

COMPEX WLM200NX 802.11n a/b/g Dual-band Wireless miniPCI Module



The **WLM200NX** 20dBm miniPCI network adapter provides leading 802.11n a/b/g performance, supporting up to 300Mbps physical data rates and about 200Mbps of actual user throughput on both the uplink and downlink. Adding wireless N to your wireless device, it provides higher efficiency for everyday activities such as file transfers, Internet browsing, and media streaming. The **WLM200NX** miniPCI offers high output power of 100 mW, allowing an extended range of wireless coverage. Combined with excellent receiver sensitivity, the **WLM200NX** is one of the best choice for long distance links, or those where signal levels are reduced due to minor obstructions such as trees or building.

Atheros AR9220 single-chip and 2 antennas design supports 2 simultaneous traffic MIMO streams using up to 2 integrated Tx and Rx assuring a higher quality experience to enhance user's satisfaction

Highlights:

- 802.11n draft compliance effectively interoperates with other chipsets.
- Operating in 2.4GHz and 5.8GHz bands, data rate up to 300Mbps for 40Mhz channel
- Supports IEEE 802.11a / 802.11b / 802.11g backward compatibility allowing inter-operability among multiple wifi networks.
- Maximum 20 dBm output power
- Atheros AR9220 chip, 2Tx2R spatial multiplexing technique
- Two UFL antenna connectors support MIMO functionality
- Transmission Power Control (TPC)
- Dynamic Frequency Selection (DFS)
- PCI Interface v2.3 (Type III-B Mini-PCI)

Specification

Chipset	Atheros AR9220
Interface Type	PCI Interface v2.3 (Type III-A miniPCI form factor)
Standards	IEEE 802.11n Draft, IEEE 802.11a, 802.11b, 802.11g
Operating Voltage	3.3 V
Power Consumption	2W
Antenna Connector	2 x U.FL Antenna Connector

Frequency Bands	IEEE 802.11n	2.412 – 2.462GHz (US & Canada) 2.412 – 2.472GHz (Europe) 2.412 – 2.484GHz (Japan)
	IEEE 802.11a	5.150 – 5.350GHz, 5.470 - 5.725GHz, 5.725 – 5.850GHz (US & Canada) 5.150 – 5.350GHz, 5.470 - 5.725GHz, 5.725 – 5.875GHz (Europe) 5.150 – 5.250GHz, 5.270 - 5.350GHz, 5.470 – 5.725GHz (Japan)
	IEEE 802.11g	2.412 – 2.462GHz (US & Canada) 2.412 – 2.472GHz (Europe) 2.412 – 2.484GHz (Japan)
	IEEE 802.11b	2.412 – 2.462GHz (US & Canada) 2.412 – 2.472GHz (Europe) 2.412 – 2.484GHz (Japan)
Modulation	OFDM: BPSK, QPSK, 16QAM, 64QAM DSSS: DBPSK, DQPSK, CCK	
Radio & EMC Certificate	FCC Part 15.407 (5.150--5.350GHz & 5.470--5.725GHz & 5.725 ~ 5.825GHz), FCC Part 15.247 (5.725 ~ 5.850GHz), FCC Part 15.247 (2.400 ~ 2.4835GHz), FCC CFR Title 47 Part 15 Subpart C: Section 15.207 FCC CFR Title 47 Part 15 Subpart C: Section 15.209 FCC CFR Title 47 Part 15 Subpart C: 15.215(c) FCC CFR Title 47 Part 15 Subpart B: Class B ANSI C63.4 FCC OET 65 Limited module level approval. ETSI, EN 301 893, EN 302 502, EN 300 328, EN 301 489- 1/17, EN 50392, EN 55022, EN 55024, EN 61000-3-2/3, EN 61000-4-3/4/5/6/11	
ROHS Compliance	Yes	
Environment Specifications	Operating: -20C to 70C Storage: -20C to 90C	
Humidity	5% to 95% (non-condensing)	
Dimension	59.6 x 51 x 3 mm	
Warranty	1 year	

WLM200NX TX Specifications

	Data Rate	TX Power (+/- 2dBm)			Data Rate	TX Power (+/- 2dBm)
802.11a	6-24Mbps 36Mbps 48Mbps 54Mbps	18dBm 18dBm 17dBm 16dBm		802.11b/g	6-24Mbps 36Mbps 48Mbps 54Mbps	20dBm 19.5dBm 18.5dBm 17dBm
2.4GHz 11n HT20	MCS0 MCS1 MCS2 MCS3 MCS4 MCS5	18dBm 18dBm 18dBm 17.5dBm 17.5dBm 17dBm		2.4GHz 11n HT40	MCS0 MCS1 MCS2 MCS3 MCS4 MCS5	18dBm 18dBm 17.5dBm 17dBm 16.5dBm 16dBm
	MCS6 MCS7 MCS8 MCS9 MCS10 MCS11 MCS12 MCS13 MCS14 MCS15	16dBm 15dBm 18dBm 18dBm 18dBm 17.5dBm 17.5dBm 17dBm 16dBm 15dBm			MCS6 MCS7 MCS8 MCS9 MCS10 MCS11 MCS12 MCS13 MCS14 MCS15	15.5dBm 14.5dBm 18dBm 18dBm 17.5dBm 17dBm 16.5dBm 16dBm 15.5dBm 14.5dBm
5GHz 11n HT20	MCS0 MCS1 MCS2 MCS3 MCS4 MCS5 MCS6 MCS7 MCS8 MCS9 MCS10 MCS11 MCS12 MCS13 MCS14 MCS15	18dBm 18dBm 17.5dBm 17.5dBm 16.5dBm 16dBm 15dBm 12dBm 18dBm 18dBm 17.5dBm 17.5dBm 16.5dBm 16dBm 15dBm 12dBm		5GHz 11n HT40	MCS0 MCS1 MCS2 MCS3 MCS4 MCS5 MCS6 MCS7 MCS8 MCS9 MCS10 MCS11 MCS12 MCS13 MCS14 MCS15	16.5dBm 16.5dBm 16.5dBm 16.5dBm 16.5dBm 14.5dBm 14dBm 9dBm 16.5dBm 16.5dBm 16.5dBm 16.5dBm 16.5dBm 14.5dBm 14dBm 9dBm

WLM200NX RX Specifications

	Data Rate		Sensitivity (Maximum/Typical +/- 2dBm)		
802.11b	1M 5.5M 11M		-96 / -92dBm -94 / -90dBm -91 / -87dBm		
	Data Rate	Sensitivity (Maximum/Typical +/- 2dBm)		Data Rate	Sensitivity (Maximum/Typical +/- 2dBm)
802.11a	6Mbps 9Mbps 12Mbps 18Mbps 24Mbps 36Mbps 48Mbps 54Mbps	-95 / -91dBm -95 / -91dBm -95 / -91dBm -94 / -90dBm -90 / -86dBm -87 / -83dBm -83 / -79dBm -82 / -78dBm	802.11g	6Mbps 9Mbps 12Mbps 18Mbps 24Mbps 36Mbps 48Mbps 54Mbps	-96 / -92dBm -96 / -92dBm -96 / -92dBm -95 / -91dBm -92 / -88dBm -89 / -85dBm -85 / -81dBm -83 / -79dBm
802.11a/n HT20	MCS0 MCS1 MCS2 MCS3 MCS4 MCS5 MCS6 MCS7 MCS8 MCS9 MCS10 MCS11 MCS12 MCS13 MCS14 MCS15	-91 / -87dBm -90 / -86dBm -88 / -84dBm -85 / -81dBm -82 / -78dBm -78 / -74dBm -77 / -73dBm -74 / -70dBm -91 / -87dBm -88 / -84dBm -86 / -82dBm -83 / -79dBm -80 / -76dBm -75 / -71dBm -73 / -69dBm -70 / -66dBm	802.11b/g/n HT20	MCS0 MCS1 MCS2 MCS3 MCS4 MCS5 MCS6 MCS7 MCS8 MCS9 MCS10 MCS11 MCS12 MCS13 MCS14 MCS15	-90 / -86dBm -90 / -86dBm -89 / -85dBm -87 / -82dBm -84 / -79dBm -79 / -75dBm -78 / -74dBm -75 / -71dBm -90 / -86dBm -89 / -85dBm -87 / -83dBm -84 / -80dBm -81 / -77dBm -76 / -72dBm -74 / -68dBm -71 / -67dBm
802.11a/n HT40	MCS0 MCS1 MCS2 MCS3 MCS4 MCS5 MCS6 MCS7 MCS8 MCS9 MCS10 MCS11 MCS12 MCS13 MCS14 MCS15	-95 / -91dBm -95 / -91dBm -95 / -91dBm -94 / -90dBm -90 / -86dBm -87 / -83dBm -83 / -79dBm -82 / -78dBm -95 / -91dBm -95 / -91dBm -95 / -91dBm -94 / -90dBm -90 / -86dBm -87 / -83dBm -83 / -79dBm -82 / -78dBm	802.11b/g/n HT40	MCS0 MCS1 MCS2 MCS3 MCS4 MCS5 MCS6 MCS7 MCS8 MCS9 MCS10 MCS11 MCS12 MCS13 MCS14 MCS15	-95 / -91dBm -95 / -91dBm -95 / -91dBm -94 / -90dBm -90 / -86dBm -87 / -83dBm -83 / -79dBm -82 / -78dBm -95 / -91dBm -95 / -91dBm -95 / -91dBm -94 / -90dBm -90 / -86dBm -87 / -83dBm -83 / -79dBm -82 / -78dBm

Dimension:

