771-USB230000-001

User Manual

Version 1.0

USB3.0 Super-Speed PCI Express Host Controller

Introduction

Super-Speed USB3.0 interface is the next revolution in I/O interconnect standards that will deliver the bandwidth and features required by PCs, consumer electronics and communications devices. With 10 times faster throughput than USB 2.0 standard and backward compatible with current USB device features, USB3.0 interface will be the trendy of IT technology.

This board is a dual-port Super-Speed USB3.0 PCI Express card. It is compliant with the PCI Express Generation 2 specification for host PC system. It works up to 5 Gbps for data transfer when connecting to USB 3.0 compliant peripherals, while maintaining compatibility with existing USB peripheral devices. With USB Hot-Swapping and Plug-n-Play function, you don't have to worry about running out of slots on your motherboard or complicated hardware installation process.

This board supports USB3.0 High-Speed device and backward compatible with current USB2.0 High-Speed and USB1.1 Full-Speed device. It is an ideal choice for external storage devices, MP3 players, external DVD writer, Card Readers, digital cameras, webcams, networking, video devices, and all other USB devices.

Features

- Supports PCI Express Base Specification Revision 2.0.
- Single-lane (x1) PCI Express (Ver2.0 Spec) throughput rates up to 5 Gbps.
- Compliant with Universal Serial Bus 3.0 specification Revision 1.0.
- Compliant with xHCI (eXtensible Host Controller Interface) spec. Revision 0.95.
- Supports simultaneous operation of multiple USB 3.0 / 2.0 / 1.1 devices
- Supports USB data transfer rate of 1.5/12/480/5000 Mbps.
- Expands two external USB3.0 Super-Speed ports on the system.
- Each USB port supplies maximum +5V / 900mA power output to USB device. with positive temperature coefficient resetable FUSE over current protection.
- Built-in 4-pin power connector for receiving extra power supply from system.
- Hot-swapping feature allows users to connect / disconnect devices without powering down the system.
- Driver supports for Microsoft Windows 2000, XP, Vista, and 7 operation system.
- Certified by CE, FCC, RoHS, and Microsoft WQHL approval.

Package List

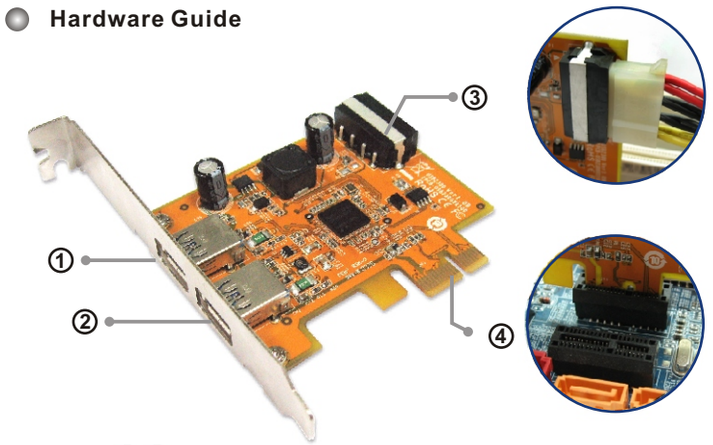
Please check if the following items are present and in good condition upon opening your package. Contact your vendor if any item is damaged or missing.

1. USB3.0 Super-Speed PCI Express Host Controller
2. CD Driver
3. User's Manual (this document)

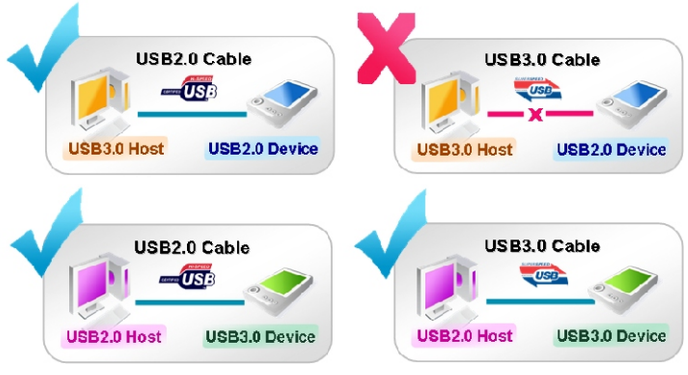
Specifications

Interface: Single-Lane (x1) PCI Express Gen2
Mode: Universal Serial Bus Version 3.0
Controller: NEC μPD720200, Two USB3.0 ports
Speed: Data Transfer rate of 1.5/12/480/5000 Mbps.
Low Speed (1.5Mbps), Full Speed(12Mbps),
High Speed(480Mbps), Super Speed(5Gpbs)
Power Input: 4-pin CD-ROM Type Power Connector
Power Output: +5V / 900mA (each port)
O.S. Support: Windows XP / 2003 / Vista / 7 (X86/X64)
Environment : Operation Temp. 0°C ~ 57°C, Operation Humidity: 5 ~ 95% RH
StorageTemp.-20 °C ~ 85 °C

Hardware Guide



①② External USB3.0 Super-Speed ports
③ 4-Pin Internal Power Connector (CD ROM Type)
④ PCI Express x1 Gold Fingure

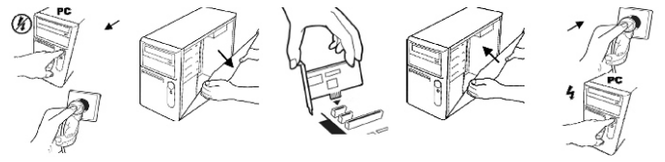


System Requirement

1. One available x1, x4, x8 or x16 PCI Express slot. (Recommend PCI Express 2.0)
2. Microsoft Windows XP, Vista, and 7 operation system.
3. Pentium4 2.0GHz computer with 1GB DDR RAM or above.
4. CD/DVD-ROM drive for driver installation.

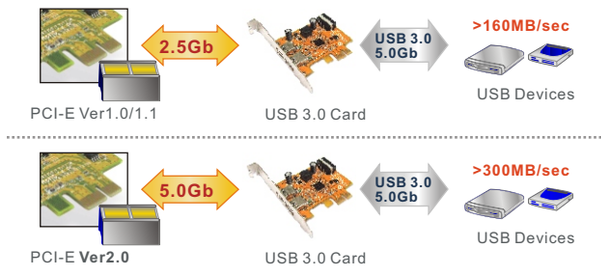
Hardware Installation

Follow the instruction given below to install the PCI Express Card:
1.Turn your computer off and remove the power plug from the plug socket.
2.Remove the cover from the computer case.
3.Remove the metal cover plate on the rear of a free PCI Express slot.
4.Insert the card into one free PCI Express slot and screw it firmly on the bracket side.
5.Place the cover back onto the computer.
6.Insert the plug into the plug socket.



Safety First:
To avoid damaging, make sure to discount power connection before wiring or disposing USB3.0 card installation.

NOTE:
In order to get USB3.0 super speed performance, please use PCI Express Ver2.0 slot for card installation. Or only get half of the data transfer rate.



Unplugging or ejecting a devices without first stopping them can often cause your computer to crash and lose valuable data. To safely unplug or eject any of the USB devices, always use "**Safely Remove USB Device**" icon on the taskbar to quickly unplug or eject your USB devices

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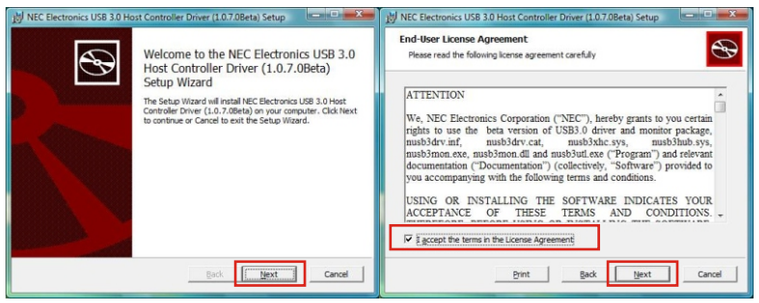
Driver Installation

Once Windows startup, USB3.0 PCI-E card will be detected by system. In order to ensure the better performance, please install driver as below steps:

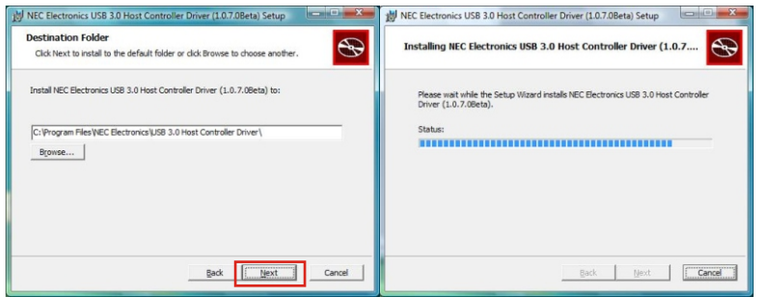
1. Please insert the attached CD into your DVD ROM and click **Setup.exe.**

: \ USB \ USB3.0 \ Setup.exe

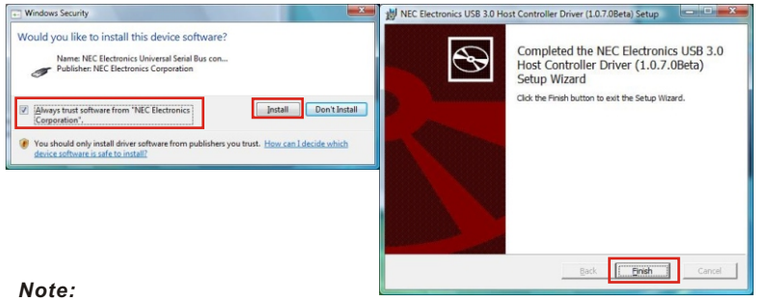
2. Click "**Next**" to continue.
   Please check accept license agreement box, and click "**Next**" to continue.



3. Specify driver installation folder in system and click "**Next**" to continue.



3. Check trust software box and click "**Install**" to continue.
   Click "**Finish**" to end of the driver installation steps.

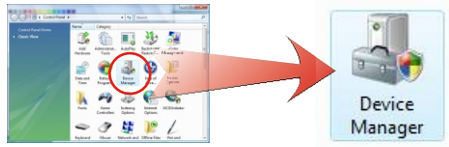


Note:
We do not provide USB3.0 Driver for MAC and Linux operation system.

Hardware Verify

Click on the "**Device Manager**" tab in the Windows Control Panel

Start > Controller Panel > Device Manager

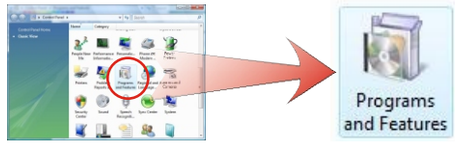


Entry Universal Serial Bus controllers item, and you can read NEC USB3.0 Host Controller and Root Hub in the device manager

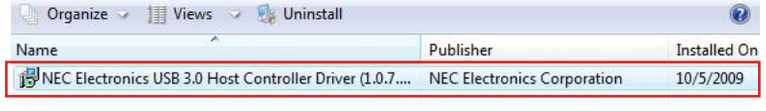
Driver Uninstall

Click on the "**Programs and Features**" tab in the Windows Control Panel

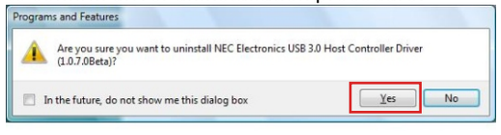
Start > Controller Panel > Programs and Features



Entry Uninstall or change a program page, and double click "**NEC USB3.0 Host Controller Driver**" to process driver uninstallation procedure.



Click "Yes" to confirm driver uninstallation procedure.



Troubleshooting

- **If card and devices connected to the computer do not seem to be working properly, please perform below basic troubleshooting steps:**
  1. Check that all cables are correct and securely connected.
  2. Make sure USB device's power is turned on.
  3. Make sure the devices are getting enough power they require.
  4. Make sure there is no problem with the card installation.

- **Computer failed to start after inserting the USB3.0 PCI Express card.**
  Turn off the computer, remove the USB3.0 PCI Express card, and try to restart the computer. If the computer starts successfully, it means that the card has not been inserted into the PCI Express slot correctly. Please clean PCI golden figure by rubber firstly, then change another PCI-E slot!

- **How to deal with there is a yellow exclamation point on controller?**

  1. Please shutdown your computer and move the card to another available slot then re-install USB3.0 driver.
  2. Please point on this device then right-check on the mouse. Selecting "Update Driver" to renew USB driver.
  3. This exclamation point usually means there is a resource conflict between the this card and another card in your system. Please move the card to another available slot. Restart your computer. Windows will re-configure itself and re-assign resources. Check your device manager again.

- **A message is displayed stating that not enough power can be given to the connected device.**
  Make sure to plug 4-pin power cable on board to provide efficient power to USB devices. But the better way is using device self-power to satisfy it.

- **The USB cable has been extended and the device no longer works.**
  The length of the USB cable must not exceed 3.5 meters. Please do not extend the cable or a USB repeater must be used if the cable is longer than 3.5 meters. The longer cable causes poor performance.

- **Is it possible to connect current USB 1.1 or 2.0 devices to the USB 3.0 PCI Express card?**
  Yes it works. Device will not obtain the USB 3.0 speed, but USB 2.0 /1.1.