



# CPE901A

IEEE 802.11a/b/g/n 2T2R Wi-Fi mini PCI Express



5GHz radio industrial wireless LAN solution

## Introduction of Products

Bointec CPE901-A PCI Express module supports the rapidly emerging 802.11n standard, which was designed for substantially improving the performance of wireless LAN (WLAN) networks. The CPE901-A features two stream MIMO technology and 40 MHz band width mode with throughput up to 300 Mbps, five times as fast as the current 802.11a/g wireless LAN standards.

Bointec has the experience and expertise to provide all of the services necessary to enable embedded wireless networking in virtually any type product. Each card is individually tested and inspected to ensure the industry's highest quality resulting greater performance and reliability. The CPE901-A is designed to meet the demanding performance requirements of critical embedded applications..

## Product Highlight

- Atheros AR9382 highly integrated Single-chip, 802.11n-certified wireless LAN client solution
- IEEE 802.11a/b/g/n compliant 2.4/5 GHz dual band
- Based on Atheros' fourth-generation 802.11n technology Fully Support 2-stream MIMO performance with data rate up to 300 Mbps
- PCI Express Half-Mini Card 1.2 compliant
- Compliant with IEEE 802.11b, 802.11g, 802.11d, 802.11e, 802.11i, and 802.11n
- Signal-Sustain Technology (SST) rate-over-range enhancements: LDPC, MLD, TxBF
- Conserves power with 1x1 downshift, using Dynamic MIMO Power Save
- Driver offering includes Linux, Windows 7 and Embedded XP
- Linux supplicant available for WPA/WPA2-PSK & 802.1x EAP
- Customer Driver development available
- IEEE 802.11e QOS support
- Lead-free RoHS compliant

## Radio Configuration & General Specifications

### Center Frequency:

802.11a, na HT20: 5180 - 5825 MHz

802.11na HT40: 5190 - 5795 MHz

802.11b, g, ng HT20: 2412 - 2472 (Ch. 1 - 13)

802.11ng HT40: 2412 - 2462 (Ch. 3 - 11)

### Channel Spacing:

802.11a, na HT20: 20 MHz

802.11b, g, ng HT20/HT40: 5 MHz

802.11na HT40: 40 MHz

### Modulation Type:

802.11a, na OFDM (64QAM, 16QAM, QPSK, BPSK)

802.11b DSSS (CCK, DQPSK, DBPSK)

802.11g, ng DSSS-OFDM (64QAM, 16QAM, QPSK, BPSK)

### Standard Compliance

#### Device Interfaces

- IEEE802.11a/b/g/n/e/h/i
- PCI Express Mini Card v1.2 (Single definitions: PCI Express v1.1)

#### Regulatory

- TELEC (Japan Radio Law Rule Article 2 Sect. 1 Number 19)
- Certifiable for FCC, IC, CE and other regulatory requirements\*.

#### Driver Support

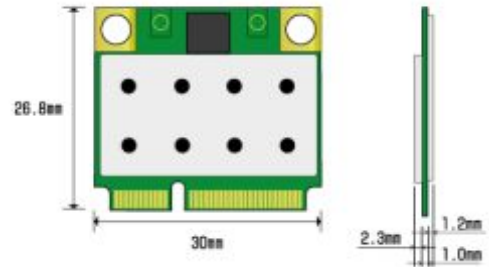
##### Bointec Linux Reference Driver:

- 802.11a/b/g/n supported
- Ad hoc, Infrastructure, Access Point mode

##### Bointec WPA Software:

- WPA Supplicant (Station) / WPA Authenticator (AP)
- Customized based on Open Source WPA supplicant / hostapd
- WPA - TKIP/AES - PSK/EAP (TLS/TTLS/PEAP/FAST)
- WPA2 - AES - PSK/EAP (TLS/TTLS/PEAP/FAST)
- IEEE 802.1X - WEP / None - EAP (TLS/TTLS/PEAP/FAST)

##### Windows Embedded (Windows XP/Windows 7)



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