DPE809AA

802.11b/g/n WiFi with BT4.0 Combo mini PCI Expres

DPE809-AA

Perfect for WiFi and Bluetooth in one slot

Introduction of Products

Bointec DPE809AA included Atheros AR9485 and AR3012 is a 802.11bgn 1x1,plus Bluetooth 4.0 solution.

With features of Atheros Align 1-stream 802.11n, DPE809AA cutting the power consumption in half, the AR9485 is enabling best-in-class wireless features with a greatly-reduced impact on the battery life of mobile PCs. Bointec DPE809AA backward compatible to 802.11b/g and forward compatible to multi-stream 11n. Targeting the growing value computing products market segment with 150 Mbps PHY rates, DPE809AA is the ideal wifi solution for computing users seeking robust throughput, enhanced range and extended battery life for data networking applications as well as P2P applications. Bointec DPE809AA offers lowest power consumption 30 to 50 percent lower than comparable solutions. Such significant power savings are the result of Atheros enhanced PHY architecture, 55nm design and efficient power amplifiers. DPE809AA also adapts a unique Green Transmission mode, which dynamically adjusts the systems Wi-Fi transmit power depend-ing on the distance between the router and the client device.

Bointec DPE809AA also adapts Atheros AR3012 supports both the Bluetooth 4.0 + HS specification versions. Bointec DPE809AA also utilizes Atheros Universal Wireless CooperationTM support for maximum performance with Atheros Atheros AR9485.

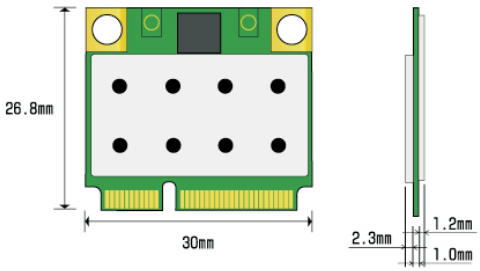
Bointec DPE809AA supports the standard HCI USB interface, which makes it compatible with any upper layer Bluetooth stack. Microsoft software is available for Win7, Vista, and XP. Linux BlueZ is also well supported.

Product Highlight

- Atheros AR9485 PCI Express solution MAC/baseband processor and 2.4 GHz radio Supports up to 150 Mbps Data Rate
- IEEE802.11 b/g/n compliant 2.4GHz.
- Compliant with IEEE 802.11b, 802.11d, 802.11e, 802.11g standards and 802.11i specification. PCI Express Based Specification 1.1 compliant
- Singal-Sustain Technology (SST) rate over range enhancements: LDPC, MLD, TxBF
- Supports all mandatory IEEE 802.11n features, including several optional features such as HT40, half-guard interval in HT40 and Rx Space Time Block Coding (STBC)
- Low power sleep modes supported, Wake on Wireless LAN (WoW) supported.
- Driver offering include Linux, Windows 7/8 (32 and 64 bit), and embedded XP
- Atheros AR3012 Bluetooth 4.0 + HS solution, Bluetooth Class 1 Radio
- USB 2.0 device interface supports standard HCI USB
- RoHS compliant

Module (PCB-A)	
Dimensions	26.65(+/-0.15mm)* 29.85(+/-0.15mm) * 3.37(+/-0.1mm) (2L FR4)
Main Chip	Atheros® AR9485 & Atheros® AR3012
Host Interface	PCI Express® Mini Card Electromechanical Specification Revision 1.2.
Operation voltage	3.3V +/- 9%
Security	64-bit, 128-bit, 152-bit WEP Encryption 802.1x Authentication AES-CCM & TKIP Encryption
Transfer data rate	802.11b: 1, 2, 5.5, 11Mbps 802.11g: 6, 9, 12, 18, 24, 36, 48, 54Mbps 802.11n: @800GI(400GI) 20MHz BW, 65(72.2) Mbps maximal 40MHz BW, 135(150) Mbps maximal
Operation mode	Infrastructure & Ad-hoc mode (TBD)
RF connector	2 x SMT Ultra-miniature coaxial connectors (U.FL-R-SMT)
TX/RX	1T1R, RX diversity
Electronics characteristics	
Operating Temperature	-10° ~ 60°C
Storage Temperature	-40° ~ 80°C
Power Consumption	
Power consumption @ 25°C	802.11n (2.4GHz) Avg/Max (mA) FTP Tx 295/410 AP scanning, no association with AP 204/408 ***The maximum current consumption would be impacted by radiation environment and the driver mechanism.
Receive (typical)	
Sleep (typical)	
Alliances	
Wi-Fi® alliance®	WECA Compliant
Bluetooth	Bluetooth v4.0
WHQL	Microsoft ®2K, XP, Vista Compliant
Emission	
EMC certificate	• FCC part 15 (USA) • IC RSS210 (Canada) • TELEC (Japan)

Compliance	Bluetooth v4.0
Frequency range	2400 ~ 2483.5MHz
Initial carrier frequency tolerance	+/- 40kHz (typical)
Modulation technique	Frequency hopping, 1600 hops/sec
Channel spacing	1MHz
Channels support	79 channels
Power consumption @ 25°C	Avg (mA) Idle mode 15.1 Continuous DH5 TX 68.8 ***The maximum current consumption would be impacted by radiation environment and the driver mechanism.
Output power (dBm)	2dBm typical, class 2 device (-6dBm < output power <4dBm).
Sensitivity	-85 dBm (typ.) for pi/4-DQPSK, 0.1%BER
Antenna	1 x SMT Ultra-miniature coaxial connectors (U.FL-R-SMT)



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