

Unibrain - The 1394 Innovators

Enhance your potentials via
FireWire 1394 Unibrain
solutions



CAMERAS

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DRIVERS/SDK

•

MUTIMEDIA

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STORAGE

SERVERS

•

REPEATERS

•

CABLES

1394 Vision / Imaging

Firewire industrial cameras

Overview

The new Fire-i industrial camera series from Unibrain, are IEEE-1394 and IIDC 1.31 compliant progressive area scan CCD cameras, designed for industrial imaging applications.

Their most common areas of application, are machine vision, ITS, robotic control, RFID, microscopy and inspection, navigation & GPS mapping etc.

Features

- IEEE-1394a (400Mbps) digital bus protocol, IIDC 1.31 compliant
- Low Smear and excellent anti-blooming
- External Trigger mode 0-5, 14
- Hardware YUV color conversion & auto white balance (for color models)
- Low power consumption 3.4W max (8-30 VDC)
- Rugged black metallic housing
- C-mount lens attachment ring
- Tripod adapter support on both bottom and top sides
- Packaging: Unibrain's Fire-i drivers & Fire-i API SDK, one 4.5m (15 ft) 6p to 6p cable, one C-mount lens cap



High resolution!

Model	Fire-i 501	Fire-i 511	Fire-i 601	Fire-i 701	Fire-i 702	Fire-i 810
Part No	4411 (color) 4412 (b/w)	4461 (color) 4462 (b/w)	4413 (color) 4414 (b/w)	4415 (color) 4416 (b/w)	4419 (color) 4420 (b/w)	4417 (color) 4418 (b/w)
Image Sensor	1/3" progressive scan CCD Sony ICX-424AQ (color), ICX-424AL (b/w)	1/2" progressive scan CCD Sony ICX-414AQ (color), ICX-414AL (b/w)	1/3" progressive scan CCD Sony ICX-204AK (color), ICX-204AL (b/w)	1/2" progressive scan CCD Sony ICX-205AK (color), ICX-205AL (b/w)	2/3" progressive scan CCD Sony ICX-285AQ (color), ICX-285AL (b/w)	1/1.8" progressive scan CCD Sony ICX-274AQ (color), ICX-274AL (b/w)
Effective Pixels	330,000 pixels		800,000 pixels	1,450,000 pixels		2,010,000 pixels
Picture Size	640 x 480, 320 x 240		1024 x 768, 800 x 600, 640 x 480, 320 x 240	1280 x 960, 1024 x 768, 800 x 600, 640 x 480, 320 x 240		1600 x 1200, 1024 x 768, 800 x 600, 640 x 480, 320 x 240
Data Path	8 bit or 12 bit b/w or color RAW - YUV 4:2:2					
CELL size	7.40um x 7.40um	9.90um x 9.90um	4.65um x 4.65um	4.65um x 4.65um	6.45um x 6.45um	4.60um x 4.60um
Frame Rate	86 fps (Format-7 mode 0), 60, 30, 15, 7.5, 3.75		36 fps (Format-7 mode 0), 30, 15, 7.5, 3.75	20 (Format-7 mode 0), 15, 7.5, 3.75, 1.875		15 (Format-7 mode 0), 7.5, 3.75, 1.875
Synchronization	External Trigger at falling edge or S/W Trigger					
Gain Control	0 ~ 25 dB (color) - 0 ~ 27 dB (b/w)					
Shutter Speed	1 usec ~ 65 sec					
Gamma	0.4 ~ 2.5					
Physical Characteristics	300 gr. approx. / 64 (W) x 64 (H) x 60 (D) mm					

1394 Vision / Imaging

Compact form factor firewire industrial cameras

Overview

The new compact industrial camera series from Unibrain are IEEE-1394 and IIDC 1.31 compliant progressive area scan CCD cameras, designed for industrial imaging applications. The small form factor provides more versatility in space and weight considerations.

Main Features

- IEEE-1394a (400Mbps) digital bus protocol, IIDC 1.31 compliant
- High frame rate
- Low Smear and excellent anti-blooming
- External Trigger mode 0-5, 14
- Hardware YUV color conversion & auto white balance (for color models)
- Multi camera auto synchronization
- Opto-Isolated I/O
- Low power consumption 3.1 W (8-30 VDC) approx.
- C-Type Lens mount
- Compact black metallic housing, tripod adapter support
- Packaging: Unibrain Fire-i drivers & Fire-i API SDK, one 4.5m (15 ft) 6p to 6p cable, one C-mount lens cap



More versatility in space & weight!

Model	Fire-i 520	Fire-i 521	Fire-i 620	Fire-i 820
Part No.	4441 (color) 4442 (b/w)	4443 (color) 4444 (b/w)	4445 (color) 4446 (b/w)	4449 (color) 4450 (b/w)
Image Sensor	1/3" progressive scan CCD Sony ICX-424AQ (color), ICX-424AL (b/w)	1/2" progressive scan CCD Sony ICX-414AQ (color), ICX-414AL (b/w)	1/3" progressive scan CCD Sony ICX-204AK (color), ICX-204AL (b/w)	1/1.8" progressive scan CCD Sony ICX-274AQ (color), ICX-274AL (b/ w)
Effective Pixels	330,000 pixels		800,000 pixels	2,010,00 pixels
Picture Size	640 x 480, 320 x 240		1024 x 768, 1024 x 768, 800 x 600, 640 x 480, 320 x 240	1600 x 1200, 1280 x 960, 1024 x 768, 800 x 600, 640 x 480, 320 x 240
Data Path	8 bit or 12 bit b/w or color RAW - YUV 4:2:2			
CELL size	7.40 um x 7.40 um	9.90 um x 9.90 um	4.65 um x 4.65 um	4.60 um x 4.60 um
Frame Rate	86 fps (Format-7 mode 0), 60, 30, 15, 7.5, 3.75	86 fps (Format-7 mode 0), 60, 30, 15, 7.5, 3.75	36 fps (Format-7 mode 0), 30, 15, 7.5, 3.75, 1.875	16 fps (Format-7 mode 0), 7.5, 3.75, 1.875
External Trigger	Mode 0, 1, 2, 3, 4, 5, 14			
Gain Control	0 ~ 25 dB (color) - 0 ~ 27 db (b/w)		0 ~ 27 dB	
Shutter Speed	1 usec ~ 65 sec			
Gamma	0.4 ~ 2.5			
Physical Charac- teristics	110 gr. approx. / 44 (W) x 29 (H) x 63 (D) mm			

1394 Vision / Imaging

Fire-i™ OEM Firewire Board Camera

Overview

Fire-i™ Digital Board Camera is a board-level fully operational FireWire 400Mbps camera, complying with IIDC 1.04 specification for industrial uncompressed VGA picture acquisition. Built around Texas Instruments 1394 digital camera chipset and Sony® Wfine CCD sensors, it is a high quality subassembly for OEM use.

Features

- 400Mbps 1394a, IIDC v.1.30 DCAM compliant.
- Uncompressed VGA picture up to 30 fps.
- Square pixels, 1/4" progressive scan CCD.
- Full frame electronic shutter with progressive scanning.
- Low smear, high sensitivity, low dark current, excellent anti-blooming.
- On-board 6 pin 1394a port and power input jack 8-30V DC.
- Second 6 pin 1394a port on removable daughter board.
- Standard lens base M12x0.5 (lens available separately).
- Small size and very low power consumption.
- Embedded hardware license for Unibrain's Fire-i™ Software & Fire-i API™ development kit.
- Packaging: One 2m (6.6 feet) 6p to 6p cable, Unibrain's Fire-i software.

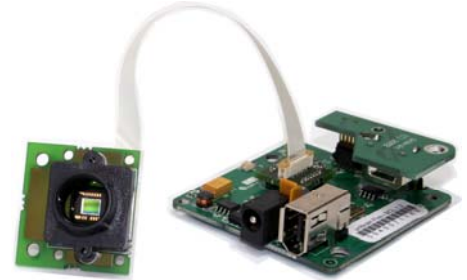


Highest quality with just the board!

Fire-i™ OEM Board Camera Remote CCD

Overview

All models (Color, Black & White) of Unibrain's Fire-i™ Digital Board Camera can be produced with the unique feature of a Remote CCD connected to the main board via a high reliability and density 6-inch flat cable. The Fire-i™ Digital Board Camera Remote CCD has exactly the same features and functionality as the Fire-i™ Digital Board Camera™, along with the possibility to extend the CCD to a remote distance and place the lens into a small volume.



Unique CCD placement!

Part No.	2056 (Color) / 2057 (b/w) / 2060 (RAW Color) / 2061 (color, remote CCD) / 2062 (b/w, remote CCD)
Image Sensor	1/4" progressive scan CCD Sony ICX-098BQ (color), ICX-098BL (b/w)
Effective Pixels	330,000 pixels
Picture Size	640 x 480, 320 x 240 (color), 160 x 120 (color)
Data Path	YUV (4:1:1, 4:2:2, 4:4:4), RGB-24bit, Y-mono-8bit
CELL size	5.6 um x 5.6 um
Frame Rate	30 fps, 15, 7.5 and 3.75
Lens Mount	M12x.0.5
Gain Control	0 ~ 30 dB
Shutter Speed	1/3400s ~ 1/31s
Gamma	0.45 ~ 1
Physical Characteristics	35 gr. approx. / 57.3 (W) x 52.5 (H) x 25 (D) mm

1394 Vision / Imaging

Fire-i™ Digital Camera

Overview

Fire-i™ Digital Camera is the best FireWire Color Digital Camera available for home/office applications. Its superior VGA, 30fps picture quality and lightweight housing clearly distinguishes it from other FireWire or USB cameras.

Features

- IEEE-1394a (FireWire) 400 Mbps, 2 ports (6 pins)
- IIDC-1394 Digital Camera, V1.04 Specification compliant
- High quality, bright (F2.0), glass elements lens with antireflective and infrared coating
- Focus range: 1 cm to infinity
- Built-in image processing for optimal picture quality
- White Balance: automatic or manual control
- Capture of static frames and uncompressed/compressed video stream
- Dual Firewire connection for video and power
- Low power consumption
- Built-in external DC power jack (8 to 30 VDC) for laptop connectivity
- Home/Office Monitoring, locally or remote
- Multiple cameras simultaneous operation and display on same PC
- Picture sharing between several PCs
- Still images or videostream captures, while monitoring
- Packaging:
 - CD with documentation, manual, Fire-i™ Software for PC, Mac and Linux
 - Tripod adaptor with standard photographic screw (compatible with tripods and wall /ceiling mounting fixations), mini-tripod with telescopic legs
 - One 2m (6-pins) thin cable



New model!
Lightweight housing!

Part No.	2036
Image Sensor	Sony™ Wfine 1/4" CCD Color
Effective Pixels	330,000 pixels
Picture Size	640 x 480
Data Path	YUV (4:1:1, 4:2:2, 4:4:4), RGB-24bit, Monochrome-8bit
CELL size	5.6 um x 5.6 um
Frame Rate	30, 15, 7.5 and 3.75 frames per second
Gain Control	0 ~ 30 dB
Shutter Speed	1/3400s ~ 1/31s
Gamma	0.45 ~ 1
Physical Characteristics	60 gr. approx. / 62 x 62 x 35 mm

1394 Vision / Imaging

Fire-i™ 400 Industrial Camera

Overview

Fire-i 400™ Color Industrial Camera incorporates the latest 400 Mbps FireWire TI chipsets, together with SONY's Wfine CCD sensor technology into a C-mount equipped industrial housing. A convenient solution for uncompressed sharp and color accurate VGA image acquisition.

Features

- IEEE-1394a (FireWire) 400 Mbps, 2 ports (6 pins)
- IIDC-1394 Digital Camera, V1.04 Specification compliant
- Progressive scanning allows full frame un-interlaced acquisition and shuttering
- R, G, B primary color filters on chip, Bayer array
- Low smear, high sensitivity, low dark current
- Excellent antiblooming
- Continuous variable electronic shutter
- Color bar and linear ramp reference picture generator built-in
- Low frame rate and Sub sampling, 0.9 W typical
- High sensitivity and Low dark current
- Optics C-Mount
- White Balance: Automatic or Manual Control
- Color Saturation: Adjustable
- Backlight Compensation: 6 modes + OFF
- Sharpness: Adjustable
- Special Features: Software sleep mode, Color bar generator
- Power Supply: 8 to 30 VDC, by 1394 bus or external jack input
Consumption 1W max, 0.9 W typical, 0.4 W sleep mode
- Packaging
 - One C-mount lens cap
 - One CD with Fire-i™ Software, drivers and documentation
 - One 4.5 m (15 feet) FireWire 6p to 6p cable



Ultimate sharpness and accuracy!

Part No.	2011
Image Sensor	Sony™ ICX098BQ Wfine 1/4" CCD Color
Effective Pixels	330,000 pixels
Picture Size	640 x 480
Data Path	YUV (4:1:1, 4:2:2, 4:4:4), RGB-24bit, Monochrome-8bit
CELL size	5.6 um x 5.6 um
Frame Rate	30, 15, 7.5 and 3.75 frames per second
Gain Control	0 ~ 30 dB
Shutter Speed	1/3400s ~ 1/31s
Gamma	0.45 ~ 1
Physical Characteristics	Metal, 200 gr / 44.5 x 32.5 x 92 mm

1394 Drivers / APIs

FireAPI™ Firewire (1394a/b) Development Toolkit

Overview

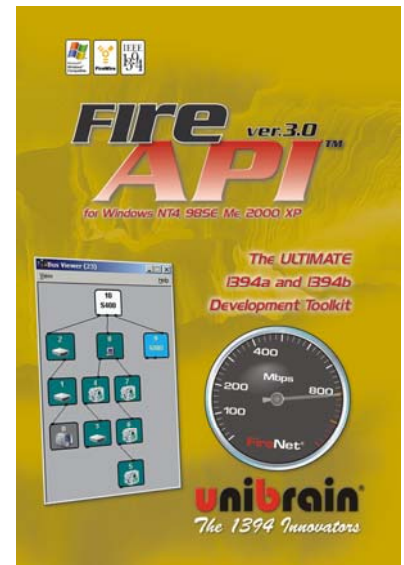
The FireAPI™ SDK provides software developers with all the tools they need for developing and debugging any 1394 application in the Windows environment. It is based on Unibrain's 1394 Stack Technology (ubCore™), the next generation of innovative 1394a and 1394b driver suite for the Windows platform. Moreover, **it is the only 1394 SDK providing a complete User Mode interface to the developer** and a collection of diagnostic utilities.

- Packaging**
- Great variety of source samples and extensive documentation.
 - Diagnostic tools: FireViewer, FireCommander, ubTweak.
 - Three (3) months free development support.

SW Compatibility Windows NT4/2000/XP/2003/Vista & 64 bit XP/Vista

- HW Compatibility**
- Unibrain's or any third party 1394a or 1394b OHCI PCI/PCMCIA compliant adapter or any Desktop/Portable PC with built-in 1394a or 1394b OHCI support
 - Unibrain's FireBoard400™ (PCI Lynx2) 1394a PCI adapter

Part No. 1713



Develop, debug & test your 1394 application!

Fire-i API™ DirectShow IIDC 1394 digital cameras Development Toolkit

Overview

Fire-i API is a complete SDK for developing and debugging professional applications for 1394 IIDC Digital Cameras.

- Main Features**
- Complete Open Source C++ class for full camera control.
 - DirectShow based drivers, WIA compatible in Windows Me/XP.
 - Full set of functions for display and storage of frames, live video and TCP streaming.
 - Support for YUV, RGB, Y-8 and Y-16.
 - Support of any format including user-defined (Format_7).
 - Multilanguage support via open source .net Wrapper.

- Packaging**
- Generic driver for all IIDC 1.31 compliant models.
 - Driver support for all 1394b (Firewire-800) IIDC cameras.
 - Specific drivers for models of Unibrain, Sony, AVT, Basler, Hamamatsu, JVC, PointGrey, Pixelink, Toshiba.
 - Fire-iAPI™ Header and Lib files.
 - Fire-i™ application source code.
 - Great variety of source samples and extensive documentation.
 - Three months free development support.

OS Supported Windows 2000/XP/2003/Vista & 64 bit XP/Vista

Part No. 1120



The ultimate development toolkit for IIDC 1394 Digital Cameras!

1394 Drivers / APIs

Fire-i™ Software

Overview

Drivers and application software for comprehensive control, display and capture of IIDC 1394 Digital Cameras, under Windows 2000/XP/2003 Server.

Main Features

- Compliance to IIDC 1.31 and lower.
 - DirectShow based drivers, WIA compatible in Windows ME/XP.
 - Support for 1394b cameras (through Unibrain's ubCore 4.0 1394b suite).
 - Multiple cameras operation from same control panel.
 - Frames, timed frames and live video capture.
 - Internet / Intranet TCP/IP streaming.
 - RAW mode support.
 - Support for control by absolute values.
 - Support of any format including user-defined (Format_7).
-

Supported Cameras

- Generic driver for all IIDC 1.3x compliant cameras.
 - Specific drivers for models of Unibrain, AVT, Basler, Focus, Hamamatsu, Hitachi, IMI, JVC, MicroPix, PointGrey, Sony, Teli etc.
-

OS supported

Windows 2000/XP/2003/Vista & 64 bit XP/2003/Vista

Part No. 1137

Note

The new 1394b cameras from Sony (V50 - V50CR), PointGrey and Prosilica are now fully supported.



Control, display and capture of IIDC 1394 Digital Cameras.

FireWire 800 (1394b) Adapters

Fireboard-800™ 1394b 64 bit OHCI PCI adapter

Overview

Fireboard-800™ is a IEEE-1394b (Firewire 800) to PCI OHCI compliant adapter, which has been designed to meet the most demanding requirements of today's 1394b bus designs.

Features

- Fully Supports Provisions of IEEE P1394b revision 1.33 at 1 Gigabit Signaling Rates, fully Compliant with OHCI Requirements
- Two fully backward compatible (1394a-2000 Fully-Compliant), 1394b (S800) ports and one 1394a (S400) port.
- Cable Power Presence Monitoring
- Cable Ports Monitor Line Conditions for Active Connection to Remote Node
- 3.3V and 5V PCI bus signaling
- 33-MHz/64-Bit and 33-MHz/32-Bit selectable PCI interface
- Due to its 2 isochronous and 2 asynchronous transmit/receive contexts, it implements PCI burst transfers and deep FIFO to tolerate large host latency
- External Power Supply
- OS Supported: Windows NT 4.0/2000/XP/2003/Vista & XP 64 bit, Mac OSX 10.2.4 or later

Note

Fireboard-800™, Low Profile: 2.15" (5.45 cm) / 6.5" (16.50 cm)

Part No.

- Fireboard-800™ bulk: **1225**
- Kit with 2m 1394b 9 pin to 9 pin cable Fireboard-800™: **1226**
- Fireboard 800™ with hardware FireAPI™ SDK license: **1716**
- Fireboard-800™ Low Profile (bulk only, low profile bracket included): **1223**



Exceptional 800Mbps Performance!



Low Profile!

Fireboard800-e™ 1394b OHCI PCI-Express adapter

Overview

Fireboard800-e™ is a fast and reliable 1394b PCI Express x1 add-in interface card for all external FireWire-enabled devices. Fireboard800-e™ is a 3-port, single chip, OHCI-compliant 1394b/FireWire® host PCI Express adapter for PC systems that provides plug 'n' play connectivity for FireWire® devices and peripherals.

Features

- Agere FW643 PCI Express 1394b Host Controller Link/Phy.
- OHCI Compliant/Compatible with any FireWire device or peripheral.
- Serial data rates: 400Mbps and 800Mbps.
- Two (2) fully backward compatible, (1394a-2000 Fully-Compliant) Bilingual 1394b, 9 pin ports at up to 800 Megabits per second (Mbits/sec) and one (1) 1394a - 400 Mbps, 6 pin port.
- Internal power connector.
- Enables data transfer of real time copying for large files using Unibrain's FireNet™ networking driver.
- Due to its 8 isochronous transmit/receive contexts the Fireboard800-e™ host adapter has the exceptional feature to simultaneously control and display up to 8 FireWire digital cameras.
- OS Supported: Windows 2000/XP/2003/Vista & XP 64 bit, Mac OSX 10.4.x or later



PCI-Express adapter at 800Mbps!

Part No.

- Fireboard800-e bulk: **1227**
- Retail Kit with 2m 1394b 9pin to 9pin cable: **1228**

FireWire 800 (1394b) Adapters

Fireboard-800™ GOF-LC PCI Adapter

Overview

Fireboard-800 GOF-LC™ is a IEEE-1394b (Firewire 800) to PCI Host adapter, which has been designed to meet the most demanding requirements of today's 1394b bus designs. Through the Glass Optical Fiber (GOF) port type LC, the S800 (800Mbps) transmission of 1394b bus extends up to 550 meters distance. The Fireboard-800 GOF-LC has two (2) 1394b bilingual copper ports and one optical port LC type.

Features

- Based on latest Texas Instruments chipset:
TSB81BA3 IEEE-1394b three-port cable TRANSCEIVER/ARBITER
TSB82AA2 IEEE-1394b OHCI-Lynx Controller
- Fully Supports Provisions of IEEE P1394b revision 1.33 at 1 Gigabit Signaling Rates.
- Fully Supports Provisions of IEEE 1394a-2000 and 1394-1995 Standard for High Performance Serial Bus.
- Provides Two (2) fully backward compatible (1394a-2000 Fully-Compliant), Bilingual 1394b, 9 pin ports at up to 800 Megabits per second and one(1) 1394b optical port with LC type connector.
- Multi-Mode-Fiber (MMF) Glass Optical Fiber cable support. Maximum link length 550 meters.
- Cable Power Presence Monitoring.
- 3.3V and 5V PCI bus signaling.
- 33-MHz/64-Bit and 33-MHz/32-Bit selectable PCI interface.
- Implements PCI burst transfers and deep FIFO to tolerate large host latency:
 - Transmit: FIFO-3K asynchronous & FIFO-2K isochronous
 - Receive: FIFO-2K asynchronous & FIFO-2K isochronous
- Dimensions: 3.23" (8.22cm) / 6.5" (16.50 cm)
- OS Supported: Windows NT 4.0/2000/XP/2003/Vista & XP 64 bit, Mac OSX 10.2.4 or later



**Extend the link length
up to 550meters!**

Part No.

- Fireboard-800 GOF-LC™ bulk: **1231**

FireWire 400 (1394a) Adapters

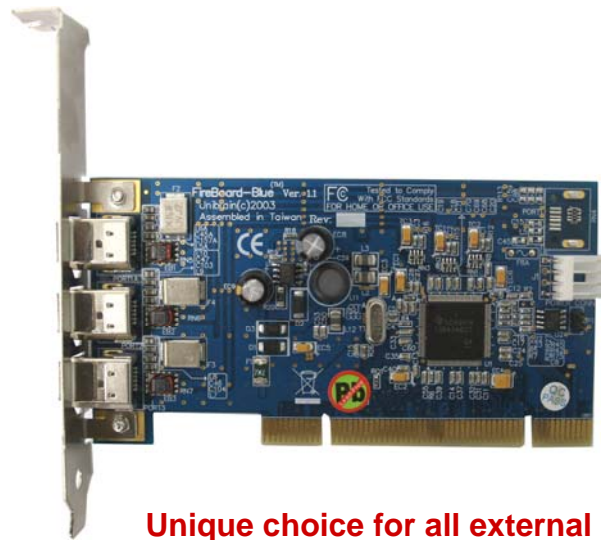
Fireboard-Blue™ 1394a PCI adapter

Overview

Fireboard-Blue™ is a 3-port, single chip, OHCI-compliant 1394/FireWire® host adapter for PC systems that provides plug 'n' play connectivity for FireWire® devices and peripherals. Now, Digital Cameras, Hard Drives, CD/DVD drives and Digital Camcorders can be connected to Fireboard-Blue™ in a snap.

Features

- Latest generation Texas Instruments TSB43AB23, integrated 1394 PHY/Link Controller
- 3 FireWire ports with 100, 200 and 400 Mbps throughput
- OHCI compliant/Compatible with any FireWire device or peripheral
- Internal power connector
- Supports repeater functionality
- Due to its 4 isochronous transmit/receive contexts the Fireboard Blue™ host adapter has the exceptional feature to simultaneously control and display up to 4 FireWire digital cameras
- Enabling data transfer of real time copying for large files using FireNet™ is: Read: 23 Mbps / Write: 25 Mbps
- The metallic bracket of Fireboard-Blue can be changed to a low profile size
- OS Supported: Windows 98/98SE/ME/2000/XP/2003 Server/Vista/XP 64 bit, Mac OS 9.x/Mac OS X



Unique choice for all external Firewire-enabled Devices!

Part No.

- Fireboard-Blue bulk: 1203
- Retail Kit with 2m 1394a 6pin to 6pin cable: 1205
- Fireboard-Blue with hardware Fire-i / Fire-i API™ SDK license: 1135
- Fireboard-Blue with hardware FireAPI™ SDK license: 1705
- Low Profile Accessory: 1222

FireBoardBlue-e™ 1394a OHCI PCI-Express

Overview

FireboardBlue-e™ is a 2-port, single chip, OHCI-compliant 1394/FireWire® host PCI Express adapter for PC systems that provides plug 'n' play connectivity for FireWire® devices and peripherals.

Features

- New generation Texas Instruments XIO2200A integrated PCI Express to PCI Bus and 1394 PHY/Link controller.
- 2 FireWire ports with 100, 200 and 400 Mbps throughput.
- OHCI compliant/Compatible with any FireWire device or peripheral.
- Internal power connector.
- 4 isochronous transmit/receive DMA channels.
- OS Supported: Windows 2000/XP/2003 Server/Vista/XP 64 bit, Mac OS X

Part No.

- FireboardBlue-e bulk: 1213
- Retail Kit with 2m 1394a 6pin to 6pin cable (not available yet): 1214
- FireboardBlue-e with hardware Fire-i / Fire-i API™ SDK license: 1134
- FireboardBlue-e with hardware FireAPI™ SDK license: 1711



Connection in a snap!

FireWire 400 (1394a) Adapters

FireBoard 400™ PCI Lynx-2 1394a adapter

Overview

The FireBoard-400™ is a 3 port 400 Mbps Firewire Host adapter based on the Texas Instruments TSB12LV21B (PCILynx-2) IEEE-1394 link controller to PCI bus and TSB41AB3 IEEE-1394 400Mbps PHY layer transceiver.

This board is by default delivered with a built-in license that acts as a runtime royalty for Unibrain's Windows FireAPI™ SDK and drivers.

Features

- Two main FireWire chip-sets of Texas Instruments: the TSB41AB3 IEEE-1394 triple-cable transceiver/arbitrator and the TSB12LV21B (PCILynx) IEEE-1394 bus to PCI bus
- 3 FireWire ports with 100, 200 and 400 Mbps throughput
- Compliant With PCI Specification 2.1
- Internal power connector
- Operates from a 3.3-V Power Supply While Maintaining 5-V Tolerant Inputs
- OS supported: Windows NT4/98SE/Me/2000/XP, Mac OS 9.x, Linux

Part No.

- FireBoard 400™ adapter only (bulk): **1703**
- Kit with CD and 4.5m 6 pin - 6 pin 1394a cable: **1701**
- Fireboard 400™ adapter, version with 2 external & 1 internal 1394a ports: **1707**



High quality!

FireWire 400 (1394a) Adapters

FireCard800-e™ 1394b ExpressCard 34 adapter

Overview

FireCard800-e™ is a dual port 1394b (FireWire-800) ExpressCard 34 adapter, providing high speed 1394b ports to your notebook computer for data transfer rates up to 800Mbps. It can be used for the connection of high performance 1394a or 1394b devices, such as industrial firewire cameras, external RAID Firewire-800 storage, DV camcorders, scanners, printers, firewire web cameras, optical and audio devices and more.

Features

- Express Card/34
 - Compliant with the latest ExpressCard specification for high-speed serial bus applications.
 - Supports hot swapping and plug' n play.
 - Compliant with Express Card 34 module outline dimension.
- FireWire
 - Fully supports IEEE P1394b and backwards supports 1394a-2000 as well as 1394-1995 standards.
 - Supports data transfer rates of 100, 200, 400 and 800Mbps.
 - Provides dual 1394b (FireWire® 800) bilingual ports for data transfer rates up to 800Mbps.
- OS Supported: Windows 2000/XP/2003/Vista, XP & Vista 64 bit, Mac OS 10.4.6 or later (MacBook Pro, Intel CPU based)



Exceptional 800Mbps performance for your notebook!

Part No.

- Firecard800-e™, bulk packaging: 1229

FireCard 400™ 1394a PCMCIA (CardBus)

Overview

FireCard 400™ equips your notebook with the highest quality of FireWire ports money can buy, allowing your notebook to host Digital cameras, CD/DVD and any other external FireWire device available. FireCard 400™ comes with dual 6-pin ports conforming to the most widely used type of cables in the market. No need for cable extensions or expensive break-outs. Any simple 6-pin cable will do your job and save you money!

Features

- Type II CardBus
- Host Interface Protocol is 32bit Bus Master DMA
- Data Transfer Rate Up to 132 MBytes/sec burst rate
- Supports hot swapping and plug' n play
- Based on the TSB43AB22A (Latest Texas Instruments chipset, on using A revision for new designs), an OHCI 1.1, 1394a Link Layer Controller integrated with a 1394a, 400Mbps, 2-port Physical Layer (PHY).
- Fully interoperable with FireWire and i.LINK implementations of IEEE Std 1394
- Two IEEE Std 1394a-2000 fully compliant cable ports at 100Mbps/sec, 200Mbps/sec and 400Mbps/sec for flexible peripheral interconnection.
- Card Size: 119mm x 54mm x 15mm (4.69" x 2.13" x 0.6")
- OS Supported: Windows 98SE/Me/2000/XP/2003/XP 64 bit, Mac OS 9.x/10.x

Part No.

- Firecard-400 Retail (with one 2m (3.3 ft) 6 pin to 6 pin cable included): 1208
- Firecard-400 bulk: 1206



Ideal for your notebook!

GOF Repeaters

Glass Optical Fiber Repeater 800™

Overview

Unibrain provides the latest in Firewire800 - 1394b and optical technology, the Glass Optical Fiber (GOF) Repeater that extends the S800 (800Mbps) transmission of 1394b bus up to 550 meters (~1,800 ft) distance over Optical Fiber.

Each GOF Repeater800™ unit has two 1394b bilingual copper ports and one optical port: either MT-RJ type or LC type.

Features

- Provides Two (2) Fully Backward Compatible, (1394a-2000 Fully Compliant) Bilingual P1394b Cable Ports at up to 800 Megabits per Second (Mbps/s)
- One (1) 1394b optical port with MT-RJ type connector or LC type connector.
- Full Duplex Data Rate at 100/200/400/800 Mbps.
- Multi-Mode-Fiber (MMF) Glass optical fiber cable support.
- Maximum link length 550 meters.
- Metallic enclosure for demanding industrial environment.
- IEEE 802.3 Gigabit Ethernet (1.25 Gbd) compliant
- Dimensions (W x H x D): 94.45 x 25.10 x 85.61 mm, Weight: 266 gram
- Operating System support: Windows/Mac OS X/Linux.

Part No.

- GOF MT-RJ Repeater: 2550
- GOF LC Repeater: 2552
- GOF MT-RJ Repeater Kit: 2551
- GOF LC Repeater Kit: 2553



**Extend the transmission
up to 550 meters !**

Repeaters

FireRepeater 400™ 1394a / FireRepeater 800™ 1394b

Overview

Unibrain's FireRepeaters are pocket sized HUBs with three 1394a/1394b ports enabling data transfer up to 400 and 800 Mbits/sec respectively. They allow you to add a connection point into an existing link, extend FireWire Cable lengths (tested for up to 110 meters) and add or reinforce DC Power Supply capability of your FireWire connection.



Model	FireRepeater 400 (1610)	FireRepeater 800 (2501)
Compliance	IEEE-1394a	IEEE-P1394b revision 1.20
Bus Speed	100 / 200 / 400Mbps	100 / 200 / 400 / 800 Mbps
Ports	3 (6-pin)	3 (9-pin bilingual)
Physical Layer Device	Texas Instruments® TSB41AB3 download specification	Texas Instruments® TSB81BA3 download specification
Operating Temp.	0'-65' Celsius	
Humidity	10%-90% RH, non-condensing	
Ext. Power Input	Jack connector, 8 to 30 V DC	Jack connector, 8 to 40 V DC

Extend your potentialities!

FireWire Cables 1394a/1394b

Overview

Unibrain's FireWire cables offer superior features, due to better connectors, shielding and storage conditions:

- Top quality connectors with high-density enclosures to eliminate an often underestimated source of noise.
- Outer shield and inner (foil and braid) ensures compliance with the latest FireWire standards, which reduces radio frequency and electro-magnetic interference.
- Careful storage and shipment procedures ensure that performance is not affected by accidental excessive bend radius.



Exquisite features!

Features

- Up to 400/800Mbps high speed data transmission
- Quad shielding (S-400 specification) for maximum speed without data loss
- FireWire (IEEE-1394) compatible
- Plug 'n play technology: Hot swap live devices, no terminator needed
- Temperature: 0' - 85' C (32' - 185' F)
- Humidity: 95%

Model	Length		Type	Part No.
	(m)	(ft)		
1394a	0.2	8" inch	6p to 6p	1609
	0.5	1.6	6p to 6p	1612
	1	3.3	6p to 6p	1613
	2	6.6	4p to 4p	1606
	2	6.6	6p to 4p	1603
	2	6.6	6p to 6p	1602
	4.5	14.8	6p to 6p	1601
	4.5	14.8	6p to 6pL	1628
	4.5	14.8	6p to 4p	1607
	10	32.8	6p to 6p	1600
	10	32.8	6p to 6pL	1638
	10	32.8	6p to 4p	1608
	20*	65.6	6p to 4p*	1624

Indicates Latch cables (one end)

(*) Note: The 20m cable is suitable only for DV camcorders, which operate at speeds of S100 or S200 Mbps. However, for the new HDV (High Definition) camcorders the 10m cable is recommended as the maximum operating length.

Model	Length		Type	Part No.
	(m)	(ft)		
1394b	1	3.3	9p to 9p	1630
	2	6.6	9p to 9p	1632
	2	6.6	9p to 6p	1633
	4.5	14.8	9p to 9p	1634
	4.5	14.8	9p to 6p	1635
	7.7	25	9p to 9p	1642
	10	32.8	9p to 9p	1636
	10	32.8	9p to 6p	1637

Multimedia & Storage

iZak™ Portable Multimedia Center

Overview

Unibrain presents the iZak, a dual purpose portable device. Capable of playing recorded TV shows, downloaded films, home movies, music and photo galleries directly on any TV set, iZak is at the same time an external hard disk for your computer data. You operate it exactly like a true DVD player, from its infrared remote controller and a user-friendly TV on screen menu.

Features

- Capacity: 80, 120, 160 GB
- Video: avi, divx, xvid, mpeg-4, mpeg-2, DVD ISO, mpeg-1
- Audio: mp3, mpg-4 (aac), wav, ac3, wma
- Video Outputs: NTSC/PAL composite and S-video, Analogue YPbPr video (progressive or interlaced) scalable up to 1920x1080i, RGB via SCART, VGA scalable up to 1024x768
- Audio Outputs: Dual Stereo analogue audio, coaxial and optical S/PDIF digital Audio (supports compressed Dolby Digital 5.1 and DTS pass through)
- OS: Supports PC/Mac and any file system (FAT32, NTFS, HFS+)
- Packaging: AV cable, USB-2 cable, SPDIF Coaxial Cable, Power adapter, infrared remote control, CD with documentation and software.



Move your films, music and photos directly to your TV!

Part no.

- iZak diskless (OEM) Part Number: **8003**
- iZak 80GB Retail Part Number: **8002**
- iZak 120 GB Retail Part Number: **8005**
- iZak 160 GB Retail Part Number: **8006**

ME2™ USB 2.0 1.8" tiny external drive

Overview

The 'ME2' USB 2.0 magnesium enclosure is ruggedly constructed, yet ultra light weight. This slim, portable hard drive fits in every pocket and is perfect for carrying your data from home to office or transfer documents from one computer/platform to another.

Features

Capacity	20 GB, 40 GB, 60 GB
Size	10.1 cm x 6.2 cm x 1.3 cm
Data Transfer Rate	Up to 480MB/sec
Power Supply	USB2 Bus Power
Weight	20 GB-100 gr (3.52 oz), 40/60 GB-112 gr (3.95 oz)
Compatibility	Windows 98SE/2000/ME/XP, Mac OS 9.1 or higher
Average seek (msec)	15
Rotation speed (RPM)	4,200+0.1%
Average Latency Time (msec)	7.52
Buffer size (Kbytes)	512
Cache	Read Ahead Cache, Write Cache
Packaging	One 0.5 m (1.5 ft) USB 2.0 cable



The easy way to move data !

Part no.

- ME2 20Gb Part Number: **3530**
- ME2 40Gb Part Number: **3531**
- ME2 60Gb Part Number: **3532**

FireDisk 800-s Firewire-800 (1394b), eSATA and USB 2.0 external hard drives

Overview

Unibrain's next generation external hard drives, add the dazzling performance of the new eSATA along with the Firewire 800 (1394b) standard and the convenience of USB 2.0 & 1394a ports. FireWire 800-s is far superior to FireWire 800 for audio and video editing, with dramatically increased transfer speed.

Features

Capacity	250, 500, 750 GB
Application	3.5" SATA Hard Drive
External Serial ATA (eSATA)	1port, up to 1.5Gbps (150MB/sec)
FireWire 800 (1394b)	2 ports (9-pin), up to 800Mbps (100MB/s)
FireWire 400 (1394a)	1 port (6-pin), up to 400Mbps (50MB/s)
USB 2.0 (USB 1.1)	1 port (mini 5-pin), up to 480Mbps (60MB/s)
Product Size	22.5cm x 13.5cm x 3.5cm
External AC Adapter	DC +5V/2A, +12V/2A (UL, cUL, TUV approved)
Input	Universal auto-switching 100-240 VAC
Packaging	FireDisk800-s, one 2m (6.6 ft) 1394b cable (9 pin to 9 pin), one 2m (6.6 ft) USB 2.0 cable), CD with software & documentation.
OS*	Windows 2000/XP/2003/Vista & Mac OS X 10.2 or later

*Your hardware device must have proper port or PCI card. eSATA 1.5Gbps Plug and Play support required for host card driver.



Fastest ever triple connectivity up to 1.5Gbps!

Part No.

- FireDisk 800-s™ 250 GB: **3562**
- FireDisk 800-s™ 500 GB: **3563**
- FireDisk 800-s™ 750 GB: **3564**

FireDisk Taurus™ - External Firewire-800 RAID Storage

Overview

Equipped with the fastest-ever FireWire standard, this drive is capable of reaching transfer speeds of up to 800Mbps for FireWire 800 users and up to 400Mbps for FireWire 400 users.

It is offered in two alternatives capacities, 1.5 TB and 1 TB respectively. It features RAID storage, rendering it the best storage solution for multimedia content creators.

Features

- Configurable RAID function for 2 drives (RAID 0 using striping or spanning or Non-RAID) with capacity 1 and 1.5 TB respectively
- USB mass-storage compliant (USB 2.0)
- Supports Firewire 400 and 800
- SATA II compliant
- Ports
 - 2 ports (9-pin), up to 800Mbps (100MB/s)
 - 1 port (6-pin), up to 400Mbps (50MB/s)
 - 1 port (mini 5-pin), up to 480Mbps (60MB/s)
- External Power Adapter universal auto-switching (UL, cUL, CE, TUV approved)
- Product Size: 22.5cm x 13.5cm x 3.5cm
- Packaging: FireDisk Taurus Drive, Firewire 1394b cable (9 pin to 9 pin), USB 2.0 cable, Power adapter, CD with software & documentation
- OS Supported*: Windows 2000/XP/2003/Vista & Mac OS X 10.2 or later

*Your hardware device must have the correct corresponding port (eg. USB 2.0 or PCI card).



Best storage solution for multimedia content creators!

Part No.

- FireDisk Taurus 1TB: **3565**
- FireDisk Taurus 1.5TB: **3566**

Network Attached Storage Server (NAS)

FireNAS™ 1U / 2U

Overview

The easy-to-manage, reliable Unibrain FireNAS 1U/2U Network Attached Storage Server (NAS) makes it easy to seamlessly integrate up to 2TB(1U)/9TB(2U) of RAID - redundant network storage into your existing network infrastructures - plus, it makes it affordable!

FireNAS™ 1U/2U installs in less than 10 minutes, requires very little maintenance, and can be managed easily and remotely via a Web browser. Multi-client connectivity and high capacity storage allows PC, Mac, UNIX and Novell users to easily share and manage data over the network or Internet.

Specifications

- Up to 2TB for 1U model and 9TB for 2U model of Network Storage.
- 4(1U)/12(2U) Hot Swap, Serial ATA, up to 500GB for 1U and 750GB for 2U model, 7200 rpm Hard Disks.
- Only for FireNAS 2U: Two separate 2.5" disks for RAID 1 protected OS
- Built-in copper Gigabit Ethernet 100/1000 Mbps port.
- Build-in three 800 Mbps FireWire-800 (1394b) ports.
- Powered by Windows Storage Server 2003.
- Windows, Macintosh, Unix/Linux and Netware file sharing.
- Four USB2 ports to connect computer peripherals.

* Each 1U and 2U model has four and twelve hard disks respectively

* Default configuration is RAID 5



Just Rack 'n' Store!

FireNAS™ Model	Capacity		Part No.
	Per Disk (GB)	Total (TB)	
1U/2.0TB	500	2.0	3737
1U/1.0TB	250	1.0	3715
2U / 9.0TB	750	9.0	3739
2U / 6.0TB	500	6.0	3738
2U / 4.8TB	400	4.8	3731
2U / 3.0TB	250	3.0	3716

Unibrain - The 1394 Innovators

About Unibrain

Unibrain (Reuters: UNBr.AT) is a global leader in the development of FireWire (IEEE-1394) hardware and software solutions, and offers a complete line of FireWire products for a wide range of applications. Unibrain has been an active member of the 1394 Trade Association since 1997 and continues to play a vital role in the advancement of FireWire technology. Moreover, the last few years Unibrain expanded to new developments in storage and multimedia technologies.

Unibrain S.A. was founded in 1986 in Athens and in 2000 it established Unibrain Inc. in San Ramon, California, USA to promote, sell and support its customers in the United States. At the same year, Unibrain entered into a strategic alliance with Intracom S.A. the largest Greek new technologies company with domestic and international activity. Unibrain is a public company traded in the New Market (NEXA) of the Athens Stock Exchange from April 30th, 2001.

Unibrain uses the OEM model to promote integrated solutions of hardware and software to the market. According to this strategy, Unibrain is responsible for the design folder (hardware, software and know-how) which is adapted to the requirements of the final customer. Each customer can promote its own product to the global market and Unibrain earns from the license. Unibrain has signed significant cooperation agreements with big enterprises, like Packard Bell, Logitech, MacPower, Iomega and Gtech. The production of the final product is assigned to big Asian manufacturing companies, such as MacPower and Xingtel. Unibrain chooses this strategy to promote its business, leaving the retail to other big companies with strong brand names.

Unibrain also sells software license to big companies like Texas Instruments, Philips, Rockwell Collins, Xerox, Siemens.

Contact information

Unibrain Inc. (North & South America)

One Annabel Lane, Suite 109,
San Ramon, California 94583, USA.
Tel: +1-925-8663000, Fax: +1-925-8663520

Unibrain S.A. (Europe & Asia)

19.5 km Markopoulou Ave.,
19002 Peania, Athens, Greece.
Tel: +30-210-6640600, Fax: +30-210-6646508

Web www.unibrain.com

Sales sales@unibrain.com

Support support@unibrain.com

unibrain
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