

1. Package Contents

Thank you for purchasing PLANET 1-Port 10/100BASE-TX 802.3af PoE to 100BASE-FX Media Converter, FTP-802 or FTP-802S15.

Open the box of the FTP-802 series and carefully unpack it. The box should contain the following items:



If any item is missing or damaged, please consult your dealer immediately; if possible, retain the carton including the original packing material, and use them again to repack the product in case there is a need to return it to us for repair.

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2. Product Features

> Interface

- 1 RJ45 interface
 - 1-port **Data + Power** output
 - Auto negotiation
 - Auto-MDI/MDI-X
- 1 fiber optic port
 - FTP-802: SC fiber interface, 2km
 - FTP-802S15: SC fiber interface, 15km
- DC 48V power input socket

> PoE

- Complies with IEEE 802.3af standard, end-span PSE
- Provides DC 48V power over RJ45 Ethernet cable to devices with Ethernet port
- Supports PoE Power up to 15.4 watts for PoE port
- Auto-detects PoE IEEE 802.3af equipment; protecting the devices from being damaged by incorrect installation
- Remote power feeding up to 100m
- IEEE 802.3af splitter devices compatible

> Hardware

- Metal case
- LED indicators:
 - System: Power, Status
 - FX/LNK: Data Active, Fiber Link

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- TX/LNK: 10/100 Link/Active
 - PoE in Use: Detect PSE Device
 - DIP-switch: LFP (Link Fault Pass-through) mode selection
- > **Standard Compliance**
- IEEE 802.3 10BASE-T
 - IEEE 802.3u 100BASE-TX
 - IEEE 802.3u 100BASE-FX
 - IEEE 802.3x Flow Control
 - IEEE 802.3af Power over Ethernet Standard
 - FCC Part 15 Class A, CE

3. Hardware Introduction

3.1 Front Panel and LED Indicators

■ FTP-802/FTP-802S15 Front Panel
There are one RJ45 twisted-pair jack (auto MDI/MDI-X), one fiber-optic connector (vary by model) and four LED indicators.



Figure 1: Right View of the FTP-802/FTP-802S15

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■ FTP-802/FTP-802S15 LED Indication

> System

LED	Color	Function
PWR	Green	Lit to indicate the device is powered.

> 10/100BASE-TX Port

LED	Color	Function	
LNK/ACT	Green	Blink	Indicates that the PoE Media Converter is actively sending or receiving data over that port.
		Light	Indicates that the port is linked up at 10/100Mbps.
		Off	Indicates that the port is linked down.
PoE in Use	Green	Light	Indicates that the port is providing DC 48V to remote powered device.
		Off	Indicates that the port is not providing DC 48V to remote powered device.

> 100BASE-FX Fiber Port

LED	Color	Function	
LNK/ACT	Green	Blink	Indicates that the PoE Media Converter is actively sending or receiving data over that port.
		Light	Indicates that the port is linked up.
		Off	Indicates that the port is linked down.

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3.2 Rear Panel and Mode DIP Switch

- Mini-IEC jack (DC 48V input) for power adapter.
- One DIP switch for Link Fault Pass-through (LFP) feature:
 - > **"ON"** to turn on the LLCF and LLR detection.
 - > **"OFF"** to turn off this feature. Please refer to the following sections for more.

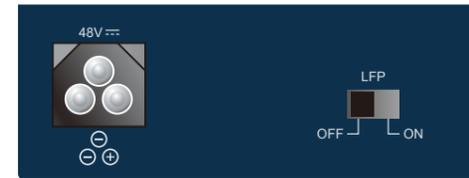


Figure 2: Rear View of the FTP-802/FTP-802S15

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4. Link Fault Pass-Through (LFP)

The LFP function includes the Link-Fault-Passthrough function (LLCF/LLR) and the DIP Switch design. LLCF/LLR can immediately alarm administrators the issue of the link media and provide efficient solution to monitor the network. The DIP Switch will disable or enable the LFP function.

LLCF (Link Loss Carry Forward) means when a device is connected to the converter and the TP line loses the link, the converter's fiber will disconnect the link of transmit. LLR (Link Loss Return) means when a device is connected to the converter and the fiber line loses the link, the converter's fiber will disconnect the link of transmit.



Note
LFP function is ON by default setting. If you are familiar with the network installation and for diagnostic purpose (i.e. check which end is broken), you can turn it off and reset the converter to make it take effect. Otherwise, please remain it in the default position.

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5. Installing The Converter

To install Fast Ethernet 802.3af PoE Media Converter, simply complete the following steps; please follow these steps to install the Fast Ethernet 802.3af PoE Media Converter:

Ethernet Installation

- Step 1:** Turn off the power of the device/station in a network to which the FTP-80x will be attached.
- Step 2:** Ensure that there is no activity in the network.
- Step 3:** Attach fiber cable from the FTP-80x to the fiber network. TX, RX must be paired at both ends.
- Step 4:** Attach a Cat.5/5e UTP cable from the 10/100BASE-TX network to the RJ45 port on the FTP-80x.
- Step 5:** Connect the 48V DC power adapter to the FTP-80x and verify that the Power LED lights up.

- Step 6:** Turn on the power of the device/station; the TX Link and FX Link LEDs should light up when all cables are attached.

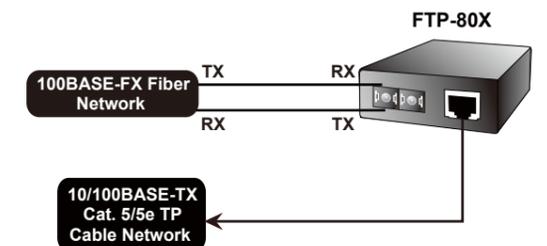


Figure 3: FTP-802/FTP-802S15 Installation



Note
RJ45/STP, UTP Cat5/5e, or straight/crossover cable is accepted; please refer to section 8 for more about the wiring distance of your TP, optic-fiber networks.

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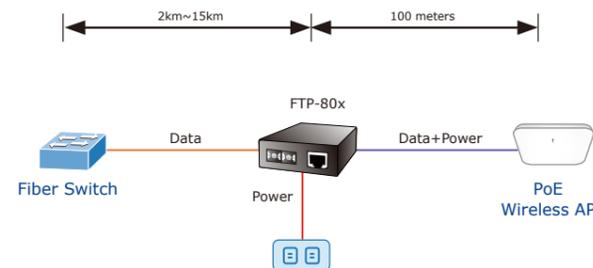
PoE Function

The installation of the FTP-802/FTP-802S15 and the IEEE 802.3af Injector/Splitter

Before your installation, it is recommended to check your network environment. If there is any IEEE 802.3af devices that need to be powered on, the FTP-80x can provide you a way to supply power for this Ethernet device conveniently and easily.

The FTP-80X is equipped with an AC-DC adapter with DC 48V input and injects this DC power into the pin of the twisted-pair cable (Pins 1, 2, 3 and 6).

For the places hard to find the power inlet, the FTP-80X provides the easiest way to power your Ethernet devices such as PLANET IEEE 802.3at/802.3af Power over Ethernet Splitter (POE-161S/162S) with Internet Camera or PoE Wireless Access Point installed in a wide-ranging place.



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7. Product Specifications

Product		FTP-802	FTP-802S15
Interface Specifications			
Copper		1-Port Fast Ethernet TP interface, auto-negotiation, auto MDI/MDI-X with PoE injector function	
Fiber	Fiber Port Type (connector)	SC	SC
	Cable Distance	2km	15km
	Optical Frequency	1300nm	1310nm
	Launch Power (dBm)	Max. -14/Min. -19.0	Max. -7/Min. -20
	Receive Sensitivity	-34.5	-28
	Maximum Input power	-14	-8

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6 Cable Connection Parameter

The wiring details are shown below:

Duplex	Connection	Limitation (Max.)
Twisted Pair		
Half/Full	Node to Node Node to Switch/Hub	100 meters
Multi-Mode Converter		
MM Half	Node to Node Node to Switch	412 meters
MM Full	Node to Node Node to Switch	FTP-802: 2 kilometers
Single-Mode Converter		
SM Full	Node to Node Node to Switch	FTP-802S15: 15 kilometers
Fiber Optic Cables		
Standard (Wavelength)	100BASE-FX (1310nm)	
100BASE-FX (1310nm)	Multi-mode: 50/125µm or 62.5/125µm Single-mode: 9/125µm	

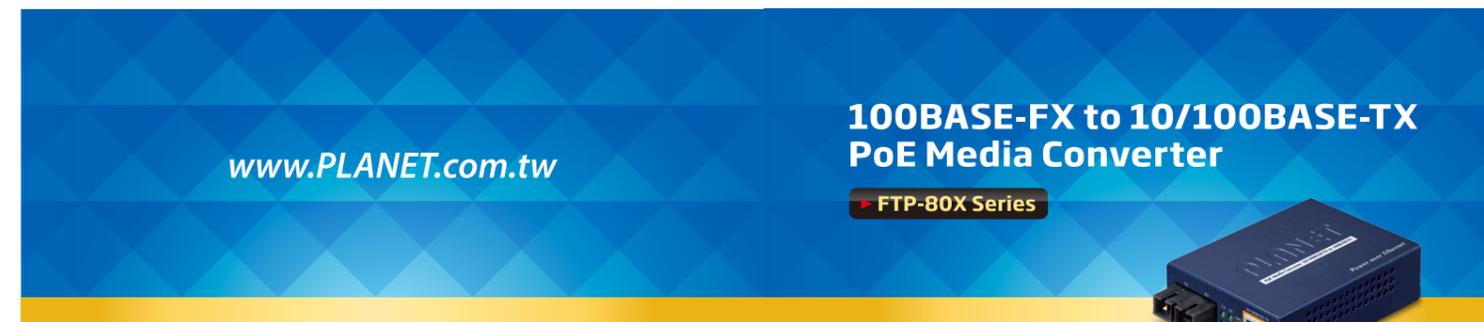
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Hardware Specifications	
Switch Architecture	Store-and-Forward
Flow Control	Back pressure for Half Duplex mode IEEE 802.3x Pause frame for Full Duplex mode
LED	System: Power, Status (Green) FX/LNK: Data Active, Fiber Link (Green) TX/LNK: 10/100 Link/Active (Green) PoE in Use: Detect PSE Device (Green)
Dimensions (H x W x D)	26 x 70 x 97mm
Weight	0.2kg
Power Supply	48V DC, 0.4A external AC-to-DC adapter
Temperature	0~50 degrees C
Humidity Operating	5~90% (non-condensing)
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

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User's Manual



PLANET Technology Corp.

10F., No. 96, Minquan Rd., Xindian Dist., New Taipei City 231, Taiwan

2350-AA3540-004

Warning:
This equipment is compliant with Class A of CISPR 32. In a residential environment this equipment may cause radio interference.



Energy Saving Note of the Device
This power required device does not support Standby mode operation. For energy saving, please remove the DC-plug or push the hardware Power Switch to OFF position to disconnect the device from the power circuit. Without removing the DC-plug from or switching off the device, the device will still consume power from the power source. In view of Saving the Energy and reducing the unnecessary power consumption, it is strongly suggested to power off or to remove the DC-plug from the device if this device is not intended to be active.

Power Over Ethernet	
PoE Standard	IEEE 802.3af Power over Ethernet
Power Output	PoE 48V DC, Max. 15.4 watts, 350mA
Power Pin Assignment	1/2(+), 3/6(-)
Standards Conformance	
Regulatory Compliance	FCC Part 15 Class A, CE
Protocols and Standards Compliance	IEEE 802.3 Ethernet IEEE 802.3u Fast Ethernet IEEE 802.3x Flow Control IEEE 802.3af Power over Ethernet
Cables	TP: Cat 5/5e UTP cable
	Fiber: Multi-mode: 50/125µm or 62.5/125µm optic fiber Single-mode: 8.3/125, 8.7/125, 9/125µm optic fiber

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EC Declaration of Conformity

For the following equipment:

*Type of Product : 100Base-FX to 10/100Base-TX PoE Media Converter

*Model Number : FTP-802, FTP-802S15

* Produced by:
Manufacturer's Name : Planet Technology Corp.
Manufacturer's Address : 10F., No.96, Minquan Rd., Xindian Dist., New Taipei City 231, Taiwan, R.O.C.

is herewith confirmed to comply with the requirements set out in the Council Directive on the Approximation of the Laws of the Member States relating to Electromagnetic Compatibility Directive on 2014/30/EU.

For the evaluation regarding the EMC, the following standards were applied:

EN 55032	(2012/AC:2013)
EN 61000-3-2	(2014)
EN 61000-3-3	(2013)
EN 55024	(2010)

Responsible for marking this declaration if the:

Manufacturer Authorized representative established within the EU

Authorized representative established within the EU (if applicable):

Company Name: Planet Technology Corp.

Company Address: 10F., No.96, Minquan Rd., Xindian Dist., New Taipei City 231, Taiwan, R.O.C.

Person responsible for making this declaration

Name, Surname: Kent Kang

Position / Title: Director

Taiwan
Place

March 23, 2017
Date

Kent Kang
Legal Signature

PLANET TECHNOLOGY CORPORATION

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