1. Package Contents

Your GT-805A-PD carton should contain the following items:

The Gigabit Ethernet PoE PD Media Converter x 1	User's Manual x 1
	

If any item is missing or damaged, please consult the dealer from whom you purchased your Gigabit Ethernet PoE PD Media converter.

Note

The GT-805A-PD comes with one vacant SFP module slot. The mini GBIC SFP module is not bundled in the package.

2. Product Features

Physical Port

- Media conversion between 10/100/1000BASE-T and 100BASE-FX/1000BASE-SX/LX
- TP Port supports 802.3af/at/bt PoE 48V-54V DC in-line-power
- TP port supports 10/100/1000BASE-T auto-negotiation and auto-MDI/MDI-X.
- Fiber media allows
  - Multi-mode fiber using LC connector
  - Single-mode fiber using LC connector

Power over Ethernet

- Compatible with IEEE 802.3bt Power over Ethernet plus plus end-span + mid-span PSE
- Compatible with IEEE 802.3at Power over Ethernet plus end-span/mid-span PSE
- Backward compatible with IEEE 802.3af Power over Ethernet

Layer 2 Features

- Store-and-Forward mechanism
- Non-blocking full wire-speed forwarding rate
- IEEE 802.1Q Tag VLAN transparent, multicast pass through
- 9K jumbo frame
- IEEE 802.3x full-duplex and half-duplex back-pressure flow control to eliminate the loss of packets

Mechanical

- DIP switch for LFP function (Disable/Enable) setting
- LED indicators for easy network diagnostics
- Wall mounting or DIN-rail installation
- Compact in size, easy installation
- Two power input designs (IEEE 802.3af/at/bt 48V~54V DC in-line power or optional 5V DC input)
- Compact size for working with PLANET MC family media chassis (MC-700/MC-1500/MC-1500R/MC-1500R48)

3. Hardware Description

3.1 Front View

There are one RJ45 twisted-pair jack (auto-MDI/MDI-X) with one "PoE In" LED indicator, one 100/1000X SFP fiber-optic slot, four LED indicators and one DIP switch for Link-Fault Passthrough (LFP) feature.

When the DIP switch is turned on, the LLCF and LLR are activated.

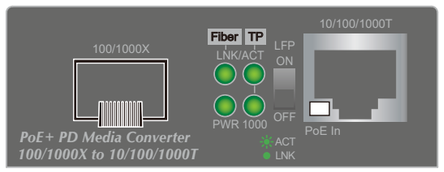


Figure 1: GT-805A-PD Front View

Power Notice

The Gigabit Ethernet PoE PD media converter provides two power input systems, IEEE 802.3af/at/bt 48V~54V DC in-line power via 10/100/1000T RJ45 port or **optional 5V DC input via DC jack on the rear panel**.

3.2 LED Indication

■ System

LED	Color	Function	
PWR	Green	Lit	To indicate that the Gigabit Ethernet PoE PD media converter has power.
		Off	To indicate that the power is not detected.

■ 100/1000BASE-X SFP Slot

LED	Color	Function	
Fiber LNK/ ACT	Green	Lit	To indicate the link through fiber port is successfully established.
		Blink	To indicate the fiber port is actively sending or receiving data.
		Off	To indicate that the fiber optic port is linked down.

■ 10/100/1000BASE-T Port

LED	Color	Function	
LNK/ ACT	Green	Lit	To indicate the link through TP port is successfully established.
		Blink	To indicate the port is actively sending or receiving data.
		Off	To indicate that the copper port is linked down.
1000 LNK/ ACT	Green	Lit	To indicate that the copper port is operating at 1000Mbps.
		Blink	To indicate the port is actively sending or receiving data at 1000Mbps.
		Off	To indicate that the copper port is linked down or operating at 10/100Mbps.
PoE In	Amber	Lit	To indicate the RJ45 port is receiving the PoE power.
		Off	To indicate the connected device is not a PoE power sourcing equipment (PSE).

3.3 Rear View

The rear panel of the Gigabit Ethernet PoE PD media converter comes with one DC jack, which accepts input power of 5V DC 2A.

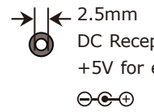
Figure 2: GT-805A-PD Rear View

Power Notice

The default package of Gigabit Ethernet PoE PD media converter does not include DC 5V power adapter. If you need this DC 5V power adapter, please contact your local dealer or distributor for more assistance.

3.4 Power Information

The power jack of Gigabit Ethernet PoE PD media converter measures 2.5mm in the central post and requires +5VDC power input. It conforms to the bundled AC-DC adapter and PLANET's media chassis. Should you have the issue of power connection, please contact your local sales representative.



DC receptacle is 2.5mm wide that conforms to the Gigabit Ethernet PoE PD media converter's 2.5mm DC jack's central post. Do not install any improper unit.

4. Link Fault Pass-through (LFP)

It includes the Link Fault Passthrough (LFP) function and the DIP switch. The LFP function includes the Link Loss Carry Forward (LLCF) and Link Loss Return (LLR). LLCF and LLR can immediately alert 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 means when a device is connected to the converter and the TP line loses the link, the converter's fiber will disconnect transmission link. 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 transmission link.

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 keep it in the default position.

5. Installation

5.1 Before Installation

The GT-805A-PD is installed with the PSE (power source equipment); it is powered by PSE and forwards the Ethernet data to the remote media converter. The GT-805A-PD doesn't require an external power supply and it can be installed easily by just plug and play without affecting the data transmission performance.

Note

1. To provide you with better PoE power and data extension quality, we strongly recommend that you use **"Solid UTP Cable"** when installing the GT-805A-PD.
2. The GT-805A-PD can be installed with a third-party device if the device complies with IEEE 802.3af/at/bt standard.

5.2 Connecting GT-805A-PD to Power Source Equipment (PSE)

This section describes how to install GT-805A-PD and make connection to it. Please read the following topics and perform the procedures in the order being presented.

The **"RJ45 PoE IN"** port functions as **"PoE (Data and Power) input"**.

Step 1: Slide in the SFP transceiver module and connect fiber cable from the GT-805A-PD to the fiber network.

Step 2: Connect a standard Cat5e/6 UTP cable from power source equipment **(PSE)**, such as PoE switch, PoE injector hub and single port PoE injector, to the **"PoE IN"** port of the GT-805A-PD.

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

Fiber Optic Cables:

Standard (Wavelength)	100BASE-FX (1310nm)	1000BASE-SX (850nm)	1000BASE-LX (1310nm)
Fiber Type & Cable Specifications	Multi-mode	50/125μm or 62.5/125μm	
	Single-mode	9/125μm	

7. Product Specifications

Model	GT-805A-PD
Hardware Specifications	
Copper Port	10/100/1000BASE-T Ethernet TP RJ45 port (auto-MDI/MDI-X) twisted pair
Fiber Port	100/1000BASE-X
Fiber Port Type (connector)	SFP (LC)
Copper Maximum Distance	100m
Fiber Maximum Distance	Vary by SFP Transceiver
LED Indicator	System: Power x 1 (Green) TP LINK/ACT, 1000 LINK/ACT (Green). PoE In (Amber) Fiber LINK/ACT (Green)
DIP Switch	LFP function (Disable/Enable) setting
Power Consumption	2 watts/6.8 BTU (maximum)
Power Requirements	IEEE 802.3af/at/bt PoE 48V-54V DC in-line-power or optional DC 5V/2A external power adapter (Not included in standard package)
Dimensions (W x D x H)	70 x 94 x 26 mm
Weight	186g

Converter Specifications	
Speed	**Twisted-pair:** 10/20Mbps for half/full duplex 100/200Mbps for half/full duplex 2000Mbps for full duplex **Fiber-optic:** 200Mbps for full duplex 2000Mbps for full duplex
Network Cables	**Twisted-pair:** 10BASE-T: 2-pair UTP Cat. 3, 4, 5, up to 100m 100BASE-TX: 2-pair UTP Cat. 5, up to 100m 1000BASE-T: 4-pair STP Cat. 5, up to 100m **Fiber-optic Cable** **1000BASE-SX:** 50/125μm or 62.5/125μm multi-mode fiber cable, up to 220/550m/2km. **1000BASE-LX:** 9/125μm single-mode cable, providing long distance for 2/10/20/40/80/120km (vary on SFP module) **100BASE-FX:** 50/125μm or 62.5/125μm multi-mode fiber cable for up to 2km (vary on SFP module) 9/125μm single-mode cable for 20/40/60/120km (vary on SFP module)
Jumbo Packet Size	9K

Standard Conformance	
Standards Compliance	IEEE 802.3 10BASE-T IEEE 802.3u 100BASE-TX/100BASE-FX IEEE 802.3ab 1000BASE-T IEEE 802.3z 1000BASE-SX/LX IEEE 802.3x full-duplex and half-duplex back-pressure flow control to eliminate packet loss IEEE 802.3af Power over Ethernet IEEE 802.3at Power over Ethernet Plus IEEE 802.3bt 4-pair Power over Ethernet Plus Plus (Type 3) IEEE 802.3bt 4-pair Power over Ethernet Plus Plus (Type 4)
Regulatory Compliance	FCC Part 15 Class A, CE
Environment	
Operating Temperature	0 ~ 50 degrees C
Storage Temperature	-10 ~ 70 degrees C
Operating Humidity	5 ~ 95%, relative humidity, non-condensing
Storage Humidity	5 ~ 95%, relative humidity, non-condensing

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User's Manual

www.PLANET.com.tw

802.3at PoE+ PD 10/100/1000BASE-T to 100/1000BASE-X SFP Media Converter

GT-805A-PD

PLANET Technology Corp.
10F., No. 96, Minquan Rd., Xindian Dist., New Taipei City 231, Taiwan
2350-AM1060-000

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 savings, please remove the DC plug or slide the hardware-based Power Switch to the 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.