

Product Specification

100Base-FX to 10/100Base-TX PoE Media Converter

FTP-802 / FTP-802S15

Version 1.0

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Change History:

Revision	Date	Author	Change List
Version 1.0	2008/2/27	Berton Yeh	Initial release

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Reviewed by:	Kent Kang	Approved by:	Tom Shih

1. PRODUCT DESCRIPTION

The 10/100Base-TX to 100Base-FX PoE Media converter is used to convert optical Ethernet signal to electrical Ethernet signal that allows two type segments connect easily, efficiently and inexpensively. The Converter work in high performance Store and Forward mechanism and can prevent packet loss with IEEE 802.3x Flow Control (Full-Duplex) and Back Pressure (Half-Duplex). The converter also can convert 10/100Base-TX signal to 100Base-FX signal.

The converter provides PoE power injector function which is able to drive one IEEE 802.3af compliant powered devices. For the cost saving and power management purpose, The PoE Media Converter is an IEEE 802.3af Power over Ethernet Injector that provide DC 48V over Ethernet cables. The Media Converter IEEE 802.3af Power over Ethernet Injector inserts DC Voltage into Cat.5 cable, allowing the cable between the Injector (FTP-802/FTP-802S15) and Splitter (POE-151S / 152S-5V/12V) to transfer data and power simultaneously. The maximum distance between the Injector (FTP-802/FTP-802S15) and Splitter (POE-151S / 152S-5V/12V) is 100 meters. With FTP-802/FTP-802S15 installed, it is combines the Ethernet digital data with power over the twisted pair cables as an IEEE 802.3af Power over Ethernet Injector. And the IEEE 802.3af Power over Ethernet splitter shall separate the digital data and the power into two outputs.

The PoE Media converters only can be used as a stand-alone unit

2. PRODUCT FEATURES

- Complies with IEEE 802.3, IEEE 802.3u 10/100Base-TX, 100Base-FX, IEEE 802.3af Power Over Ethernet standard
- Auto-Negotiation for 10/100Base-TX Half-Duplex or 10/100Base-Full-Duplex
- Compact in size, easy installation
- 100Base-FX interface for up to 2km (multi-mode fiber 50 μ m/125 μ m) on FTP-802
- 100Base-FX interface for up to 15km (single-mode fiber 9 μ m/125 μ m) on FTP-802S15
- LED indicators for easy network diagnose
- 48V/0.4A DC power supply
- Layer 2 Smart Feature:
 - IEEE 802.3x Full-duplex flow-control, back-pressure in half-duplex eliminate packets loss
 - Support Maximum frame size to 1600bytes
 - Support auto MDI/MDI-X function
 - Store-and-Forward mechanism
 - Auto Loop Back Test function
 - Side DIP-switch: LFP (Link Fault Pass-through) mode selection

3. PRODUCT SPECIFICATION

3.1 MAIN COMPONENT

Microcontroller	IC+ IP113M
MAC + PHY	Linear LTC4563 x1
Fiber Transceiver	Vary by models

3.2 FUNCTIONAL SPECIFICATIONS

Protocols and Standards	IEEE 802.3 (Ethernet), 10Base-T IEEE 802.3u (Fast Ethernet), 100Base-TX, 100Base-FX IEEE 802.3af Power Over Ethernet					
Cabling	TP: Cat 5 UTP cable Fiber: MM: 50/125 μm or 62.5/125 μm optic fiber SM: 8.3/125, 8.7/125, 9/125 μm optic fiber					
Port Mode	TP Port with PoE: Half and Full Duplex, auto-negotiation Fiber: Full Duplex					
Packet Forwarding Rate (64bytes)	14880pps @ 10Mbps 14880pps @ 100Mbps					
LFP mode	Enable: Either TP port or FX port is broken, shut down the other port Disable: Link LED indicators still on if connection of the other end is broken					
Port Type (connector)	Cable Distance	Optical Frequency	Launch Power(dBm) Max. Min.		Receive Sensitivity	Maximum Input power
100FX MMF	2km	1310nm	-14	-19.0	-34.5	-14
100FX SMF(15km)	15km	1310nm	-7	-20	-28	-8

3.3 PHYSICAL SPECIFICATION

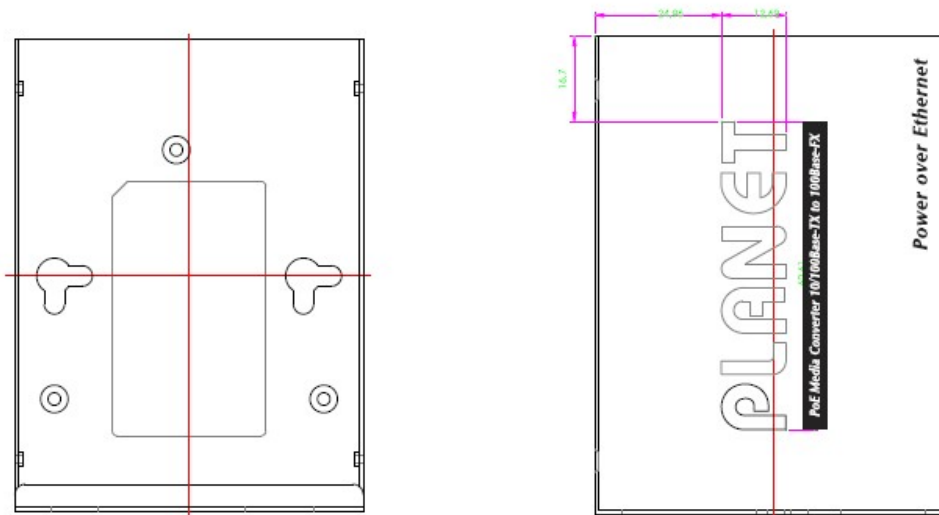
Dimensions

26 x 70 x 97mm (H x W x D)

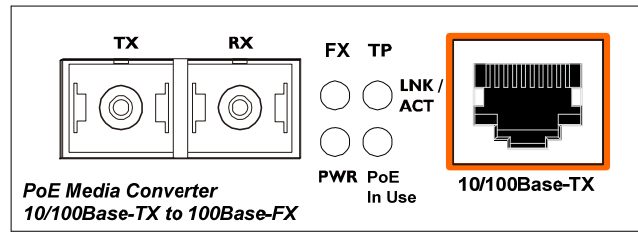
Weight:

0.2 kg

Product outlook:



Left view



Right view



LED definition

■ System

LED	Color	Function
PWR	Green	Lit: Indicate the device is powered.

■ 10/100Base-TX Port

LED	Color	Function	
LNK/ACT	Green	Blink	Indicate that the Media Converter is actively sending or receiving data over that port.
		Lit	Indicate that the port is link up.
		Off	Indicate that the port is link down.
PoE in Use	Green	Lit	Indicate that the port is providing 48VDC to remote powered device.
		Off	Indicate that the port is not providing 48VDC to remote powered device.

■ 100Base-FX SC Port

LED	Color	Function	
LNK/ACT	Green	Blink	Indicate that the Media Converter is actively sending or receiving data over that port.
		Lit	Indicate that the port is link up.
		Off	Indicate that the port is link down.

3.4 ENVIRONMENTAL SPECIFICATION

Operating

Temperature: 0~50°C
Relative Humidity: 5~90%(non-condensing)

Storage

Temperature: -40~70°C
Relative Humidity: 5~90%(non-condensing)

3.5 ELECTRICAL SPECIFICATION

Power Requirement: 48V DC, 0.4A

3.6 REGULATORY COMPLIANCE

FCC Part 15 Class A, CE

3.7 RELIABILITY

MTBF > 50,000 hrs @ 25 degree C

3.8 BASIC PACKAGING

100Base-FX to 10/100Base-TX PoE Media Converter x1
AC-DC Power Adapter (Input: 48V DC, 0.4A max.) x1
User's Manual x1

3.9 PACKING INFORMATION

Dimension
285mm x 135mm x 70mm (W x D x H)
Weight
880g (gross weight)
20pcs in one carton