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

## 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 mode or full duplex mode, auto MDI/MDI-X function on copper port
- IEEE 802.3x full duplex flow control, back-pressure in half duplex eliminate packets loss
- Provides DC 48V power over RJ-45 Ethernet cable to device with Ethernet port
- Auto-detects POE IEEE 802.3af equipment; protects devices from being damaged by incorrect installation
- 100Base-FX interface for up to 2km (multi-mode fiber 50µm/125µm, 62.5µm/125µm) on FTP-802
- 100Base-FX interface for up to 15km (single-mode fiber 9µm/125µm) on FTP-802S15
- DIP-switch: LFP (Link Fault Pass-through) mode selection
- Compact in size, easy installation
- LED indicators for easy network diagnostics

### More than a Fiber Media Converter - a Power over Ethernet Injector as well

### The best data link and power sourcing solution for long reach network equipment

PLANET FTP-80x series is ideal for remote network equipment deployments, using two networking technologies

- **Media Conversion** : 100Base-FX to 10/100Base-TX
- **Power over Ethernet** : Power Sourcing Equipment (PSE), PoE Injector

Providing both PoE and fiber-optic interfaces, the FTP-80x is ideal for service providers, campuses and public areas requiring to deploy the PoE for wireless access points, IP-based surveillance cameras or IP phones in any places easily, efficiently and cost effectively.

### PoE Optimizes the Installation and Power Management of Network Devices

The IEEE 802.3af capabilities of the FTP-80x reduce installation costs for many new network productivity devices. As an IEEE 802.3af Power over Ethernet Injector, the FTP-80x provides DC 48V voltage over Ethernet cables. It allows the twisted pair cable between the FTP-80x and IEEE 802.3af compliant PD (Powered Device) or PoE Splitter (such as POE-151S-5V/12V) to transfer data and power simultaneously.

### Fiber-optic Link Capability Extends the Range of Network Deployments

The maximum distance between the PoE PSE and PD is 100 meters. To extend the network device deployment range, the FTP-80x is integrated with fiber interface. The FTP-80x PoE Media Converter is used to convert optical Ethernet signal to electrical Ethernet signal that allows two type of segments connect easily, efficiently and inexpensively. It can convert 10/100Base-TX signal to 100Base-FX signal and provides the diverse fiber connecting types of options to meet different network applications. By selectable model, the maximum networking distance can extend to as long as 15 kilometers and still sustain the transmission performance as high as 100Mbps. It works in high performance Store and Forward mechanism; it also can prevent packet loss with IEEE 802.3x flow control (full-duplex). With the LFP (Link Fault Pass-through function) (LLCF/LLR) and the DIP switch design, it can immediately alarm administrators the problem of the link media and provide efficient solution to monitoring the net. The DIP switch provides the disabling or enabling of the LFP function.
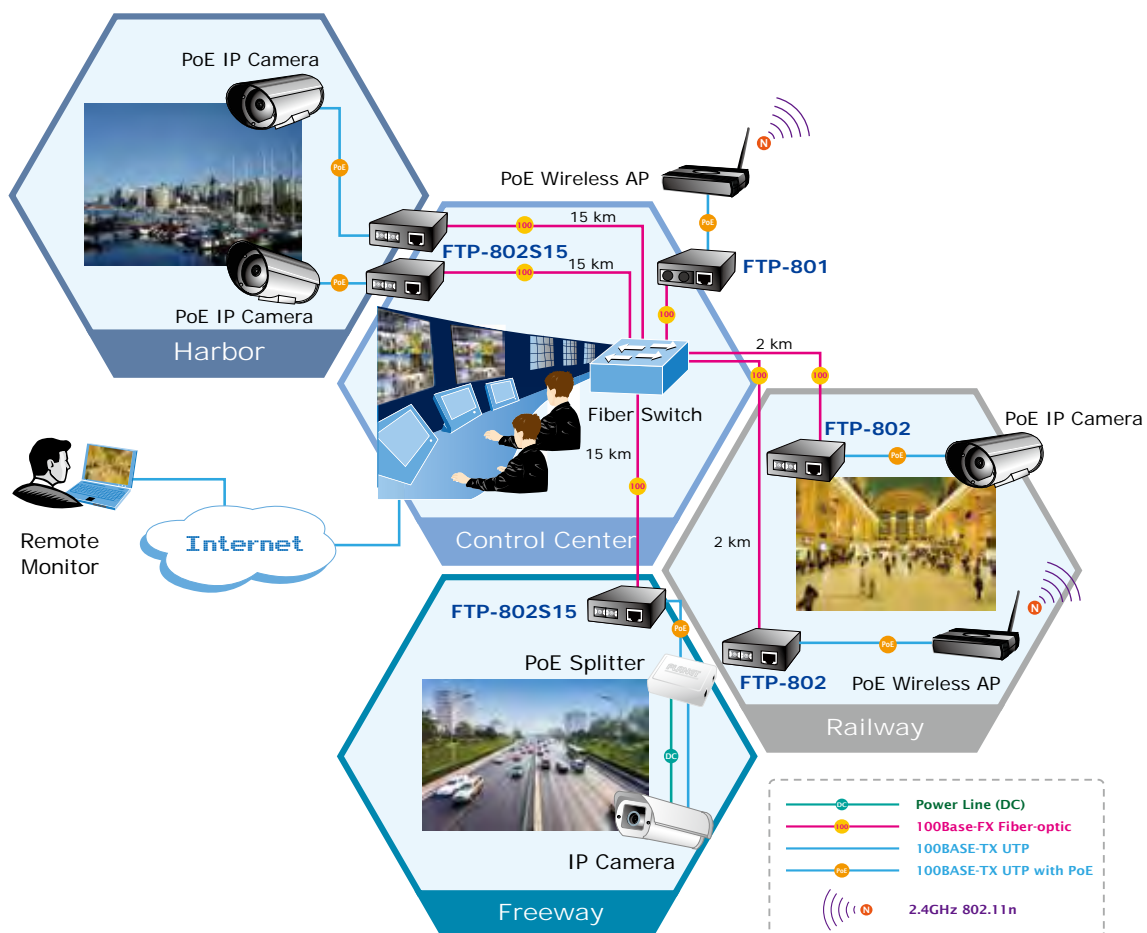
## Advantage of Combined PoE and Media Conversion

With data, long reach fiber capability and PoE from one unit, the FTP-80x will reduce cables and eliminate the need for dedicated electrical outlets on the wall, ceiling or any unreachable place. It frees the security IP camera and wireless AP deployment from restrictions due to power outlet locations. Power and data switching are integrated into one unit and delivered over a single cable, eliminating costs for additional AC wiring and reducing installation time.

# Product Applications

## The IEEE 802.3af Equipment Installation

The FTP-80X provides the easiest way to power your Ethernet devices such as PLANET IEEE 802.3af Power over Ethernet Splitter (POE-151S / 152S) with non PoE Internet camera or wireless PoE access point (IAP-2000PE). For instance, security IP camera, wireless access point and other IEEE 802.3af compliant network equipment can be easily installed around the corner in the public area such as station or freeway for surveillance demands, or wireless roaming environment in the campus or airport can be set up.

# Specifications

| Product | FTP-802 & FTP-802S15 |
|---|---|
| **Interface** | |
| Copper | 1-port Fast Ethernet TP interface, auto negotiation, auto MDI/MDI-X with PoE injector function |
| Fiber | Multi-mode: 50/125 μm or 62.5/125 μm optical fiber |
| | Single-mode: 8.3/125, 8.7/125, 9/125 μm optical fiber |
| Fiber Port Type (connector) | FTP-802 : SC<br>FTP-802S15 : SC |
| Cable Distance | FTP-802 : 2km<br>FTP-802S15 : 15km |
| Optical Frequency | FTP-802 : 1310nm<br>FTP-802S15 : 1310nm |
| Launch Power(dBm) | FTP-802 : max.-14        Min.-19.0<br>FTP-802S15 : max. -7     Min.-20 |
| Receive Sensitivity | FTP-802 : -34.5<br>FTP-802S15 : -28 |
| Maximum Input power | FTP-802 : -14<br>FTP-802S15 : -8 |
| **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(-) |
| **Hardware Specifications** | |
| Switch Architecture | Store-and-Forward |
| Flow Control | Back pressure for half duplex mode<br>IEEE 802.3x pause frame for full duplex mode |
| LED | System: Power, Status<br>FX / LNK: Data Active, Fiber Link.<br>TX / LNK: 10/100 Link/Active<br>PoE in Use: Detects PSE Device. |
| Dimensions (H x W x D) | 26 x 70 x 97mm |
| Weight | 0.2 kg |
| Power Supply | 48V DC, 0.4A external AC-to-DC adapter |
| Temperature | 0~50 degrees C |
| Operating Humidity | 5~90%(non-condensing) |
| LFP mode | Enable: Either TP port or FX port is broken, shut down the other port<br>Disable: Link LED indicators still on if connection of the other end is broken |
| **Standards Conformance** | |
| Regulation Compliance | FCC Part 15 Class A, CE |
| Protocols and Standards Compliance | IEEE 802.3 Ethernet<br>IEEE 802.3u Fast Ethernet<br>IEEE 802.3x  Flow Control<br>IEEE 802.3af Power over Ethernet |
| Cables | TP: Cat 5/5e UTP cable<br>Fiber: Multi-mode: 50/125 μm or 62.5/125 μm optical fiber<br>Single-mode: 8.3/125, 8.7/125, 9/125 μm optical fiber |

# Ordering Information

| | |
|---|---|
| FTP-802 | 100Base-FX to 10/100Base-TX PoE Media Converter (SC,MM)-2km |
| FTP-802S15 | 100Base-FX to 10/100Base-TX PoE Media Converter (SC,SM)-15km |