MegaUSB

PCI-To-USB2.0 Host Adapter

USB2.0 介面控制卡

User' s Manual

使用手冊

Revision 1.1C

Tested To Comply
With FCC Standards
FOR HOME OR OFFICE USE

Table of Contents

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.

Federal Communications Commission (FCC) Statement

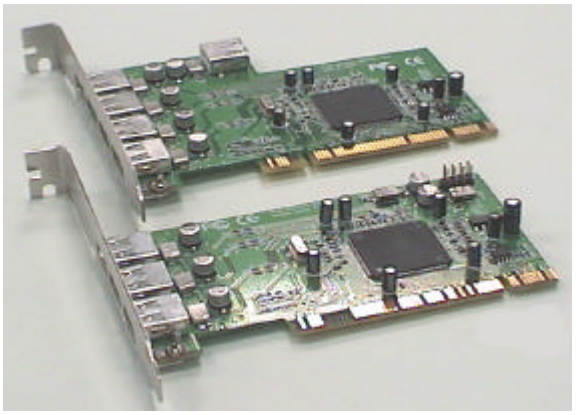
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. Those limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate 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 antennas.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circlet different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for he

1. INTRODUCTION

MegaUSB, an USB2.0, low-profile PCI host adapter for the connections of high performance universal serial bus. It is designed to the provisions of the USB2.0 OHCI standards. Five ports for various USB devices connection, up to 480 Mb/s data rate, hot plugging, legacy devices supporting, are provided for the maximum USB connections. These features make **MegaUSB** an ideal high performance USB host adapter for both PC and MAC environment.

USB devices are easy to connect and the market is growing fast. We need much more bandwidth at the host side for the more devices connected.



2. FEATURES AND SPEC

- ***Five*** independent full speed downstream USB 2.0 OHCI ports
- Full 480 Mb/s bandwidth for USB power users
- Simultaneous operation of multiple high-performance devices
- PCI Rev. 2.2 compliant, low-profile size (MegaUSB-L)
- Works with Microsoft Windows 98/95/NT/2000/ME/XP
- Works with Mac OS 8.6 or later
  * USB2.0 Driver for Mac supports OS X only
- Works with various types of USB devices
- Supports up to 127 devices per port
- Supports hot-plug, PCI Low-power mode and wake-up supporting
- USB Chip: NEC
- Connectors: MegaUSB - Four external, One internal

  MegaUSB-L -3 external connectors, 2 internal headers
- Operating Temperature: 0 to 70 centigrade
- PCB Dimensions: MegaUSB - 120 x 82 mm (4.73 x 3.23")

  MegaUSB-L - 120 x 63 mm (4.73 x 2.48", Low-profile PCI)

3. OPERATIONAL GUIDE

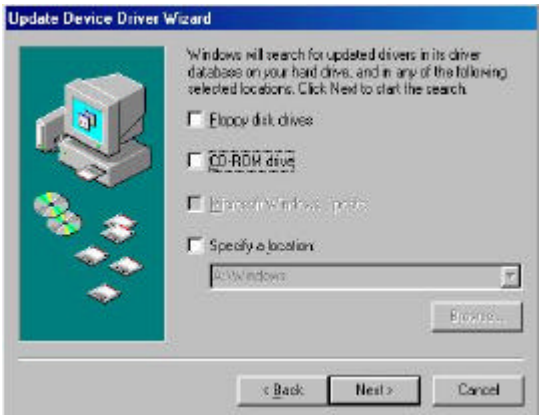
3.1 Installing the USB controller card

1. Power down the host computer and all peripherals.
2. Remove the Cover of the Host Computer.
3. Insert the host adapter.
4. Close the Cover.
5. Go to next section for driver installing.

3.2 WIN98 Driver (OMI) installation

Once the card is installed and the computer is restarted, Windows will detect the board and attempt to load the drivers for it.

Step (1)
Windows will detect a “NEC USB Open Host Controller”. Click “Next.”
Select “Search for the best driver for your device.” Click “Next.”
Uncheck all boxes. Click “Next.”



Step (2):
Windows has found an updated driver for this device. Click “Next.” Then Click “Next” again. The “Window has finished installing the software that your new hardware device requires” dialog appears. Click “Finish.”

Figure 2

Step (3):
Repeat the above process for the second NEC USB Open Host Controller. Windows will find a “PCI Universal Serial Bus” device. Click “Next. Select “Display a list of all the drivers in a specific location, so you can select the driver you want”. Click “Next.”

In the dialog that appears, highlight “USB Controllers”. Click Next.”

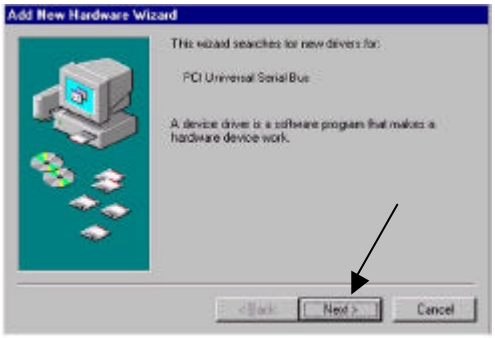


Figure 3

Step (4):
Click on the “Have Disk” button.In the dialog that appears, click on the “Browse” button.Navigate to the folder that contains the USB 2.0 drivers. Click “OK.”A dialog will appear with “NEC PCI to USB Enhanced Host Controller”, click “Next” to continue.

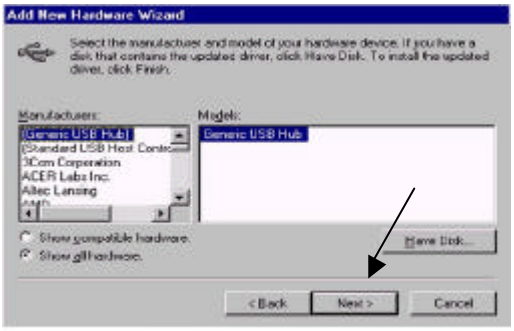
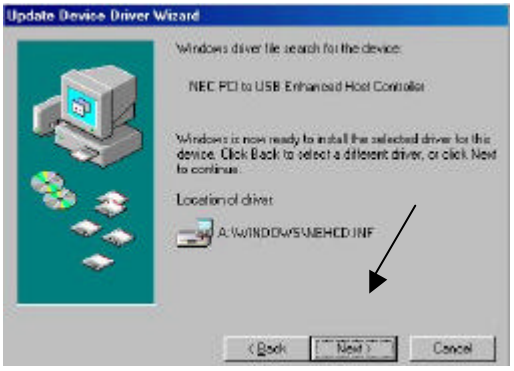


Figure 4

Step (5):
The “Windows driver file search for the device”. Click “Next” .



The “Window has finished installing the software that your new hardware device requires” dialog appears. Click “Finish.” Restart Windows.

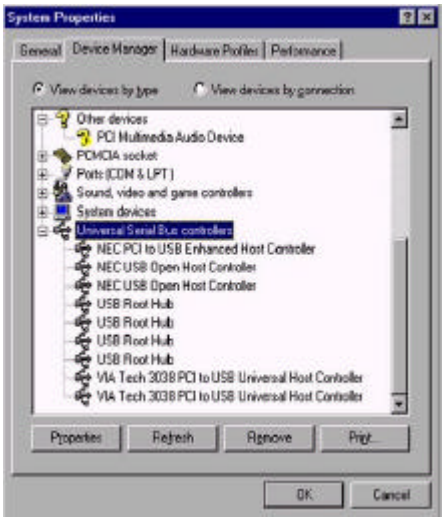
Finalizing USB 2.0 Hi-Speed hardware settings

USB 2.0 Hi-Speed products that use an NEC chipset have 3 USB host controller engines on board. Two of the host controller engines handle USB 1.1 transactions. One of the host controllers engines handle, USB 2.0 transactions.

USB data traffic is automatically routed to the proper host controller engine depending on the speed of the device that is plugged into the USB 2.0 port. This essentially creates 3 concurrent USB buses. These USB buses allow devices to run in a less congested traffic environment. This helps devices such as color printers, scanners, video cameras and mass storage devices, which require a high bandwidth, to work well together.

The NEC PCI to USB Enhanced Host Controller driver handles USB 2.0 Hi-Speed (480 Mbits/s) traffic. The two NEC PCI to USB Open Host Controllers handle Full-Speed (12 Mb/s) and Low-Speed (1.5 Mb/s) traffic.

Check your Windows System/Device Manager to confirm proper installation of USB 2.0 Hi-Speed drivers:
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



3.3 WIN2000 Driver (OMI) installation

Once the card is installed and the computer is restarted, Windows will detect the board and attempt to load the drivers for it.

Step (1)
"Welcome to the Found New Hardware Wizard". Click "Next."

Figure 1

Step (2):
The "Install Hardware Device Drivers" dialog appears. Check Search for suitable driver then, click "Next."

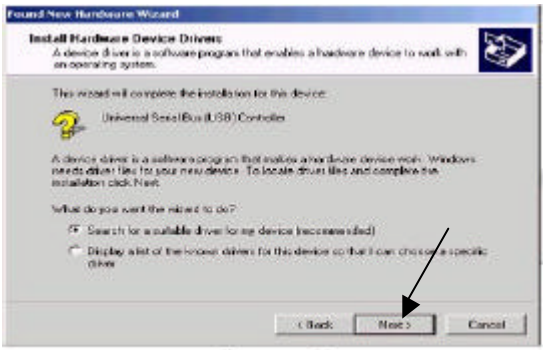
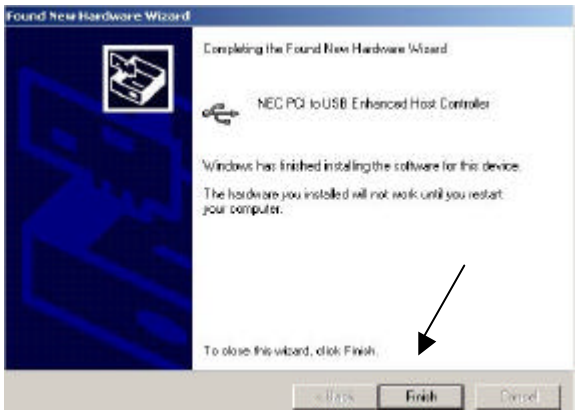


Figure 2

Step (3):
The Locate Driver Files dialog appears. Check “Specify Location”, click “Next.” Click “Browse.” Navigate to the folder that contains the USB 2.0 drivers. Click “Open” then click “OK.” The next dialog will let you know the driver has completed loading. Click “Finish” to finalize the installation.



A “System Settings Change” dialog may appear, suggesting you “restart your computer now.”

Finalizing USB 2.0 Hi-Speed hardware settings
USB 2.0 Hi-Speed products that use an NEC chipset have 3 USB host controller engines on board. Two of the host controller engines handle USB 1.1 transactions. One of the host controllers engines handle, USB 2.0 transactions.

USB data traffic is automatically routed to the proper host controller engine depending on the speed of the device that is plugged into the

USB port. This essentially creates 3 concurrent USB buses.

These USB buses allow devices to run in a less congested traffic environment. This helps devices such as color printers, scanners, video cameras and mass storage devices, which require a high bandwidth, to work well together.

The USB Host Controller driver handles USB 2.0 Hi-Speed (480 Mbits/s) traffic. The two NEC PCI to USB Open Host Controllers handle Full-Speed (12 Mb/s) and Low-Speed (1.5 Mb/s) traffic.

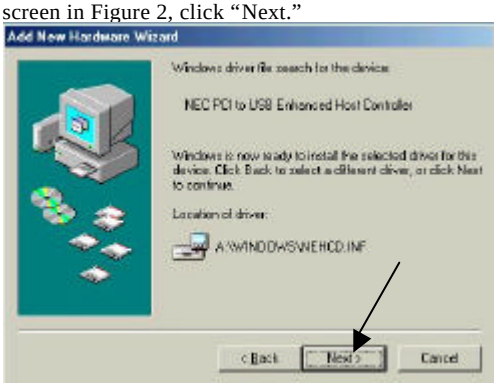
Check your Windows System/Device Manager to confirm proper installation of USB 2.0 Hi-Speed drivers:
NEC PCI to USB Open Host Controller
NEC PCI to USB Open Host Controller
NEC PCI to USB Enhanced Host Controller
USB Root Hub
USB Root Hub

3.4 WINMe Driver (OMI) installation

Once the card is installed and the computer is restarted, Windows will detect the board and attempt to load the drivers for it.

Step (1)
Windows will find a “PCI Universal Serial Bus”. Select “Specifiy the location of the driver”. Click “Next.” Put a check mark in the box next to “Specify Location,” then click “Browse.” Navigate to the folder that contains the USB 2.0 drivers. Click “Next.”

Step (2):
The driver will be NEC PCI to USB Enhanced Host Controller” When you see the screen in Figure 2, click “Next.”



Step (3):
The next dialog will let you know the driver has completed loading. Click “Finish” to finalize the installation.

Figure 3

A “System Settings Change” dialog may appear, suggesting you “restart your computer now.”

Finalizing USB 2.0 Hi-Speed hardware settings
USB 2.0 Hi-Speed products that use an NEC chipset have 3 USB host controller engines on board. Two of the host controller engines handle USB 1.1 transactions. One of the host controllers engines handle, USB 2.0 transactions.

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Check your Windows System/Device Manager to confirm proper installation of USB 2.0 Hi-Speed drivers:

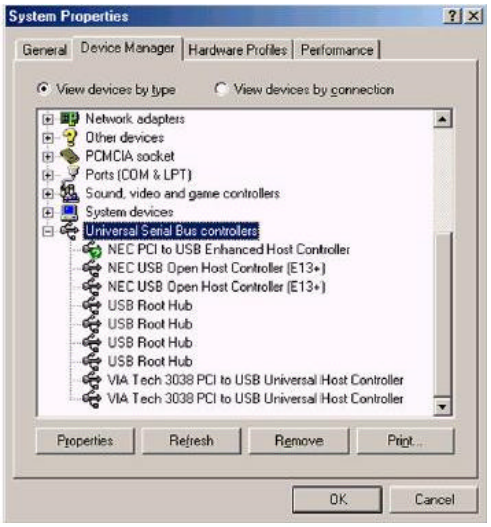
NEC PCI to USB Enhanced Host Controller

NEC PCI to USB Open Host Controller

NEC PCI to USB Open Host Controller

USB Root Hub

USB Root Hub



3.5 Mac OS X (OMI) Driver installation

The Mac USB20 driver requires Mac OS X v10.0.4 or later

Step (1)

Copy the driver file to Mac Hard disk. And double click this file. Double click on “USB2EHCI_v1021.pkg.img”. And double click on “USB2EHCI_v1021.pkg”.

Step (2):

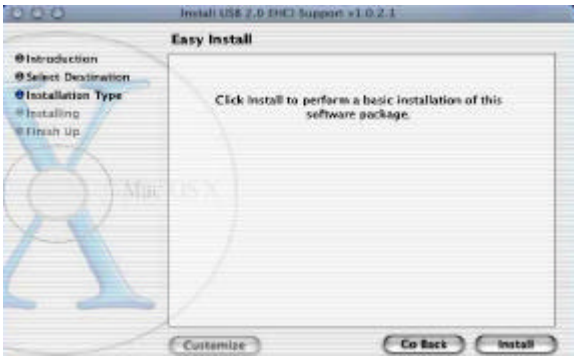
Click the lock to mark changes.

Step (3):
Input the user name and password, Click ”Ok”.

Step (4)
Welcome to the USB 2.0 EHCI Support v1.0.2.1 Click “Continue”.

Step (5)
Select a destination volume to install the USB 2.0 Click “Continue”.

Step (6)
Click install to perform a basic installation of this software package. Click “Install”.



Step (7)
The software was successfully installed. The computer will restart in 30 seconds.

Finalizing USB 2.0 Hi-Speed hardware settings
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The NEC PCI to USB Enhanced Host Controller driver handles USB 2.0 Hi-Speed (480 Mbits/s) traffic. The two NEC PCI to USB Open

Host Controllers handle Full-Speed (12 Mb/s) and Low-Speed (1.5 Mb/s) traffic.

Check your MAC Applications/Utilities/Apple System Profiler/Devices and Volumes to confirm proper installation of USB 2.0 Hi-Speed drivers: