

SpeedTouch™ 121g

Wireless 802.11g USB Adapter (stick design)



SpeedTouch 121g

The SpeedTouch 121g is a wireless 802.11g USB 2.0 Adapter, which enables wireless networking systems to attain data transmission speeds up to 54Mb/s, while remaining backward compatible to the existing installed base of over 15 million Wi-Fi systems worldwide. It supports operation with both the IEEE 802.11b and IEEE 802.11g standards, and features support for WiFi Protected Access (WPA).

The SpeedTouch 121g enables a next generation of high-data-rate platforms for operation in the 2.4 GHz band that deliver a five-fold speed increase. The cost and performance advantages make it an ideal solution for high bandwidth enterprise applications, such as wireless video gaming, and large file transfers. The SpeedTouch 121g incorporates the 802.11g standard's mandatory modulation schemes—Complementary Code Keying (CCK), which is used in 802.11b, and Orthogonal Frequency Division Multiplexing (OFDM), used in 802.11g. Using CCK ensures backward-compatibility with the installed Wi-Fi 802.11b base, while OFDM provides the speed required for today's high-bandwidth applications.

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▶ **Product Features**

- Compatible with SpeedTouch Wireless Home Install Wizard
- High speed for wireless LAN connection, up at 54Mb/s data rate.
- Backward compatible to the existing IEEE 802.11b WLAN infrastructure.
- User-friendly utility to configure SSID, security setup and site survey.
- Wireless data encryption with 64, 128 encryption for security.
- WPA Personal
- External dipole antenna
- Support USB v2.0
- Firmware upgradeable.

▶ **Applications**

- Home networking for device sharing.
- Wireless multimedia.
- Wireless office for extension Ethernet range.
- Mobile networking for notebook PC, Desktop PC, Printer, Monitor, PDA with USB port ready device.

▶ **Hardware**

- USB 2.0 Interface: 802.11 54g chipset-on-board design.

▶ **Software**

Operating System Supported

- Windows 98SE, 2000, ME and XP

Security

- Wired Equivalent Privacy (WEP) supports modes that have 64, and 128 bit keys.
- Support for WPA in Windows XP, 2000, ME, and 98SE

Configuration Utility

- An Utility to set SSID, WEP/WPA key and dynamically view configuration and receiving signal quality.
- Supports worldwide country channel specification

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► Appearance

	Power LED (Green)	Link LED (Green)	ACT LED (Green)
OFF	All other states	All other states	All other states
ON	Power	Radio on and linked	All other states
Blink	All other states	Radio on and associated	All other states
Flash	All other states	All other states	TX/RX data access

► Specifications

- Frequency Band:
 - 802.11g Radio: 2.4 GHz
 - 802.11b Radio: 2.4 GHz
- Modulation TYPE: OFDM, CCK
- Operating Channels:
 - USA – FCC 2412~2462MHz (Ch1~Ch11)
 - Europe – ETSI 2412~2472MHz (Ch1~Ch13)
- Security: Hardware 64/128-bit WEP, WPA
- Transmitted Power: See Table 1
- Rates/Sensitivity/Allowable Path Loss: See Table 2
- Regulatory compliance: ETSI/ CE, FCC, Australia
- Current consumption: TX: 480mA Max; RX: 422mA Max;
- Host Interface: USB 2.0
- Operating Temperature: 0 ~ 55°C ambient
- Storage Temperature: -20 ~ 70°C ambient
- Humidity: 5 ~ 90% and must be non-condensing
- ESD: EN61000-4-2, which specifies 4kV contact and 8kV air discharge.

► Antenna Specifications:

- Frequency Band: 2.400 ~ 2.5GHz
- Impedance: 50 Ohms nominal
- Gain: 1.5 dBi Peak
- Radiation: Omni-directional
- Polarization: Vertical

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Table 1: Modulation Scheme and Transmit Power

MODULATION RATE	OUTPUT POWER 2.4-2.5GHz (DBM)
802.11b – 1Mb/s	16
802.11b – 2Mb/s	16
802.11b – 5.5Mb/s	16
802.11b – 11Mb/s	16

MODULATION RATE	OUTPUT POWER 2.4-2.5GHz (DBM)
802.11g – 6Mb/s	16
802.11g – 9Mb/s	16
802.11g – 12Mb/s	16
802.11g – 18Mb/s	16
802.11g – 24Mb/s	15
802.11g – 36Mb/s	15
802.11g – 48Mb/s	12
802.11g – 54Mb/s	12

Table 2: Typical Range at Which Frame (1000 Bytes PDUs) Packet Error Rate=10%

MODULATION RATE	RECEIVER SENSITIVITY (DBM) 2.412 ~ 2.484 GHz
802.11b – 1Mb/s	-88
802.11b – 2Mb/s	-86
802.11b – 5.5Mb/s	-84
802.11b – 11Mb/s	-82

MODULATION RATE	RECEIVER SENSITIVITY (DBM)
802.11g – 6Mb/s	-88
802.11g – 9Mb/s	-87
802.11g – 12Mb/s	-84
802.11g – 18Mb/s	-82
802.11g – 24Mb/s	-79
802.11g – 36Mb/s	-75
802.11g – 48Mb/s	-68
802.11g – 54Mb/s	-68

► For more information: www.speedtouch.com

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