EMP-8602 PLUS-S

Atheros 6thG Mini-PCI Adapter

2.4GHz/5GHz	802.11a/b/g	54 Mbps

EMP-8602 PLUS-S is a mini-PCI type III B High-Power card supporting dual-band (2.4GHz & 5GHz) radio operation. It provides high-speed wireless connection with data rate up to 54Mbps. The shirking dimension and light weight can easily integrate into a wide range of AP/Bridge device.

The 802.11g standard is backwards compatible with 802.11b products. This means that you do not need to change your entire network to maintain connectivity. You may sacrifice some of 802.11g speed when you mix 802.11b and 802.11g devices, but you will not lose the ability to communicate when you incorporate the 802.11g standard into your 802.11b network

Features	Benefits
High Speed Data Rate up to 54Mbps	Capable of handling heavy data payloads such as MPEG video streaming
High Output Power up to 28dBm in 11b/g mode, 22dBm in 11a mode	More high power can advance the distance.
Advanced Power Management	Low power consumption in power saving mode.

****** Subject to change without prior notice***

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Technical specification

Data Rates

802.11a: 6, 9, 12, 18, 24, 36, 48, 54Mbps

802.11g: 6, 9, 12, 18, 24, 36, 48, 54Mbps

802.11b: 1, 2, 5.5, 11Mbps

Standards / Compliance

WECA (Wi-Fi & Wi-Fi5 compliance), IEEE802.11, IEEE802.11a, IEEE802.11g, IEEE802.11b

Regulation Certifications

FCC Part 15/UL

Operating Voltage

3.3V±0.15V

Current consumption

Tx Current ≦ 1A

Rx Current ≦ 400mA

Card on Current ≦ 400mA

Sleep Current ≦ 100mA

RF Information

Frequency Band

802.11a:
5.15~5.35GHz,
5.47~5.725GHz, 5.725~5.825GHz

802.11b/g:

U.S., Europe and Japan product covering 2.4 to 2.484 GHz, programmable for different country regulations

Modulation Technology

802.11a/g:
OFDM (64-QAM, 16-QAM, QPSK, BPSK)
802.11b:
DSSS (DBPSK, DQPSK, CCK)

Operating Channels

802.11b/g

11 for North America, 14 for Japan, 13 for Europe

802.11a

US/Canada:12 non-overlapping channel (5.15~5.35GHz, 5.725~5.825GHz)

Europe:19 non-overlapping channel (5.15~5.35GHz, 5.47~5.825GHz)

Japan:4 non-overlapping channel (5.15~5.25GHz)

China:5 non-overlapping channel (5.725~5.85GHz)

Receive Sensitivity (Typical)

802.11a:
-90dBm @ 6Mbps,
-72dBm @ 54Mbps
802.11g:
-91 dBm @ 6Mbps,
-74 dBm @ 54Mbp
802.11b:
-95 dBm @ 1Mbps
-90 dBm @ 11Mbps

Available Transmit Power (Typical)

- 4920~5108 GHz & 5.150~5.250 GHz(IEEE802.11a)

  22dBm @6 ~ 24Mbps

  20dBm @36Mbps

  18dBm @48Mbps

  17dBm @54Mbps

- 5.250~5.350GHz(IEEE802.11a)

  20dBm @6 ~ 24Mbps

  18dBm @36Mbps

  16dBm @48Mbps

  15dBm @54Mbps

- 5.470~5.725GHz(IEEE802.11a)

  21dBm @6 ~ 24Mbps

  19dBm @36Mbps

  17dBm @48Mbps

  16dBm @54Mbps

- 5.745~5.85GHz (IEEE802.11a)

  20dBm @6 ~ 24Mbps

  18dBm @36Mbps

  16dBm @48Mbps

  15dBm @54Mbps

- 2.412~2.472G(IEEE802.11g)

  27dBm @6 ~ 24Mbps

  25dBm@36Mbps

  24 dBm@48Mbps

  23dBm@54Mbps

- 2.412~2.472G(IEEE802.11b)

  28dBm. @1, 2, 5.5 and 11Mbps

RF Connector

Two antenna connectors (U.FL)

Form Factor

Mini-PCI type III B

Dimensions (LxWxH)

59.60mm X 44.45mm

Weight

15g (0.53 oz)

Environmental

Temperature Range

Operating: 0°C to 70°C
Storage: -20°Cto 80°C

Humidity (non-condensing)

5% ~ 95% typical

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