



INSTRUCTION MANUAL

DV-1394

**Firewire, IEEE 1394, Fiber Optic
Transport System**

MULTIDYNE Electronics, Inc.

Innovations in Television Testing & distribution

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Introduction

Congratulations on your purchase of the MULTIDYNE DV-1394 Optical Repeater. The MULTIDYNE DV-1394 Optical Repeater is the newest in optical technology and IEEE 1394 technology. Utilizing a IEEE1394 PHY and an optical transceiver, the DV-1394 is capable of sending IEEE1394 signals across a fiber optic cable up to 500 meters in length. The DV-1394 is contained within a small box slightly larger than a deck of cards, which makes it unobtrusive and compact, allowing you to place it on a already crowded desktop.

Package Contents

- Two DV-1394
- One IEEE 1396 6 pin-6 pin two meters copper cable
- One AC adapter
- One user guide

System Requirements

- A PC or Mac with IEEE1394 Host controller card installed
- **64MB RAM** Minimum (128MB RAM is recommended)
- Window98 SE or Mac OS 9 and above

Specifications

- Compliant with IEEE1394a-2000 and 1394b draft specifications
- Full duplex data rate at 100/200 Mbps
- 62.5/125 MMF GOF connection for high-speed optical interface
- Laser Class 1 Safety compliant
- One optical port with MTRJ connector
- Two 6-pin IEEE 1394 Copper Ports for Plug and Play support
- Reach up to 500 meters with DV-1394
- Power Adapter: AC Input 100V-240V, IA, 50/60Hz. DC Output 12V, 1.6A
- DV-1394 Size: 80x68x27mm
- DV-1394 Weight: 170g

Power of the DV-1394

The DV-1394 can also be used as a standard two-port IEEE1394 repeater, extending your signal an additional 4.5 meters for copper connection. The real power, however, is in its optical connection. Setting up the DV-1394 is quite simple. Using an MTRJ connector, which has only one connector instead of two like the SC-type connectors, plugging in the

optical connection is without confusion or difficulty. It takes only minutes to setup, and there is no configuration necessary, like all IEEE1394 compliant hardware. The DV-1394 is IEEE 1394b compliant, but currently only uses IEEE 1394a connectors.

IEEE1394 Technology

The IEEE 1394 bus addresses interconnection of both PC peripherals and consumer electronics with these features:

- Supports up to 63 peer-to-peer devices
- Operates at speeds of 100 Mbps to 200 Mbps with IEEE1394a.
- Support both asynchronous and isochronous data transfer

Using the DV-1394

Installation:

1. Connect one DV-1394 to the host system with the IEEE1394 Copper cable
2. Using the 62.5/125 MMF MTRJ connector fiber optic cables to connect the two DV-1394 together
3. Power the second DV-1394 with the power adapter that come with the package
4. Connect the IEEE1394 peripherals to the second DV-1394
5. Operate the ~~IEEE1394~~ peripherals just like it's directly connected to the host system

DV-1394 operates at temperatures between -20° to +65° C (-4° to 150° F). DV-1394 should place in a dry place with airflow. Do not place the DV-1394 on top of equipments that produce heat.

Front Panel LEDs

Power	The Power LED illuminates when the DV-1394 is powered
BReset	LED illuminates while the IEEE 1394 Cable is connected, then will turn off after the Bus Reset
LState	LED illuminates after the fiber optic cable connects two DV-1394
S400	LED that corresponding to the speed of the DV-1394 is using. S400 is the transfer speed at 400 Mbps
S200	Transfer speed at 200 Mbps
S	Transfer speed at 100 Mbps

Troubleshooting

Frequently Asked Questions

What is the maximum length of the DV-1394 can support up to? The maximum length of the DV-1394 will support up to 500 meters.

What is the maximum speed that the DV-1394 supports? The DV-1394 supports speeds of 200 Mbps, and 100 Mbps.

What happen the power LED is not illuminate while is bus powered? Check the power switch on the front panel. If is in OFF position, switch it to ON.

Is the DV-1394 itself can be a FireWire Repeater? Yes, the DV-1394 itself is a two port FireWire Repeater.

Do I have to use two DV-1394 to make it work? Yes, a pair of DV-1394 is needed. One DV-1394 act as the transceiver, and the other DV-1394 act as the receiver.

Why there's only one power adapter including in the package while there's two DV-1394? The DV-1394 connects directly to the host system by a 6-pin IEEE1394 cable doesn't need other external power sources. That DV-1394 is powered by the bus power of the IEEE 1394 cable.

Why there's no power when I use a 4-pin to 6-pin IEEE1394 cable connects the DV-1394 directly to the host system? An IEEE1394 4-pin to 6-pin cable do not have bus power. In this case, an AC adapter that matches the spec is needed.

Which DV-1394 connects to the host system and which DV-1394 connects to the peripherals? The host system and the peripherals can connect to either DV-1394 unit.

Is there driver for the DV-1394? No, Window98 SE, Mac OS 9 and above already come with IEEE 1394 support.