

WPEA-110N 802.11a/b/g/n Dual-Band Mini PCI Express Module

Highest performance, Longer Range and Faster Speed with Atheros AR9280 Chip Solution



Features and Benefits:

- Mini PCI Express
- Wireless connection up to 300 Mbps
- Low power consumption and high performance
- 2 antennas to support 2(Tx)×2(Rx) MIMO technology
- Enhanced wireless security
- Windows XP/ Vista driver support

Superior Performance with Longer Range and Faster Speed

SparkLAN Mini PCI Express Wireless Module, WPEA-110N, fully supports the features and functional compliance with IEEE 802.11 a/b/g/n standard, supporting up to 300 Mbps data rates. Comparing to 802.11g technology, 802.11n draft standard makes big improvement on speed and range.

Best Choice for High-End Notebook

The module based on Atheros AR9280 solution, which is dual-band (2.4GHz and 5GHz) 2x2 MIMO PCIe design, targeting enterprise and high-end consumer notebooks. The solution enables up to 10 times the throughput and more than twice the range of 802.11a/g solutions.

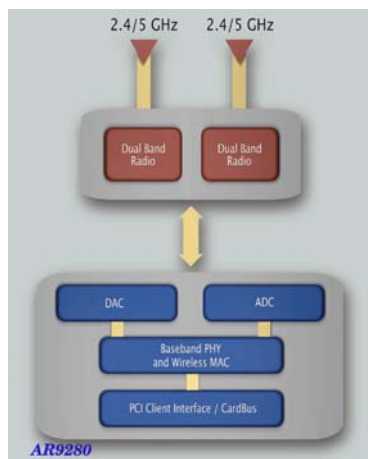
Industry-Leading Power Efficiency

WPEA-110N features Atheros' highest level of 802.11n WLAN throughput, which enables a high performance, cost effective, low power, compact solution that easily fits onto single side of the PCI Express Mini Card.

Secure Wireless Connection

This Mini PCI Express Module WPEA-110N with security support of AES, WEP, and WPA/WPA2 offers enhanced data protection.

Block Diagram



Specifications

Chipset		
Mac/BB /RF	Atheros AR9280	
Host Interface		
Mini PCI Express		
Radio		
Antenna	[U.FL] connectors*2 (2T/2R)	
Operating Frequency	a/b/g/n ISM Band:2.412~2.472, 5.180~5.805 GHz	
Modulation	802.11a:OFDM; 802.11b:CCK,DQPSK,DBPSK 802.11g:OFDM 802.11n:OFDM	
Data rate	802.11b: 1, 2, 5.5, 11Mbps	
	802.11a/g: 6, 9, 12, 18, 24, 36, 48, 54Mbps	
	80.211n GI=800ns:(2 Streams) (20MHz) 13,26,39,52,78,104,117,130 (40MHz)27,54,81,108,162,216,243,270	
Data rate	802.11n GI=400ns:(2 Streams) (20MHz)14.4,28.9,43.3,57.8,86.7, 115.6,130,144.4 (40MHz)30,60,90,120,180,240,270,300	
	802.11a	14dBm +/- 1dBm
	802.11b	19dBm +/- 1dBm
Output Power	802.11g	17dBm +/- 1dBm
	802.11n	17dBm +/- 1dBm
	802.11a	-72dBm@54Mbps
Receive Sensitivity	802.11b	-85dBm@11Mbps
	802.11g	-72dBm@54Mbps
	802.11n (2.4GHz)	-64dBm@300Mbps
	802.11n (5 GHz)	-67dBm@270Mbps
Power consumption		
Continue TX	606mA	
Continue RX	454mA	
Idle mode	75mA	
Operating Voltage		
DC 3.3V ± 5%		
Environmental		
Temperature Range	-10 ~ 65°C (Operating) -40~80°C (Storing)	
Operating Humidity	50 ~92% (Non-Condensing)	
Physical Specification		
Dimensions	50.95mmx30mmx3.15mm	
Weight	≤ 7g	
Software		
Driver	Windows XP/ Vista	
Security	64/128/152-bit WEP, 802.1x, LEAP WPA/WPA2, Encryption TKIP/AES	

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