Electronic Links International, Inc.

Interconnecting Components and Systems.

Data Sheet

ELII IEEE 1394b Smart Cable

Published December 2013
Ver. 1.1

The full IEEE 1394b specification supports data rates BNC cable up to 40 meters by O.D. 4.0 mm.

Overview

The **IEEE 1394 interface** is a serial bus interface standard for high-speed communications and isochronous real-time data transfer, frequently used by personal computers, as well as in digital audio, digital video, automotive, and aeronautics applications. The interface is also known by the brand names of **FireWire** (Apple), **i.LINK** (Sony), and **Lynx** (Texas Instruments). IEEE 1394 replaced parallel SCSI in many applications, because of lower implementation costs and a simplified, more adaptable cabling system. The 1394 standard also defines a backplane interface, though this is not as widely used.

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Key Features

1. Full-duplex bidirectional communication over a single coax supporting: Fast- and Gigabit Ethernet, LVDS, IEEE1394b (S800 and lower data rates) and MOST (automotive).
2. Developed for Low Emissions and High Immunity (automotive applications)
3. Cable extension due to internal equalization e.g.
   - IEEE1394/S800 @ 1Gbps, 4000 cm over RG59 BNC cable.

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Application

Aircraft

IEEE 1394b is used in military aircraft. Developed for use as the data bus on the F-22 Raptor, it is also used on the F-35 Lightning II. NASA's Space Shuttle also uses IEEE 1394b to monitor debris (foam, ice) which may hit the vehicle during launch.

Automobiles

IDB-1394 Customer Convenience Port (CCP) is the automotive version of the 1394 standard.

Cable TV

Cable TV system supported. Cable TV providers (in the U.S., with digital systems) must, upon request of a customer, provide a high-definition capable cable box with a functional FireWire interface. This applies only to customers leasing high-definition capable cable boxes from said cable provider after April 1, 2004. The relevant law is 47 CFR 76.640 Section 4 Subsections i and ii. The interface can be used to display or record Cable TV, including HDTV programming.

Networking over FireWire

FireWire can be used for ad-hoc (terminals only, no routers except where a FireWire hub is used) computer networks. Specifically, RFC 2734 specifies how to run IPv4 over the FireWire interface, and RFC 3146 specifies how to run IPv6.

Mac OS X, Linux, and FreeBSD include support for networking over FireWire. Windows XP and Windows Server 2003 include native support for IEEE 1394 networking. Windows Me and Windows 2000 do not have native support but may work with third party drivers. A network can be set up between two computers using a single standard FireWire cable, or by multiple computers through use of a hub. This is similar to Ethernet networks with the major differences being transfer speed, circuit length, and the fact that standard FireWire cables can be used for point-to-point communication.

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1394A - 9AS 9AS X cm X X

(1) (2) (3) (4) (5)

(1)(2) Contact Type：

- **9AS：9Pin(s) Beta plug with screw.**

(3) Cable Length (Centimeters)：

- **XXXX cm (Max: 4000cm.).**

(4) Connect Type：

- **G：Gold Flash.**
- **N：Nickel Flash.**

(5) Color for Over mold：

- **B：Black.**

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