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 sections, 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:

Industrial PoE++ Media Converter x 1	User's Manual x 1	Wall-mount Kit x 1
DIN-rail Kit	RJ45 dust cap x 1	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. Hardware Introduction

2.1 Media Converter Front Panel

The front panel of the Industrial PoE++ Media Converter consists of 1 auto-sensing 10/100/1000Mbps Ethernet RJ45 port and 1 100/1000BASE-X SFP port.

Figure 2-1 shows the front panel of the Industrial PoE++ Media Converter.

■ Front View

Figure 2-1: IGUP-805AT Front Panel

■ **SFP Port**
100/1000BASE-X SFP port for transceiver module enables to have a networking distance of 550 meters to 2km (multi-mode fiber) and 10/20/30/40/60/80/120 kilometers (single-mode fiber).

■ **Gigabit TP Interface**
10/100/1000BASE-T copper RJ45 twisted-pair with up to 100 meters in distance.

2.2 LED Definition:

■ System

LED	Color	Function
P1	Green	Lights to indicate power input 1 has power.
P2	Green	Lights to indicate power input 2 has power.
Alarm	Red	Lit: Indicates one or more of the following events are triggering the alarm (LED).

PWR1	PWR2	Fiber Port Link Status	Alarm LED
YES	YES	ON	OFF
YES	NO	ON	ON
NO	YES	ON	ON
YES	YES	DOWN	Blink rapidly
YES	NO	DOWN	Slow blink for 2 seconds
NO	YES	DOWN	Slow blink for 2 seconds

LED	Color	Function
PoE Usage	Amber	**Monitor PoE Mode:** ■ **30W > 60W > 90W** LED will flash once in sequence when the PoE mode DIP switch is set to **"BT+PoH"** ■ **60W** LED will flash **three times** when the PoE mode DIP switch is set to **"Force"** **Monitor power usage 30W, 60W, 90W+:** Lights to indicate the system consumes over 30-/60-/90-watt PoE power budget. Blinks to indicate the system consumes less than 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.

2.3 Upper Panel

The upper panel of the Industrial PoE++ Media Converter consists of one terminal block connector within two power inputs, and also provides 2 DIP switches.

Figure 2-2 shows the upper panel of the IGUP-805AT.
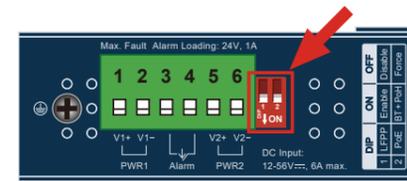
Figure 2-2: IGUP-805AT Upper Panel

The 2 DIP switch settings and descriptions:

DIP		ON	OFF
1	LFPP	Enable	Disable (default)
2	PoE	BT + PoH (default)	Force

LFPP means Link Fault Passthrough PoE Control.

LFPP ON:	1. The IGUP-805AT will disable PoE port once it detects the fiber optic link is down. 2. The IGUP-805AT will turn on fiber alarm.
LFPP OFF	The IGUP-805AT LFPP is inactivated (default).

2.4 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.
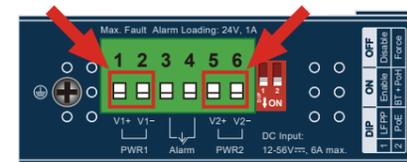
2. Tighten the wire-clamp screws for preventing the wires from loosening.

1	2	3	4	5	6
Power 1		Alarm		Power 2	
+	-			+	-
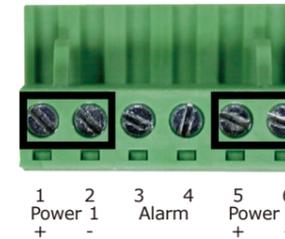
📝 **Note**
1. The wire gauge for the terminal block should be in the range between 12 and 24 AWG.
2. The DC power input range is **12-56V DC**.

2.5 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.

Fault Alarm Contacts | Alarm | The Fault Alarm Contacts are energized (CLOSE) for normal operation and will OPEN when failure occurs

Insert the wires into the fault alarm contacts
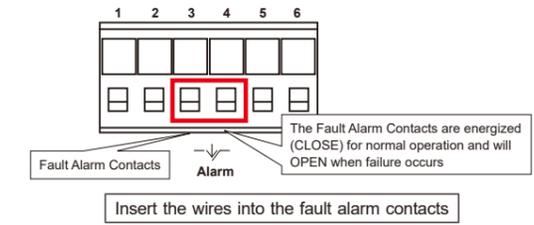
📝 **Note**
1. The wire gauge for the terminal block should be in the range between 12 and 24 AWG.
2. Alarm relay circuit accepts up to 24V, max. 1A currents.

2.6 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.

⏚ **Earth Ground**
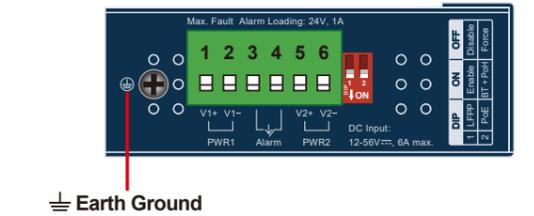
📝 **Note**
EMD (Lightning) DAMAGE IS NOT CONVERED UNDER WARRANTY.

3. 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.

3.1 DIN-rail Mounting Installation

3.2 Wall-mount Plate Mounting

3.3 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.

4. Product Specifications

Model	IGUP-805AT

Hardware Specifications

Copper Port	1 x 10/100/1000BASE-T port
SFP Port	1 x 1000BASE-SX/LX/BX SFP interface Compatible with 100BASE-FX SFP

DIP Switch		DIP	ON	OFF
	1	LFPP	Enable	Disable (default)
	2	PoE	BT + PoH (default)	Force

Dimensions (W x D x H)	32 x 87 x 135 mm
Weight	456 g
Power Requirements	12-56V DC, Redundant power with reverse polarity protection
Power Consumption	System ON without loading 12V DC: 3.12W 24V DC: 2.4W 56V DC: 2.8W Full loading with PoE 12V DC: 65W 24V DC: 97.9W 56V DC: 95.7W
Flow Control	Back pressure for half duplex mode IEEE 802.3x pause frame for full duplex mode
ESD Protection	6KV DC
Maximum Frame Size	9K
Enclosure	IP30 metal case
Installation	DIN-rail kit and wall-mount ear

Power Over Ethernet

PoE Standard	IEEE 802.3bt Power over Ethernet Plus Plus
PoE Power Output*	802.3bt PoE++: 90W 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.

5. Physical Dimensions

The IGUP-805AT Industrial PoE++ Media Converter dimensions (W x D x H): 32 x 87 x 135mm
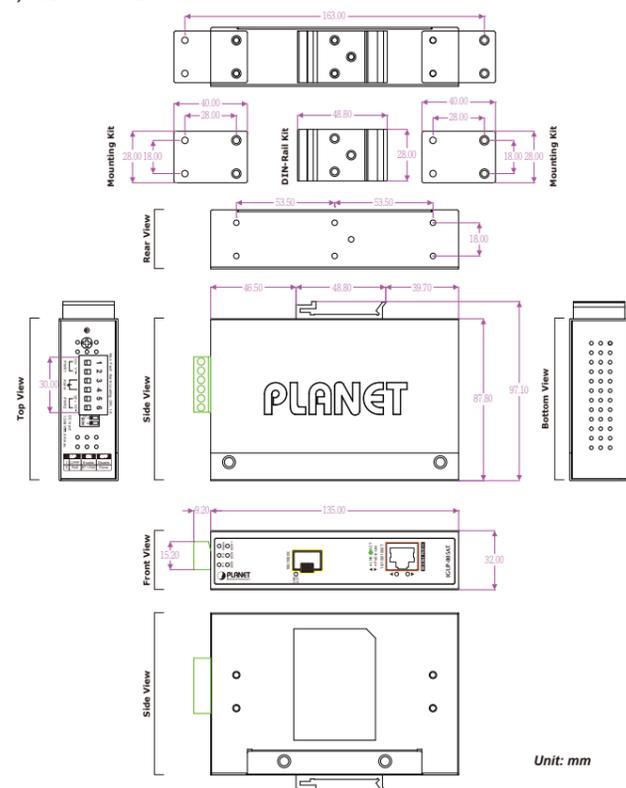
Unit: mm

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

6. 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.
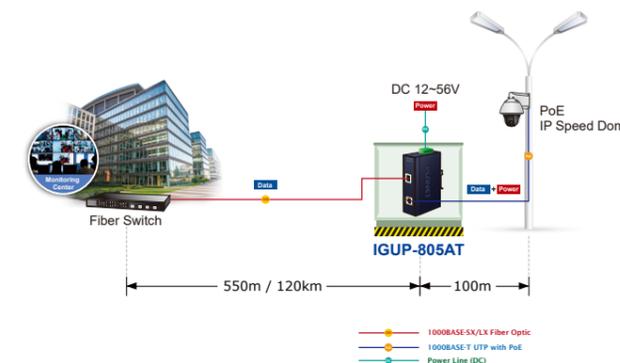
Customer Support

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