# USB 2.0 802.11g Wireless Network Adapter

**User's Manual** 

Rev 1.0

## **Regulatory compliance**

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

You are cautioned that changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

#### **IMPORTANT NOTE:**

#### Federal Communications Commission (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 between the radiator & your body.

#### **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.

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

CyberTAN declared that UW604-E is limited in CH1-CH11 by specified firmware controlled in USA

### About this manual

This User's Manual describes how to install and operate your USB Wireless Network Adapter. Please read this manual before you install the product.

This manual includes the following topics:

- Product description and features.
- Hardware installation procedure.
- Software installation procedure.
- ≻ FAQ

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## Chapter 1 - Introduction

Thank you for purchasing the USB 2.0 802.11g Wireless Network Adapter. This high-speed USB 2.0 802.11g Wireless Network Adapter provides you with an innovative wireless networking solution. The Adapter is easy to set up and use. With this innovative wireless technology, you can share files and printers on the network—without inconvenient wires! Now you can carry the LAN in your pocket!

The adapter is a WLAN network adapter with a rate of 1, 2, 5.5, and 11 Mbps (802.11b CCK mode), and 6, 9, 12, 18, 24, 36, 48, and 54 Mbps (802.11g OFDM mode) operating as well in the 2.4 GHz ISM band using Direct Sequence Spread Spectrum (DSSS) transmission implementing the IEEE 802.11b/g standards. This adapter provides Device Drivers for Windows ME, 2000 and Windows XP. It also provides graphic based tools for the configuration of the adapter. The tool, as well as the installation steps of the plug-and-play procedure for the Microsoft Windows ME, Windows 2000 and Windows XP operating systems, is described in this document.

## **Features**

The USB 2.0 802.11g Wireless Network Adapter offers compliance with the IEEE 802.11b/g specification. This feature allows them to communicate with other wireless devices that support the standard. Features of the adapter are:

- Host interface: USB 2.0 compliant
- Compatible to IEEE802.11g and 802.11b standards
- Up to 54Mbps of data transfer rate
- Higher Data Encryption (64 and 128-bit), WPA (firmware upgradeable)
- IEEE 802.11 infrastructure and ad-hoc modes (CSMA/CA)
- Support graphic based user interface that eases setup, configuration and monitoring
- Uses 2.4GHz frequency band 2.412~2.484 GHz, which complies with worldwide requirement
- Support channels 11 channels (USA, Canada), 14 channels (Japan)
- Frequency selection (DFS): comply with 802.11h (firmware upgradeable)
- Transmit power control (TPC): comply with 802.11h (firmware upgradeable)
- Delivers data rate up to 54Mbps.
- Dynamic and automatic network speed shift based on signal strength, for maximum availability and reliability of connections.
- Authentication: support IEEE 802.1x and RADIUS
- QoS: comply with draft of IEEE 802.11e EDCF and HCF polling (firmware upgradeable)

#### What is Wireless LAN?

Wireless Local Area Network (WLAN) systems offer a great number of advantages over traditional wired systems. WLAN is flexible and easy to setup and manage. They are also more economical than wired LAN systems.

Using radio frequency (RF) technology, WLAN transmit and receive data through the air. WLAN combine data connectivity with user mobility. For example, users can roam from a conference room to their office without being disconnected from the LAN.

Using WLAN, users can conveniently access-shared information, and network administrators can configure and augment networks without installing or moving network cables.

WLAN technology provides users with many convenient and cost saving features:

- **Mobility:** WLAN provide LAN users with access to real-time information anywhere in their organization, providing service opportunities that are impossible with wired networks.
- **Ease of Installation:** Installing is easy for novice and expert users alike, eliminating the need to install network cables in walls and ceilings.
- Scalability: WLAN can be configured in a variety of topologies to adapt to specific applications and installations. Configurations are easily changed and range from peer-to-peer networks suitable for a small number of users to full infrastructure networks of thousands of users roaming over a broad area.

#### Wireless LAN Modes

Wireless LANs can be configured in one of two ways:

Ad-hoc Networking	Also known as a peer-to-peer network, an ad-hoc network is one that allows all workstations and computers in the network to act as servers to all other users on the network. Users on the network can share files, print to a shared printer, and access the Internet with a shared modem. However, with ad-hoc networking, users can only communicate with other wireless LAN computers that are in the wireless LAN workgroup, and are within range.
Infrastructure Networking	Infrastructure networking differs from ad-hoc networking in that it includes an access point. Unlike the ad-hoc structure where users on the LAN contend the shared bandwidth, on an infrastructure network the access point can manage the bandwidth to maximize

r	
	bandwidth utilization.
	Additionally, the access point enables users on a wireless LAN to access an existing wired network, allowing wireless users to take advantage of the wired networks resources, such as Internet, email, file transfer, and printer sharing.
	Infrastructure networking has the following advantages over ad-hoc networking:
	• <b>Extended range:</b> each wireless LAN computer within the range of the access point can communicate with other wireless LAN computers within range of the access point.
	• <b>Roaming:</b> the access point enables a wireless LAN computer to move through a building and still be connected to the LAN.
	• Wired to wireless LAN connectivity: the access point bridges the gap between wireless LANs and their wired counterparts.

## Notes on Wireless LAN Configuration

When configuring a wireless LAN (WLAN), be sure to note the following points:

- Optimize the performance of the WLAN by ensuring that the distance between access points is not too far. In most buildings, WLAN cards operate within a range of 100 ~ 300 feet, depending on the thickness and structure of the walls.
- Radio waves can pass through walls and glass but not metal. If there is interference in transmitting through a wall, it may be that the wall has reinforcing metal in its structure. Install another access point to circumvent this problem.
- Floors usually have metal girders and metal reinforcing struts that interfere with WLAN transmission.

This concludes the first chapter. The next chapter deals with the hardware installation of the Adapter.

# Chapter 2 - Hardware Installation

This chapter covers connecting your USB 2.0 802.11g WLAN Network Adapter to USB port of desktop / notebook PC.

## **Package Contents**

Please make sure that items below are included on package.

- ✓ One USB 2.0 802.11g Wireless Network Adapter
- ✓ One USB 2.0 cable
- ✓ One CD containing drivers and documentation
- One Quick Installation Guide

#### System Requirements for the Adapter

- > Operating System: MS Windows ME/2000 & Windows XP
- > Desktop PC or notebook PC with CD-ROM drive
- > One free USB 2.0 port
- > Pentium-Class 800 MHz or higher

## **Connecting the USB Adapter**

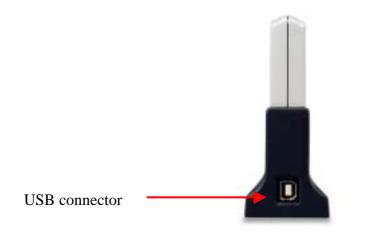


These instructions apply to most desktop/notebook computers. For detailed information on inserting USB adapters into your desktop/notebook PC, consult the desktop/notebook PC User's Manual.

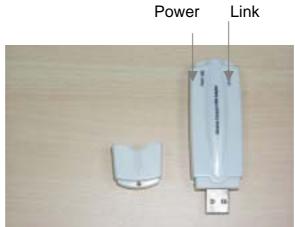
The Adapter's USB connector.

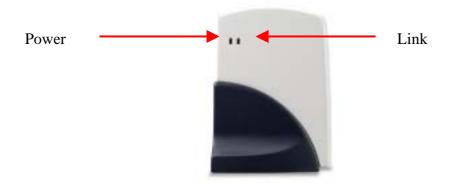


**USB** connector



## LED Indicators





The following table describes the meaning of LED indicators:

LED	MEANING
Power	Indicates that the Adapter is powered on when the LED lights up.

Link	Indicates link status. The LED lights up while the wireless
	connection is linked. If the light is blinking, it is
	disconnected, and is scanning the wireless network.

## **Disconnecting the USB Adapter**

In Windows ME/2000/XP operating systems, you do not have to power down your notebook/desktop PC to remove the Adapter. The Adapter is hot swappable—you can remove the Adapter when your notebook/desktop PC is powered on.

# WARNING:

Do not remove the USB 2.0 802.11g WLAN Network Adapter when a data transmission is taking place. Exit your communications program normally, stop the Adapter if necessary, and then remove the adapter.

## Chapter 3 – Driver Installation for Windows

The following sections cover the USB 2.0 802.11g Wireless Network Adapter driver installation in the Windows ME/2000/XP operating systems.



You have to install your hardware first before you begin to install the drivers.

## **Driver installation for Windows XP & 2000**

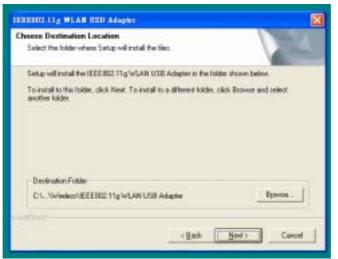
Follow the steps below to install the USB 2.0 802.11g Wireless Network Adapter drivers for Windows 2000.

1. Run "**setup.exe**" file in USB 2.0 802.11g Wireless Network Adapter utility CD-ROM. Windows will pop-up



Click "Next".

2. Choose a preferable destination location and program folder name for USB 2.0 802.11g Wireless Network Adapter driver. Click "**Next**".



Click "Next" to start copying all the driver files to the folder.

3. When following dialog pops-up



Click "**Continue Anyway**" button. (Currently this driver hasn't pass Microsoft WHQL certification yet)

4. When finish copying driver, connect USB 2.0 802.11g Wireless Network Adapter to PC/laptop's USB 2.0 port. Following dialog will be popped-up.



Select "Install from a list or specific location (Advanced)", then click "Next".

5. Tick "Include this location in the search:" and enter the folder location and name specified at step 2, then "Next".

lease o	hoose your search and installation options.
	arch for the best driver in these locations
	e the check bures below to livet or expand the default search, which includes local the and removable media. The best driver found will be installed.
	Search renovable media (focey, CD-ROM)
	Include this location in the search:
	F:DryetXP Bouse
OP	on't search. I will choose the driver to install
	scele the option to select the device driver from a list. Windows does not guarantee e driver you choose will be the best nation for your hardware.

6. When following dialog pops-up again, click "Continue Anyway" button.

1	The software you are installing for this hardware: WIND502 USB 2.0 Wireless Network Adapter
	has not passed Windows Logo testing to verify its compatibility with Windows XP. (Tell me why this testing is important.)
	Continuing your installation of this software may impair or deatabilize the correct operation of your system either immediately or in the future. Microsoft strongly recommends that you stop this installation now and contact the hardware vendor for software that has passed Windows Logo testing.
	or destabilize the correct operation of your system either immediately or in the future. Microsoft strongly recommends that you stop this installation now and contact the hardware vendor for software that has

7. Press "Finish" to complete driver installation.



## **Driver installation for Windows ME**

(To be added)

## Chapter 4 – Installing and Using the

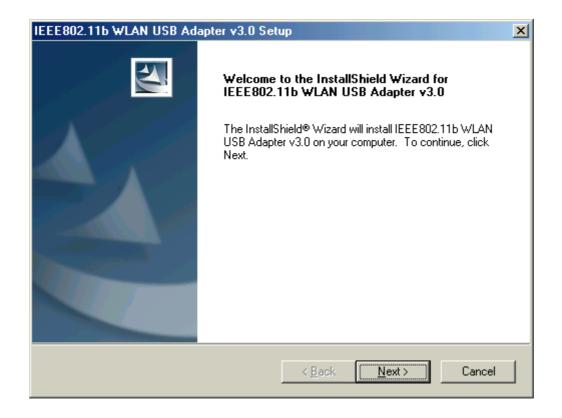
## Wireless Utility

The following sections cover the USB Wireless Network Adapter utility installation and configuration.

## **Installation in Windows**

After you have installed the USB Wireless Network Adapter driver and have rebooted the computer, system will start to install Wireless utility automatically. Please follow the steps below to install the wireless utility.

1. Once you see the following screen, click **Next** to continue.



2. The screen will show you the default destination chosen by the utility. Click **Next** to continue or click the **Browse** button to select an alternate destination.

IEEE802.11b WLAN USB Adapter v3.0 Setup	×
Choose Destination Location Select the folder where Setup will install the files.	
Setup will install the IEEE802.11b WLAN USB Adapter v3.0 in the folder shown below.	
To install to this folder, click Next. To install to a different folder, click Browse and select another folder.	
Destination Folder	
C:\\IEEE802.11b WLAN USB Adapter v3.0	
InstallShield	
< <u>B</u> ack <u>Next&gt;</u> Cancel	

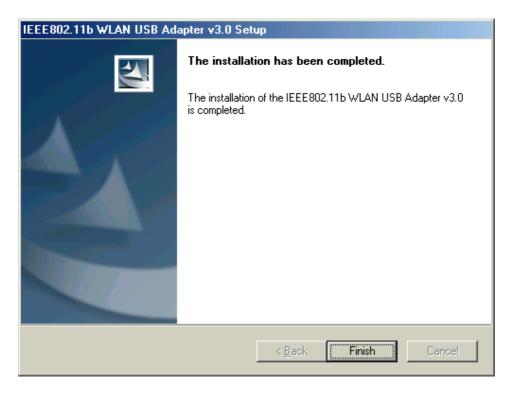
3. The following screen will add program icons to the Program Folder. You may type a new folder name or select one from the existing folders list. Click **Next** to continue or click **Back** to review or change any settings.

IEEE802.11b WLAN USB Adapter v3.0 Setup	X
Select Program Folder Please select a program folder.	
Setup will add program icons to the Program Folder listed be name, or select one from the existing folders list. Click Next	
Program Folders:	
IEEE802.11b WLAN USB Adapter v3.0	
Existing Folders:	
Administrative Tools Startup	
InstallShield <u>Back</u>	<u>N</u> ext > Cancel

4. The following screen will start to copy the program files. Click **Next** to continue or click **Back** to review or change any settings.

IEEE802.11b WLAN USB Adapter v3.0 Setup	×
Start Copying Files Review settings before copying files.	
Setup has enough information to start copying the program files. If you want to review or change any settings, click Back. If you are satisfied with the settings, click Next to begin copying files. Current Settings:	
The following items are copied: IEEE802.11b WLAN USB Adapter Utility The default configuration of the IEEE802.11b WLAN USB Adapter v3.0 is: Wireless Mode : Infrastructure Mode SSID : wireless	
InstallShield Cancel	

5. The Setup Wizard has finished the installation of Wireless LAN Utility. Click **Finish** to exit.



After you have installed the utility, you will see the wireless utility icon in the Windows taskbar.

## **Using Wireless Utility In Windows XP**



There are two ways to configure USB Wireless Network Adapter. One is Wireless LAN Utility; the other one is Windows Wireless Network Configuration.

## **Use Windows Wireless Network Configuration**

1. Click the right key of the mouse and Exit Wireless LAN Utility.



2. Click Windows Wireless Network Configuration icon.



Windows Wireless Network Configuration

3. Click Advanced button.

Connect to Wireless Network
The following network(s) are available. To access a network, select it from the list, and then click Connect.
Available <u>n</u> etworks:
1 wireless
This network requires the use of a network key (WEP). To access this network, type the key, and then click Connect.
Network <u>k</u> ey:
If you are having difficulty connecting to a network, click Advanced.
Advanced Connect Cancel

4. Make sure "Use Windows to configure my wireless network settings" is checked and click OK.

🕹 Wireless Network Connection 18 Properties 🛛 🕐 🔀
General Wireless Networks Advanced
Use Windows to configure my wireless network settings
Available networks:
To connect to an available network, click Configure.
i wireless
R <u>e</u> fresh
Preferred networks: Automatically connect to available networks in the order listed below:
Move <u>up</u>
Move <u>d</u> own
Add Remove Properties
Learn about <u>setting up wireless network</u> <u>configuration</u> . Ad <u>v</u> anced
OK Cancel

5. Click the Windows Wireless Network Configuration icon again to open the Windows Wireless Network Configuration.



6. Select an available network and click Connect button.

Connect to Wireless Network				
The following network(s) are available. To access a network, select it from the list, and then click Connect.				
Available <u>n</u> etworks:				
👔 wireless				
This network requires the use of a network key (WEP). To access this network, type the key, and then click Connect.				
Network <u>k</u> ey:				
If you are having difficulty connecting to a network, click Advanced.				
Advanced Connect Cancel				

7. The Windows Wireless Network Configuration will be enabled. Click the Windows Wireless Configure icon.



Windows Wireless Network Configuration is enabled

8. Click Properties to start Windows Wireless Network Configuration.

★ Wireless Netwo	rk Connection 9 St	atus 🛛 ? 🔀
General Support		
Connection		
Status:		Connected
Duration:		01:01:59
Speed:		11.0 Mbps
Signal Strength:		T
Activity	Sent — 🍂 -	- Received
Packets:	329	14
	<u>D</u> isable	
		<u>C</u> lose

## **Use Wireless LAN Utility**

1. Exit the Wireless LAN Utility.



2. Click Windows Wireless Network Configuration icon.



Windows Wireless Network Configuration

3. Click Advanced button.

Connect to Wireless Network	? 🔀			
The following network(s) are available. To access a network, select it from the list, and then click Connect.				
Available <u>n</u> etworks:				
👗 wireless				
This network requires the use of a network key (WEP). To access this network, type the key, and then click Connect.				
Network <u>k</u> ey:				
If you are having difficulty connecting to a network, click Advanced.				
Advanced	<u>Connect</u> Cancel			

4. Make sure "Use windows to configure my wireless network settings" is unchecked and then click OK button.

Wireless Network Connection 18 Prop	perties 🛛 ? 🔀
General Wireless Networks Advanced	
Use Windows to configure my wireless netwo	rk settings
Available <u>n</u> etworks:	
To connect to an available network, click Conf	figure.
🗼 wireless	Configure
	Refresh
Preferred networks:	
Automatically connect to available networks in below:	the order listed
	Move <u>up</u>
	Move <u>d</u> own
Add <u>R</u> emove Properties	s
Learn about <u>setting up wireless network</u> configuration.	Advanced
ОК	Cancel

5. Click Start -> All Programs -> IEEE802.11b WLAN USB Adapter v3.0 then click IEEE802.11b WLAN USB Adapter Utility to restart Wireless LAN Utility.



6. The Wireless LAN Utility will appear, Double-click the icon to open the configuration utility.



Wireless LAN Utility

7. Click Re-Scan button to start Wireless LAN Utility. (Refer to Configuring the USB Wireless Network Adapter.)

IEEE802.11b WLAN USB Adapter Utility
Link Info Configuration Site Survey Encryption Advanced About
State Disconnected
Current Channel Re-Scan
Current Transfer Rate Mbps
Current Service Set Identifier
Throughput (Bytes/Second)
Link Quality:
Signal Strength:
OK Cancel Help

## **Use Wireless LAN Utility In Windows ME and 2000**



Wireless LAN Utility icon

lcon	Meaning
	Green: indicates a connection is linked to a wireless network.
<u>.</u>	Red: indicates that the wireless LAN card is looking for an available access point.

Double-click the icon to open the Wireless LAN Utility. (Refer to Configuring the USB Wireless Network Adapter.)

## **Configuring the USB Wireless Network Adapter**

1. This screen shows you the status of your current connection. Click **Re-Scan** to search for wireless connection (the adapter will search for the connection automatically when it is activated).

IEEE802.11b WLAN USB Adapter Utility	×
Link Info Configuration Site Survey Encryption Advanced About	
State Connected - BSSID = 00-02-DD-30-15-CC Current Channel 6 Current Transfer Rate 11 Mbps	
Current Service Set Identifier wireless	
Throughput (Bytes/Second) Transmitted	
Link Quality: Excellent (100%)	
Signal Strength: Excellent (100%)	
OK Cancel Help	

2. Select the "Configuration" tab. The profile setting allows you to save configurations in different profiles for different working environments. The default profile will contain the initial configuration setting when you install the Card. Under the Operating Mode drop-box, you may choose either Infrastructure or Ad-Hoc. The Infrastructure mode allows a wireless adapter to communicate with a wired network employing an Access Point, while the Ad-Hoc mode allows wireless-to-wireless, peer-to-peer communication. If you choose Infrastructure, the SSID should have the same name as the Access Point. If you choose Ad-Hoc, all clients should share the same SSID name. You may also select which Transfer Rate you wish to use: 1, 2, 5.5, 11Mbps or Auto Rate. Under Power Saving Mode, you can select Enabled to allow your adapter to go to sleep mode while the adapter never go to sleep mode. Click Apply to save the settings.

IEEE802.11b WLAN USB Adapter Utility
Link Info Configuration Site Survey Encryption Advanced About
Profile
default  Remove Create Activate
- Configuration
Operating Mode
Service Set Identifier wireless
Transfer Rate Auto Rate
Channel 6
Power Saving Mode Disabled 💌
Restore Defaults Undo Changes Apply Changes
OK Cancel Help

3. Select the "Site Survey" tab. The list on the adjacent screen shows you available Access Points and their features. Click on the desired Access Point, then click **Connect** to connect or **Search** to search for more Access Points. Click **OK** when you are finished.

IEE	E802.11b WLAN	USB Adapter Utility		ſ	×
ſ	Link Info Configuration Site Survey Encryption Advanced About				
The list contains available Access Points and their features. To update the list, click 'Search' button. You can select a desired Access Point from the list, and click 'Connect' button to connect to the specified Access Point.					
[	SSID	BSSID	Signal (	Channel WEP	
	wireless	00-02-DD-30-15-CC	100% 6	6 No	
	<b>۱</b>			Þ	
		Search (	Connect	J	
		ОК	Cancel	Help	

4. Click on the "Encryption" tab. Under the drop-box, you can choose to have WEP encryption **Disabled**, 64-Bit, or 128-Bit. Wired Equivalent Privacy (WEP) is an encryption scheme used to protect wireless data communication. The Disabled setting prevents the sharing of data with other computers on the WEP network. For data sharing to be enabled, select the level of encryption desired, either 64 or 128-bit.

IEEE802.11b WLAN USB Adapter Utility
Link Info Configuration Site Survey Encryption Advanced About
Your encryption settings must match those of your network, or your computer will be unable to communicate.
Encryption (WEP) Disabled
WEP Key Entry Create with Passphrase Disabled 64 Bits 128 Bits
Passphrase     Manual Entry     ASCII
Key 1
Кеу 2
Key 3
Кеу 4 жилинининининининин
Default Tx Key 1
Restore Defaults Undo Changes Apply Changes
OK Cancel Help

5. Select the "Advanced" tab. You can choose the fragmentation threshold to define the maximum data frame size your adapter will transmit. When the packet error rate is high, you may set the threshold value to transmit shorter frames. You may select RTS/CTS threshold to define when will your adapter send out RTS/CTS frames to reserve bandwidth for transmission. By using the RTS/CTS function, you may request bandwidth from AP to allow you have better chance to send out your data. For the Security, it's only applicable while WEP is enabled. For the Authentication Type, the current supported algorithms are Open System, Shared Key, and Auto. The algorithm will be invoked when associated to Access Point. To associate to the desired Access Point you must set the same algorithm as the one of the desired Access Point. When select Auto mode, the driver can auto detect the Authentication Type of the Access Point you are going to associate. You can also select Preamble Type, which is for framing synchronization. The possible settings are Long and Short. The setting must be the same as the setting of the Access Point you are going to associate.

IEEE802.11b WLAN USB Adapter Utility
Link Info Configuration Site Survey Encryption Advanced About
Transmit Threshold Control
Fragmentation Threshold (Disabled)
RTS/CTS Threshold (Disabled) 2432
Security
Authentication Type Auto
Preamble Type Long
Restore Defaults Undo Changes Apply Changes
OK Cancel Help

6. The **"About"** tab shows you copyright and version information about the driver, the configuration utility, and the firmware. Click **OK** to complete the configuration.

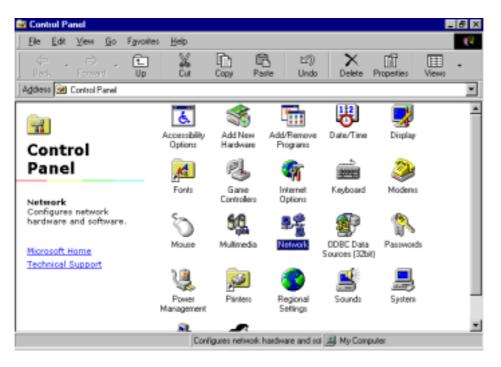
IEEE802.11b WI	LAN USB Adapter Utility	×
Configuration	Site Survey Encryption Advanced About	••
	Copyright (c) 2002, All rights reserved. IEEE802.11b WLAN USB Adapter Utility	
Driver —		_
Version:	2.0.2.37	
_	tion Utility	
-Firmware		
Versions	: 1.05.04.00	
	確定取消 說	明

# Chapter 5 – Installing Network Protocols

Protocols are necessary for computers to be recognized on your network. Windows 2000/XP users need to check their Windows User Guides for protocol installation.

# Installing the Network Protocols for Windows 98 and ME

1. From the **Start** Menu, select **Settings** and bring up the **Control Pane**l. From the Control Panel, double-click on the **Network** icon.





Before adding any network protocols, verify that the protocol is not already installed. Never install duplicate protocols.

2. Select *IEEE802.11b WLAN USB Adapter v3.0* from the list and click the **Add** button.

Network				
Configuration Identification Access Control				
The following network components are installed:				
Client for Microsoft Networks				
📇 Microsoft Family Logon				
Dial-Up Adapter				
TCP/IP -> Dial-Up Adapter				
TCP/IP -> IEEE802.11b WLAN USB Adapter v3.0				
Add Remove Properties				
Primary Network Logon:				
Microsoft Family Logon				
<u>F</u> ile and Print Sharing				
Description				
A network adapter is a hardware device that physically connects your computer to a network.				
OK Cancel				

3. Highlight **Protocol** and click the **Add** button.

Select Network Component Type	? ×
Click the type of network component you want to install:	
📃 Client	<u>A</u> dd
🕮 Adapter	
T Protocol	Cancel
Service	
Protocol is a 'language' a computer uses. Computers must use the same protocol to communicate.	
must use the same protocol to communicate.	

4. Select **Microsoft** from the list of "Manufacturers" and **TCP/IP** from the list of "Network Protocols" and click the **OK** button to finish the installation.

Select Network Protocol	×		
	ptocol that you want to install, then click OK. If you have this device, click Have Disk.		
<u>M</u> anufacturers:	Network Protocols:		
🍹 Banyan	🍹 Microsoft 32-bit DLC		
<b>ў</b> ІВМ	G Microsoft DLC		
🏹 Microsoft	🖗 NetBEUI		
🍹 Novell	TCP/IP		
	WAN support for ATM		
	🐨 Winsock2 ATM Service Provider 🛛 🔽		
	<u>H</u> ave Disk		
	OK Cancel		

# Appendix A – FAQ

#### 1. What is IEEE 802.11 standard?

The IEEE 802.11 is a wireless LAN industry standard, and the objective of IEEE 802.11 is to make sure that different manufactures' wireless LAN devices can communicate to each other.

#### 2. What is WEP?

As described in the IEEE 802.11 standard, WEP (Wired Equivalent Privacy) is a data privacy mechanism based on a 40 bit shared key algorithm.

# 3. My notebook / desktop PC cannot recognize the USB Wireless Network Adapter.

- Please make sure that the Adapter is inserted into the USB port of your notebook / desktop PC properly.
- And also make sure that the USB controller is enabled in the BIOS of your notebook / desktop PC.

# 4. How to check that the USB controller on my notebook / desktop PC is working properly?

Right click on My Computer and select Properties. Click on the Device Manager tab and select the Universal Serial Bus Controllers. Click on Properties button. In the General tab, check under "Device status" that the USB controller is working properly.

#### 5. The Adapter does not work properly.

Check that the Adapter drivers are loaded properly. You can easily check it through the Network Adapter (Right click on My Computer and select Properties. Click on the Device Manager tab and select the Network Adapter). If there is a yellow exclamation mark on USB Wireless Network Adapter, the resource may be conflicting. Please uninstall the Adapter and restart your notebook / desktop PC. The repeat hardware and software installation as specified in this manual.

# 6. In Infrastructure mode, my notebook / desktop PC cannot communicate with the others PCs on the network.

- > First, make sure that the SSID is same as the others PC.
- Check that your Adapter is configured on the same channel & WEP as the others PCs on the network.

# Appendix B – Specifications

Standards:	IEEE 802.11b USB 2.0	o/g
Channels:	11 Channels (US, Canada) 13 Channels (Europe) 14 Channels (Japan)	
Antenna:	Antenna inside	
Frequency:	2.412 to 2.483	35GHz (Industrial Scientific Medical Band)
Data Rate:	up to 54Mbps	
Temperature:	Operating: Storage:	
Humidity:	10% to 90% (	non-condensing)

#### Main features:

- Host interface: USB 2.0 compliant
- Compatible to IEEE802.11g and 802.11b standards
- Up to 54Mbps of data transfer rate
- Higher Data Encryption (64 and 128-bit), WPA
- IEEE 802.11 infrastructure and ad-hoc modes (CSMA/CA)
- Support graphical based user interface that eases setup, configuration and monitoring
- Frequency selection (DFS): comply with 802.11h (firmware upgradeable)
- Transmit power control (TPC): comply with 802.11h (firmware upgradeable)
- Dynamic and automatic network speed shift based on signal strength, for maximum availability and reliability of connections.
- Authentication: support IEEE 802.1x and RADIUS
- QoS: comply with draft of IEEE 802.11e EDCF and HCF polling (firmware upgradeable)

#### **RF Spec**

■ Modulation:

802.11g: OFDM with BPSK, QPSK and 16/64-QAM sub-carrier modulations 802.11b: DBPSK, DQPSK, CCK

- Data rate: 802.11g (OFDM): 6, 9, 12, 18, 24, 36, 48, 54 Mbps 802.11b: 1, 2, 5.5, 11 Mbps
- RF output power: OFDM: 13 dBm (typical) CCK: 17 dBm (typical)

RX Sensitive level

802.11g (OFDM):	54 Mbps: -71 dBm
	48 Mbps: -72 dBm
	36 Mbps: -76 dBm
	24 Mbps: -80 dBm
	18 Mbps: -83 dBm
	12 Mbps: -85 dBm
	9 Mbps: -87 dBm
	6 Mbps: -88 dBm
802.11b (CCK/DSS):	11 Mbps: -85 dBm
	5.5 Mbps: -88 dBm
	2 Mbps: -91 dBm

1 Mbps: -94 dBm