

USB 2.0+1394a+10/100/1000 Combo

Quick Installation Guide

1-1 Introduction

This USB 2.0+1394a+10/100/1000 Combo Host Adapter provides USB 2.0 3 (2 external + 1 internal) ports, 1394a 3 (2 external + 1 internal) ports and Gigabit Ethernet interface to your system at once for the connections of high performance USB 2.0/1.1 and 1394a devices.

1-2 Key Features & Benefits

- Compliant with PCI Plug-n-Play 2.2
- Compliant with USB 2.0 UHCI/EHCI standard data transfer rates up to 480Mbps
- Compliant with the IEEE 1394-1995, P1394a-2000 and OHCI v1.1 standard data transfer rates up to 400Mbps
- Hot-swapping feature allows you to connect/detach devices without first powering the system off
- Built-in 4-pin power connector can receive extra power supply from system for 1394a bus-powered mode
- Works with various types of USB 2.0/1.1 and 1394a devices including hubs, scanners, printers, PC video cameras, portable drives, digital cameras, DV camcorders, memory card readers/writers and more
- Fully compliant with IEEE 802.3, IEEE 802.3u and IEEE 802.3ab
- Supports Full Duplex Flow Control (IEEE 802.3x)
- Integrated 10/100/1000 transceiver

- Supports Crossover Detection and Auto-Correction
- Auto-Negotiation with Next page capability
- Supports pair swap/polarity/skew correction
- Supports Transmit/Receive FIFO (8K/64K)
- Supports IEEE 802.1Q VLAN tagging

1-3 System Requirements

- Pentium II or equivalent PC computer with one available PCI slot
- Windows 98SE/ME/2000/XP

2-1 Static Electricity Precaution

One of the routine precautions you must be aware of when working with computer components is the problem of static electricity discharge.

Caution: Static Electricity Discharge may permanently damage your system. To avoid possible static electricity discharge during the installation, please follow the guidelines below:

- Discharge any static electricity build up in your body by touching a large grounded metal surface or the computer case (if plugged in), for a few seconds.
- During the installation, avoid any contact with internal parts

2-2 Hardware Installation

1. Turn OFF the power of your computer and any other connected peripheral devices.
2. Unplug the power cord from the back of the computer.
3. Remove your computer's cover.
4. Remove the slot bracket from an available PCI slot.

5. To install the card, carefully align the card's bus connector with the selected PCI slot on the motherboard. Push the board down firmly, but gently, until it is well seated.
6. If your motherboard supports PCI 2.1 only, connect the attached Wake-On-LAN cable to the adapter and your motherboard.
7. Take one 4-pin power connector from power supply and plug to this combo card's power connector, it can receive sufficient bus-power for IEEE 1394a ports.
8. Close the cover of your computer and plug the power back to your computer.

2-3 Driver Installation

2-3.1 Windows 98SE Driver Installation

1. After installing the board, boots up your system.
2. When **Add New Hardware Wizard** displays **PCI standard PCI-to-PCI bridge**, click **Next**.
3. Choose **Search for the best driver for your device (Recommended)**, and click **Next**, **Next**, **Next**, then **Finish**.
4. When **Add New Hardware Wizard** displays **PCI Ethernet Controller**, click **Next**.
5. Choose **Search for the best driver...**, click **Next**.
6. Insert driver CD-Title into your CD-ROM drive
7. Choose Specify a location, type in **D:\LAN\Win98**, then click **Next**. (Assume **D:** is your CD-ROM drive)
8. When **Realtek RTL8169/8110 Family Gigabit Ethernet NIC** appears, then click **Next**.
9. Remove the driver CD-Title and insert windows 98SE CD-Title into your CD-ROM drive, click **OK**, then click **Finish**.

10. When **System Settings Change** appears, click **No**.
11. When **Add New Hardware Wizard** displays **NEC USB Open Host Controller**, click **Next, Next, Next, Next, Next**, then click **Finish**.
12. Repeat **step 10**.
13. When **Add New Hardware Wizard** displays **PCI Universal Serial Bus**, click **Cancel**.
14. When **Add New Hardware Wizard** displays **Texas Instruments OHCI Compliant IEEE 1394 Host Controller**, click **Next**.
15. Check **Search for the best driver for your device (Recommended)**, click **Next, Next, Next, Next, Finish**, then click **No**.
16. Remove the Windows 98SE CD-Title and insert the driver CD-Title into your CD-Rom drive.
17. Click **My computer**, click **CD-ROM**, then double click **Setup**.
18. Click **Close**, remove the driver CD-Title and restart your system.

2-3.2 Windows ME Driver Installation

1. After installing the board, boots up your system.
2. When **Add New Hardware Wizard** displays **PCI standard PCI-to-PCI bridge**, check **Automatic search for a better driver (Recommended)**, click **Next**, then **Finish**.
3. While **Add New Hardware Wizard** displays **Texas Instruments OHCI Compliant IEEE 1394 Host Controller**, check **Automatic search for a better driver (Recommended)**, click **Next**, then **Finish**.
4. Insert driver CD-Title into your CD-ROM drive.
5. When **Add New Hardware Wizard** displays **PCI Ethernet Controller**, check **Specify the location of the driver (Advanced)**, and click **Next**,
6. Check **Removable Media [Floppy, CD-ROM...]**, click **Next, Next, Finish**, then click **No**.

7. When **Add New Hardware Wizard** displays **PCI Universal Serial Bus**, click **Cancel**.
8. Click **My computer**, click **CD-ROM**, then double click **Setup**.
9. Click **Close**, remove the driver diskette and restart your system.

2-3.3 Windows 2000 Driver Installation

1. After installing the board, boots up your system.
2. When **Found New Hardware Wizard** displays, click **Next**.
3. Insert driver CD-Title into your CD-ROM drive.
4. Check **Search for a suitable driver for my device [recommended]**, then click **Next**.
5. Check **CD-ROM drives**, click **Next, Next, Finish**.
6. Click **My computer** and **CD-ROM**, then double click **Setup**.
7. Click **Close**, remove driver CD-Title and restart your system.

2-3.4 Windows XP Driver Installation

1. After installing the board, boots up your system.
2. When **Found New Hardware Wizard** displays **Universal Serial Bus (USB) Controller**, click **Cancel**.
3. Insert driver CD-Title into your CD-ROM drive.
4. When **Found New Hardware Wizard** displays **Ethernet Controller**, check **Install the software automatically [Recommended]**, then click **Next**.
5. Select **Realtek RTL8169/8110 Family Gigabit Ethernet NIC...**
X:\LAN\XP\netrtlxp.inf, click **Next**, then click **Finish**.
6. Click **My computer** and **CD-ROM**, then double click **Setup**.
7. Click **Close** to restart your system.

8. When **Found New Hardware Wizard** displays **NEC PCI to USB Enhanced Host Controller**, click **Next**, then **Finish**.
9. When **Found New Hardware Wizard** displays **USB 2.0 Root Hub Device**, click **Next** and click **Finish**.

2-3.5 To verify successful driver installation

1. Check **Device Manager** to verify successful driver installation.

Windows 98SE/ME: From the main desktop, right click **My Computer**, then click **Properties**. Click **Device Manager** tab.

Windows 2000/XP: Right click **My Computer**, then click **Manage**. Click **Device Manager**.

2. The drivers for this controller show up differently under different versions of Windows. Please refer to the correct Windows version to verify.

2-3.5.1 Windows 98SE/ME/2000(with sp3 or earlier)/ XP (without sp)

A. Under the **Universal Serial Bus Controllers:**

- **NEC PCI to USB Enhanced Host Controller**
- **USB 2.0 Root Hub Device**

B. Under the **Universal Serial Bus Controllers:**

- **NEC ... USB Open Host Controller**
- **NEC ... USB Open Host Controller**
- **USB Root Hub**
- **USB Root Hub**

C. Under the **1394 Bus Controller** or **IEEE 1394 Bus host controllers**:

- **OHCI Compliant IEEE 1394 Host Controller**

D. Under the **Network Adapters**:

- **Realtek RTL8169/8110 Family Gigabit Ethernet**
- **1394 Net Adapter** (Windows ME/XP only)

2-3.5.2 Windows 2000(with sp3 or later)/ XP (with sp1 or later)

A. Under the **Universal Serial Bus Controllers**:

- **NEC PCI to USB Open Host Controller**
- **NEC PCI to USB Open Host Controller**
- **Standard Enhanced PCI to USB Host Controller**
- **USB Root Hub (USB 2.0 Root Hub in Windows 2000)**
- **USB Root Hub**
- **USB Root Hub**

B. Under the **IEEE 1394 Bus host controllers**:

- **OHCI Compliant IEEE 1394 Host Controller**

C. Under the **Network Adapters**:

- **Realtek RTL8169/8110 Family Gigabit Ethernet**
- **1394 Net Adapter** (Windows XP only)

Remark:

- To enable Wake-On-LAN feature, some computers may require you to change a setting in your computer's BIOS or setup program.

- LED indication (J1, RJ45 connector) for the Ethernet data transfer rates:
 - Green: 10Mb/s
 - Red: 100Mb/s
 - Orange: 1000Mb/s (Gigabit/s)



5303-0234-001