

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 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

*** Subject to change without prior notice

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-8601 PLUS (FCC)**
Tx Current ≤ 1.3A
Rx Current ≤ 400mA
Sleep Current ≤ 100mA
EMP-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-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-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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