm	26dBm	±2dB		MCS 6	21dBm	26dBm	±2dB	
	54Mbps	19dBm	24dBm	±2dB		MCS 7	19dBm	24dBm	±2dB	
				MCS 8		17dBm	22dBm	±2dB		
				MCS 9		16dBm	21dBm	±2dB		
5GHz 11n/11ac HT40	MCS 0	23dBm	28dBm	±2dB		5GHz 11ac HT80	MCS 0	23dBm	28dBm	±2dB
	MCS 1	23dBm	28dBm	±2dB			MCS 1	23dBm	28dBm	±2dB
	MCS 2	23dBm	28dBm	±2dB			MCS 2	23dBm	28dBm	±2dB
	MCS 3	23dBm	28dBm	±2dB			MCS 3	23dBm	28dBm	±2dB
	MCS 4	23dBm	28dBm	±2dB			MCS 4	23dBm	28dBm	±2dB
	MCS 5	22dBm	27dBm	±2dB			MCS 5	22dBm	27dBm	±2dB
	MCS 6	21dBm	26dBm	±2dB	MCS 6		21dBm	26dBm	±2dB	
	MCS 7	19dBm	24dBm	±2dB	MCS 7		19dBm	24dBm	±2dB	
	MCS 8	17dBm	22dBm	±2dB	MCS 8		17dBm	22dBm	±2dB	
	MCS 9	15dBm	20dBm	±2dB	MCS 9		15dBm	20dBm	±2dB	

RX SPECIFICATIONS

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