

# **User Guide**

## **Firewire IEEE 1394A + USB 2.0 Combo Card**

**SD-COMBO-02**

## About this card

This Firewire IEEE 1394A + USB 2.0 Combo card is design to offer a cost effective and reliability solution to the users with PC's that have no integrated IEEE 1394A and USB 2.0 support.

The Firewire IEEE 1394A ports uses the most advanced, high-speed digital technology, low-cost and high bandwidth isochronous (real-time) data interfacing between computers, computer peripherals and consumer electronics products such as camcorders, VCRs, printers, TVs, and digital cameras. With this IEEE 1394 standard, users can transfer video or capturing images from a digital camera or camcorder to PC with no image degradation.

The USB 2.0 ports are compliant with the Universal Serial Bus Specification Revision 2.0 and Open Host Controller Interface Specification for low-speed (1.5Mbps) / full-speed (12Mbps) speed signaling and Enhanced Host Controller Interface Specification for high-speed signaling (480Mbps).

## Features

### Firewire IEEE 1394A Ports

- Embedded 1394A OHCI Link and PHY core function into single host controller
- Complies with 1394 OpenHCI Specifications V1.0 and V1.1
- Compatible with Microsoft OHCI, DV, and SBP-2 driver in Windows 98, Windows 98SE, Windows Me, Windows 2000, Windows XP and MacOS operating system
- Compliant with PCI specification 2.2
- Support High Performance Bus Mastering
- Integrated 400Mbit PHY
- Compliant with IEEE 1394 Standard for High Performance Serial Bus and P1394A Supplement 4.0
- Each 1394A fully compliant cable port supporting 100/200/400 Mbit/sec
- Compliant with PCI Bus Power Management Specification V1.1
- Full support of real time dynamic insertion and removal of devices
- Fully supported by Microsoft Windows 98, 98SE, ME, 2000, XP and MacOS 9.0 Operating System

### USB 2.0 Ports

- Compliant with Universal Serial Bus Specification Revision 2.0
- Compliant with Open Host Controller Interface Specification for USB Rev 1.0a
- Compliant with Enhanced Host Controller Interface Specification for USB Rev 0.95
- Supports PCI-Bus Power Management Interface Specification release 1.1
- Supporting high-speed (480Mbps), full-speed (12Mbps), and low-speed (1.5Mbps) transaction
- Support device hot-swap and wake-up
- Supports all USB-compliant devices
- Driver support for Windows 98, 98SE, ME, 2000 & XP operating system

## What is in your package?

You should have the following items in your package:

- One Firewire IEEE 1394A + USB 2.0 Combo card
- One User Guide
- One Driver CD

## Optional Accessories

- Bundled Video Editing and Capturing Software
- One Firewire IEEE 1394A Cable

## Installing the Firewire IEEE 1394A + USB 2.0 Combo card

Installing this Firewire IEEE1394A + USB 2.0 Combo card to your computer is simple, just simply follow these steps.

1. Turn off your computer and all external devices connect to it.
2. Disconnect your computer from the power sources.
3. Open the computer case. Refer to your computer user manual for more details.
4. Find an available PCI slot and remove the slot bracket. Save the bracket screw for later use.
5. Align the combo card horizontally with respect to the PCI slot and insert it into the slot firmly and evenly. Take care not to force it into the slot. Once you have properly positioned the combo card into the slot, fasten it to the computer case with the bracket screw you have saved.
6. Secure the computer case and switch on your computer.

## Driver Installation

You need to install three types of driver before the combo card function properly.

1. ***PCI Standard PCI-to-PCI Bridge driver***
2. ***1394 Bus Controller driver***
3. ***USB 2.0 Host Controller driver***

## For Windows 98/98SE/ME/2000 & XP Operating System

**Note:** Make sure you have your Microsoft Windows O/S Installation CD ready before installing this Firewire IEEE 1394A + USB 2.0 Combo card.

### 1. **Installing PCI Standard PCI-to-PCI Bridge driver**

Windows should automatically detect and install the “PCI Standard PCI-to-PCI Bridge” driver. Full driver support by Microsoft based drivers, no additional driver required. Simply have your Windows O/S Installation CD ready when Windows Installation Wizard prompts for the location of the driver.

## **2. Installing 1394 Bus Controller driver**

This combo card is compliant to IEEE 1394 OpenHCI Specifications and compatible with Microsoft OHCI, DV, and SBP-2 driver in Windows 98, Windows 98SE, Windows Me, Windows 2000, and Windows XP operating system. Full driver support by Microsoft OpenHCI based drivers, no additional driver required. Simply have your Windows O/S Installation CD ready when Windows Installation Wizard prompts for the location of the driver.

## **3. Installing USB 2.0 Host Controller driver**

This combo card uses NEC (uPD720100) USB 2.0 Host Controller which require these two drivers:

### **I. NEC USB Open Host Controller driver**

Windows should detect two “**NEC USB Open Host Controller**”, no additional driver required. Full driver support by Microsoft OpenHCI based drivers. Simply have your Windows O/S Installation CD ready when Windows Installation Wizard prompts for the location of the driver.

### **II. NEC PCI to USB Enhanced Host Controller driver**

For the “**NEC PCI to USB Enhanced Host Controller**”, the driver is located in the Driver CD that came with the card. When Windows Installation Wizard detect this device “**PCI Universal Serial Bus**”, insert the Driver CD in to the CDROM drive and go to this directory - **D:\NEC\uPD720100** (Assuming drive D is your CDROM drive) to install the driver.

After you have installed the driver, go to the Device Manager to check if you have properly install the drivers.

1. Under “**1394 Bus Controller**” in Device Manager, this item is added.

***NEC OHCI Compliant IEEE1394 Host Controller***

2. Under “**Universal Serial Bus Controller**” in Device Manager, these items are added.

***NEC PCI to USB Enhanced Host Controller***

***NEC USB Open Host Controller***

***NEC USB Open Host Controller***

***USB 2.0 Root Hub Device***

***USB Root Hub***

***USB Root Hub***

If you have all these items added in the Device Manager and there are no exclamation mark next to these items then you have properly installed the Firewire IEEE 1394A + USB 2.0 Combo card drivers and the combo card is ready for use!