



802.11a/g/b Wireless Mini-PCI Adapter

EMP-8602

Boasting the highest RF output power available on the market, in a very small form factor, and 802.11a/b/g support, the EMP-8602 is the ideal all in one solution. The EMP-8602 incorporates the latest in security such as WEP and WPA2, as well as featuring QoS, and digital CMOS technology to minimizing power consumption and cost.

Specifications

Features:

- Up to 54Mbps data transfer rate
- Flexible designs for embedded systems or OEM project based applications
- Fully interoperable with IEEE802.11a/b/g compliant products
- Automatic data rate scaling at 54,48,36,24,18,12,11,9,6,5.5,2,1Mbps
- Updated 64/128-bit WEP engine for improved throughput
- Uses latest IEEE802.1x Client Support(EAP-TLS, EAP-TTLS supplicant)
- Advanced power management for extended battery life
- Improved indoor multipath distortion for higher link quality in an indoor environment
- High transmission output power for extended range(up to 23 dBm)
- Extended tuning ranges for worldwide use and DFS/TPC for international operation
- Support for 802.11e standards for Wireless Multimedia Enhancements QoS

Network:

- **Compliant:** FCC Part15
- **Supported Operating Systems:**
Windows 98SE Windows ME Windows 2000 Windows XP
- **Media Access Protocol:**
CSMA/CA
- **Modulation Technology:** Orthogonal Frequency Division Multiplexing(OFDM)
DBPSK @ 1Mbps DQPSK @ 2Mbps CCK @ 5.5 & 11Mbps
BPSK @ 6&9Mbps QPSK @ 12&18Mbps 16-QAM @ 24&36Mbps
64-QAM @ 48&54Mbps
- **Security:**
64/128-bit WEP data encryption
IEEE802.1x Client Support(EAP-TLS, EAP-TTLS supplicant)
WPA/WPA2- Wi-Fi Protected Access(64, 128-bit WEP with TKIP/AES, Pre-Share Key)
- **Network Standards:**
IEEE802.11a IEEE802.11b IEEE802.11g IEEE802.1x
IEEE802.11i IEEE802.11h IEEE802.1e IEEE802.1j

Radio:

- **Frequency Band:**
2.4~2.484 GHz 5.15~5.35 GHz 5.5~5.7 GHz
5.725~5.825 GHz
- **Radio Type:**
Direct Sequence Spread Spectrum (DSSS)
- **Operation Channels:**
11 for North America
- **Receive Sensitivity (Typical):**
5.15~5.82 GHz
6Mbps @ -90dBm 54Mbps @ -74dBm
2.412~2.472 G(IEEE802.11g)
6Mbps @ -92dBm 54Mbps @ -76dBm
2.412~2.472 G(IEEE802.11b)
11Mbps @ -92dBm 1Mbps @ -96dBm
- **Current Consumption:**
Continue Tx: </= 750mA Continue Rx: </= 400mA
LINK Mode: </= 400mA
- **Available Transmit Power *subject to country regulations*:**
5.15~5.35 & 5.5~5.7 GHz 5.725~5.825 GHz
17 dBm @ 6,9,12,18,24Mbps **20 dBm @ 6,9,12,18,24Mbps**
16 dBm @ 36Mbps 19 dBm @ 36Mbps
15 dBm @ 48Mbps 18 dBm @ 48Mbps
14 dBm @ 54Mbps 17 dBm @ 54Mbps
2.412~2.472G(IEEE802.11g) 2.412~2.472G(IEEE802.11b)
26 dBm @ 6,9,12,18,24Mbps **26 dBm @ 1,2,5.5 & 11Mbps**
25 dBm @ 36Mbps
24 dBm @ 48Mbps
23 dBm @ 54Mbps

Physical Specifications:

- **Form Factor:** Mini-PCI Type IIIB
- **Dimensions:** 59.60mm x 44.45mm
- **Antenna Connector:** 2x U.FL Connectors
- **Operating Voltage:** 5V +/- 0.15V (Input: 3.3V)

Environmental:

- **Temperature Range:**
Operating: 0°C to 55°C
Storage: -20°C to 70°C
- **Humidity (non-condensing):**
5%~95% Typical

All specifications are subject to change by EnGenius without prior notice