

EMP-8601 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 108Mbps and extend range with high output power. 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 108Mbps	Capable of handling heavy data payloads such as MPEG video streaming
High Output Power up to 25 dBm (FCC) and 20dBm (ETSI) spec	More high power can advance the distance, which enables more stability in low data rate transmission.
Advanced Power Management	Low power consumption in power saving mode.
Support eXtended Range technology	eXtended Range technology give Wi-Fi products twice the range of existing designs
802.11i security specifications, provides WPA/WPA2 and WEP 64/128 bit encryption	Enhances authentication and security.
Site Survey Utility	Allows users to browser the available active access points which users can connect
802.11e Standard Support	Wireless Multimedia Enhancements Quality of Service support (QoS)
Seamless roaming	Full mobility for users in any scenario

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* Theoretical wireless signal rate based on IEEE standard of 802.11b/g chipset used. Actual throughput may vary. Network conditions and environmental factors lower actual throughput rate.

** All specifications are subject to change without notice.

2.4 GHz/5.0 GHz

802.11 a/b/g

108 Mbps

Technical Specifications

Data Rates

802.11a: 6, 9, 12, 18, 24, 36, 48, 54 and 108Mbps (Super A mode)

802.11g: 6, 9, 12, 18, 24, 36, 48, 54 and 108Mbps (Super G mode)

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

Operating Voltage

3.3V±0.15V

Current consumption

EMP/SMP-8601 PLUS (FCC)

Tx Current ≤ 1.3A

Rx Current ≤ 400mA

Sleep Current ≤ 100mA

EMP/SMP-8601 (ETSI)

Tx Current ≤ 600mA

Rx Current ≤ 350mA

Card on Current ≤ 350mA

Sleep Current ≤ 50mA

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:

-88dBm @ 6Mbps,
-71dBm @ 54Mbps

802.11g:

-90 dBm @ 6Mbps,
-73 dBm @ 54Mbps

802.11b:

-95 dBm @ 1Mbps
-89 dBm @ 11Mbps

Available transmit power (Typical)

EMP/SMP-8601 (ETSI)

- 5.15~5.32 & 5.5~5.6 GHz

18 dBm @6~24Mbps

16 dBm @36Mbps

14 dBm @48Mbps

13 dBm @54Mbps

- 5.62~5.7 GHz

16 dBm @6~24Mbps

15 dBm @36Mbps

13 dBm @48Mbps

12 dBm @54Mbps

- 5.745~5.825 GHz

16 dBm @6~24Mbps

15 dBm @36Mbps

13 dBm @48Mbps

12 dBm @54Mbps

- 2.412~2.472 GHz (IEEE802.11g)

20 dBm @6~36Mbps

19 dBm @48Mbps

18 dBm @54Mbps

- 2.412~2.472 GHz (IEEE802.11b)
20 dBm @1~11Mbps
17 dBm @6~36Mbps

EMP/SMP-8601 PLUS (FCC)

- 5.18~5.24 GHz
16 dBm @48Mbps
15 dBm @54Mbps
- 5.26~5.32 GHz
20 dBm @6~24Mbps
18 dBm @36Mbps
16 dBm @48Mbps
15 dBm @54Mbps

- 5.745~5.825GHz
18 dBm @6~24Mbps
16 dBm @36Mbps
14 dBm @48Mbps
13 dBm @54Mbps

- 2.412~2.462 GHz (IEEE802.11g)
25 dBm @6~24Mbps
23 dBm @36Mbps
22 dBm @48Mbps
21 dBm @54Mbps
- 2.412~2.462 GHz (IEEE802.11b)
25 dBm @1~11Mbps

Antenna

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: -20°C to 85°C
Storage: -30°C to 90°C

Humidity (non-condensing)

5% ~ 95% typical

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