1. Package Contents

Thank you for purchasing PLANET industrial 100/1000X to 10/100/1000T 802.3bt PoE++ Media Converter, IGUP-805AT. In the following section, the term **"Industrial PoE++ Media Converter"** means the IGUP-805AT.

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

1. Industrial PoE++ Media Converter x 1
2. User's Manual x 1
3. DIN-rail Kit
4. Wall-mount Kit
5. RJ45 dust cap x 1
6. SFP 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

Model	IGUP-805AT
Hardware Specifications	
Copper Port	One 10/100/1000BASE-T port
SFP Slot	One 1000BASE-SX/LX/BX SFP interface Compatible with 100BASE-FX SFP
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 (Green), Power 2 (Green), Fault Alarm (Red) PoE Usage: IGUP-805AT: 30W/60W/90W+ (Amber) Fiber: 100/1000BASE-X: LINK/ACT (Green) TP: 10/100/1000BASE-T: LNK/ACT (Green) PoE: PoE-in-Use (Amber)
Dimensions (W x D x H)	32 x 87 x 135 mm
Weight	484 g
Power Requirements	12-56V DC, supports reverse polarity protection

Power Consumption	System ON without loading 12V DC: 4.44W 48V DC: 3.36W Full loading with PoE 12V DC: 82W 48V DC: 98W
DIP Switch 1	LFPP On/Off
DIP Switch 2	PoE mode: ON: Legacy/PoH/Force OFF: 802.3bt
Enclosure	IP30 metal case
Installation	DIN-rail kit and wall-mount ear
ESD Protection	6KV DC
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
Power Over Ethernet	
PoE Standard	IEEE 802.3bt Power over Ethernet Plus Plus
PoE Power Output*	Standard (BT) mode: 90W Legacy (PoH) mode: 95W Force mode: 60W
PoE Power Supply Type	End-span + mid-span

Power Pin Assignment	End-span: 1/2 (-), 3/6 (+); mid-span: 4/5 (+), 7/8 (-)
PoE Power Budget	95 watts@24-56V DC input 60 watts@12V DC input
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 IEEE 802.3bt Power over Ethernet Plus Plus IEEE 802.3az Energy Efficient Ethernet (EEE)
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)

Note

The maximum PoE power output is 60 watts when the IGUP-805AT is operating in the Force mode.

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.

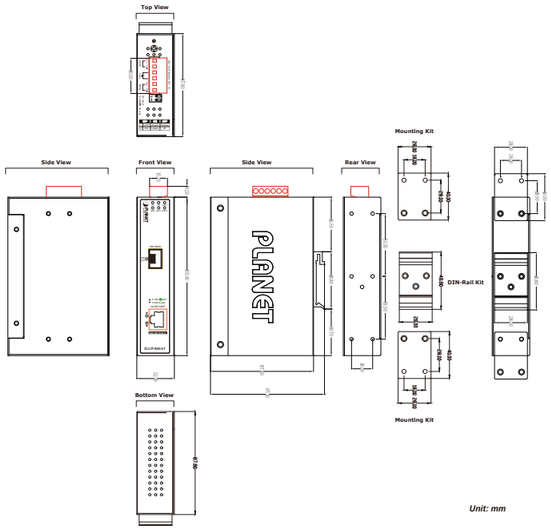


Figure 1: IGUP-805AT Three-View Diagram

■ Front View

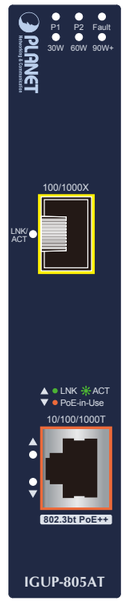


Figure 2: IGUP-805AT Front View

3.2 LED Definition:

■ System

LED	Color	Function
P1	Green	Lights to indicate DC power input 1 has power.
P2	Green	Lights to indicate DC power input 2 has power.
Fault	Red	Lights/blinks to indicate that DC power or SFP link has failed.
PoE Usage	Amber	**IGUP-805AT (30W, 60W, 90W+)** Lights to indicate the system consumes over 30-/60-/90-watt PoE power budget. Blinks to indicate the system consumes less 30-/60-/90-watt PoE power budget.

■ Gigabit TP Interface

LED	Color	Function
TP LNK/ACT	Green	Lights to indicate that the copper port is successfully connecting to the network at 10/100/1000Mbps.
		Blinks to indicate the copper port is receiving or sending data.
PoE-in-Use	Amber	Lights to indicate that the port is providing PoE to remote powered device.
		Off to indicate that the port is not a PoE powered device (PD).

■ Gigabit Fiber Interface

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

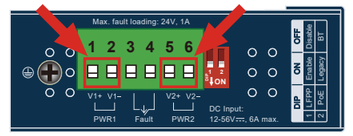
3.3 Wiring the Power Inputs

The 6-contact terminal block connector on the top panel of Industrial PoE++ Media Converter is used for two 12-56V DC redundant 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.



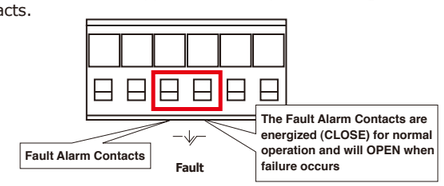
2. Tighten the wire-clamp screws for preventing the wires from loosening.

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 **12-56V DC**.

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. When inserting the wires, the Industrial Ethernet Extender will detect the fault status of the power failure and then form an open circuit. The following illustration shows an application example for wiring the fault alarm contacts.



Insert the wires into the fault alarm contacts

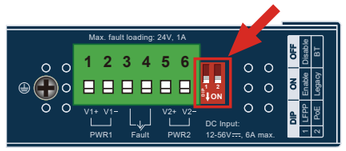
Note

1. The wire gauge for the terminal block should be in the range between 12 and 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.

3.6 DIP Switch



DIP 1 (Default: OFF)	LFPP ON	LFPP OFF
DIP 2 (Default: OFF)	Legacy mode ON (PoH/Force)	Legacy mode OFF (BT)

LFPP means Link Fault Passthrough PoE Control.

LFPP ON:	1. The IGUP-805AT disables PoE port once it detects the fiber optic link is down 2. The IGUP-805AT turns on fiber alarm
LFPP OFF:	The IGUP-805AT does not do any action

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 IGUP-805AT.

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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User's Manual

www.PLANET.com.tw

Industrial 1-Port 100/1000X SFP to 1-Port 10/100/1000T 802.3bt PoE++ Media Converter

IGUP-805AT

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

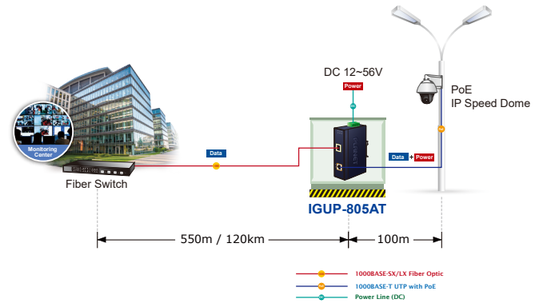
2350-AH1290-000

5. Fiber and PoE Installation

The IGUP-805AT is flexible enough to extend the distance from 550m to 120km. It depends on the 1000BASE-X or 100BASE-FX SFP transceivers. The SFP transceivers are hot-pluggable and hot-swappable. You can plug in and out the transceiver to/from any SFP port without having to power down the Industrial 802.3bt PoE++ Media Converter.

If there is any IEEE 802.3af/IEEE 802.3at/IEEE 802.3bt devices needed to power on, the IGUP-805AT can provide you with a way to supply power for this Ethernet device conveniently and easily.

The IGUP-805AT needs 12-56V DC input and it injects the DC power into the pin of the twisted pair cable (Pins 1, 2, 3 and 6).



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 support team.

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

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