

Wi-Fi Speed

Making sense of Wi-Fi specifications and claims.

Wireless Fidelity, or Wi-Fi, has become the acronym of choice to describe wireless or radio connection between a computer and the Internet. It usually refers to a communications protocol described by the IEEE 802.11 standard that includes several versions. Versions “b” and “g,” designed to operate on a frequency of 2.4 GHz, are in common use on household networks, wireless access points in airports, cafes, and more recently, marinas. The earlier 802.11b protocol is designed to operate at a maximum speed of 11 megabits per second, although it is being replaced by the faster 802.11g networks in many locations, and an even faster “n” version is now available.

Networks that operate under the newer 802.11g standard are potentially much faster (with a data transfer rate of 54 megabits per second), but the actual data rate is often half the rated speed or less, in many instances. The same goes for the even faster 802.11n devices. Any device designed for use with the faster 802.11g standard can communicate with a network using the “b” protocol, but the reverse is not true. Likewise, the “n” protocol units are backward compatible with the “g.”

5MILEWiFi SPECIFICATIONS

MODEL TESTED	5mileWiFi Boosted 11b+g WLAN USB Adapter Standard IEEE802.11b/g
FREQUENCY BAND	2.400GHz - 2.4835GHz unlicensed ISM band
MODULATION	802.11b; QPSK/BPSK/CCK Modulation method 802.11g : OFDM
DATA RATE	54 / 48 / 36 / 24 / 18 / 12 / 11 / 9 / 6 / 5.5 / 2 / 1 Mbps
OPERATION MODE	Adhoc and Infrastructure (access point needed)
SECURITY	64-bit, 128-bit, or 256-bit WEP (Wired Equivalent Privacy); WPA (Wi-Fi Protected Access), WPA2
I/O INTERFACE	USB 2.0/1.1
RADIO LED	Link/Active
BOOSTER LED	Red for receive, green for transmit
OS SUPPORTED	Windows 98Se, Me, 2000, XP, Vista, and Windows 64-bit
OUTPUT POWER	30 dBm, (1 Watt)
DC POWER	Via two separate USB ports
OPERATING TEMP	0 °C to +50 °C
STORAGE TEMP	0 °C to +70 °C
HUMIDITY	5 - 90% (non-condensing)
DIMENSIONS	2.75 (L) X .85 (H) X .85 (W) inches, including connectors
ENCLOSURE	CNC machined aluminum with clear anodized finish
CONNECTORS	RP SMA female, USB A-Male
WEIGHT	3 ounces