

**10/100Base-TX to 100Base-FX SMI
Fast Ethernet Converter**

FT-807

User's Manual



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This equipment has been tested and found to comply with the limits for a Class B 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 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 whose own expense.

FCC Caution:

To assure continued compliance, any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. (Example - use only shielded interface cables when connecting to computer or peripheral devices).

CE Mark Warning

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

WEEE Warning



To avoid the potential effects on the environment and human health as a result of the presence of hazardous substances in electrical and electronic equipment, end users of electrical and electronic equipment should understand the meaning of the crossed-out wheeled bin symbol. Do not dispose of WEEE as unsorted municipal waste and have to collect such WEEE separately.

Revision

PLANET Fast Ethernet Converter User's Manual

FOR MODEL: FT-807

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Chapter 1 Introduction

The PLANET FT-807 is a 10/100Base-TX shielded twisted pair (STP) to Fast Ethernet 100Base-FX fiber converter. It supports full-duplex operations at its fiber-optic interface in the form factor of SMI (Small Multimedia Interface) interface. The converter auto-adapts to the highest level of performance supported by the device connected to the STP port.

1.1 Product Description

The SMI (small multimedia interface) is one kind of POF (plastic optic fiber) interface that can suitable for low-cost and high-speed data transmission. The SMI patch cord meets the IEEE 1394b specification that can transmit data at S200 (250Mbps) speed for 50 meters, the distance range of TP port is 100 meters. It will make the new generation multimedia life more possible and easy installation.

1.2 Packet Contents

Your FT-807 carton should contain following items:

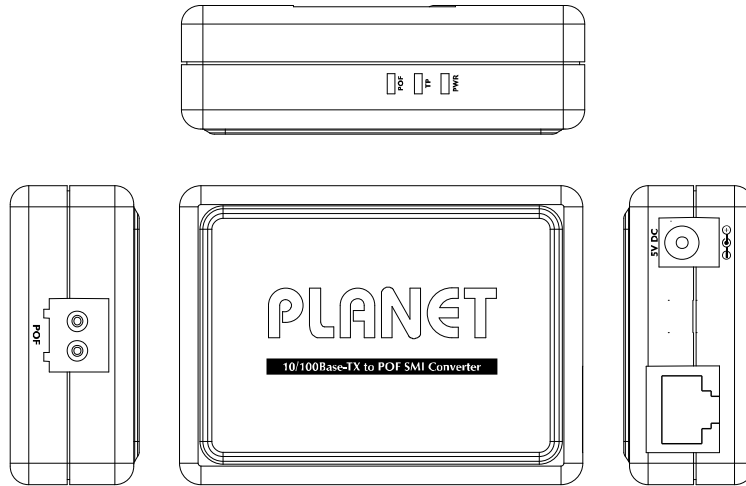
- The Fast Ethernet Media Converter.
- AC to DC Power Adapter (Output: 5V DC, 2A max).
- This User's Manual.

If any item is found missing or damaged, please contact your local reseller from whom you purchased your Fast Ethernet Converter.

1.3 Technical Specification

Standard	IEEE 802.3u, 10/100Base-TX and 100Base-FX
TP Connector	RJ-45 port (Auto-MDI/MDI-X) Twisted Pair, EIA568
Fiber Connector	SMI POF port (multi-mode), 650nm wavelength
Data Rate	10/100Mbps (TP) ; Auto-Negotiation for duplex mode 100Mbps (FX) ; full-duplex mode
TP Cable	4 pair Cat. 3 or 5 UTP, up to 100m
Fiber Cable	IEEE 1394b SMI Patch cord (0.98mm /1mm), up to 50m
LED indicators	PWR, TP, POF
Dimensions	86 x 62 x 23 mm (W x D x H)
Power Requirement	5V DC, 2A

1.4 Product Outlook



LED Definition



POF: Lights to indicate the SMI connection is established.



TP: Lights to indicate the TP connection is established.



PWR: Lights to indicate the converter is powered.

1.5 Duplex Mode Setting

The TP port of FT-807 supports duplex mode detection by auto-negotiation (A-N). The following is the duplex mode parameters:

Fast Ethernet Device	FT-807 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.

The fiber port (POF) port of FT-807 is fixed at 100Mbps full-duplex mode. The link partner should also set at 100Mbps full-duplex mode at the same time.

1.6 Power information

The power jack of FT-807 is with 2.5mm in the central post and required +5VDC power input. Should you have the issue to make the power connection, please contact with your local sales representative.

Chapter 2 Installation

Please follow these steps to install the converter:

- Turn off the power of the device/station in a network to which the FT-807 will be attached.
- Ensure that there is no activity in the network.
- Attach POF fiber cable with SMI type connector from the FT-807 to the fiber network also using POF.
- Attach a Cat. 5 UTP cable from the 10/100Base-TX network to the RJ-45 port on the FT-807.
- Connect the 5VDC power adapter to the FT-807 and verify that the Power LED lights up.
- Turn on the power of the device/station, the TP and POF LED should light when all cables are attached.



Note:

1. RJ-45/STP, UTP Cat 5, straight/crossover cable is accepted.
2. Please note the FT-807 supports LFP function, both ends should well connected. Otherwise, both TP and fiber port will remains off if any of the port is not connected
3. Consult for your network administrator for more information about POF network equipments. Usually, another FT-807 is required for pair installation and transmission.

Warning: As an optical equipment, to reduce the risk of injury to the eyes, do not look directly into the laser light on the POF interface and do not point the laser light into anyone's eyes in short distance.

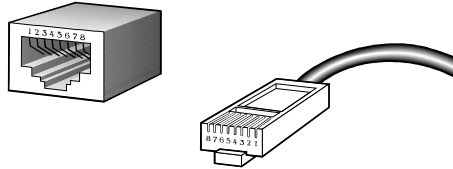
Appendix A: RJ-45 pin assignment and cable system

A.1 10/100Mbps, 10/100Base-TX

When connecting 10/100Mbps TP port to other devices, a straight or crossover cable is necessary. The TP port of FT-807 supports auto-MDI detection. That means you can directly connect the TP port to any Ethernet devices without making a crossover cable. The following table and diagram show the standard RJ-45 receptacle/connector and their pin assignments:

RJ-45 Connector pin assignment		
Contact	MDI Media Dependant Interface	MDI-X Media Dependant Interface -Cross
1	Tx + (transmit)	Rx + (receive)
2	Tx - (transmit)	Rx - (receive)
3	Rx + (receive)	Tx + (transmit)
4, 5	Not used	
6	Rx - (receive)	Tx - (transmit)
7, 8	Not used	

The standard cable, RJ-45 pin assignment



The standard RJ-45 receptacle/connector

There are 8 wires on a standard UTP/STP cable and each wire is color-coded. The following shows the pin allocation and color of straight cable and crossover cable connection:

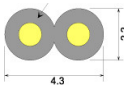


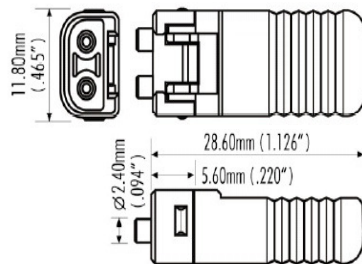
Figure A-1: Straight-Through and Crossover Cable

Please make sure your connected cable is with same pin assignment and color as above picture before deploying the cables into your network.

A.2 100Mbps, 100Base-FX, SMI type connector

FT-807 is using POF SMI type connector that is mostly being used for IEEE1394b transmission. The followings show the basic information.

 The POF Cable should be a dual wire cable with 0.98mm optic core with cladding diameter 1mm. Also with jacket in diameter: 2.2 mm.



The SMI connector will as like the figure left. You can check with your network device dealer or administrator for the availability of the cable and connector.

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