



## USB 2.0 Hi-Speed Host Card User's Manual

### ■ Introduction

The USB2.0 Hi-speed host card provides a **higher bandwidth** that supports running up to 480Mbps data transfer speeds with USB2.0 devices and compatible with all USB 1.1 peripheral for your PC or Mac's computer system.

### ■ Features

- Complies with standard USB (Universal Serial Bus) 1.1 and USB 2.0 specifications.
- PCI multi-function device consists of one EHCI host controller cores for high-speed signaling and two OHCI host controller cores for full-speed and low-speed signaling.
- All downstream ports can handle high-speed 480Mbps, full-speed 12Mbps, and low-speed 1.5Mbps.
- All downstream ports are shared by OHCI and EHCI host controller core.
- Compliant with 32Bit PCI Bus Rev2.2 standards.
- Supports Plug & play and Hot swappable capability.
- Support PCI-Bus power management specification 1.1.

### ■ Package contents

The USB2.0 host card package includes the following items:

- USB2.0 host card.
- Driver diskette.
- User's manual.
- USB cable.

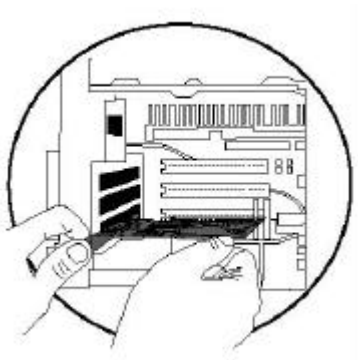
### ■ System Requirement

- Faster PC's processor with a free PCI slot.
- Windows 98, SE, 2000, Me, XP and Mac O.S.X 10.1

## ■ Hardware Installation

### Before installation

- ☞ Touch the exposed metal casing on your computer's power supply before you taking the card from its anti-static package. This safely discharges any static electricity that may have built up on your body.
  - ☞ Handle the card by the PCB edge only. Avoid touching the gold-plated PCI bus connector or the electronic components.
1. Turn your computer off and disconnect the power cord before installing the card.
  2. Remove the cover of your computer. (Please refer to your computer owners manual for instructions on removing the cover)
  3. Push the host card firmly into a free PCI slot and ensure the gold-plated connector is seated evenly in the PCI slot.
  4. Replace the screw in the bracket to avoid the card falling out accidentally when plug in the USB cable.
  5. Recover computer's cover and apply power cord again.



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## ■ USB 2.0 Hi-speed driver installation

The USB 2.0 PCI card has three USB host controller engines in the chip. Two of the Open Host Controller engines handle USB 1.1 transactions. One of the Enhanced Host Controller engine handles the USB 2.0 Hi-speed transactions. For the PCI card work well with a high bandwidth, should install both drivers of OHCI and EHCI completely in your system.

### ■ Install driver in Windows 2000

1. Once the card is installed and the computer is restarted, Windows will automatically detect and load the drivers for two "NEC USB Open Host Controller".
2. Then Windows find a new hardware of "Enhanced Host Controller" and start the new hardware wizard, Click "Next"



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3. Windows prompt a "Universal Serial Bus Controller".  
Select "Search for the suitable driver for my device".  
Click "Next".



4. You should now see a window to specify the location of the driver. Check Floppy disk drives and insert the EHCI driver diskette, then click "Next".



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5. Dialog showing that Windows found a driver for this device. Click "Next" to continue.



6. When "Completing the found new hardware wizard" dialog appears and "NEC PCI to USB Enhanced Host Controller" is showing on the screen. Click "Finish".



7. Restart Windows and apply your USB peripheral devices.

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## ■ Verify if PCI card has properly installed

To confirm that the USB 2.0 Hi-speed PCI card has been correctly installed, check your Device Manager on the Windows system. You should see an entry titled **"Universal Serial Bus Controller"** click on the "+" sign for next sub-entry should reveal the following added readings:

NEC PCI to USB Enhanced Host Controller

NEC PCI to USB Open Host Controller

NEC PCI to USB Open Host Controller

USB Root Hub

USB Root Hub



### Note1:

All the driver installation steps may be a little different from this guide when you had been installed this card before or using different version of O.S., in this situation please follow the Windows prompt steps to complete the installation procedure.

### Note 2:

Refer to more installation guides of Windows 98, Windows ME etc. in the floppy diskette.

## ■ Product Specifications:

### Connector:

- Four USB root ports. (4-Port PCI model)
- Five USB root ports. (5-Port PCI model)

### Data transfer rates:

- 480Mbps/12Mbps/1.5Mbps/sec data transfer rates.

### Output Voltage/Current per-port:

- Provides 5V output Voltage per port.
- Provides 500mA output current per port.

### Cable lengths:

- Max. 2.08meters USB cable length by 24/28 AWG.
- Max. 5 meters USB cable length by 20/28 AWG.

### Operating System support:

- Windows 98,98SE,Window 2000, Me and XP.
- Mac OS10.1

### EMI conformance:

- FCC part 15 Class B.
- CE Mark Class B.

### Applications

- Low-Speed (1.5Mbps): Keyboard, Mouse, Game peripherals.
- Full-Speed (12Mbps): Audio, POTS, Compressed Video, Phone.
- High-Speed (480Mbps): Storage, Imaging, Video.



P/N: M-110205N