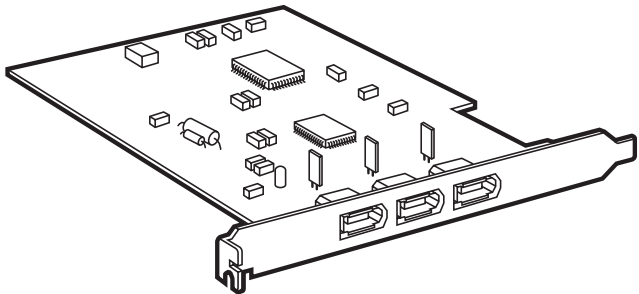




IEEE 1394 FireWire PCI Card



CUSTOMER SUPPORT INFORMATION

Order **toll-free** in the U.S.: Call **877-877-BBOX** (outside U.S. call **724-746-5500**)
FREE technical support 24 hours a day, 7 days a week: Call **724-746-5500** or fax **724-746-0746**
Mailing address: **Black Box Corporation**, 1000 Park Drive, Lawrence, PA 15055-1018
Web site: www.blackbox.com • E-mail: info@blackbox.com

**FEDERAL COMMUNICATIONS COMMISSION
and INDUSTRY CANADA
RADIO FREQUENCY INTERFERENCE STATEMENTS**

Class B Digital Device. This equipment has been tested and found to comply with the limits for a Class B computing device pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. However, there is no guarantee that interference will not occur in a particular 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. If this equipment does cause harmful interference to radio or telephone reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one 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 an experienced radio/TV technician for help.

CAUTION

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

EUROPEAN UNION DECLARATION OF CONFORMITY

This equipment complies with the requirements of the European EMC Directive 89/336/EEC.



NORMAS OFICIALES MEXICANAS (NOM) ELECTRICAL SAFETY STATEMENT

INSTRUCCIONES DE SEGURIDAD

1. Todas las instrucciones de seguridad y operación deberán ser leídas antes de que el aparato eléctrico sea operado.
2. Las instrucciones de seguridad y operación deberán ser guardadas para referencia futura.
3. Todas las advertencias en el aparato eléctrico y en sus instrucciones de operación deben ser respetadas.
4. Todas las instrucciones de operación y uso deben ser seguidas.
5. El aparato eléctrico no deberá ser usado cerca del agua—por ejemplo, cerca de la tina de baño, lavabo, sótano mojado o cerca de una alberca, etc..
6. El aparato eléctrico debe ser usado únicamente con carritos o pedestales que sean recomendados por el fabricante.
7. El aparato eléctrico debe ser montado a la pared o al techo sólo como sea recomendado por el fabricante.
8. Servicio—El usuario no debe intentar dar servicio al equipo eléctrico más allá a lo descrito en las instrucciones de operación. Todo otro servicio deberá ser referido a personal de servicio calificado.
9. El aparato eléctrico debe ser situado de tal manera que su posición no interfiera su uso. La colocación del aparato eléctrico sobre una cama, sofá, alfombra o superficie similar puede bloquea la ventilación, no se debe colocar en libreros o gabinetes que impidan el flujo de aire por los orificios de ventilación.

10. El equipo eléctrico deber ser situado fuera del alcance de fuentes de calor como radiadores, registros de calor, estufas u otros aparatos (incluyendo amplificadores) que producen calor.
11. El aparato eléctrico deberá ser conectado a una fuente de poder sólo del tipo descrito en el instructivo de operación, o como se indique en el aparato.
12. Precaución debe ser tomada de tal manera que la tierra física y la polarización del equipo no sea eliminada.
13. Los cables de la fuente de poder deben ser guiados de tal manera que no sean pisados ni pellizcados por objetos colocados sobre o contra ellos, poniendo particular atención a los contactos y receptáculos donde salen del aparato.
14. El equipo eléctrico debe ser limpiado únicamente de acuerdo a las recomendaciones del fabricante.
15. En caso de existir, una antena externa deberá ser localizada lejos de las líneas de energía.
16. El cable de corriente deberá ser desconectado del cuando el equipo no sea usado por un largo periodo de tiempo.
17. Cuidado debe ser tomado de tal manera que objetos líquidos no sean derramados sobre la cubierta u orificios de ventilación.
18. Servicio por personal calificado deberá ser provisto cuando:
 - A: El cable de poder o el contacto ha sido dañado; u
 - B: Objetos han caído o líquido ha sido derramado dentro del aparato; o
 - C: El aparato ha sido expuesto a la lluvia; o
 - D: El aparato parece no operar normalmente o muestra un cambio en su desempeño; o
 - E: El aparato ha sido tirado o su cubierta ha sido dañada.

TRADEMARKS USED IN THIS MANUAL

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1. Specifications

Compliance: IEEE 1394

Emission: FCC Class B, CE

Chipset: Texas Instruments® TSB41AB23

Topology: Both tree and bus topology supported

Transfer Rates: Up to 400 Mbps

Protocol: Both asynchronous and isochronous data transfers are supported

Connectors: (3) 6-pin external IEEE 1394 ports

Operating Systems Supported: Windows 98SE/2000/Me/XP

Temperature Tolerance: -4 to +140°F (-20 to +60°C)

Relative Humidity: Up to 80%, noncondensing

IEEE 1394 FIREWIRE PCI CARD

1394 End Devices Supported: PC camera, DV camcorder, DV recorder, digital still cameras, high-speed HDD, CD-ROM, DVD ROM, DVD RAM, digital TV, set top box, scanners, printers

Power: Output voltage per port: 12 VDC;
Output current per port: 500 mA

Size: 4.75"H x 0.75"W x 5.375"D (12.1 x 1.9 x 13.7 cm), including the metal bracket

Weight: 4 oz. (113 g)

2. Introduction

2.1 Description

The IEEE 1394 FireWire PCI Card connects 1394 devices to any computer with PCI expansion slots. FireWire is an emerging IEEE bus standard for portable and desktop computing environments. It bridges the consumer and computer markets, and provides the data transfer rate needed for a high-performance peripheral bus. The IEEE 1394 standard is supported by Windows® 98 SE and Windows 2000/Me/XP directly without requiring hardware-dependent drivers.

2.2 Features and Benefits

- Fully compliant with the IEEE 1394 standard.
- Supports PCI bus master transfer.
- Transfers data at speeds up to 400 Mbps.
- Open architecture application program interface (API) and three external connectors.
- Peer-to-peer communication structure.

- Backward-compatible speeds.
- Hot-swappable: You don't have to power off the network to insert or remove the PCI Card.
- Active termination is not required.
- Provides an ideal interconnect for multimedia applications.
- Peripherals can communicate directly with each other without burdening the host unit.
- Increases the efficiency of data transactions while simplifying software driver designs.
- Allows for a scalable network which can support multiple speeds.
- Permits true plug-and-play installation and operation.

2.3 What the Package Includes

Your package should include the following items.

- (1) IEEE 1394 FireWire PCI Card,
- (1) 3.5" disk containing the DOS mode DIAG.EXE file, and
- This users' manual.

If anything is missing or damaged, please contact Black Box at 724-746-5500.

3. Installation

3.1 Installing the PCI Card

1. Turn OFF the system power before installation.
2. Remove possible static discharge potential from any objects that the card may come in contact with before installation. To do this, touch a bare metal chassis rail after you have turned off the power.
3. Remove the chassis cover from your computer.
4. Locate an unused PCI slot (typically white or ivory) and remove the corresponding slot cover from the computer chassis.
5. Plug the PCI Card into the unused PCI expansion slot and attach the bracket to the computer chassis screw.
6. The PCI Card has three external 1394 connectors. Two different types of cables can be attached to these connectors. One is a 6-pin-to-6-pin connector, and the other is a 6-pin-to-4-pin connector. (The 4-pin connector is usually used for a DV camcorder.)

Simply install one end of the cable to the PCI Card and the other end to the 6-pin or 4-pin connector on the 1394 device.

The 1394 cable topology enables both branching and daisy chaining nodes. You can connect up to 63 devices to the 1394 PCI Card.

3.2 Installing the Software

The PCI Card is fully Microsoft® Plug-and-Play compliant. It is directly supported by Windows 98 SE/2000/Me/XP. To install the software, follow the directions below.

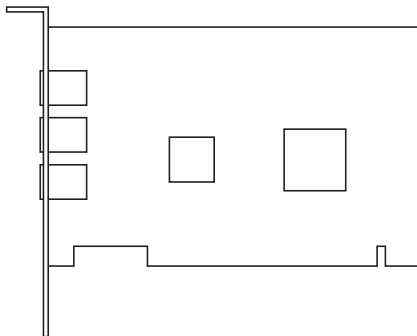
1. After installing the hardware as described in **Section 3.1**, turn on the system power.
2. When your Windows system boots up, it will find a new hardware device on your system called PCI OHCI Compliant IEEE 1394 Host Controller. You will be prompted to install a device driver.
3. Follow the installation wizard prompts to install the PCI OHCI compliant IEEE Host 1394 drivers.

3.3 Checking for Correct Installation

If you want to check that the 1394 PCI Card and its device driver are correctly installed, follow these steps.

1. Open **My Computer**.
2. Double-click on the **Control Panel** icon.
3. Double-click on the **System** icon. For Windows XP and Windows 2000, click on the **Hardware** tab.
4. Click on **Device Manager**.
5. Double-click on **1394 Bus Controller**.
6. You should see the item **PCI OHCI Compliant IEEE 1394 Host Controller**. Make sure that there is not a yellow or red symbol beside the 1394 host adapter entry.

4. Board Layout





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