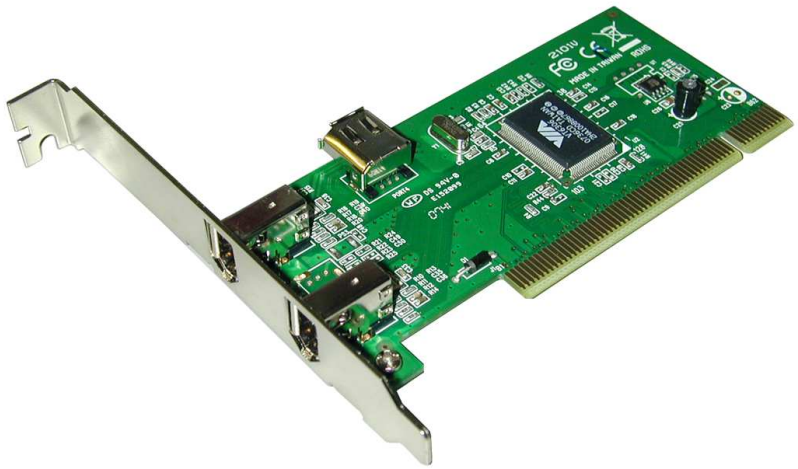
LINDY®

COMPUTER CONNECTION TECHNOLOGY

IEEE1394 2+1 Port PCI Card

User Manual *English*



LINDY No. 51097

www.LINDY.com

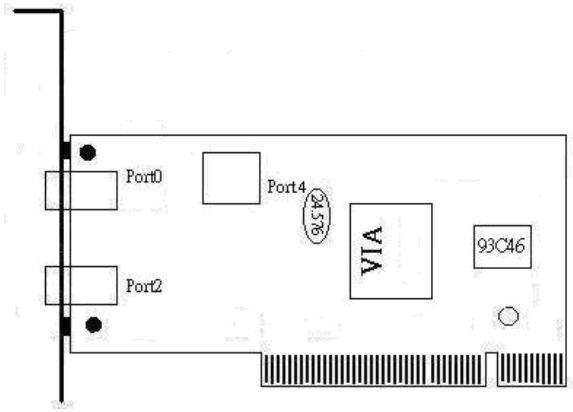
Introduction

Thank you for purchasing the LINDY FireWire 1394 2+1 card!
With the LINDY FireWire 1394 Card can instantly connect devices to your PC without opening up the case. FireWire offers true plug and play and hot swapping of devices.

Use the LINDY FireWire 1394 Card to provide an interface that enables you to transfer video from your digital camcorder to your PC for editing.

Features:

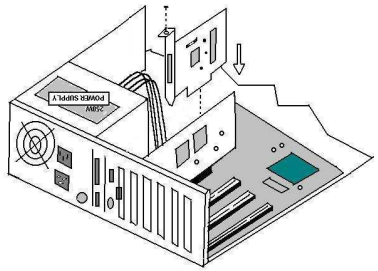
- Supports Provisions of IEEE 1394-1995 Standard for High Performance Serial Bus and the P1394a Supplement 2.0.
- Full P1394a Supplement Support includes:
  * Arbitrated short reset * Connection Debounce * Multi-speed Concatenation
  * Ack Accelerated Arbitration * Fly-By Concatenation,
- Provides Four 1394a Fully Compliant Cable Ports at 100/200/400 Megabits per Second (Mbit/s)
- Logic Performs Bus Initialization and Arbitration Functions
- Encode and Decode Functions Included for Data-Strobe Bit-Level Encoding
- Incoming Data Resynchronized to Local Clock.
- Data Interface to Link-Layer Controller Provided Through 2/4/8 Parallel Lines at 49.152 MHz
- 24.576 MHZ Crystal Oscillator and PLL Provide TX/RX Data at 100/200/400 Mbps and Link-Layer Controller
- Programmable Node Power Class Information for System Power Management
- Embedded Bus Holder Isolation to Link Layer Controller Interface
- Optional On-chip Resistors to Reduce Component Counts for Electrical Isolation to Link Layer Controller Interface
- Separate TPBIAS for Each Port
- Fully Interoperable with IEEE Std1394-1995 Devices
- Cable Ports Monitor Line Conditions for Active Connection to Remote Node
- Low Power Design for Battery-Powered Applications includes: User Controlled Power-Down via PD, Automatic
- Device Power-Down during All Ports Suspended and Link Interface Disabled, Link Interface Power-Down via
- Inactive LPS, Automatic Inactive Ports Powered-Down, and Automatic Inactive Logic Power-Down
- Self Power Up Reset and Pinless PLL to Reduce Component Counts on System
- Compatible with Windows 98SE/ME/2000/XP/Vista and Mac OS 9.0 or later.



WARNING: PORT 0 & PORT 4 are on the same circuit and cannot be used at the same time

Installing the FireWire 1394 Card

In this section we will explain how to install your LINDY FireWire 1394 Card into your PC.



1. Power off the computer, and then disconnect the power cord.
2. Remove each screw found on the back of the computer and remove the shell from the computer
3. With the power cable disconnected from your computer, touch the metal part of the case to ground yourself. This will discharge any static electricity which can damage your computer.
4. Locate an available PCI expansion slot. This will be in the area of your computer where other cards that look similar to this FireWire 1394 Card are installed.
5. Visually confirm that the FireWire 1394 Card will fit into the available slot which you have chosen.
6. If necessary, remove the knockout on the back of the PC which corresponds to the PCI slot you have confirmed as your selection. If there is a screw, place it in a safe spot as you will be using it to attach the FireWire 1394 Card.
7. Push the FireWire 1394 Card firmly into the PCI slot. Apply pressure as needed until the edge connector is completely sealed.
8. Once the FireWire 1394 Card is fully seated, the gold edge connectors are completely in the slot.
9. Mount the 1394 Card in place with a screw. Make sure the screw is firmly tightened so the 1394 Card does not slide out of its seated position.
10. Replace the computers shell and screw it in place.
11. Now that your FireWire 1394 Card is installed and the shell is in place, you can safely connect the power cable.

Software driver installation

The LINDY FireWire 1394 Card supports the Windows 98SE, ME and Windows 2000 operating systems. When you initially connect your FireWire 1394 Card, Windows will automatically detect you have a new device the first time you power on your PC. To install the required driver follow the steps below:

Windows® 98SE/ME/2000 driver installation:

1. When the **Add New Hardware Wizard** appears, click **Next**
2. Select the option **Search for the best driver for your devices (Recommend)** and click **Next**
3. Select the option **CD-ROM drive** then click **Next**
4. Click **Next** and then **Finish** respectively
5. Remove the disk, then select **Yes** to restart the computer for the setup to take effect

To verify a successful installation in Windows® 98SE/ME/2000:

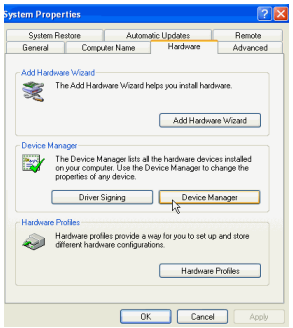
1. From the main desktop, click on **My Computer**, then double-click on **Control Panel** >> **System** >> **Hardware** and finally **Device Manager**.
2. You will see the screen below, the FireWire 1394 Card will appear under the IEEE 1394 Bus Host Controllers section. You can then double click on the device to show the device is working properly.

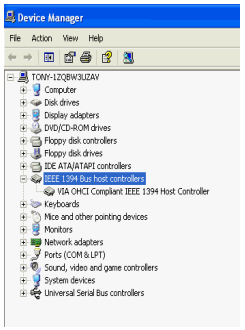
Windows® XP/Vista Driver Installation:

1. When the **Add New Hardware Wizard** appears, click **Next**
2. Select the option **Search for the best driver for your devices (Recommend)** and click **Next**
3. Select the option **Specify the location** and select **C:** then click **Next**
4. Click **Next** and then **Finish** respectively.
5. Select **Yes** to restart the computer for the setup to take effect.

To verify a successful installation in Windows® XP/Vista:

1. From the main desktop, click on **My Computer**, then double-click on **Control Panel** >> **System** >> **Hardware** and finally **Device Manager**.
2. You will see the screen below, the FireWire 1394 Card will appear under the IEEE 1394 Bus Host Controllers section. You can then double click on the device to show the device is working properly.





Trouble Shooting

If after installing the driver you find that the PCI 1394 card is not functional, try these suggestions first.

- Are ports active on the card conflicting with equivalent ports in the computer?
- Is the card inserted snugly into the slot on the main board?

CE Statement
This device complies with the European Regulations for Electromagnetic Compatibility (EMC) of the European Union and it is equipped with the CE mark. This unit has to be used with high quality shielded connection cables. Only if such high quality shielded cables are used can you be sure that the EMC compatibility is not adversely influenced.

FCC Statement
Shielded cables must be used with this equipment to maintain compliance with radio frequency energy emission regulations and ensure a suitably high level of immunity to electromagnetic disturbances.

FCC Warning
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. These 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 antenna
- Increase the separation between the equipment and receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced technician for help

You are cautioned that changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

WEEE (Waste of Electrical and Electronic Equipment), Recycling of Electronic Products

United Kingdom
In 2006 the European Union introduced regulations (WEEE) for the collection and recycling of all waste electrical and electronic equipment. It is no longer allowable to simply throw away electrical and electronic equipment. Instead, these products must enter the recycling process.
Each individual EU member state has implemented the WEEE regulations into national law in slightly different ways. Please follow your national law when you want to dispose of any electrical or electronic products.

More details can be obtained from your national WEEE recycling agency.

Germany / Deutschland
Die Europäische Union hat mit der WEEE Direktive umfassende Regelungen für die Verschrottung und das Recycling von Elektro- und Elektronikprodukten geschaffen. Diese wurden von der Bundesregierung im Elektro- und Elektronikgerätegesetz – ElektroG in deutsches Recht umgesetzt.
Dieses Gesetz verbietet vom 24.März 2006 an das Entsorgen von entsprechenden, auch alten, Elektro- und Elektronikgeräten über die Hausmülltonne! Diese Geräte müssen den lokalen Sammelsystemen bzw. örtlichen Sammelstellen zugeführt werden! Dort werden sie kostenlos entgegen genommen. Die Kosten für den weiteren Recyclingprozess übernimmt die Gesamtheit der Gerätehersteller.

France
En 2006, l'union Européenne a introduit la nouvelle réglementation (WEEE) pour le recyclage de tout équipement électrique et électronique.
Chaque Etat membre de l' Union Européenne a mis en application la nouvelle réglementation WEEE de manières légèrement différentes. Veuillez suivre le décret d'application correspondant à l'élimination des déchets électriques ou électroniques de votre pays.

Italy
Nel 2006 l'unione europea ha introdotto regolamentazioni (WEEE) per la raccolta e il riciclo di apparecchi elettrici ed elettronici. Non è più consentito semplicemente gettare queste apparecchiature, devono essere riciclate.
Ogni stato membro dell' EU ha tramutato le direttive WEEE in leggi statali in varie misure. Fare riferimento alle leggi del proprio Stato quando si dispone di un apparecchio elettrico o elettronico.
Per ulteriori dettagli fare riferimento alla direttiva WEEE sul riciclaggio del proprio Stato.