

**Wireless 54Mbps Mini-MINI-PCI
Adapter
User's Manual**

FCC Warning

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communication. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which
- Consult the dealer or an experienced radio/TV technician for help. the receiver is connected.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

IMPORTANT NOTE:

FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of about eight inches (20cm) between the radiator and your body.

This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter.

CE Mark Warning

This is a Class B product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

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the company.

Trademarks:

All trade names and trademarks are the properties of their respective companies.

Revision History

Revision	History
V1.0	First release

Caution: This user guide information is only provided to OEM or module installer.

Do not supply to the end user.

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1. Instruction

Congratulations on purchasing this Wireless 54Mbps MINI-PCI Adapter. This Wireless MINI-PCI Adapter is designed to comply with IEEE 802.11g Wireless LAN standard and it is suitable for any laptop computers and provides maximum data transfer rate up to 54 Mbps. It provides up to a 128-bit level of WEP security to your wireless data transfers. The wireless MINI-PCI adapter comes with software drivers for the most popular Microsoft Windows operating systems and can be integrated into a larger network, running Windows XP/2000/Me/98SE in either Ad-Hoc mode (without an access point or router) or Infrastructure mode (with an access point or router), the configuration of your working environment, or the capabilities or limitations of your computer systems.

1.1 Features

- Up to 54Mbps data transfer rates
- Supports 64/128-bit WEP data encryption function for high level of security
- Supports WPA and WPA2 advanced WLAN security
- Supports Infrastructure mode
- Supports Ad-Hoc mode (peer-to-peer communication among any wireless users, no Access Point required)
- Supports automatic fallback increase data security and reliability
- Supports Power Save mode
- Compliant with MINI-PCI v2.2

1.2 Package Contents

- One Wireless MINI-PCI Adapter
- One CD disk includes driver, utility and user's manual

2. Installation for Windows platform

The following section will assist you to in installing wireless LAN Adapter successfully. You will first install software (driver) and then insert the Wireless LAN Mini-PCI 11Mbps Card, and finally set the network properties to accommodate resource sharing and select the type of wireless network that you wish to install. The Wireless LAN can easily be installed and used, without bothering to connect cables for keeping your computer to use network resources, as in case of wired LAN.

2.1 Installation Overview

Here are some steps you will perform in establishing your wireless network connection:

_ Install the Access Point (AP) at first. AP is needed in case of Infrastructure network mode.

- _ Install the software using the Installation Diskette or CD.
- _ Install the Wireless Mini-PCI Card (Wireless LAN Mini-PCI 11Mbps Card).
- _ Install the network protocol(s) required to communicate on your network. Most likely you will need the TCP/IP protocol.

3.Glossary

IEEE 802.11 Standard

The IEEE 802.11 Wireless LAN Standards subcommittee, which is formulating a standard for the industry.

Access Point

An internetworking device that seamlessly connects the wired & wireless networks together.

Ad Hoc

An Ad Hoc wireless LAN is a group of computers, each with a WLAN adapter connected as an independent wireless LAN. Ad Hoc wireless LAN is applicable at a departmental scale for a branch or SOHO operation.

BSSID

A specific Ad Hoc LAN is called a Basic Service Set (BSS). Computers in a BSS must be configured with the same BSSID.

DHCP

Dynamic Host Configuration Protocol – a method in which IP addresses are assigned by server dynamically to clients on the network. DHCP is used for Dynamic IP Addressing and requires a dedicated DHCP server on the network.

Direct Sequence Spread Spectrum

This is the method the wireless cards use to transmit data over the frequency spectrum. The other method is frequency hopping. Direct sequence spreads the data over one frequency range (channel) while frequency hopping jumps from one narrow frequency band to another many times per seconds.

ESSID

An Infrastructure configuration could also support roaming capability for mobile workers. More than one BSS can be configured as an Extended Service Set (ESS). Users within an ESS could roam freely between BSS s while served as continuous connection to the network wireless stations and Access Points within an ESS must be configured with the same ESSID

and the same radio channel.

Ethernet

Ethernet is a 10/100Mbps network that runs over dedicated home/office wiring. Users must be wired to the network at all times to gain access.

Gateway

A gateway is a hardware and software device that connects two dissimilar systems, such as a LAN and a mainframe. In Internet terminology, a gateway is another name for a router.

Generally a gateway is used as a funnel for all traffic to the Internet.

IEEE

Institute of Electrical and Electronics Engineers.

Infrastructure

An integrated wireless and wired LAN is called an Infrastructure configuration. Infrastructure is applicable to enterprise scale for wireless access to central database, or wireless application for mobile workers.

Network

A network is a system of computers that is connected. Data, files, and messages can be transmitted over this network. Networks may be local or wide area networks.

ISM Band

The FCC and their counterparts outside of the U.S. have set aside bandwidth for unlicensed use in the so –called ISM (Industrial, Scientific and Medical) band. Spectrum in the vicinity of 2.4 GHz, in particular, is being made available worldwide. This presents a truly revolutionary opportunity to place convenient high-speed wireless capabilities in the hands of users around the globe.

Local Area Network (LAN)

A LAN is a group of computers, each equipped with the appropriate network adapter card connected by cable/air, that share applications, data, and peripherals. All connections are made via cable or wireless media, but a LAN does not use telephone services. It typically spans a single building or campus.

PCMCIA

Personal Computer Memory Card International Association. Also a PCMCIA card is also referred to Cardbus Adapter.

Protocol

A protocol is a standardized set of rules that specify how a conversation is to take place, including the format, timing, sequencing and/or error checking.

SSID

A Network ID unique to a network. Only clients and Access Points that share the same SSID are able to communicate with each other. This string is case-sensitive.

Simple Network Management Protocol (SNMP)

Simple Network Management Protocol is the network management protocol of TCP/IP. In SNMP, agents-which can be hardware as well as software-monitor the activity in the various devices on the network and report to the network console workstation. Control information about each device is maintained in a structure known as a management information block.

Static IP Addressing

A method of assigning IP addresses to clients on the network. In networks with Static IP address, the network administrator manually assigns an IP address to each computer. Once a Static IP address is assigned, a computer uses the same IP address every time it reboots and logs on to the network, unless it is manually changed.

Transmission Control Protocol / Internet Protocol (TCP/IP)

TCP/IP is the protocol suite developed by the Advance Research Project Agency (ARPA). It is widely used in corporate Internet works, because of its superior design for WANs. TCP governs how packer is sequenced for transmission the network. The term "TCP/IP" is often used generically to refer to the entire suite of related protocols.

Transmit/ Receive

The wireless throughput in Bytes per second averaged over two seconds.

Wide Area Network (WAN)

A WAN consists of multiple LANs that are tied together via telephone services and/or fiber optic cabling. WANs may span a city, a state, a country, or even the world.