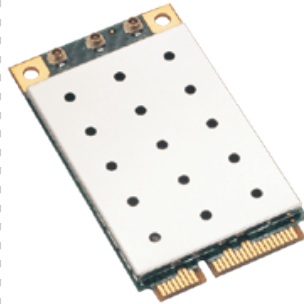




# WPEA-127NI

## Feature

- Reference Design: XB114
- Chipset: Atheros AR9390-AL1B
- Interface: Mini PCI Express
- Industrial-Grade Temperature: -40 ~ 80°C
- Wireless connection up to 450Mbps
- RF 3T3R
- Output Power up to 16dBm
- Enhanced wireless security: 64/128-bits WEP, WPA, WPA2
- Windows XP/ Vista, Win 7, Linux, Android by request



## 802.11 a/b/g/n Industrial-Grade Mini Card

**Reference Design: XB114, Atheros AR9390-AL1B**  
**Industrial-Grade Temperature -40 ~ 80°C**

### Reliable High-Speed Industrial Embedded Application

SparkLAN WPEA-127NI is a high-speed 802.11n 3T3R Mini PCI module based on Atheros XB114 Reference Design (AR9390-AL1B chipset), which delivers up to 450Mbps data rate. It supports the high transmission data rate and reliable performance of 3 x 3 radios which are ideal for streaming multimedia applications. It provides 3 stream MIMO configurations, which is easy to implement to integrate into AP, Client Bridge and embedded system.

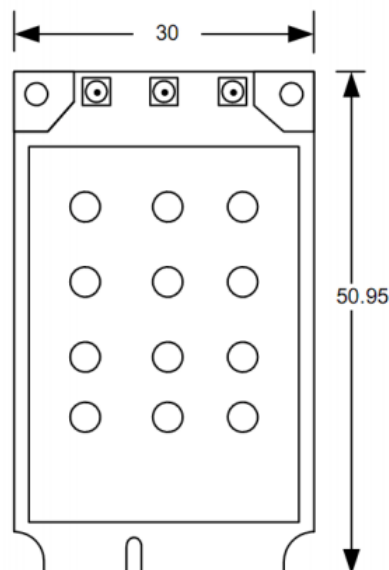
### Industrial-Grade Temperature Range

WPEA-127NI is able to function under sever weather condition (-40 ~ 80°C), which is ideal for manufacturers to integrate with their devices that are designed for wide-temperature range.

## Application

- Networking Equipment
- Industrial Computers
- Automation
- Medical Device
- POS (Point-of-Sale) System
- Self-Service KIOSK
- Gaming Machine

### Mechanical Dimension (mm)

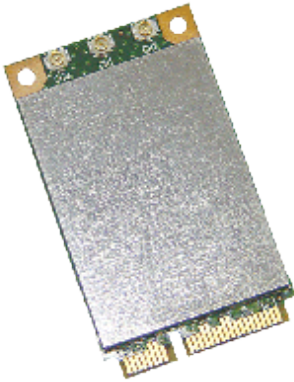




# WPEA-127NI

## Related Product

- WPEA-127N  
802.11a/b/g/n Mini Card



## Specifications

### Standard

802.11a/b/g/n

### Chipset

Mac/BB/RF                      Atheros AR9390-AL1B

### Host Interface

Mini PCI Express

### Radio

Antenna                      3 x U.FL connectors, 3T3R

Operating Frequency      11b/g/n ISM Band: 2.400~2.4835GHz  
11a ISM Band:5.180GHz ~ 5.825GHz

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: 11dBm ± 2dBm@54Mbps  
802.11b: 19dBm ± 2dBm@11Mbps  
802.11g: 16dBm ± 2dBm@54Mbps  
802.11gn HT20: 15dBm ± 2dBm@ MCS7  
802.11gn HT40: 15dBm ± 2dBm@ MCS7  
802.11an HT20: 11dBm ± 2dBm@ MCS7  
802.11an HT40: 11dBm ± 2dBm@ MCS7

Receive Sensitivity              802.11a: ≤ -78dBm@54Mbps  
802.11b: ≤ -95dBm@11Mbps  
802.11g: ≤ -79dBm@54Mbps  
802.11gn HT20: ≤ -76dBm@MCS7  
802.11gn HT40: ≤ -74dBm@MCS7  
802.11n HT20: ≤ -75dBm@MCS7  
802.11n HT40: ≤ -72dBm@MCS7

### Power consumption

Continue TX                      970mA

Continue RX                      300mA

### Operating Voltage

DC 3.3V ± 10%

### Environmental

Temperature Range              -40 ~ 80°C (Operating)   -50~95°C (Storing)

Humidity (Non-Condensing)    20~ 80% (Operating)    5% ~ 95% (Storing)

### Physical Specification

Dimensions                      50.95mm x 30mm x 3.3mm

Weight                              ≤ 7g

### Software

Driver                              Windows XP/ Vista, Win 7, Linux, Android by request

Security                             64/128-bits WEP, WPA, WPA2

## Ordering Info

- WPEA-127NI  
802.11a/b/g/n Industrial-Grade Mini Card