

WN3601A 11Mbps Wireless Modem Mini PCI Combo Card Quick Installation Guide

Setup

The WN3601A Mini PCI Combo Card can be used to connect your laptop computer to other wireless equipped laptop computers. Or you can connect to any wired Local Area Network (LAN), including broadband cable modem or DSL connections with the addition of a Wireless Access Point.

Windows 98/2000/Me/XP Driver Installation

Important: For complete safety precautions and system requirements, please read the User's Guide.

1. Insert the Mini PCI Combo Card into a Mini PCI slot in your computer.
2. Windows 98/2000/Me/XP will automatically detect the new hardware and prompt you to install the driver needed.
3. Insert the driver diskette into your floppy drive.
 - a. For Windows 98 check the box next to "Specify Location" and browse to A:\. Then click "Ok" to copy files from the disk.
 - b. Windows 2000/Me/XP will automatically locate the driver on the diskette. Click "Ok" to copy files from the disk.
4. After driver installation, the system will re-start the computer. After rebooting, continue the installation for your network protocols and options.
5. Go to "Control Panel" and double-click "Network."
6. Click "Add..." to install the network protocols you want to use, such as IPX/SPX, NetBEUI or TCP/IP. If you install TCP/IP, be sure to set the appropriate Gateway, DNS Server, and Domain for your network. If you install an IPX/SPX-compatible protocol, then you also need to install the Client for NetWare Networks.
7. Click "File and Print Sharing..." to share files or printers.
9. Click on the "Identification" tab on the Network dialog box, and specify your computer name and network workgroup.
10. Click "Ok" and the system will restart your computer.

Windows 98/2000/Me/XP Utility Installation

1. Insert the Utility diskette in your PC floppy drive (A:).
2. Select "Run..." from Windows "Start" menu bar.
3. Click on "Browse..." to locate the "Setup" file of this program.
4. Then click on "OK" to run the setup program.
5. Follow the on-screen instructions to finish installation.

Network Configuration and Planning

WN3601A Wireless Mini PCI Combo Card solution supports a stand-alone wireless network configuration, as well as an integrated configuration with 10/100 Mbps Ethernet LANs. The WN3601A can be configured as:

- 802.11 Ad Hoc for departmental or SOHO LANs
- Infrastructure for enterprise LANs

Ad hoc Wireless LAN

An Ad Hoc wireless LAN consists of a group of computers, each equipped with one wireless adapter, connected via radio signals as an independent wireless LAN. Computers in a specific Ad hoc wireless LAN must therefore be configured to the same radio channel. An Ad hoc wireless LAN can be used for a branch office or SOHO operation.

Infrastructure Wireless LAN

The WN3601A can also provide wireless workstations with access to a wired LAN. An integrated wired and wireless LAN is called an Infrastructure configuration. A Basic Service Set (BSS) consists of a group of wireless PC users, and an access point that is directly connected to the wired LAN. Each wireless PC in this BSS can talk to any computer in its wireless group via a radio link, or access other computers or network resources in the wired LAN infrastructure via the access point.

Your WN3601A Wireless Mini PCI Combo Card is now fully configured. To configure advanced features, please refer to the Wireless Mini PCI Combo Card User's Guide included in this package or visit our website at <http://www.accton.com.tw> for the latest in product documentation, drivers and utilities.

Modem Interface

This combination card also has a modem that supports data communication at up to 56 Kbps and fax communications at up to 14.4 Kbps. The on-board modem is compliant with nearly all of the current standards for data/fax modems, such as V.90/K56flex 56 Kbps data protocols and Class 1 Group 3 14.4 Kbps fax protocols.

The Cheetah Mini PCI Combo Adapter allows you to connect to the Internet over standard phone lines, exchange information over Bulletin Board Systems (BBS) and send and receive fax messages like a standard fax machine. This card also allows you to operate the modem in conjunction with Ethernet networking.

System Requirements

Before you install the Cheetah Mini PCI Combo Adapter, check your system for the following requirements:

- A PC and BIOS that support the PCI Local Bus Specification v2.0 or later
- An available bus-mastering type IIIA 32-bit Mini PCI slot
- An available telephone wall jack for modem connection
- A 10BASE-T/100BASE-TX switch or hub installed in your network for connection to an Ethernet network

The Cheetah PCI Combo Adapter accepts standard AT commands from the host PC to configure and control its modem functions. Usually AT commands are sent to the modem by software applications, so users have no need to input commands directly. However, for modem testing and specific configuration, AT commands can be entered from the keyboard using any terminal communication software such as the Windows HyperTerminal program.

AT commands must be entered in a particular format for the modem to recognize them. A command always begins with the letters "AT" (or lower case "at"), followed by one or more commands and then <Enter>. The modem responds to an AT command by sending a result code. An "OK" result means that the command was executed. An "ERROR" result means that the command was invalid.

Note that the modem must be in "command mode" or off-line to accept AT commands. When the modem has established a connection with another modem, it is on-line or in "data mode." In data mode any characters sent to the modem from the PC will be transmitted to the remote modem and not interpreted as AT commands.

When the modem is in data mode you can enter an escape code sequence of "+++" to return it to command mode.

Connecting to the RJ-11 Port

The notebook's RJ-11 port supports a standard telephone cable connection. This port must be connected to an RJ-11 wall jack.

1. Attach the male RJ-11 connector on one end of a telephone cable to the notebook's RJ-11 port.
2. Attach the male connector on the other end of the cable directly to an RJ-11 wall jack.

Modem Problems

- If there is no sound from the modem, check that your computer speaker is working and that the volume is correctly set.
- If an "Error" message is displayed, or your modem is not responding, check if you have selected the correct COM port in

your software set up.

- If the modem will not dial:

- check all phone line and cable connections and make sure that you are using a standard analogue phone line.
- make sure that the parity, modem speed, word length and stop bits are all set in accordance with your software's specifications.

- If the fax is not working, check if you have selected the correct FAX class.

Troubleshooting With AT Commands

- If the modem can connect to some modems but not to others you may have to enter AT commands directly. The following is a table of possible commands to use. Note that, in this table, "protocol" means error correction and data compression. The first two entries are likely to be the most useful.

AT Command Function

To force different communication speeds

AT& F Negotiates speed and protocol (default setting)

AT \N0 Negotiates speed only, not protocol (not recommended)

AT \N3 Forces the protocol

AT-V90=1 S38=1

(default)

Dualmode (V.90 or K56flex)—5600 bps

AT-V90=0 K56flex only (disable V.90)—5600 bps

ATS38=0 V.90 only (disable K56flex)—5600 bps

AT-V90=0 S38=0 Disable both 56K and autorate on V.34—3600 bps

AT S37=19 V.34—33600 bps

AT S37=11 V.32bis—14400 bps

AT S37=9 V.32—9600 bps

AT S37=6 2400 bps

AT S37=2 1200 bps

Other possible forced configurations

AT \N2 MNP 5 / MNP 4 operation

AT \N4 LAPM only

AT \N2 %C0 MNP 4 only

AT \N0 "Normal" operation: modem communicates

without error correction or data compression,

but retains speed buffering and auto-

negotiation of speed. This is not to be

confused with "standard" configuration

AT S0=1 Auto-answer

Notes: 1. When the protocol is forced, the modem will try to communicate at the fastest speed available within the forced protocol. It will not attempt to communicate using other protocols

2. To save all setup parameters in non-volatile memory: type AT, followed by the parameter settings, followed by &W and then press Enter.

3. After having returned the modem to its default configuration (using the AT &F command), and having saved the setup parameters, use the ATZ command to ensure that the modem receives your software's initialization string.

initialization string.

If the modem does not connect reliably at V.90, modify the initialization string.

To do this in Windows 95 and 98:

1. Double-click "My Computer" on your desktop.
2. Double click "Dial-up Networking".

3. Select "Properties".
4. Click General/Configure/Connection/Advanced
5. Enter one of the initialization (Init) strings listed below.
Try these commands one at a time until you find the one that gives the highest possible connection rate for your telephone connections.

Initialization String

ATWS27=150S38=0-V90=1

AT&FS38=0-V90=1

AT&F-V90=1S7=150

AT&F-V90=1\N3

AT&F&C1&D2\N5A2-V90=1S7=100

These are the definitions of some of the command terms used in the initialization strings:

Command Term Definition

S7 Sets wait time for remote carrier.

Wait time can be 1-255 seconds

S38=0 Disables K56Flex and sets autorate on V.90

&F Sets factory defaults

\N3 Forces protocol

&C1 DCD (Data Carrier Detect) follows the remote carrier signal

&D2 DTR (Data Terminal Ready) reacts with a disconnect, sends the OK response and disables auto-answer while the DTR signal is OFF

\N5 MNP Error correction only

\A2 Maximum block size is 192 characters

between the radiator & your body.

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

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Federal Communication Commission Interference Statement

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 communications. 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 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 the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: To assure continued compliance, (example - use only shielded interface cables when connecting to computer or peripheral devices) 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.

Statement Needed to be Shown on End Product

Since this module is installed inside the end product, the end product should be affixed a label on visible area showing that this product contain a RF module, and also its FCC ID.

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 minimum distance 20cm