10/100Base-TX to 100Base-FX
TP to Fiber
Ethernet Bridge Converter

Trademarks

FCC Warning

This equipment has been tested and found to comply with the regulations 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 this user's guide, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.

CE Mark 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.

Revision

User's manual for PLANET Fast Ethernet Converter
Multi-mode: FT-801, FT-802
Single-mode: FT-802S
Rev 1.0 (Oct. 2000)
Part No. EMFT801

1. Overview

Thank you for purchasing PLANET FT-80X family 10/100Mbps Ethernet Twisted pair to 100Base-FX Fiber-optic Bridge Converter. This converter is used to convert one type media signal to other type equivalent that allows two type segments connect easily, efficiently and inexpensively. This converter can be used as a standalone unit or as a slide-in module to the 19" media chassis (up to 10 units) for a TP and Fiber combined networks at a central wiring closet. Please contact with your sales representative for more about the 19" media chassis.

2. Model List

Your Fast Ethernet Converter comes with one of the following models.

⇨ FT-801   : on board ST fiber connector
⇨ FT-802/S   : on board SC fiber connector

Models with last character "S" indicate the fiber-port is with "Single-Mode" optic fiber connector.
In the following sections, the term "FT-80X" indicates the product family above.

3. Checklist

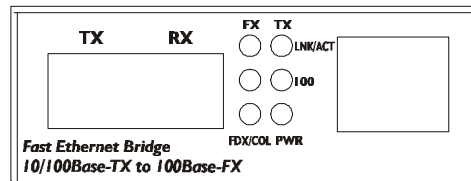Your FT-80X carton should contain the following items:
⇨ The Fast Ethernet Bridge Converter
⇨ AC-DC Power Adapter (Output: 5VDC, 2 A max.)
⇨ This user's guide

If any item is missing or damaged, please consult the dealer from whom you purchased your Fast Ethernet Converter.
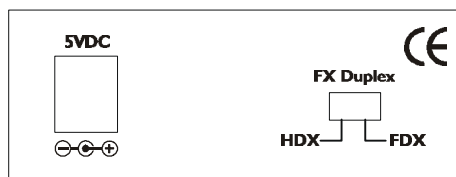
4. Product Outlook

Right View

One RJ-45 Twisted-Pair jack, one fiber-optic connector and six LED indicators.
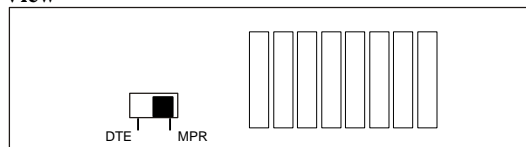

Left View

One DC jack for DC power input. One DIP switch for Fiber-optic mode selection, FDX for full-duplex, and HDX for falf-duplex.
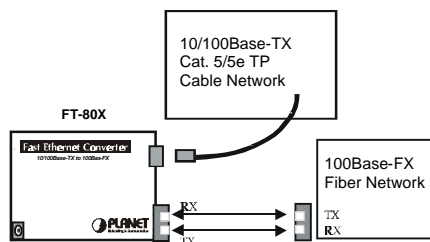

Side View

One DIP Switch for TP Device selection.

5. Installing the Converter

Please follow these steps to install the converter:

- Turn off the power of the device/station in a network to which the FT-80X will be attached
- Ensure that there is no activity in the network
- Attach fiber cable from the FT-80X to the fiber network. TX, RX must be paired at both ends
- Attach a Cat. 5 UTP cable from the 10/100Base-TX network to the RJ-45 port on the FT-80X.
- Connect the 5VDC power adapter to the FT-80X and verify that the Power LED lights up.
- Turn on the power of the device/station, the TX Link and FX Link LEDs should light when all cables are attached

Note:
- RJ-45/STP, UTP Cat 5, straight-through cable is accepted
- Cabling from FT-80X TP port to a TP device is as below:
  - ❑ To Workstation: DIP switch on DTE
  - ❑ To Hub/Switch: DIP switch on MTR
- Please refer to section 8 for more about the wiring distance of your TP, Optic-fiber networks.

6. Duplex Mode setting

The TP port of FT-80X support duplex mode detection by auto-negotiation (A-N). The following is the duplex mode parameters:

Fast Ethernet Device	FT-80X Duplex Mode support
Ethernet / Fast Ethernet Hub	Half-Duplex
Ethernet / Fast Ethernet Switch (without A-N)	Half-Duplex
Fast Ethernet Devices * Support Auto-Negotiation	Full-Duplex / Half-Duplex

Note: Normally, an A-N switch will detect and set to full-duplex, where a dual-speed hub will detects Half.

There is a DIP-switch as in the left view above. Please check and follow the duplex mode of the fiber device and have the duplex selection to your FT-80X.

7.LED indication

LED	COLOR	DESCRIPTION
FX Link /ACT	Green	Blinks when any FX packets transmitting
		Lit when Fiber connection is good
		Blinks when any FX packets receiving
TP Link/ ACT	Green	Blinks when any TP packets transmitting
		Lit when TP connection is good
		Blinks when any TP packets receiving
FDX/COL *	Green	Lit when Full-duplex mode is enabled in FX port and blink shows collision detected.
100	Green	Lit when the port runs in 100Mbps. Remains off while LINK LED lit represent

		the port runs in 10Mbps
PWR	Green	Lit when +5VDC power detected

Note: Fiber-optic Partner should be set to the correct mode according to this FDX indicator for optimal network performance.

8. Cable Connection Parameter

The limitations are as below:

Duplex	Connection	Limitation (max.)
Twisted Pair		
Half / Full	Node to Node Node to Switch/Hub	100 meters
Multi-Mode Converters		
MM Half	Node to Node Node to Switch	412 meters
MM Full	Node to Node Node to Switch	2 kilometers
Single-Mode Converters (FT-80XS)		
SM Full	Node to Node Node to Switch	20 kilometers

9. FT-80X Technical Specifications

The FT-80X comes with the following standard features:
- **Standard :** IEEE802.3/u, 10/100Base-TX and 100Base-FX
- **Connectors :**
    ⇨ One RJ-45 Twisted Pair, EIA568
    ⇨ One Fiber-optic, 1300nm wavelength, connector-type vary with model
- **Data Transfer Rate :** 10/100Mbps (TP), 100Mbps (FX)

- **Duplex mode support :** Full or half-duplex mode by Auto-
  Negotiation (TP)
- **LED indicators :** PWR, TX Link/ACT, FX
  Link/ACT, FDX, 100, FDX
- **Power Requirement :** 5V DC, 2A
- **Ambient Temperature:** 0° to 50°C (operating)
- **Humidity :** 5% to 90% (non-condensing)
- **Dimension :** 26 x 70 x 97mm (HxWxD)
- **Cable:**
  - ⇨ UTP : Cat 5 UTP cable
  - ⇨ Fiber : MM: 50/125 *m*m or 62.5/125 *m*m optic fiber
  - ⇨ Fiber : SM: 8.3/125, 8.7/125, 9/125 *m*m optic fiber

Connecting to Router, Bridge, or Switch, Hub, please refer to the device's Technical Manual.

10. Power information

The power jack of FT-80X is with 2.5mm in the central post and required +5VDC power input. It will conform to the bundled AC-DC adapter and Planet's Media Chassis. Should you have the problem to make the power connection, please contact your local sales representative.

Please keep the AC-DC adapter as spare parts when your FT-80X is installed to a Media Chassis.

Part No.:**EM-FT801**

$C \epsilon$ **ISO9002**