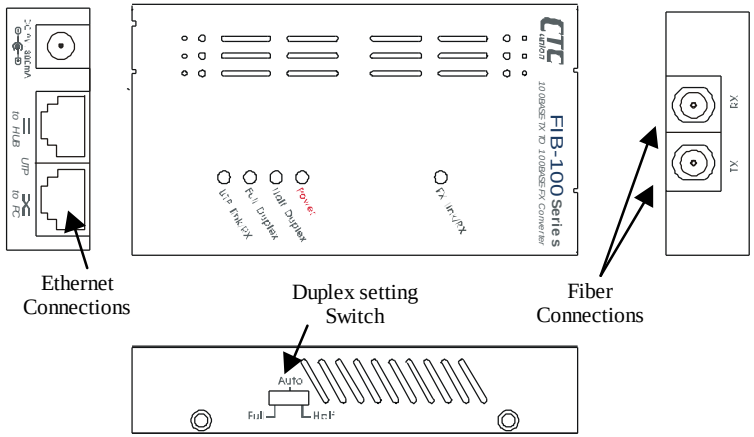
Installation Instructions
100BASE-TX / 100BASE-FX
Fiber Interface Converters

FIB-100M/ST2 ST® Type, Multi-mode, 2KM
FIB-100M/SC2 SC Type, Multi-mode, 2KM
FIB-100S/ST15 ST® Type, Single-mode, 15KM
FIB-100S/SC15 SC Type, Single-mode, 15KM
FIB-100S/ST30 ST® Type, Single-mode, 30KM
FIB-100S/SC30 SC Type, Single-mode, 30KM
FIB-100S/ST50 ST® Type, Single-mode, 50KM
FIB-100S/SC50 SC Type, Single-mode, 50KM
FIB-100S/ST120 ST® Type, Single-mode, 120KM
FIB-100S/SC120 SC Type, Single-mode, 120KM

DOC. 010103-FIB100.DOC

Description

The FIB-100 series are Fast Ethernet-Fiber converters designed to be a media interface between 100BASE-TX Ethernet UTP cable and 100BASE-FX fiber cable with no increase in the hop count on the network. They feature a pair of RJ-45 connectors, duplex setting switch and a pair of fiber optic connectors. This guide covers all eight models.



Specifications

Standard

IEEE802.3u 100BASE-TX, l00BASE-FX (Fast Ethernet, 100Mbps)
Supports Full Duplex Ethernet mode (200Mbps)

100BASE-TX RJ-45 Connectors

Two RJ-45 connectors are provided for connection to either MDI-X (PC) or MDI (HUB) equipment. This allows all UTP connections to be made using only a common straight-through UTP cable.

RJ-45 Jack ID	RJ-45 Type
	MDI-X (to PC) MDI (to HUB)

RJ-45 Pin	MDI-X type	MDI type
1	Rx+	Tx+
2	Rx-	Tx-
3	Tx+	Rx+
6	Tx-	Rx-

100BASE-TX UTP Cable

Cable type: Category 5
Maximum cable distance: 100 meters (328 feet)

Fiber Optic Connectors

Two connectors are provided for fiber optic cable connection. One is labeled "Tx" for transmission of optical data, the other is labeled "Rx" for reception of optical data.

Model	FIB-100M/ST2	FIB-100M/SC2	FIB-100S/STxx	FIB-100S/SCxx
Wavelength	1310nm	1310nm	1310nm	1310nm
Fiber mode	Multi-mode	Multi-mode	Single-mode	Single-mode
Connector	ST® type	SC type	ST® type	SC type
Fiber cable	62.5/125µm	62.5/125µm	9/125µm	9/125µm
Cable length	2K meters	2K meters	where xx = 15, 30, or 50K meters	

LEDs

		FIB-100S/ST120	FIB-100S/SC120
Power	Power indication	1550nm	1550nm
FX Link/RX	Fiber link/data reception	Single-mode	Single-mode
Half Duplex	Ethernet is in Half Duplex mode	ST® type	SC type
Full Duplex	Ethernet is in Full Duplex mode	9/125µm	9/125µm
UTP link/RX	Ethernet link/data reception	120K meters	120K meters

Environment

Temperature	00 - 70C(operating)
Humidity	10-90% non condensing

Dimensions

102mm x 57mm x 20mm

Power

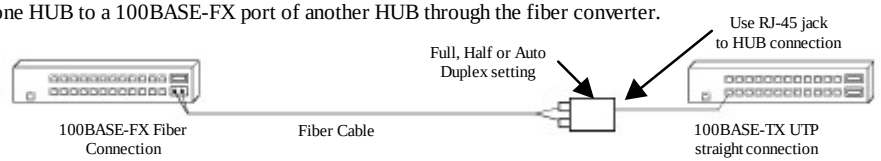
+9V /800mA maximum
DC plug type: center positive

Installation

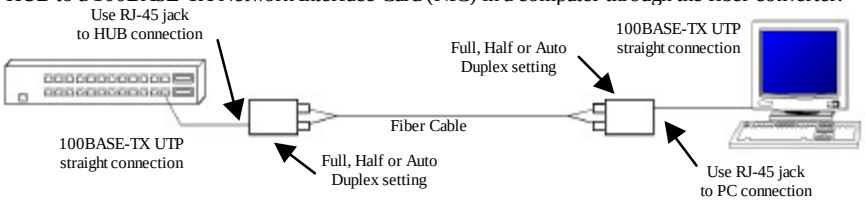
Connect the fiber interface cables to the FIB-100. Using a straight through UTP cable, connect the Ethernet connection to the appropriate RJ-45 jack. Connect a PC to the "cross" connector, connect a HUB to the "straight" connector. Set the "Duplex" switch according to the specifications of your Ethernet network. In the "auto" position, the converter will sense whether to operate in Full or Half mode and will be indicated on the LED. The Half mode setting will always work, the Full setting will not work on a network that doesn't support Full Duplex mode. Follow the connection examples below. Install the fiber converter with the DC power adapter provided (+9VDC, 800mA) and connect the adapter to an AC outlet.

Connections

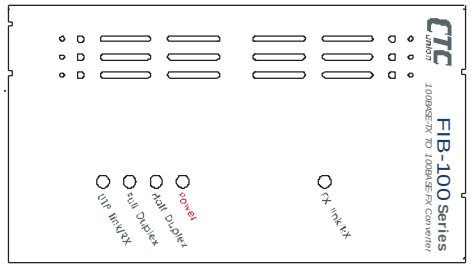
The following example illustrates the connection scheme when connecting from a 100BASE-TX port of one HUB to a 100BASE-FX port of another HUB through the fiber converter.



The following example illustrates the connection scheme when connecting from a 100BASE-TX port of one HUB to a 100BASE-TX Network Interface Card (NIC) in a computer through the fiber converter.



LED Indicators



LED	Function	State	Status
Power	Power indicator	On	Converter has power.
		Off	Converter has no power.
FX link/RX	Fiber link	On	The fiber link is ok.
		Off	No link or the link is faulty.
		Blinking	Receiving data on the fiber.
Half Duplex	mode display	On	Ethernet is in normal half duplex.
Full Duplex	mode display	On	Full duplex mode (200mbps).
UTP link/RX	Ethernet link	On	The UTP link is ok.
		Off	No link or the link is faulty.
		Blinking	Receiving data on Ethernet.

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TRADEMARKS
Ethernet is a registered trademark of Xerox Corp.
ST® is a registered trademark of AT&T.

WARNING:
This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instruction manual may cause harmful interference in which case the user will be required to correct the interference at his own expense. NOTICE: (1) The changes or modifications not expressively approved by the party responsible for compliance could void the user's authority to operate the equipment. (2) Shielded interface cables and AC power cord, if any, must be used in order to comply with the emission limits.

CISPR PUB.22 Class A COMPLIANCE:
This device complies with EMC directive of the European Community and meets or exceeds the following technical standard. EN 55022 - Limits and Methods of Measurement of Radio Interference Characteristics of Information Technology Equipment. This device complies with CISPR Class A.

WARNING:
This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

CE NOTICE
Marking by the symbol CE indicates compliance of this equipment to the EMC directive of the European Community. Such marking is indicative that this equipment meets or exceeds the following technical standards:
EN 55022:1994/A1:1995/A2:1997 Class A and EN61000-3-2:1995, EN61000-3-3:1995 and EN50082-1:1997