

WPC54A 802.11a PC Card

User's Manual

Draft v. 1.0

Table of Contents

1. INTRODUCTION	4
1.1 SCOPE	4
1.2 OBJECTIVES	4
1.3 INTENDED AUDIENCE	4
1.4 FEATURES	4
1.5 PACKAGE CONTENTS	5
1.6 SYSTEM REQUIREMENTS	5
2 WINDOWS 2000	7
2.1 DRIVER INSTALLATION (FIRST-TIME INSTALL)	7
2.2 DRIVER INSTALLATION (PREVIOUS DRIVER INSTALLED)	13
2.3 DRIVER INSTALLATION (EXISTING DK DRIVER INSTALLED)	23
2.4 DRIVER UNINSTALLATION	30
2.5 DEVICE CONFIGURATION	34
2.5.1 Infrastructure Mode	38
2.5.2 Ad Hoc Mode	39
2.5.3 TCP/IP Setup	40
3 WINDOWS MILLENNIUM EDITION	44
3.1 DRIVER INSTALLATION	44
3.2 DRIVER UNINSTALLATION	47
3.3 DEVICE CONFIGURATION	49
3.3.1 Infrastructure Mode	50
3.3.2 Ad Hoc Mode	52
3.3.3 TCP/IP Configuration	54
4 WINDOWS 98 SECOND EDITION	56
4.1 DRIVER INSTALLATION	56
4.2 DRIVER UNINSTALLATION	59
4.3 DEVICE CONFIGURATION	62
4.3.1 Infrastructure Mode	63
4.3.2 Ad Hoc Mode	66
4.3.3 TCP/IP Setup	68

5	WINDOWS XP	70
5.1	DRIVER INSTALLATION (FIRST-TIME INSTALL)	70
5.2	DRIVER UNINSTALLATION	73
5.3	DEVICE CONFIGURATION	75
5.3.1	Infrastructure Mode	77
5.3.2	Ad Hoc Mode	78
5.3.3	TCP/IP Setup	80
5.4	WINDOWS XP WIRELESS LAN NETWORK CONFIGURATION	85
5.4.1	Infrastructure Mode	87
5.4.2	Ad hoc mode	89
5.4.3	Connect to an Available Wireless LAN Network	91
6	WINDOWS NT 4.0	97
6.1	DRIVER INSTALLATION AND TCP/IP SETUP	97
6.2	DEVICE CONFIGURATION	102
6.2.1	Infrastructure Mode	103
6.2.2	Ad Hoc Mode	106
6.2.3	Verify Connection	108
6.3	DRIVER UN-INSTALLATION	110
7	LINKMON	113
7.1	INSTALLATION	113
7.2	FEATURES	116
8	COUNTRY CODE SELECTOR	123
9	TROUBLESHOOTING	125
	APPENDIX A -- CHANNEL AND DATA RATE SELECTION	126

1 Introduction

1.1 Scope

This user's guide provides the necessary information for first-time users to successfully install the 802.11a Network Driver Interface Specification (NDIS) driver, for the purpose of evaluating and/or operating the 802.11a Station in a Microsoft Windows environment. This guide also provides information for users who wish to upgrade the 802.11a NDIS driver from previous releases.

1.2 Objectives

This guide describes the steps required to install NDIS drivers for the 802.11a Wireless LAN Network Adapter in Windows 2000, Windows Millennium Edition, Windows 98 Second Edition, Windows XP, and Windows NT 4.0. This guide also includes detailed instructions for configuring the PC Card device, or IEEE 802.11a station (STA) to interact with an access point (AP) in infrastructure mode and with other STAs in ad hoc mode. Instructions for installing or upgrading the diagnostic utility LinkMon are also included. You should also read this before proceeding to install the 802.11a Wireless LAN Network Adapter and NDIS driver in the targeted operating system (OS) environment.

1.3 Intended Audience

This document is intended for 802.11a customers who wish to install and evaluate the 802.11a PC Card in the supported Microsoft Windows environments.

1.4 Features

The 802.11a Wireless LAN Network Adapter is an IEEE 802.11a two-chip solution reference design based on the 802.11a AR5110 and AR5210 chipset. This reference design implements a half-duplex, Orthogonal Frequency Division Multiplexing (OFDM) baseband processor supporting all IEEE 802.11a data rates (6 to 54 Mbps). It also supports the 802.11a Turbo Mode™ supporting data rates up to 72 Mbps. The host interface is compliant with the PC Card 7.1 standard.

1.5 Package Contents

Make sure the following materials are available before you begin:

- 802.11a CD, or electronic equivalent
- 802.11a Wireless LAN Network Adapter

1.6 System Requirements

- Laptop PC containing:
 - 32-bit CardBus slot (or Desktop PC with PC Card-PCI adapter)
 - 32 MB memory or greater
 - 300 MHz processor or higher
- Microsoft Windows 2000/Windows Millennium Edition/Windows 98 Second Edition/Windows XP/Windows NT 4.0 (with Service Pack 6)

2 Windows 2000

2.1 Driver Installation (First-time Install)

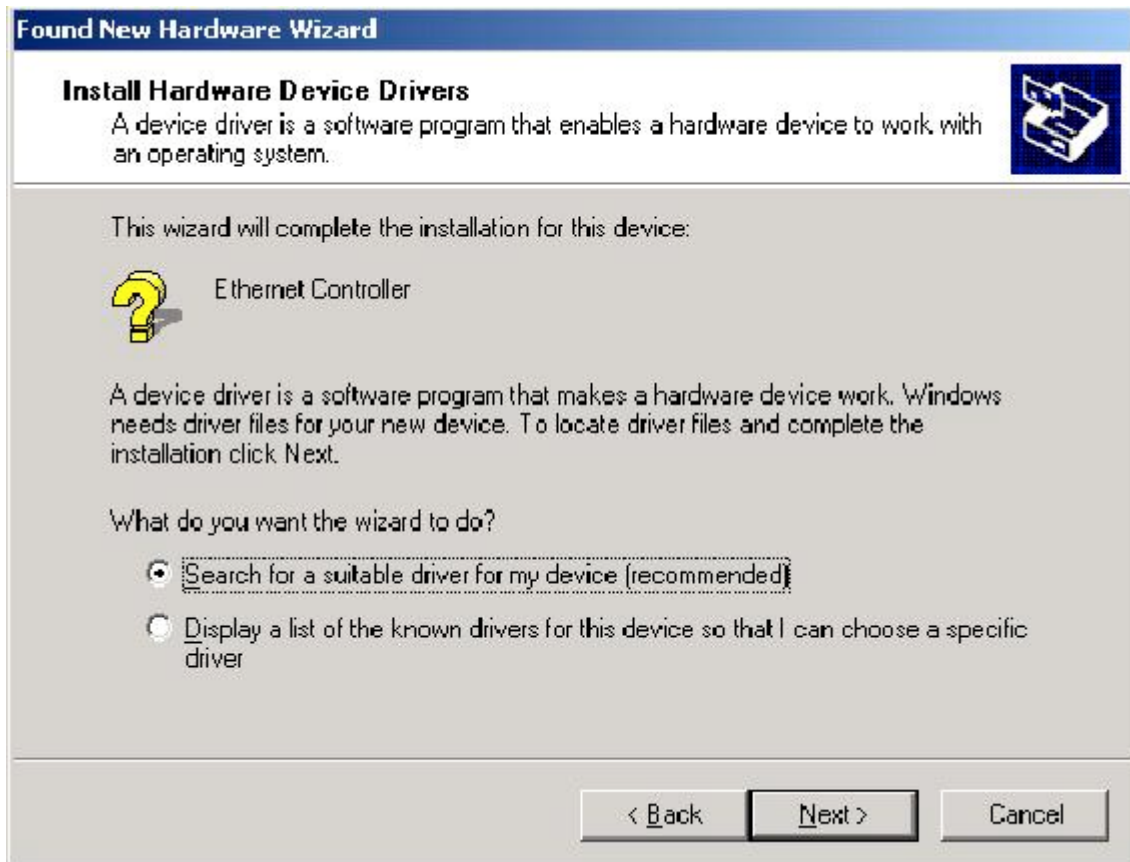
We recommend that you remove any existing 802.11a drivers on the PC system before installing the new Version release of the NDIS driver. See Section 2.4 for the instructions on how to remove previous driver releases.

Insert the 802.11a Wireless LAN Network Adapter into a 32-bit CardBus Slot and follow these steps to install the NDIS driver:

1. Wait for the following dialog box to display, and click Next to continue.



2. Choose "Search for a suitable driver for my device (recommended)," and click Next.



3. Insert the CD in your CD-ROM drive. Choose "Specify a location" under "Optional search locations", and click Next to continue.

Found New Hardware Wizard

Locate Driver Files

Where do you want Windows to search for driver files?



Search for driver files for the following hardware device:



Ethernet Controller

The wizard searches for suitable drivers in its driver database on your computer and in any of the following optional search locations that you specify.

To start the search, click Next. If you are searching on a floppy disk or CD-ROM drive, insert the floppy disk or CD before clicking Next.

Optional search locations:

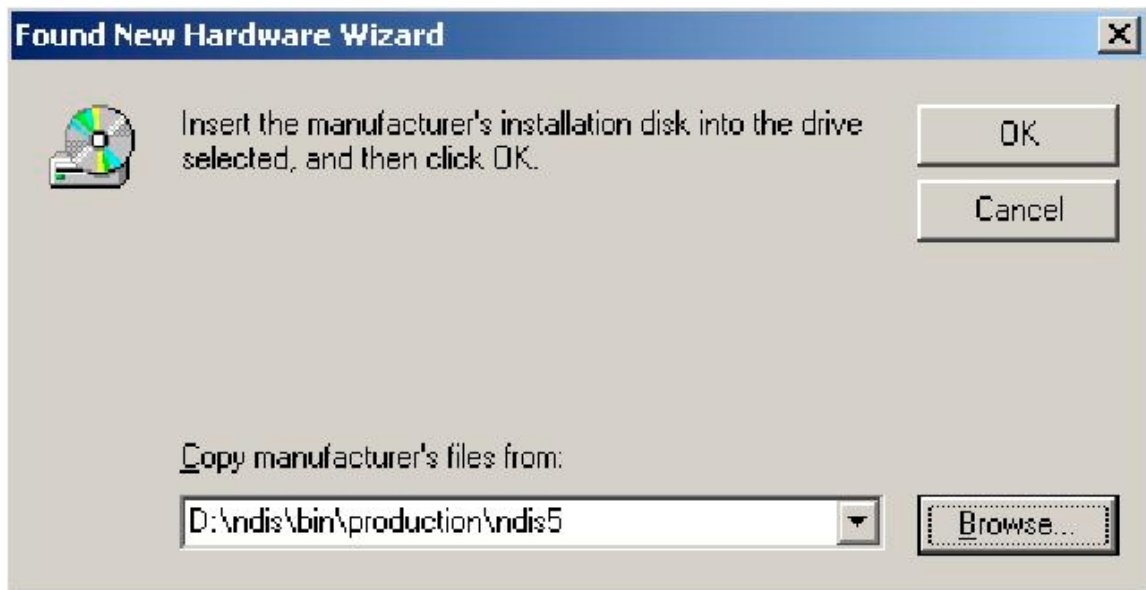
- Floppy disk drives
- CD-ROM drives
- Specify a location
- Microsoft Windows Update

< Back

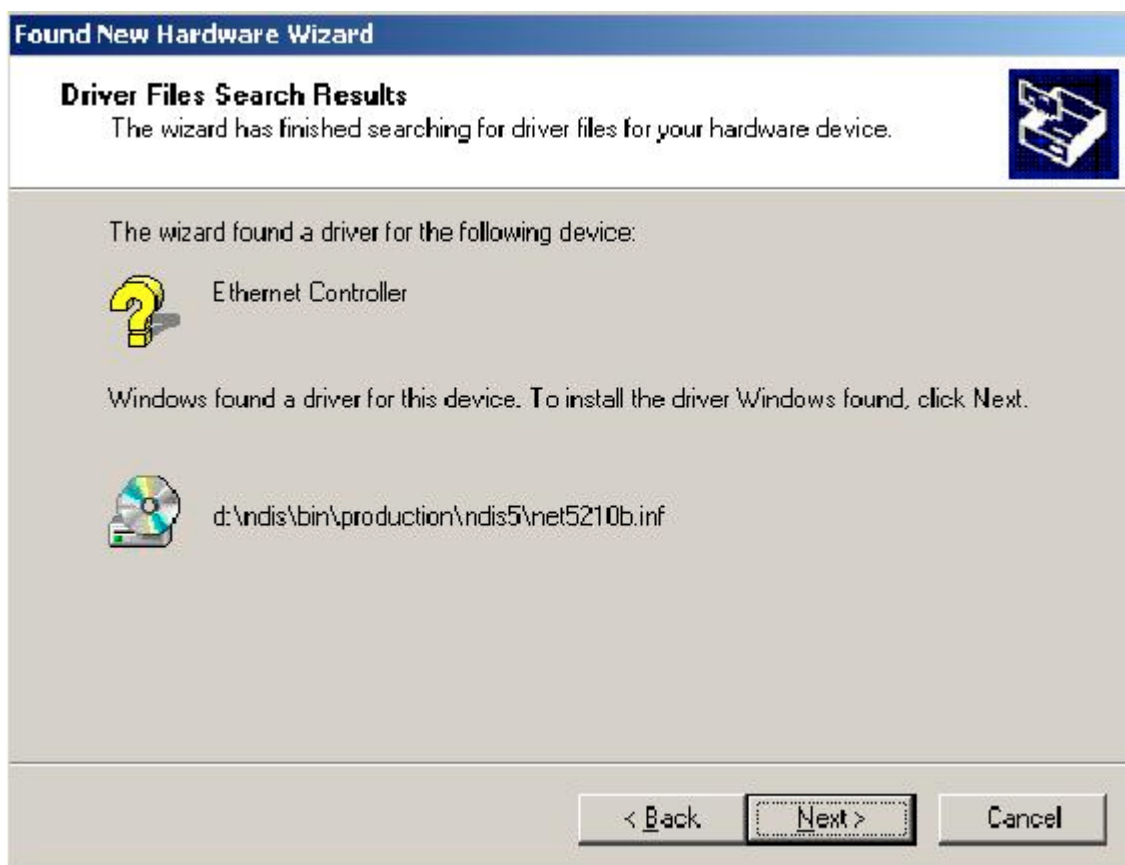
Next >

Cancel

4. Browse to the location where the NDIS driver is located (assuming D: is the CD-ROM drive), the default folder is D: \ndis\bin\production\ndis Click OK to continue.



5. When you find the 802.11a driver installation file (net5210b.inf), click Next to continue.



6. The 802.11a NDIS evaluation driver currently does not have a digital signature from Microsoft. Therefore, Windows 2000 shows a warning message. Click Yes to proceed with driver installation.



7. Click Finish to complete the driver installation. See Section 2.5 for the device configuration.



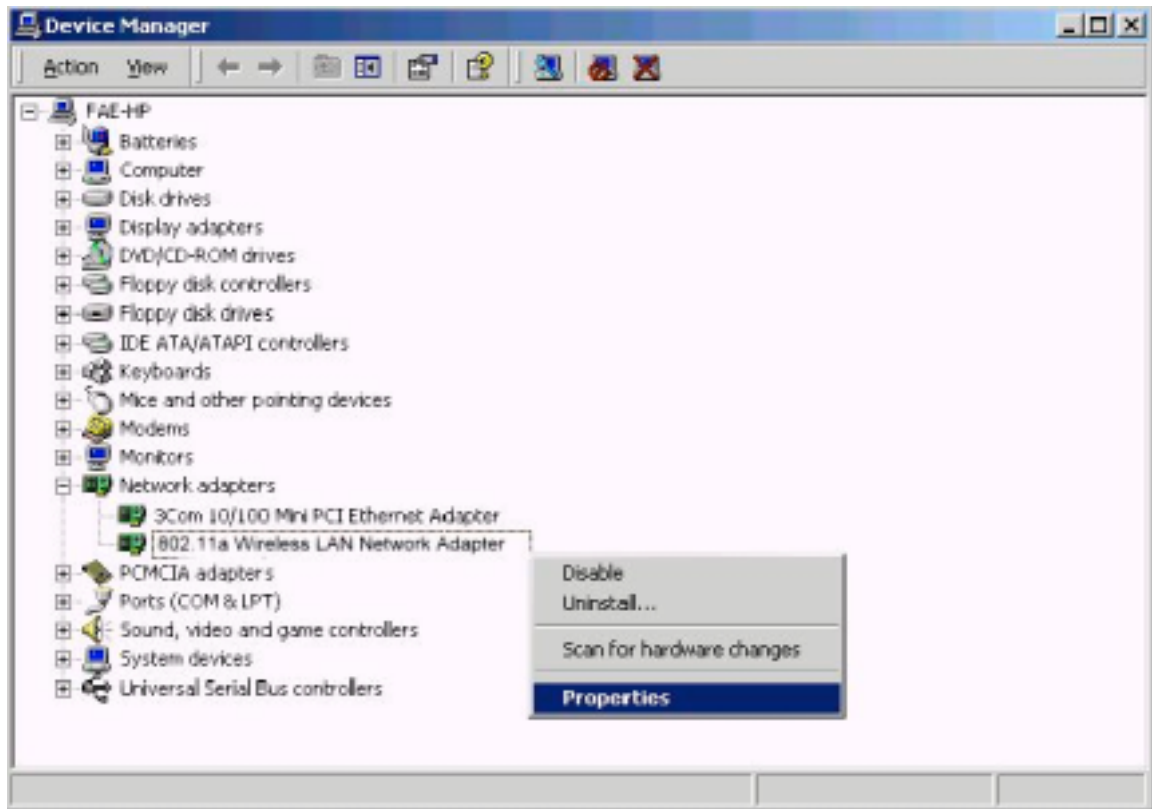
2.2 Driver installation (Previous Driver Installed)

If the system already has a previous release of the 802.11a NDIS installed, Windows does not prompt for the device driver when the WLAN Card is inserted. Follow the steps below to update NDIS driver:

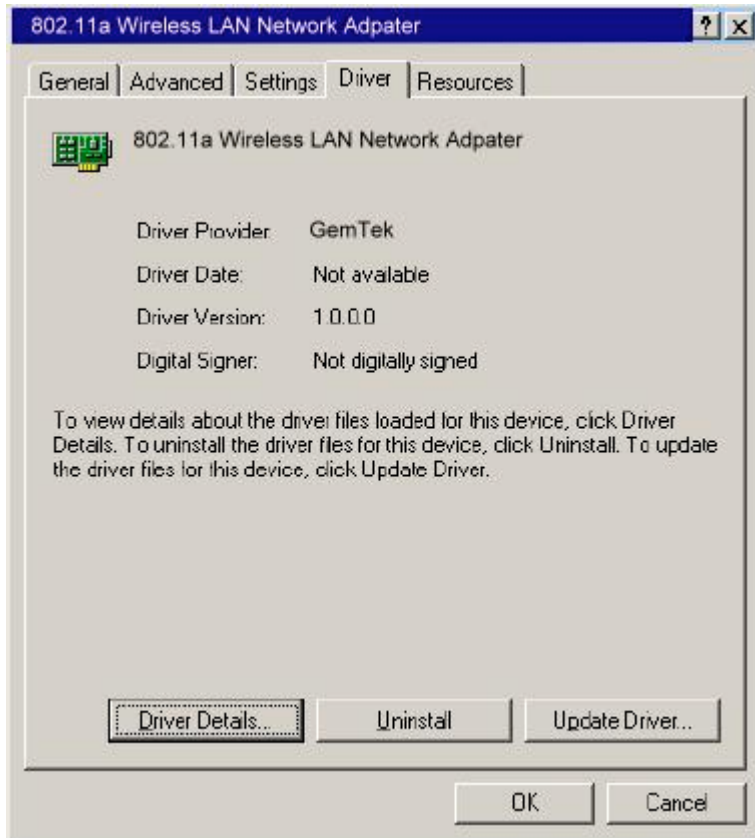
1. Start System Properties from Control Panel. Under Hardware tab, click Device Manager.



2. Within Device Manager, right-click "802.11a Wireless LAN Network Adapter" under "Network adapters" device node, and click Properties.



3. Click "Update Driver..." from the Driver tab. Note the Driver Version that you are updating from. You may need to verify this field again after driver update completes to make sure the driver has been updated correctly.



4. Click Next to continue.



5. Choose "Display a list of the known drivers for this device so that I can choose a specific driver," and click Next to continue.

