1. Package Contents

Thank you for purchasing PLANET industrial 100/1000X to 10/100/1000T 802.3at PoE+ Media Converter, IGTP-80xT series. In the following sections, the term **"Industrial PoE+ Media Converter"** means the IGTP-80xT series.

Open the box of the Industrial PoE+ Media Converter and carefully unpack it. The box should contain the following items:

Industrial PoE+ Media Converter x 1	User's Manual x 1	Wall-mount Kit x 1
		
DIN-rail Kit x 1	RJ45 Dust Caps x 1	SFP/SC Dust Cap x 1
		

If any of these are missing or damaged, please contact 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.

2. Product Specifications

Product	IGTP-802T	IGTP-802TS	IGTP-805AT
Ethernet Interface			
Copper	10/100/1000BASE-T Ethernet TP interface. Maximum 100m distance. Auto-negotiation, auto MDI/MDI-X with PoE injector function		
1000BASE-X Fiber-optic Connector Type	SC	SC	SFP (LC) Supports 1000BASE-SX/LX/BX and 100BASE-FX SFP module
Fiber Cable	Multi-mode: 50/125μm or 62.5/125μm optic fiber	Single-mode: 9/125μm optic fiber	Varying on SFP Module
Fiber Cable Distance	220m & 550m	20km	
Fiber Optic Frequency	850nm	1310nm	
Launch Power	Max. -3dBm Min. -10dBm	Max. -3dBm Min. -9dBm	
Receive Sensitivity	-20dBm	-23dBm	
Maximum Input Power	-3dBm	-3dBm	

Power Over Ethernet	
PoE Standard	IEEE 802.3af Power over Ethernet IEEE 802.3at Power over Ethernet Plus
PoE Power Output	52V DC: 15.4 watts 52V DC: 30 watts
PoE Power Supply Type	End-span
Power Pin Assignment	1/2(+), 3/6(-)
PoE Power Budget	30 watts
Hardware Specifications	
Speed	**Twisted-pair:** 10/20Mbps for half/full duplex 100/200Mbps for half/full duplex 1000/2000Mbps for full duplex **Fiber Optic:** 200Mbps/2000Mbps for full duplex (IGTP-805AT) 2000Mbps for full duplex (IGTP-802T/IGTP-802TS)
Flow Control	Back pressure for half duplex mode IEEE 802.3x pause frame for full duplex mode
Maximum Frame Size	9K
LED	System: Power 1, Power 2 (Green) and Alarm LED (Red) Fiber 1000BASE-X: LNK/ACT (Green) TP 10/100/1000BASE-T: LNK/ACT, 1000 LNK/ACT (Green) PoE: Power-in-use (Amber)

Dimensions (W x D x H)	32 x 87 x 135 mm	
Weight	416g	420g
Unit Input Voltage	12 ~ 48V DC 24V AC	
Power Consumption	**System on:** AC 24V: 4.5W/15BTU DC 12V: 4.6W/15BTU DC 48V: 4.5W/15BTU **Full Loading:** AC 24V: 23.5W/80BTU DC 12V: 48W/163BTU DC 48V: 47.5W/162BTU	**System on:** AC 24V: 2.8W/9.5BTU DC 12V: 2.6W/8.8BTU DC 48V: 2.8W/9.5BTU **Full Loading:** AC 24V: 23.1W/78BTU DC 12V: 46.8W/159BTU DC 48V: 47W/160BTU
DIP Switch	OFF: LFP (Link Fault Passthrough) disable ON: LFP (Link Fault Passthrough) enable FEF (Far End Fault) works with LFP to prevent data loss LFP is turned off by default on the DIP switch.	
Enclosure	IP30 metal case	
Installation	DIN-rail kit and wall-mount ear	
ESD Protection	6KV DC	
Alarm	Provides one relay output for power failure Alarm relay current carry ability: 1A @ DC 24V	

Cables	**10/100/1000BASE-T:** 2-pair UTP Cat. 3, 4, 5, 5e, 6 (maximum 100 meters) EIA/TIA-568 100-ohm STP (maximum 100 meters) **100BASE-FX/1000BASE-SX/LX:** Multi-mode: 50/125μm or 62.5/125μm optical fiber Single-mode: 9/125μm optical fiber
Standards Conformance	
Regulatory Compliance	FCC Part 15 Class A, CE
Protocols and Standards Compliance	IEEE 802.3 Ethernet IEEE 802.3u Fast Ethernet IEEE 802.3ab Gigabit Ethernet IEEE 802.3z Gigabit Ethernet over Fiber Optic IEEE 802.3x Flow Control IEEE 802.3af Power over Ethernet IEEE 802.3at Power over Ethernet Plus
Stability Testing	IEC60068-2-32 (free fall) IEC60068-2-27 (shock) IEC60068-2-6 (vibration)
Environment	
Temperature	Operating: -40~75 degrees C Storage: -40~85 degrees C
Humidity	Operating: 5~90% (non-condensing) Storage: 5~90% (non-condensing)

3. Hardware Introduction

3.1 Three-View Diagram

The three-view diagram of the Industrial PoE+ Media Converter consists of Ethernet interfaces and one **removable 6-pin terminal block**. The LED indicators are also located on the front panel.

■ **IGTP-805AT/IGTP-802T/IGTP-802TS:**

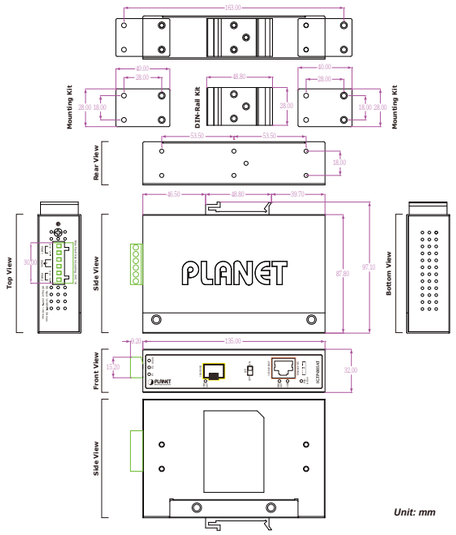


Figure 1: Three-View Diagram

Note

The above drawing is based on IGTP-805AT. The only difference between the three models is the fiber optic interface.

■ **Front Panels**

Figure 2: IGTP-802T

Figure 3: IGTP-802TS

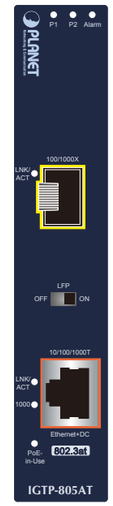


Figure 4: IGTP-805AT

3.2 LED Definition:

■ **System**

LED	Color	Function
P1	Green	**Lit:** indicates power 1 has power.
P2	Green	**Lit:** indicates power 2 has power.
Alarm	Red	**Lit:** indicates either power 1 or power 2 has no power.

■ **Gigabit Fiber Interface**

LED	Color	Function
Fiber LNK/ACT	Green	**Lit:** indicates that the fiber optic port is successfully connecting to the network at 100Mbps or 1000Mbps.
		Blinks: Indicates the fiber optic port is receiving or sending data.

■ **Gigabit TP Interface**

LED	Color	Function
TP LNK/ACT	Green	**Lit:** indicates that the Gigabit Ethernet Port is successfully connecting to the network at 10/100/1000Mbps.
		Blinks: indicates the Gigabit Ethernet Port is receiving or sending data.
TP 1000 LNK/ACT		**Lit:** indicates that the Gigabit Ethernet Port is successfully connecting to the network at 1000Mbps.
		Blinks: indicates the Gigabit Ethernet Port is receiving or sending data.
		OFF: indicates the Gigabit Ethernet Port is successfully connecting to the network at 10/100Mbps.

■ **PoE**

LED	Color	Function
PoE-in-Use	Amber	**Lit:** Lit: Indicates that the port is providing PoE power to remote powered device.
		Off: Indicates that the port is not providing PoE power to remote powered device.

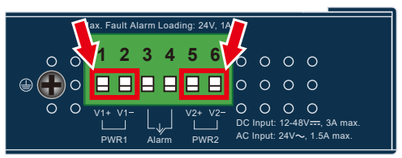
3.3 Wiring the Power Inputs

The terminal block connector on the top panel of Industrial PoE+ Media Converter is used for 12~48V DC power inputs. Please follow the steps below to insert the power wire.

Caution

When performing any of the procedures like inserting the wires or tightening the wire-clamp screws, make sure the power is OFF to prevent from getting an electric shock.

1. Insert positive and negative DC power wires into contacts 1 and 2 for POWER 1, or 5 and 6 for POWER 2.



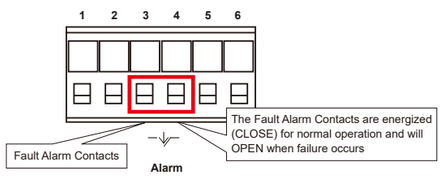
2. Tighten the wire-clamp screws for preventing the wires from loosening.

Note

1. The wire gauge for the terminal block should be in the range between 12 and 24 AWG.
2. The DC power input range is 12V ~ 48V DC and supports 24V AC.
3. Please just use one power input when using 24V AC.

3.4 Wiring the Fault Alarm Contact

The fault alarm contacts are in the middle of the terminal block connector as the picture shows below. Inserting the wires, the Industrial PoE+ Media Converter will detect the fault status of the power failure, and then forms an open circuit. The following illustration shows an application example for wiring the fault alarm contacts.

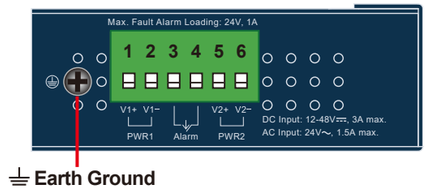


Note

1. The wire gauge for the terminal block should be in the range of 12 ~ 24 AWG.
2. Alarm relay circuit accepts up to 24V, max. 1A currents.

3.5 Grounding the Device

Users **MUST** complete grounding wired with the device; otherwise, a sudden lightning could cause fatal damage to the device. EMD (Lightning) DAMAGE IS NOT CONVERED UNDER WARRANTY.



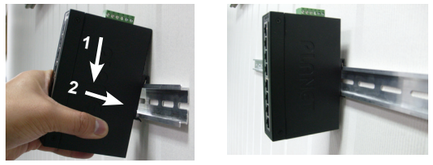
4. Hardware Installation

This section describes the functionalities of the Industrial PoE+ Media Converter's components and guides you to installing it on the DIN rail and wall. Please read this chapter completely before continuing.

Note

This following picture tells the user how to install the device, and the device is not IGTP-80xT series.

4.1 DIN-rail Mounting Installation



4.2 Wall-mount Plate Mounting

4.3 Side Wall-mount Plate Mounting

Caution

You must use the screws supplied with the wall-mounting brackets. Damage caused to the parts by using incorrect screws would invalidate your warranty.

PLANET Networking & Communication

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

IGTP-80xT Series

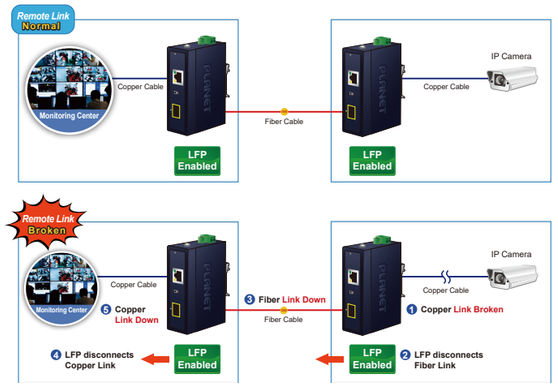
PLANET Technology Corp.
10F., No. 96, Minquan Rd., Xindian Dist., New Taipei City 231, Taiwan

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

2350-AH1170-005

5. Link Fault Passthrough

The LFP function includes Link Loss Carry Forward (LLCF), Link Loss Return (LLR) and the DIP switch design. LLCF and LLR can immediately alarm administrators the issue of the link media and provide efficient solution to monitor the net. The DIP switch provides the disabling or enabling of the LFP function.



Note

LFP function is turned off by default. This feature can also be turned on via the DIP switch. If you are not familiar with the network installation and for diagnostic purpose (i.e. check which end is broken), you can turn it on. Otherwise, please remain it in the default position.

Customer Support

Thank you for purchasing PLANET products. You can browse our online FAQ resource on PLANET web site first to check if it could solve your issue. If you need more support information, please contact PLANET switch support team.

PLANET online FAQs:
http://www.planet.com.tw/en/support/faq.php

Switch support team mail address:
support @planet.com.tw

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