IEEE802.11b

WPC293 Wireless LAN Card

User's Manual

Ver. 1.0

(Dec., 2004)

AWIND Incorporated

Index

※ The information in this document is subject to change without notice.
Confirm that this is the latest version before actual use.

1. Overview

1.1. Overview

This reference card is provided to the customers to confirm performance of KSC chipset, firmware and driver software for 802.11b Wireless LAN. This device is designed to be compliant with Radio Law in the reigns where this might be used. Though the device is tested, it is not actually certified by Radio Law of each area, so be sure to use it in the environment where the other devices are not negatively affected by the radio.

1.2. Key Features

- **Unlicensed 2.4GHz band, power-saving communication system.**
- **Use of Direct Sequence Spectrum Spread**
- **IEEE802.11b- compliant, Data rate of 11Mbp**
- **Supports 128/40 Bit WEP**

1.3. Specifications

(1) Frequency Bandwidth: 2,400MHz to 2,483.5MHz (1 to 13CH)

(2)Transmit Power: +10dBm（Note that this is a set value and not actual value of chip ability.）

(3)Frequency Deviation: ±25ppm

(4) Bit Rate & Modulation:

1Mbps: DBPSK / 2Mbps: DQPSK / 5.5 and 11Mbps: CCK

(5)Receive Sensitivity: Less than -80dBm (PER≦8%)

(6) Antenna: Embedded diversity antenna

1.4. Supported OS

Windows 2000

Windows XP

2. Driver Install

2.1. Supported OS

Windows 2000

Windows XP

2.2. Driver Install

2.2.1. Windows XP Driver

(1) Start up PC.

(2) Insert the Wireless LAN Card

(3) Refer to Figure 1. 'Found New Hardware Wizard 1.' Click "Install from a list or specific location…" then click 'Next.'

Figure2-1. Found New Hardware Wizard 1

(4) In the following dialog, check “Include this location in the search:” then click ‘Browse.’ After selecting the folder, which includes the driver, click ‘Next.’

Figure2-2. Found New Hardware Wizard 2

(5) In the following dialog, click 'Continue Anyway' to continue installation. It operates without any problem.

Figure2-3. Found New Hardware Wizard 3

(6) In the following dialog, Click 'Finish' to finish the wizard.

Figure2-4. Found New Hardware Wizard 4

(7) In the following dialog, Click 'Yes' to restart the system.

Figure2-5. Found New Hardware Wizard 5

2.2.2. Windows2000

Refer to the procedure in '2.2.1 Windows XP Driver' for Windows2000 Driver install.

3. Utility

3.1 Utility setup

(1) Click ‘Control Panel’

(2) Click ‘Network connections’

(3) In the following dialog, Select ‘WPC293 Wireless…’ and click ‘right button’ of mouse

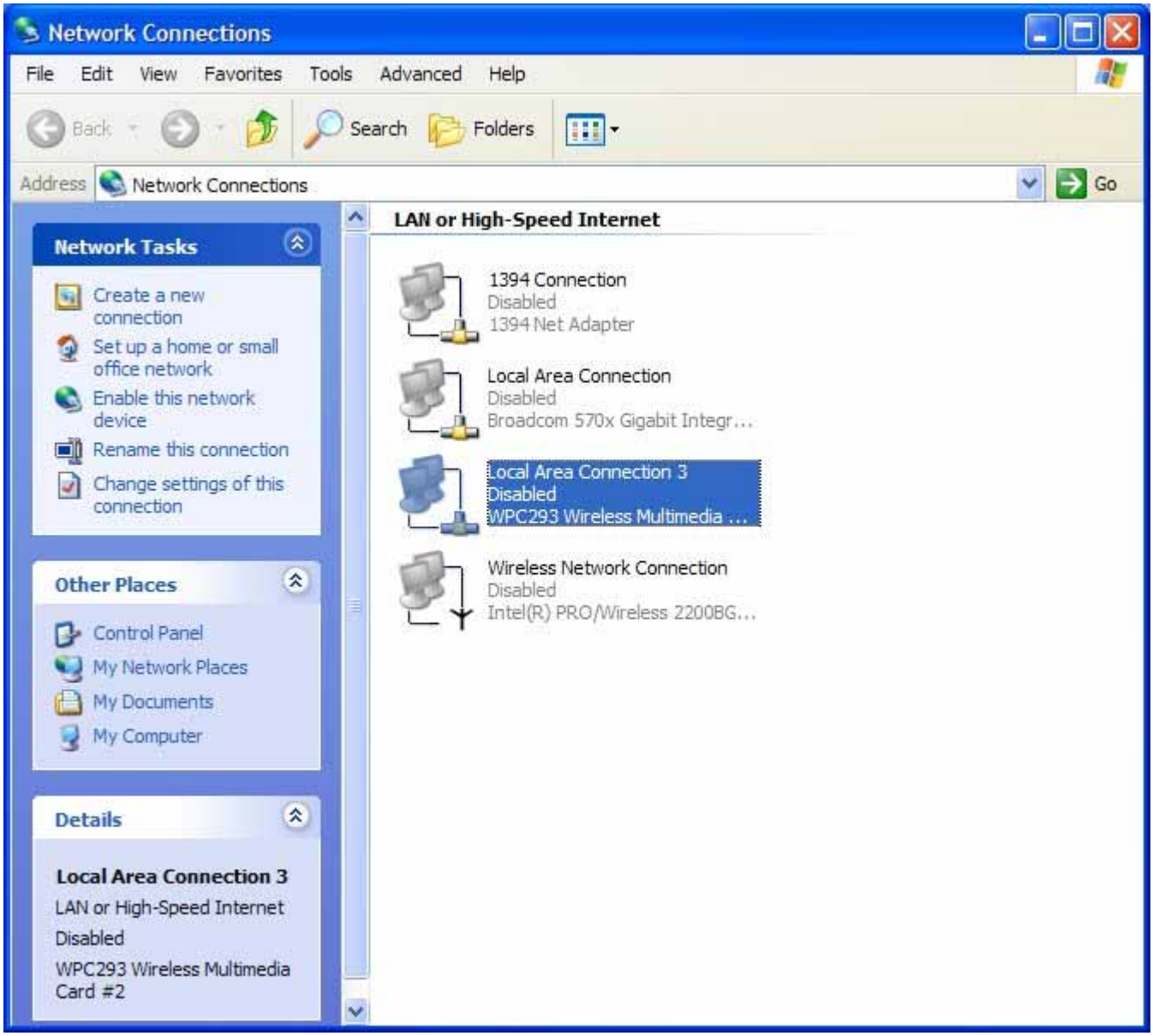

Figure3-1. Network connections

(4) In the following dialog, Click 'Configure'

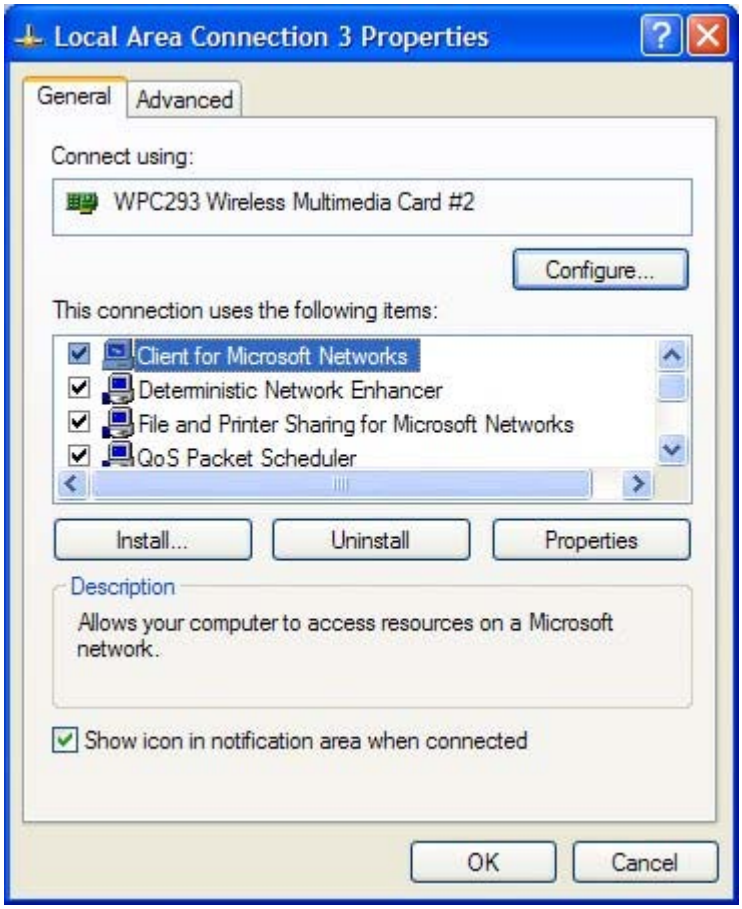

Figure3-2. Properties of local area connection

(5) In the following dialog, Click 'Advanced'

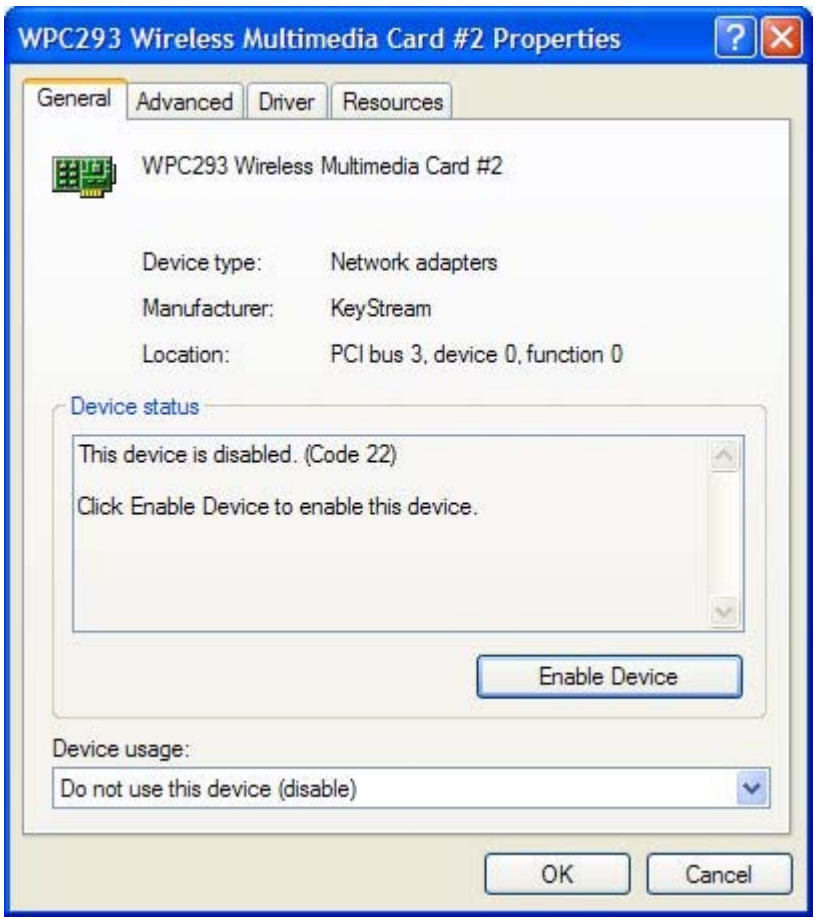

Figure3-3. Properties of WPC293

(6) Advanced setup

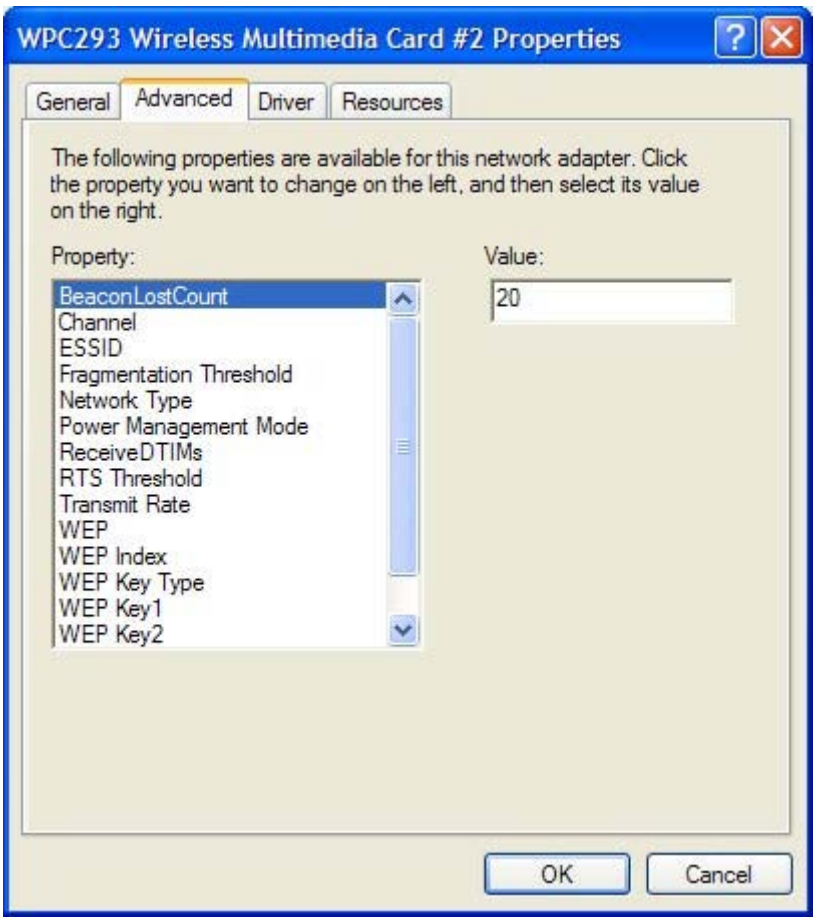

Figure3-4. Advanced setup of WPC293

Beacon Lost Count

'Beacon Lost Count' reflects to 'Loaming function', which automatically switches the access points when the node moved from a service area to another, at the situation that there are many access points. Larger count takes longer time to detect APs.

Power Management Mode

Sets the function of low power consumption. By setting this mode 'on', it becomes Power Save Mode. This mode can be set only when Infrastructure Mode.

RTS

Sets RTS Threshold value. Set within the range of 0 to 2347.

Fragmentation

Sets Fragmentation Threshold value. Set within the range of 256 to 2346.

. **Network Mode**

- **Pseudo Adhoc**

  Pseudo Adhoc Mode, A network composed solely of PCs within mutual communication range of each other (no Access Point connected).

- **Infrastructure**

  Infrastructure Mode. A wireless network centered about an AP.

- **802.11 Adhoc**

  802.11 Adhoc Mode. A network composed solely of PCs within mutual communication range of each other (no Access Point connected) with the communication format of the 802.11 standard.

SSID (Service Set ID)

Service Set ID. A group name shared by every member in a wireless network. Only client PCs with the same SSID are allowed to establish a connection.

Channel

A medium used to pass protocol data units that can be used simultaneously in the same volume of space by other channels of the same physical layer, with an acceptably low frame error ratio due to mutual interference. Channel can be set when in Adhoc mode.

Transmit Rate

Data transfer rate in communication.

WEP

Select WEP function of Off / 64bit / 128bit.

FEDERAL COMMUNICATIONS COMMISSION

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.

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 radiated 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.

Changes or modifications not expressly approved by the party responsible for compliance could void the user‘s authority to operate the equipment.

This device and its antenna(s) must not be co-located or operating in conjunction with any other antenna or transmitter.

This EUT is compliance with SAR for general population /uncontrolled exposure limits in ANSI/IEEE C95.1-1999 and had been tested in accordance with the measurement methods and procedures specified in OET Bulletin 65 Supplement C.
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 1.5cm during normal operation.