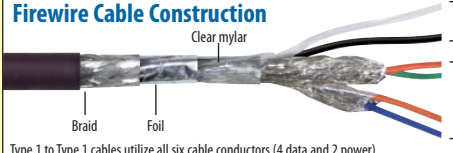
Tip What is Firewire?

Firewire is an emerging high speed communication interconnect standard defined by IEEE-1394. It was originally developed to connect PCs to other PCs or to peripherals such as digital cameras, camcorders, scanners, etc. Current applications include automotive, telecom, data acquisition, aerospace and a host of others. An attractive advantage is devices are hot pluggable meaning live connection/disconnection without data loss or interruption.

Firewire Cable Construction



Type 1 to Type 1 cables utilize all six cable conductors (4 data and 2 power).
Type 1 to Type 2 cables utilize only the data conductors.

Connectors


Type 1 Plug


Type 1 Jack

- Type 1 (6 position) connectors are typically located on computers and hubs.


Type 2 Plug


Type 2 Jack

- Type 2 (4 position) connectors are commonly found on peripheral devices.


Type B Plug

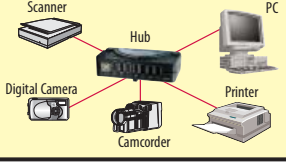

Type B Jack

- Type B (9 position) connectors are commonly found on computers and hubs.

Topology

Firewire is a serial, bi-directional bus that can be daisy chained or star shaped with the use of a hub. Firewire does not require terminators or manual addressing.

Star Topology



Technical Data: Firewire Limitations

Maximum:	Transmission Rate	Cable Length/ Node	# Nodes/ Chain	End to End Distance/Chain	Nodes w/Bus Bridge
	400 Mbps (800 Mbps Type B-B only)	4.5 meters	16	72 meters	Approx. 2^{16}

Daisy Chain Topology