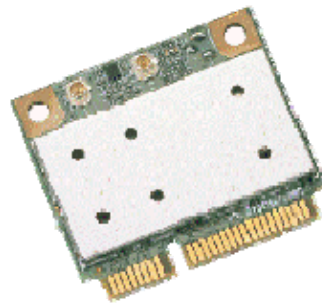




# WPEA-121N

## Feature

- Reference Design: HB116
- Chipset: Atheros AR9382
- Interface: Half Mini PCI Express
- Wireless connection up to 300Mbps, 2T2R
- Enhanced wireless security: 64/128-bits WEP, WPA, WPA2
- Support Windows 2000/ XP/ Vista/ Win 7, Linux, Android by request



## 802.11 a/b/g/n Half Mini Card

**Highest Performance with Atheros AR9382 (HB116), 2T2R 2-Stream Solution**

### Superior Performance with Longer Range

SparkLAN WPEA-121N, embedded with Atheros AR9382 chipset, incorporated with Atheros XSPAN with Signal Sustain Technology (SST). It supports 2T2R (2 transmit 2 receive) MIMO technology, which delivers superior throughput up to 300Mbps and improves the overall Wi-Fi coverage area.

### Ideal for High-End Notebook

The module adopts the latest 802.11n Dual-Band technology (2.4GHz and 5GHz). It targets enterprise and high-end consumer notebooks. The solution enables up to 6 times the throughput of 802.11a/g solutions.

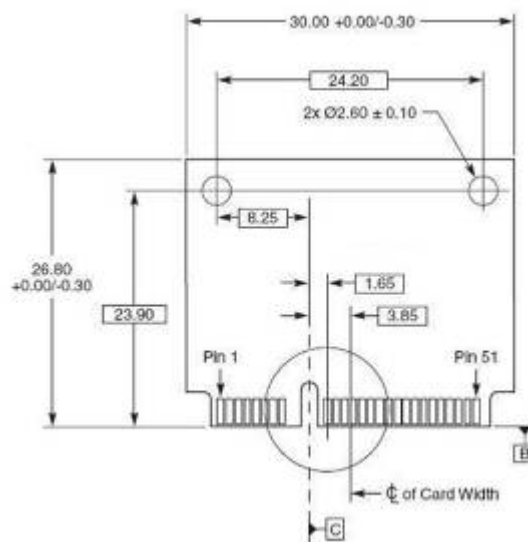
### Industry-Leading Power Efficiency

WPEA-121N, featuring Atheros' highest level of 802.11n WLAN throughput, enables a high performance, cost effective, low power, and compact solution for developers to easily integrate with embedded computing platforms.

## Application

- Notebook
- Ultra Mobile PC
- Networking Equipment
- Digital Multimedia Device (Gaming Machine, HDTV)

## Mechanical Dimension

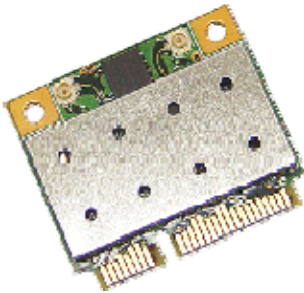




# WPEA-121N

## Related Product

- WPEA-111N  
802.11a/b/g/n Half Mini Card



## Ordering Info

- WPEA-121N  
802.11a/b/g/n Half Mini Card

## Specifications

### Standard

802.11a/b/g/n

### Chipset

Mac/BB /RF      Atheros AR9382

### Host Interface

Half Mini PCI Express

### Radio

Antenna	2 x U.FL connectors, 2T2R
Operating Frequency	802.11b/g/n ISM Band: 2.412 ~ 2.4835 GHz 802.11a ISM Band: 5.15 ~ 5.85 GHz
Modulation	802.11a: OFDM (BPSK, QPSK, 16-QAM, 64-QAM) 802.11b: DSSS (DBPSK, DQPSK, CCK) 802.11g: OFDM (BPSK, QPSK, 16-QAM, 64-QAM) 802.11n: OFDM (BPSK, QPSK, 16-QAM, 64-QAM)
Output Power	802.11a: 12dBm ± 2dBm 802.11b: 17dBm ± 2dBm 802.11g: 16dBm ± 2dBm 802.11gn HT20: 15dBm ± 2dBm@MCS7 802.11gn HT40: 14dBm ± 2dBm@MCS7 802.11an HT20: 12dBm ± 2dBm@MCS7 802.11an HT40: 11dBm ± 2dBm@MCS7
Receive Sensitivity	802.11a: -76dBm ±2dBm@54Mbps 802.11b: -85dBm ±2dBm@11Mbps 802.11g: -76dBm ±2dBm@54Mbps 802.11gn HT20: -75dBm ±2dBm@MCS7 802.11gn HT40: -72dBm ±2dBm@MCS7 802.11an HT20: -74dBm ±2dBm@MCS7 802.11an HT40: -71dBm ±2dBm@MCS7

### Power consumption

Continue TX	Max 600mA
Continue RX	Max 237mA

### Operating Voltage

DC 3.3 V ±10% I/O supply voltage

### Environmental

Temperature Range	0 ~ 75°C (Operating)    -40~85°C (Storing)
Humidity (non-condensing)	5 ~ 90% (Operating)    5 ~ 95% (Storing)

### Physical Specification

Dimensions	30 mm x 26.8 mm x 4.5mm
Weight	≤ 9g

### Software

Driver	Windows 2000/ XP/ Vista/ Win 7, Linux, Android by request
Security	64/128-bits WEP, WPA, WPA2