



# Full-size PCIe MINI CARD WLE350NX

Dual-band 802.11n MIMO 3 x 3 mini PCIe

## Features

- Atheros XB116 reference design
- Maximum 19dBm output power(per chain)/ 24dBm(aggregate)
- Single 3.3V power
- IEEE 802.11n compliant and backward compatible with 802.11a/b/g
- Dual-band 3 x 3 MIMO spatial multiplexing technique
- Supports up to 450Mbps physical data rates
- Atheros XSPAN family chipset with SST3™, which increase the link rate by ~100% at short range, ~50% at mid range and ~25% at long range
- Supports Spatial Multiplexing, cyclic-delay diversity (CDD), low-density parity check (LDPC), maximum ratio combining (MRC), space time block code (STBC) and Tx beamforming (TxBF)
- Dynamic Frequency Selection (DFS)
- Multi-Country Roaming Supported (IEEE802.11d Global Harmonization Standard)
- 3 x U.FL Antenna Connector
- Supports 802.11x authentication, 64/128/152Bit WEP, IEEE802.11i encryption
- Supports Windows 7, Windows Vista, Windows XP operating system

Technical Specifications											
<b>Chipset</b>	AR9580/AR9590										
<b>Host Interface</b>	PCI-Express 1.1 Standard										
<b>Operating Voltage</b>	3.3 VDC										
<b>Power Consumption</b>	3.5W										
<b>Antenna Connector</b>	3 x U.FL Antenna Connector										
<b>Data Rate</b>	IEEE 802.11a :	54Mbps	48Mbps	36Mbps	24Mbps	18Mbps	12Mbps	9Mbps	6Mbps		
	IEEE 802.11b :	11Mbps	5.5Mbps	2Mbps	1Mbps						
	IEEE 802.11g :	54Mbps	48Mbps	36Mbps	24Mbps	18Mbps	12Mbps	9Mbps	6Mbps	automatically	
		Fallback to 5.5Mbps, 2Mbps, 1Mbps									
	IEEE 802.11n :	20MHz	1Nss: 65Mbps @ 800GI, 72.2Mbps @ 400GI (Max.)								
			2Nss: 130Mbps @ 800GI, 144.4Mbps @ 400GI (Max.)								
	3Nss: 195Mbps @ 800GI, 216.6Mbps @ 400GI (Max.)										
	40MHz	1Nss: 135Mbps @ 800GI, 150Mbps @ 400GI (Max.)									
		2Nss: 270Mbps @ 800GI, 300Mbps @ 400GI (Max.)									
		3Nss: 405.5Mbps @ 800GI, 450Mbps @ 400GI (Max.)									
<b>Frequency Range</b>	IEEE802.11b/g/n:	2.412GHz ~ 2.462GHz (US & Canada)									
		2.412GHz ~ 2.472GHz (Europe)									
		2.412GHz ~ 2.484GHz (Japan)									
	IEEE 802.11a/n:	5.150 ~ 5.350 GHz, 5.470 ~ 5.725GHz, 5.725 ~ 5.850 GHz (US & Canada)									
		5.150 ~ 5.350 GHz, 5.470 ~ 5.725GHz, 5.725 ~ 5.875 GHz (Europe)									
	5.150 ~ 5.250 GHz, 5.250 ~ 5.350GHz, 5.470 ~ 5.725GHz (Japan)										
<b>Modulation Techniques</b>	OFDM: BPSK, QPSK, 16-QAM, 64-QAM DSSS: DBPSK, DQPSK, CCK										
<b>RoHS Compliance</b>	Yes										
<b>Temperature Range</b>	Operating: -20°C to 70°C Storage: -40°C to 90°C										
<b>Humidity</b>	Operating: 5% to 95% (non-condensing) Storage: Max. 90% (non-condensing)										
<b>Dimensions</b>	50.95mm x 30 mm x 3.2 mm (H x W x D)										

WLE350NX PCIe Mini CARD RADIO									
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	19dBm	24dBm	±2dB	802.11b/g	6Mbps	19dBm	24dBm	±2dB
	54Mbps	15dBm	20dBm	±2dB		54Mbps	16dBm	21dBm	±2dB
	DataRate	TX Power (per chain)	TX Power (3 chains)	Tolerance		DataRate	TX Power (per chain)	TX Power (3 chains)	Tolerance
2.4GHz 11n HT20	MCS 0	18dBm	23dBm	±2dB	2.4GHz 11n HT40	MCS 0	17dBm	22dBm	±2dB
	MCS 7	15dBm	20dBm	±2dB		MCS 7	14dBm	19dBm	±2dB
	MCS 8	18dBm	23dBm	±2dB		MCS 8	17dBm	22dBm	±2dB
	MCS 15	15dBm	20dBm	±2dB		MCS 15	14dBm	19dBm	±2dB
	MCS 16	18dBm	23dBm	±2dB		MCS 16	17dBm	22dBm	±2dB
	MCS 23	14dBm	19dBm	±2dB		MCS 23	13dBm	18dBm	±2dB
5GHz 11n HT20	MCS 0	18dBm	23dBm	±2dB	5 GHz 11n HT40	MCS 0	17dBm	22dBm	±2dB
	MCS 7	13dBm	18dBm	±2dB		MCS 7	12dBm	17dBm	±2dB
	MCS 8	18dBm	23dBm	±2dB		MCS 8	17dBm	22dBm	±2dB
	MCS 15	13dBm	18dBm	±2dB		MCS 15	12dBm	17dBm	±2dB
	MCS 16	18dBm	23dBm	±2dB		MCS 16	17dBm	22dBm	±2dB
	MCS 23	12dBm	17dBm	±2dB		MCS 23	11dBm	16dBm	±2dB

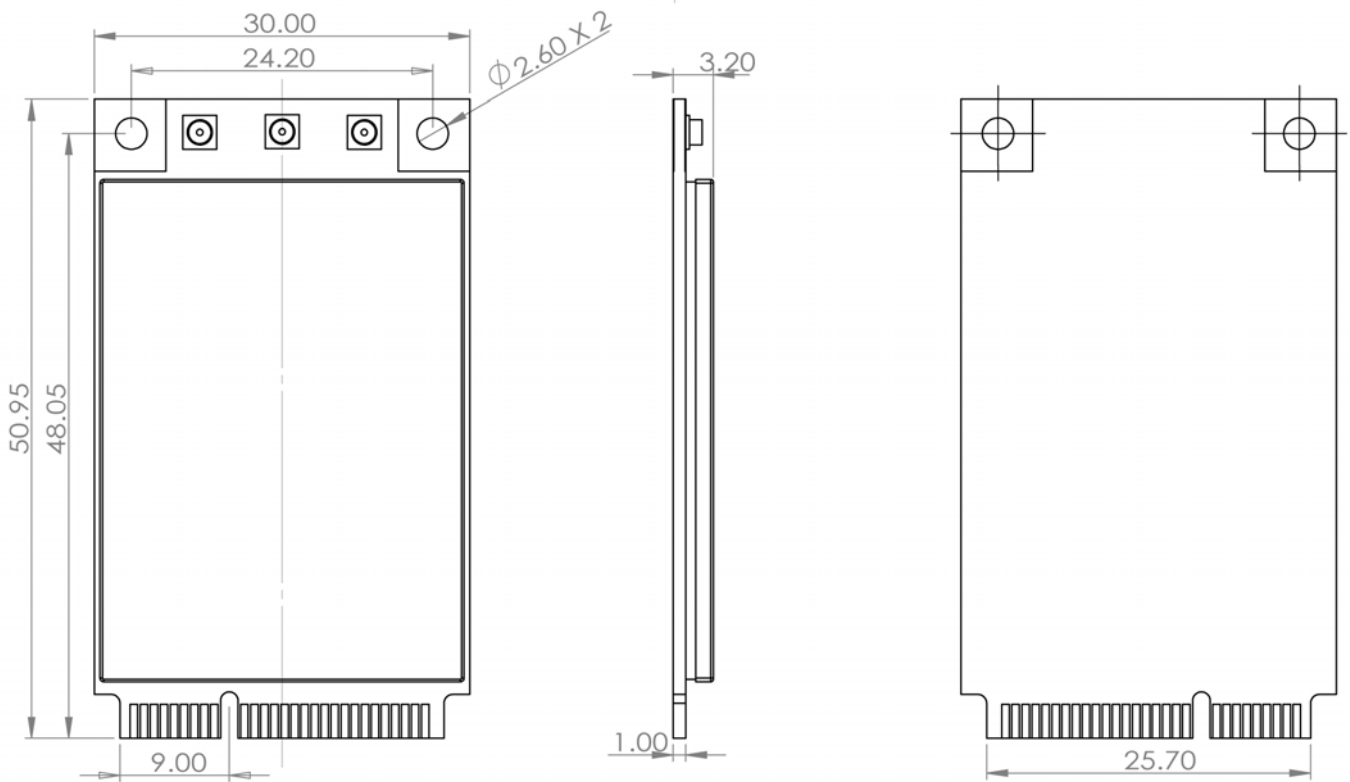
RX SPECIFICATIONS									
	DataRate	Sensitivity	Tolerance		DataRate	Sensitivity	Tolerance		
802.11a	6M	-94dBm	±2dB	802.11g	6M	-95dBm	±2dB	802.11n HT20	802.11n HT40
	54M	-81dBm	±2dB		54M	-81dBm	±2dB		
2.4GHz 11n HT20	MCS 0	-95dBm	±2dB	2.4GHz 11n HT40	MCS 0	-91dBm	±2dB	5 GHz 11n HT20	5 GHz 11n HT40
	MCS 7	-76dBm	±2dB		MCS 7	-73dBm	±2dB		
	MCS 8	-92dBm	±2dB		MCS 8	-90dBm	±2dB		
	MCS 15	-73dBm	±2dB		MCS 15	-71dBm	±2dB		
	MCS 16	-91dBm	±2dB		MCS 16	-89dBm	±2dB		
	MCS 23	-71dBm	±2dB		MCS 23	-69dBm	±2dB		
5 GHz 11n HT20	MCS 0	-94dBm	±2dB	5 GHz 11n HT40	MCS 0	-91dBm	±2dB		
	MCS 7	-76dBm	±2dB		MCS 7	-71dBm	±2dB		
	MCS 8	-93dBm	±2dB		MCS 8	-89dBm	±2dB		
	MCS 15	-73dBm	±2dB		MCS 15	-69dBm	±2dB		
	MCS 16	-91dBm	±2dB		MCS 16	-87dBm	±2dB		
	MCS 23	-71dBm	±2dB		MCS 23	-67dBm	±2dB		

### Ordering Informaion<sup>①</sup>

Model Code	Form Factor	Chipset	CARD INFORMATIONS
WLE350NX 7A0000	Full Size	AR9580	802.11 a/b/g/n PCIe mini card
WLE350NX 7B0000	Full Size	AR9590	802.11 a/b/g/n PCIe mini card

- ① Configurations are subject to change without notice.  
Please contact Compex sales representatives for other available configurations

## DIMENSIONS DRAWING



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