

IEEE802.11g WLAN USB2.0 adapter

Reference Guide

Rev: 1.00

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Introduction

“802.11g WLAN USB2.0 Adapter” is a USB2.0 standard product. This is compliance with IEEE802.11g with USB2.0 host interface product which support backward compatible with IEEE802.11b, used CCK and OFDM modulation mechanism for higher data rate operation, it's up to 54Mbps on single 2.4GHz frequency band. The 54Mbps Wireless USB2.0 adapter is designed for Home/SOHO, public hotspot and SMB market. It can allow any desktop or laptop with a USB2.0 interface to access an available 802.11b or 802.11g wireless networking,

Notice : The changes or modifications not expressly approved by the party responsible for compliance could void the user' s authority to operate the equipment.

IMPORTANT NOTE: To comply with the FCC RF exposure compliance requirements, the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co -located or operating in conjunction with any other antenna or transmitter. No change to the antenna or the device is permitted. Any change to the antenna or the device could result in the device exceeding the RF exposure requirements and void user's authority to operate the device.

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.

The term “IC”: before the radio certification number only signifies that Industry Canada Technical specifications were met.

Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interence that may cause undesired operation of the device.

Features

- Form Factor – a USB2.0 complaint adapter
- Implemented CSMA/CA with random backoff
- Roaming capability is STAs within a single ESS and between two or more ESSs
- Support for IEEE 802.11g standard and backward compatible with IEEE 802.11b standard
- Data rate 1, 2, 5.5, 6, 9, 11, 12, 18, 24, 36, 48, and 54-Mbps
- Wired Equivalent Privacy (WEP) 64/128-bit for data encryption and decryption engine
- Security features: WPA, 802.1x
- Wi-Fi compliant for Windows 2K and XP
- By firmware controlled antenna diversity functionality
- Drivers - Microsoft® Windows® 98SE/2000, Millennium and XP
- Power: (max) 5Vdc @430mA for USB2.0

Connect the “802.11G WLAN USB2.0 ADAPTER” to Your Notebook PC or Desktop PC

Hardware Installation

- Plug the connectors of USB cable into the “802.11g WLAN USB2.0 Adapter” and your Notebook/Desktop PC respectively.
- The Hardware Installation is complete
- Insert the driver CD into your CD drive

Driver Installation

Install Driver Under Windows XP

1. Select **Install the software automatically [Recommended]** and click the **Next** button to proceed.



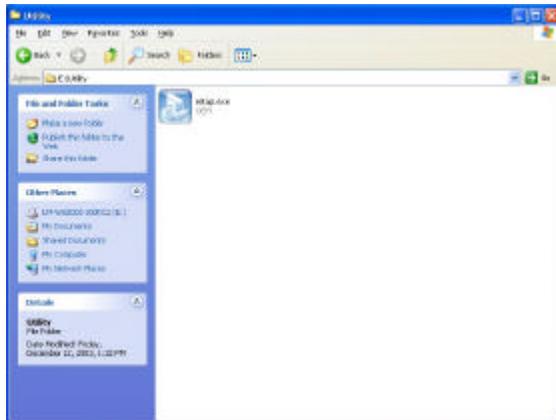
2. Windows will notify you that it has not passed Windows Logo testing to verify its compatibility with Whistler. Click the **Continue Anyway** button to continue.



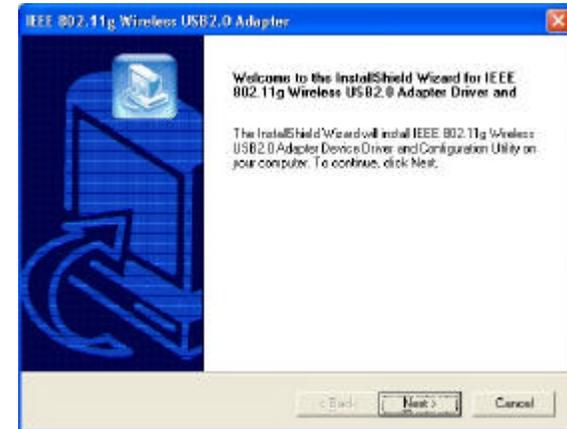
3. Windows has now completed installing the “802.11g WLAN USB2.0 Adapter”. Click the **Finish** button to close the “Found New Hardware Wizard.”



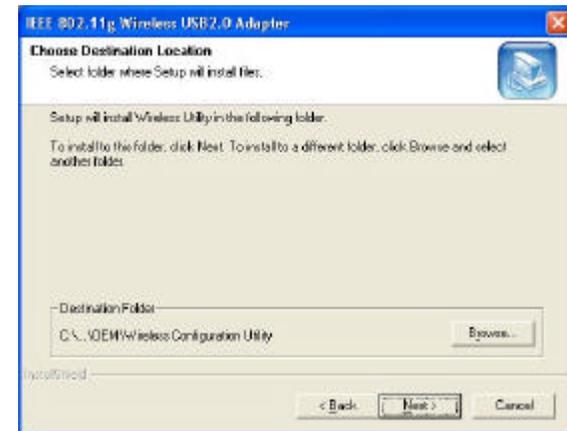
- Next, install the utility. Execute the "utility\setup.exe" file in the CD.



- Click the **Next** button to start the InstallShield Wizard process.



- Click **Next** button to continue.

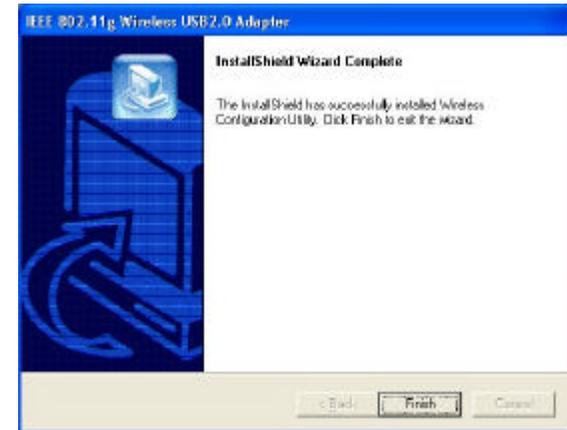


- Make sure the **Accessories** in the existing folder is selected.

Click the **Next** button to continue.



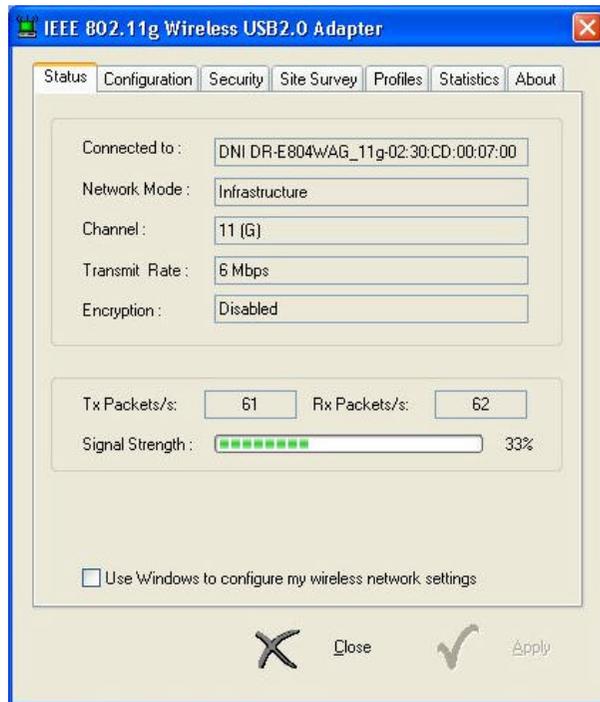
- Windows has now completed installing the utility. Click the **Finish** button to close the InstallShield Wizard.



Configure the Configuration Utility

STATUS

The Status screen provides information about the current link between the “802.11g WLAN USB2.0 Adapter” and the wireless Access Point.



The **Connected To** field shows BSSID which the “802.11g WLAN USB2.0 Adapter” with.

The **Network Mode** fields show the wireless LAN service set current operational architecture mode.

The **Channel** field shows the current operational used Channel #.

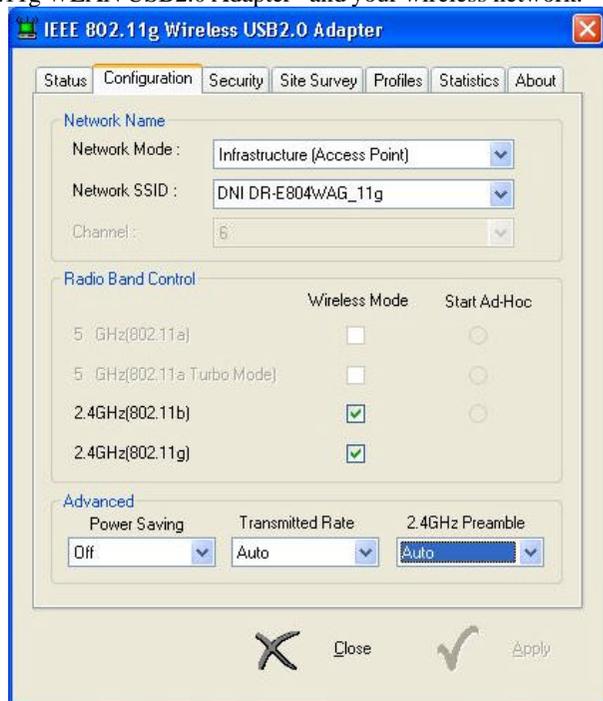
The **Transmit Rate** field shows the transfer rate in megabits per second when data transmission on current channel.

The **Encryption** field shows the current data encrypt status.

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

CONFIGURATION

The Configuration screen allows you to customize the settings for the “802.11g WLAN USB2.0 Adapter” and your wireless network.



Network Name setting box:

The **Network Mode** setting determines the architecture of your wireless network. Select **Ad-Hoc mode** or **Infrastructure mode** depending on your network type. The **Ad-Hoc** mode is used for a simple Ad-hoc network and allows the sharing of local resources only between “802.11g WLAN USB2.0 Adapter” 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 **Network SSID** is the unique name shared among all points in a wireless network. The Network SSID must be identical for all points in the network. It is case sensitive and must not exceed 32 characters.

The **Channel** field shows the current operational used Channel #.

Radio Band Control setting box:

The **Wireless Mode** allows to choose the operating band of the “802.11g WLAN USB2.0 Adapter”: 802.11b, 802.11g or all. The default settings are all box clicked.

The **Start Ad-Hoc** allows to choose operating band of the “802.11g WLAN USB2.0 Adapter”: 802.11b in Ad-Hoc network environment.

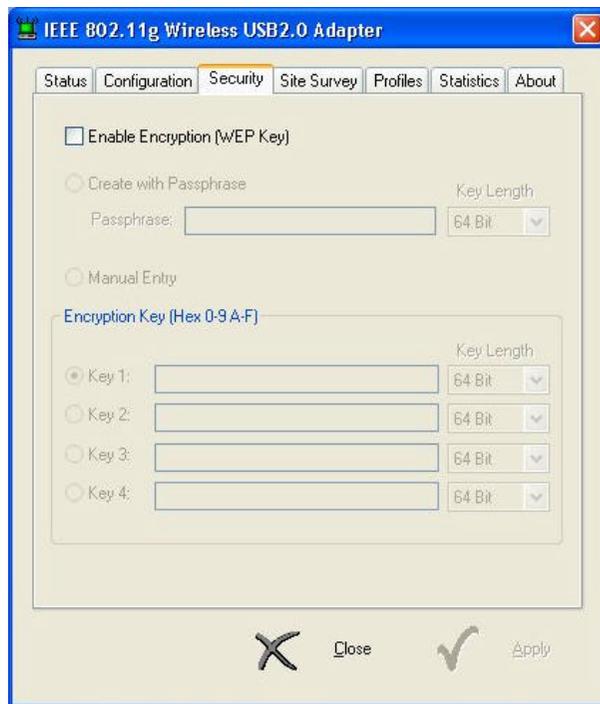
Advance setting box:

The **Power Saving** has 3 options: Off, Max and Dynamic.

The **2.4 Ghz Preamble** can be set by the user as Long Preamble or Short Preamble. Preamble is used by synchronizing the data transmitted and received in wireless data transmission when the transmitting and receiving data speed is in their data rate. The default is Auto.

SECURITY

The Security screen allows data encrypted and decrypted during data transmission, the WEP keys can be generated from a user-defined passphrase or manual entry in alphanumeric format in 4 different key settings.



WEP must be enabled in order to set the 64/128-bit key. To generate an encryption key, you may tick the **Enable Encryption (WEP Key)**.

The **Create with Passphrase** box field ticked **Passphrase** field can be filled any text string with a maximum of 127 characters by user. Select the **Key Length** in 64 or 128-bit and then type exactly the same case sensitive PassPhrase in the PassPhrase field, then press **Apply** to generate a set of WEP keys.

Manual Entry of the Keys (Key1, Key2, Key3, Key4):

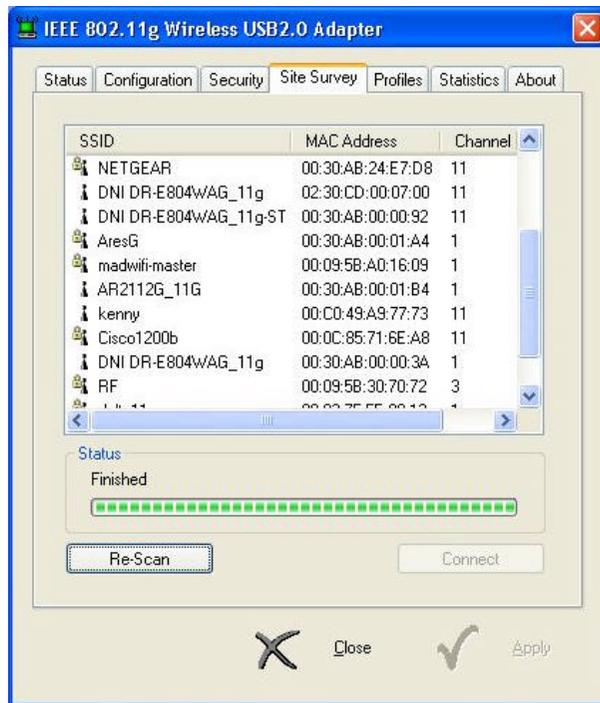
Select the **Key Length** in 64-bit or 128-bit.

As an example of Key settings:

- You may enter 10 alphanumeric characters (when selected 64-bit key length) will transfer the 5 characters to ASCII code.
- You also may select 26 alphanumeric characters (when selected 128-bit key length) will transfer 13 characters to ASCII code.

SITE SURVEY

The Selected Site Survey provides real-time displays of signal strength, signal quality and link speed, you should always try to perform the survey signal strength of the area during mobile station at the transient places.



Available Networks

Show a list of available devices in the current RF coverage.

Connect

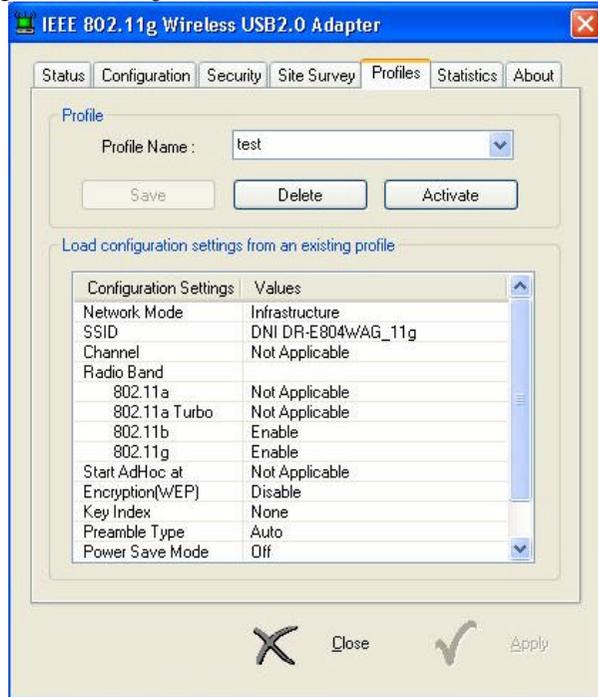
Show you the status of the Access point of the link strength and quality information for the selected access point.

Rescan

Selected an Access Point which you may access through it, then press Rescan to scan the signal strength and link quality again, it shows on Finished Bar scan chart.

PROFILE

The Profile screen allows user to recall the previous networks configuration setting from the saved files.



Profile Name field allow you to recall the network configuration settings from previous saved file name or you may from drag down manual to select the file if you have ever saved the configuration profile.

Save:

Recommend to rescans and connect from **Site Survey** screen. Press save will save the profile name which you type on the **Profile Name** box and the current network configuration settings showing on the configuration settings with values will be saved.

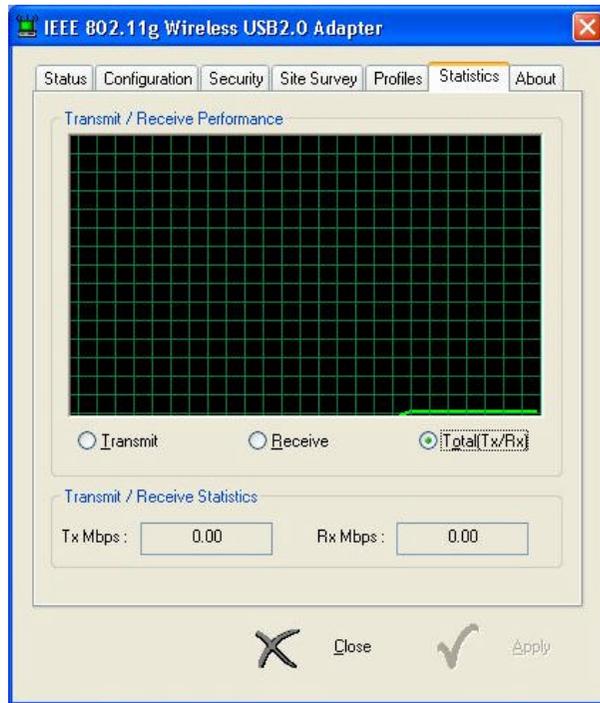
Delete: Delete a saved profile name

Activate:

The selected profile name shows on the configuration settings with value will be activated on current network configuration environments.

STATISTICS

The Statistics screen shows a Current Transmit and Received performance status showing on the screen for the relative chart of the current Tx/Rx transfer rate in megabits per second.



Transmit/Receive Statistics:

Tx Mbps show the statistic transfer rate in megabits per second when data transmission on current channel.

Rx Mbps show the statistic transfer rate in megabits per second when data receive on current channel.

ABOUT

The **About** screen shows the release information for the Configuration Utility.

