

## Dual Band 2x2 MIMO 802.11n Mini PCIe Module

Designed for 2.4GHz Band Wireless Access Points

**Model: WLE200N2**



### KEY FEATURES

- Qualcomm Atheros AR9287
- 2.4GHz Single-band 2x2 MIMO spatial multiplexing technique
- 2.4GHz max 16dBm output power (per chain)
- IEEE 802.11n compliant & backward compatible with 802.11b/g
- 2x2 MIMO Technology, up to 300Mbps
- Mini PCI Express edge connector
- Supports WPA2 encryption to help protect users' devices from malicious attacks
- Supports IEEE 802.11d, e, h, and i standards

## Specifications

Chipset	AR9287
Reference Design	HB97
Host Interface	PCI Express 1.1 Standard
Operating Voltage	3.3V DC
Antenna Connector	2x U.FL
Frequency Range	2.4GHz: 2.412 ~ 2.484 GHz
Power Consumption	1.9W
Supported Operating System	CompexWRT or OpenWRT/LEDE
Modulation Techniques	OFDM: BPSK, QPSK, 16-QAM, 64-QAM DSSS: DBPSK, DQPSK, CCK
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 1C
Dimensions (W x H x D)	30.0 x 26.8 x 3.2 mm

## RF Performance Table

	Data Rate	TX Power (per chain)	TX Power (2 chains)	Tolerance
2.4GHz 802.11b	1Mbps	16dBm	19dBm	±2dB
	2Mbps	16dBm	19dBm	±2dB
	5.5Mbps	16dBm	19dBm	±2dB
	11Mbps	16dBm	19dBm	±2dB
2.4GHz 802.11g	6Mbps	16dBm	19dBm	±2dB
	9Mbps	16dBm	19dBm	±2dB
	12Mbps	16dBm	19dBm	±2dB
	18Mbps	16dBm	19dBm	±2dB
	24Mbps	16dBm	19dBm	±2dB
	36Mbps	16dBm	19dBm	±2dB
	48Mbps	14dBm	17dBm	±2dB
	54Mbps	11dBm	14dBm	±2dB
2.4GHz 802.11n HT20	MCS 0	16dBm	19dBm	±2dB
	MCS 1	16dBm	19dBm	±2dB
	MCS 2	16dBm	19dBm	±2dB
	MCS 3	16dBm	19dBm	±2dB
	MCS 4	15dBm	18dBm	±2dB
	MCS 5	13dBm	16dBm	±2dB
	MCS 6	11dBm	14dBm	±2dB
	MCS 7	9dBm	12dBm	±2dB
2.4GHz 802.11n HT40	MCS 0	16dBm	19dBm	±2dB
	MCS 1	16dBm	19dBm	±2dB
	MCS 2	16dBm	19dBm	±2dB
	MCS 3	16dBm	19dBm	±2dB
	MCS 4	14dBm	17dBm	±2dB
	MCS 5	12dBm	15dBm	±2dB
	MCS 6	10dBm	13dBm	±2dB
	MCS 7	8dBm	11dBm	±2dB

	Data Rate	RX Specifications Sensitivity	Tolerance
2.4GHz 802.11b	1Mbps	-87dBm	±2dB
	2Mbps	-87dBm	±2dB
	5.5Mbps	-86dBm	±2dB
	11Mbps	-84dBm	±2dB
2.4GHz 802.11g	6Mbps	-87dBm	±2dB
	9Mbps	-87dBm	±2dB
	12Mbps	-86dBm	±2dB
	18Mbps	-84dBm	±2dB
	24Mbps	-80dBm	±2dB
	36Mbps	-76dBm	±2dB
	48Mbps	-72dBm	±2dB
	54Mbps	-70dBm	±2dB
2.4GHz 802.11n HT20	MCS 0	-81dBm	±2dB
	MCS 1	-80dBm	±2dB
	MCS 2	-79dBm	±2dB
	MCS 3	-75dBm	±2dB
	MCS 4	-73dBm	±2dB
	MCS 5	-70dBm	±2dB
	MCS 6	-69dBm	±2dB
	MCS 7	-67dBm	±2dB
2.4GHz 802.11n HT40	MCS 0	-75dBm	±2dB
	MCS 1	-73dBm	±2dB
	MCS 2	-72dBm	±2dB
	MCS 3	-71dBm	±2dB
	MCS 4	-70dBm	±2dB
	MCS 5	-68dBm	±2dB
	MCS 6	-67dBm	±2dB
	MCS 7	-65dBm	±2dB

## Connector Map

U.FL connectors

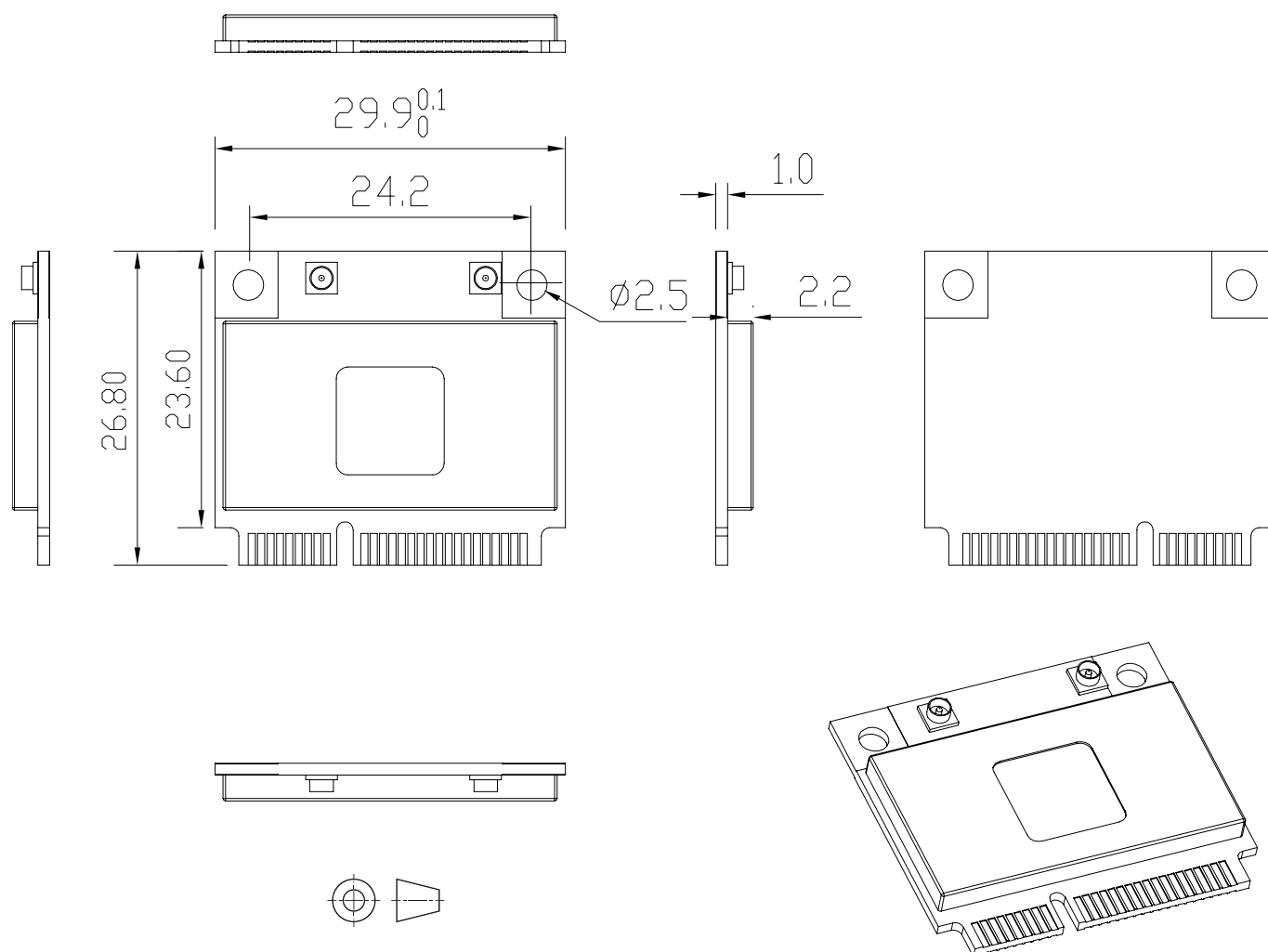
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Mini PCIe 1.1  
Edge Connector

## Mechanical Dimensions



## Ordering Configuration

Item Code	Model	Description
WLE200N2 6A0000	WLE200N2	AR9287 2x2 2.4GHz half size miniPCIe card