User Manual

Federal Communications Commission (FCC) Compliance Notice: Radio Frequency Notice

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.
- 2. This device must accept any interference received, including interference that may cause undesired operation.

Note: 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: (1) Reorient or relocate the receiving antenna, (2) Increase the separation between the equipment and receiver, (3) Connect the equipment into an outlet on a circuit different from that to which the receiver is connected, (4) Consult the dealer or an experienced radio/TV technician for help.

Federal Communications Commission (FCC) Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. In order to avoid the possibility of exceeding the FCC radio frequency exposure limits, human proximity to the antenna shall not be less than 20 cm (8 inches) during normal operation.

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Introduction

The Wireless USB Adapter solution overcomes the limitations of wired networks by providing fast, simple, mobile and reliable access. It is designed for desktop computers running Windows 98, 2000, Millennium and XP.

Features

- Complies with the IEEE 802.11b Direct Sequence Spread Spectrum
- Complies with USB specification 1.0
- Supports 1, 2, 5.5 and 11Mbps Data Rates
- Wired Equivalent Privacy (WEP) 40-bit data encryption
- Provides Firmware upgrade utility via USB port
- Uses USB Bus power with no external power supply needed
- Dipole antenna
- Driver Supports Microsoft®Windows®98/2000, Millennium and XP

Connect the USB Adapter to Your Desktop PC

Hardware Installation

- Power on your desktop PC.
- Connect the USB Adapter to the USB port of your desktop PC.
- Insert the driver CD into your CD-ROM.
- The Hardware Installation is complete.

Driver Installation

Install Driver Under Windows 98

1. Connect the Wireless USB adapter into your PC. Windows 98 automatically recognize a new USB device. Click the **Next** button to proceed.



2. Select "Search for the best driver for your device" and click the **Next** button to continue.



3. Make sure that **Specify a location** is selected and click the **Browse** button. At this point, Windows will ask you to browse for the folder. Simply select the folder in which the driver is located and click the **Next** button.



4. Windows is now ready to install the driver. Click the **Next** button to continue.



5. After Windows copies the files from your CD, you will be notified that installation has been complete. Click the **Finish** button to continue.



6. Windows will now ask you to restart your computer. Click the **Yes** button to restart your PC.

| System S | Settings Change 🛛 🕅 🕅 |
|----------|---|
| ? | To finish setting up your new hardware, you must restart your computer. |
| ~~ | Do you want to restart your computer now? |
| | <u>Yes</u> |

7. Click right on **My computer** and select **Properties.** Select **Device Manager** and click on the **Network adapters.** You will find the **LM-WU200 Wireless LAN USB Adapter**, if it has been installed successfully. The USB adapter driver installation is complete. You can continue on to Utility Installation.

| System Properties | ? × |
|--|--------|
| General Device Manager Hardware Profiles Performan | ce |
| | . 1 |
| • View devices by type • • • • • • • • • • • • • • • • • • • | ection |
| Computer | |
| DROM | |
| 🖅 🚍 Disk drives | |
| 庄 💻 Display adapters | |
| 🗉 🚭 Floppy disk controllers | |
| 🗄 🚭 Hard disk controllers | |
| 🗉 🎲 Keyboard | |
| 🗄 💻 Monitors | |
| E S Mouse | |
| 🖻 💵 Network adapters | |
| LM-WU200 Wireless LAN USB Adapter | |
| 🗄 😨 Other devices | |
| 😟 少 Ports (COM & LPT) | |
| 😟 🤠 🏭 Sound, video and game controllers | |
| 😟 📃 System devices | |
| 🗄 🖶 🖶 Universal Serial Bus controllers | |
| | |
| Properties Refresh Remove | Print |
| | |
| | |
| Close | Cancel |
| | |

Install Driver Under Windows ME

1. Windows automatically recognizes that a new USB has been added. Select Automatic search for a better driver [Recommended] and click the Next button to proceed.



2. At this point, Windows will ask you for new drivers. Click the **Browse** button, simply select the folder in which the driver is located and click the **OK** button to proceed.



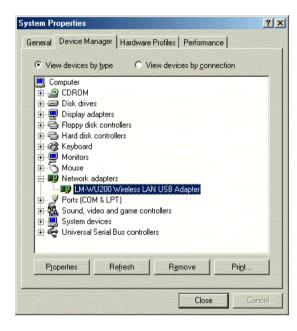
3. Windows will indicate that the installation has been complete. Click the **Finish** button to continue.



4. Windows will now ask you to restart your computer. Click the **Yes** button to restart.



5. To verify the driver installation, move cursor on the "My computer" icon and right click your mouse. Select Properties. The System Properties window appears. Click Network adapters on the Device Manager folder. LM-WU200 Wireless LAN USB Adapter will be listed if the driver installation was successful.



Wireless USB Adapter

Install Driver Under Windows 2000

1. Install Wireless USB Adapter to your PC. Windows 2000 will automatically identify the USB Adapter. Click the **Next** button to proceed.



2. Select "Search for a suitable driver for my device" and click the **Next** button.

| Found New Hardware Wizard |
|--|
| Install Hardware Device Drivers A device driver is a software program that enables a hardware device to work with an operating system. |
| This wizard will complete the installation for this device: Image: USB Device A device driver is a software program that makes a hardware device work. Windows needs driver files for your new device. To locate driver files and complete the installation click Next. What do you want the wizard to do? Image: Search for a suitable driver for my device (recommended) Image: Display a list of the known drivers for this device so that I can choose a specific driver |
| < <u>B</u> ack Next> Cancel |

3. Make sure **Specify a location** is selected and click the **Next** button to proceed.



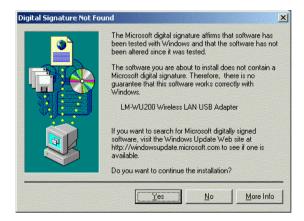
4. On the following screen, browse the folder in the field and click the **OK** button.



5. Windows is now ready to install the driver. Click the **Next** button to continue.

| | ard has finished searching for driver files for your hardware device. |
|----------|--|
| The wiza | ard found a driver for the following device: |
| 2 | USB Device |
| Window | s found a driver for this device. To install the driver Windows found, click Next. |
| | e:\win2000\netcw2k.inf |
| | |

6. At this point, Windows will bring you to the **Digital Signature Not Found** screen. Click the **Yes** button to proceed.



7. Windows will indicate that installation has been complete. Click the **Finish** button to continue.



8. Right click **My computer** and select **Properties**. Select **Hardware** and select **Device Manager** and click on **Network adapters**. You will find the **LM-WU200 Wireless LAN USB Adapter**, if it has been installed successfully. The USB adapter driver installation is complete.



Install Driver Under Windows XP

 Connect the Wireless PC card into your Notebook PC. Windows XP will automatically recognize a new LM-WU200 Wireless LAN USB ADAPTER. Select Install from a list or specific location [Advanced] and click the Next button to proceed.



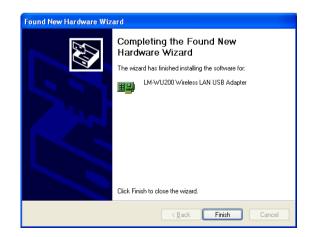
2. At this point, Windows will ask for the driver location. Make sure **Include this location in the search** is selected and browse the path of the driver.



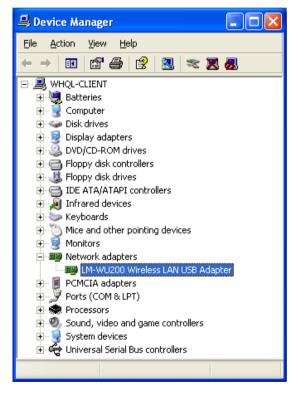
3. Windows will notify you that it has not passed Windows Logo testing to verify its compatibility with Whistler. Click the **Continue Anyway** button to continue.



4. Windows has now completed installing the network. Click the **Finish** button to continue.



5. Click right on **My computer** and select **properties**. Select **Device Manager** and click on the **Network adapters**. You will find the **LM-WU200 Wireless LAN USB Adapter** if it is installed successfully. The PC card adapter driver installation is finished.



Configuration Utility

The **Configuration** Utility is provided to allow you further customization of the USB adapter and your wireless network.

Install the Configuration Utility

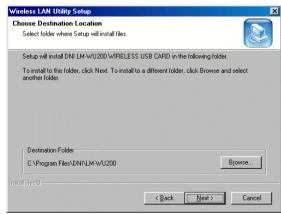
1. Execute the Sepup.exe file on your CD-Rom. Windows will bring you to the InstallShield Wizard screen. Click the **Next** button to proceed.



2. At this point, Windows will bring you to the **Software License** Agreement screen. Click the Yes button to proceed.

| reless LAN Utility Setup | | |
|---|--|---|
| Software License Agreement | | |
| Press the PAGE DOWN key to see the re | est of the agreement. | |
| END USER LICENSE AGREEMENT FO PRISM Wireless LAN Software | IR INTERSIL CORPORATION'S | • |
| LICENSE ONLY UPON THE CONDITIO CONTAINED IN THIS LICENSE AGREE | RATION IS WILLING TO ENTER INTO A IN THAT YOU ACCEPT ALL OF THE TERMS MENT. BY OPENNING THE SOFTWARE THIS 25 OF ALL THE TERMS AND CONDITIONS OF | |
| This Intersil Corporation ("INTERSIL") Si | ingle user license agreement (the | • |
| Do you accept all the terms of the preced setup will close. To install DNI LM-WU20 agreement. | ding License Agreement? If you choose No, the 00 WIRELESS USB CARD, you must accept this | |
| | < <u>B</u> ack <u>Y</u> es <u>N</u> o | |

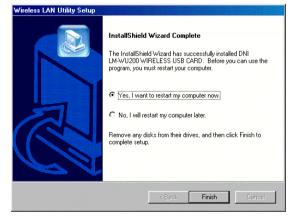
3. At this point, Windows will ask for the destination folder. Click the **Next** button to continue.



4. Windows will ask for program folder, click the **Next** button to proceed.

| ireless LAN Utility Setup | × |
|--|---|
| Select Program Folder Please select a program folder. | |
| Setup will add program icons to the Prog name, or select one from the existing fold | gram Folder listed below. You may type a new folder ders list. Click Next to continue. |
| Program Folders: | |
| DNI LM-WU200 USB Card | · · · · · · · · · · · · · · · · · · · |
| Existing Folders: | |
| BCom NIC Utilities Accessories Dell Accessories Dnline Services StartUp | |
| | |
| | |
| | < <u>B</u> ack <u>N</u> ext> Cancel |

5. Windows will indicate that installing has been complete. Click the **Finish** button to continue.



6. After installing the utility software, installation is complete. From the Start menu, select LM-WU200 Wireless LAN USB Card and then click Configuration Utility. There will be a Wireless LAN icon at the corner. Click on the icon. Windows will bring you to the Wireless LAN Configuration Utility screen. This Utility is divided into four parts: Link Info, Configuration, Encryption and About.

Configure the Configuration Utility

LINK INFO

The Link Info screen provides information about the current link between the PC Card and the wireless Access Point.

The **Current Channel** field shows to what channel the PC Card is set.

The **Current Tx Rate** field shows the transfer rate in megabits per second.

The **Throughput** fields show the rate at which data is transferred and received in Bytes per second.

The **Link Quality and Signal Strength** fields will be displayed by the strength of the block when applicable.

| 📃 Wireless LAN | Configuration | n Utility | × |
|--------------------|--------------------------------|----------------------|------|
| Link Info Configu | uration Encry | otion About | 1 |
| , Current Chann | te 11 Mbits/ | s |)E |
| Link Quali | ty: Excellent ength: Excell | (100%) ent (100%) | • |
| [| ОК | Cancel | Help |

CONFIGURATION

The Configuration screen allows you to customize the setting for the PC Card and your wireless network.

The **Mode** setting determines the architecture of your wireless network. Select **Ad-Hoc** or **Infrastructure** Mode depending on your network type. The Ad-Hoc mode is used for a simple peer-to-peer network and allows the sharing of local resources only between PC Cards without needing a wireless Access Point. The **Infrastructure** mode allows a wireless network to be integrated into an existed, wired network through an Access Point. Infrastructure networks permit roaming between Access Points while maintaining a connection to all network resources and provide additional features, such as WEP security, power saving and extended range.

The acronym for Service Set Identifier, **SSID** is the unique name shared among all points in a wireless network. The SSID must be identical for all points in the network. It is case sensitive and must not exceed 32 characters.

The **Tx Rate** field shows the current transfer rate for the PC Card. To optimize performance and range, the Tx Rate should be set to **Fully automatic**, which will automatically adjust the transfer speed for best performance and longest range.

Power Saving Mode, or **PS Mode**, enables or disables the power saving features of your PC Card. This setting can only be enabled or disabled in Infrastructure mode.

The **Channel** setting specifies the channel used in wireless communication and should be set to the same channel as the other points in the wireless network.

| | AN Configuration Utility nfiguration Encryption About | 2 |
|------------|---|------|
| Mode | | |
| SSID | ANY | |
| Tx Rate | Fully Automatic | |
| PS Mode | Disabled 💌 | |
| Channel | | |
| | | |
| Restore De | efaults Undo Changes Apply Char | iges |
| | OK Cancel | Help |

ENCRYPTION

The 40-bit WEP keys can be generated from a user-defined passphrase.

The **Passphrase** can be any text string with a maximum of 32 characters.

WEP must be enabled from the Configuration screen in order to set the 40-bit key. To generate an encryption key:

- 1. Type exactly the same case sensitive PassPhrase in the PassPhrase field.
- 2. Click the **Apply** button to create the encryption key. Te Passphrase generates four unique keys.
- 3. Make sure that the Default Key is the same for each point on the network.

| 🛄 Wireless LAN Configuration Utility | × |
|---|---|
| Link Info Configuration Encryption 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 Passphrase | |
| C Manual Entry | |
| Key 1 xx xx xx xx | |
| Key 2 xx xx xx xx | |
| Кер 3 жи жи жи жи | |
| Key 4 xx xx xx xx xx | |
| Default Tx Key 1 | |
| Арріу | |
| OK Cancel Help | |

ABOUT

About screen shows the release information for the Configuration Utility.

| 📕 Wireless LAN Configuration Utility | × |
|---|---|
| Link Info Configuration Encryption About | |
| DNI DNI LM-WU200 WIRELESS USB CARD | |
| Product Version: 1.50 | |
| _ Driver | |
| Version: 0.31.7.5 Date: Mar 11, 2001 | |
| Driver: LM-WU200 Wireless LAN USB Adapter | |
| Configuration Utility | |
| Version: 4.06.4.13 Date: Mar 22, 2001 | |
| NIC Firmware | |
| Version: 01.01.01.00 ID: SU010101 | |
| Copyright (C) Neesus Datacom Inc. 1997-2000 | |
| OK Cancel Help | |