PLANET IGUP-805AT Industrial Gigabit Media Converter combines Ethernet media conversion (from 1000BASE-X to 10/100/1000BASE-T) with 802.3bt Power over Ethernet Plus Plus (PoE++) injector function to deliver up to 95 watts of power output and high data transmission speed to PDs (powered devices) installed in a remote area where sufficient and reliable power input is required. Its 1000BASE-X fiber optic uplink port provides long distance, high speed and stable data transmission to a remote core network. The special and convenient power system of the IGUP-805AT supports dual 12~56V DC power inputs for power redundancy and operational flexibility. Being able to operate under the temperature ranging from -40 to 75 degrees C and with an IP30 rugged case, the IGUP-805AT can be placed in almost any difficult environment.

Physical Port
- 1-port 10/100/1000BASE-T RJ45 with IEEE 802.3bt PoE Injector function
- 1 SFP slot, supporting 1000BASE-X and 100BASE-FX transceiver dual mode

Power over Ethernet
- Complies with IEEE 802.3bt PoE++ Type-4 PSE
- Backward compatible with IEEE 802.3af/at PoE+ standard
- 1 IEEE 802.3af/at/bt device powered
- Supports PoE Power up to 95 watts for PoE port
- Provides DC 55V power over RJ45 Ethernet cable to PD with Ethernet port
- Auto-detects IEEE 802.3bt equipment and protects devices from being damaged by incorrect installation
- Remote power feeding up to 100m
- IEEE 802.3af/at/bt splitter devices compatible

Layer 2 Features
- Supports auto-negotiation and 10/100Mbps half / full duplex and 1000Mbps full duplex mode on RJ45 port
- Prevents packet loss with back pressure (half-duplex) and IEEE 802.3x pause frame flow control (full-duplex)

Hardware
- LED Indicators
  - System: Power 1, Power 2, Fault and PoE usage
  - Fiber port: LNK/ACT
  - 10/100/1000BASE-T port: LNK/ACT, PoE-in-use
- DIP switch 1: LFPP (Link Fault Passthrough PoE Control) On/Off
- DIP switch 2: Standard (BT)/Legacy (POH) mode selection

Industrial Case and Installation
- IP30 metal case
- DIN-rail and wall-mount designs
- 12 ~ 56V DC redundant power with reverse polarity protection and connective removable terminal block for master and slave power
- Supports 6000 VDC Ethernet ESD protection
- -40 to 75 degrees C operating temperature

Fiber-optic Link Capability Extends the Range of Network Deployment
The maximum distance between a PoE PSE (power sourcing equipment) and PD via Ethernet cable is 100 meters. To extend the PoE deployment range, the IGUP-805AT is integrated with fiber interface for farther distance applications. The IGUP-805AT’s fiber connector type is as follows:
  - One SFP slot supporting 100BASE-FX/1000BASE-X multi/single mode SFP module and transmission distance up to 120km (Varying on SFP module)
With the long fiber distance support, the IGUP-805AT still sustains the transmission performance as high as 1000Mbps. It works in the high-performance Store and Forward mode to ensure the best performance.
Forward mechanism, and also can prevent packet loss with IEEE 802.3x flow control. Furthermore, it can immediately alarm the administrators the issue from the link media and provide efficient solution to monitor the network power usage.

**Plug and Play High Power Sourcing Solution**

Complying with the IEEE 802.3bt Power over Ethernet Plus technology, the IGUP-805AT provides up to 95 watts of PoE output power, tripling that of the earlier 802.3at plus. Through, the Legacy function in the DIP switch design, it is also backward compatible with 802.3af/at PoE standards to allow users to flexibly deploy standard and high powered devices simultaneously with no need of software configuration. With data and Power over Ethernet from one unit, the IGUP-805AT can reduce cable deployment and eliminate the need for dedicated electrical outlets on the wall, ceiling or any unreachable place.

**Interactive Network Detection**

The IGUP-805AT can support LFPP (Link Fault Passthrough PoE Control) function via its built-in DIP switch. It disables PoE port once it detects the fiber optic link is down. It can immediately alarm the administrators the issue from the link media and provide efficient solution to monitor the remote network.
Convenient and Reliable Power System
To facilitate the 802.3bt power PoE++ usage with the commonly-used 12-48V DC power input for transportation and industrial-level applications, the IGUP-805AT adopts the 12-48V DC to 56V power boost technology to solve power source issue but does not require special power supplies. Its wide-ranging voltages design is suitable for worldwide operability with high availability applications requiring dual or backup power inputs.

Environmentally Hardened Design for Industrial PoE Networks
The IGUP-805AT is specifically designed with durable components and strong housing case to operate reliably in electrically harsh and climatically demanding environments like plant floors or curbside traffic control cabinets. The IGUP-805AT is packaged in a compact, IP30 rugged case that allows either DIN-rail or wall mounting to have the efficient use of cabinet space. With IP30 rugged case protection and PoE design, the IGUP-805AT is ideal for service providers, campuses and public areas to deploy PoE wireless access points, IP cameras or IP phones in any places easily and efficiently with cost-effectiveness. It can also operate in wide temperature range of -40 to 75 degrees C, so it can be placed in almost any location.

Applications
Flexible and User-friendly PoE Deployment with Gigabit SFP Fiber Extension
For the places difficult to find the power outlet, the IGUP-805AT provides the easiest way to power network equipment such as PTZ (Pan, Tilt & Zoom) IP cameras, speed dome IP cameras, color touch-screen VoIP telephones, multi-channel (IEEE 802.11a/b/g/n/ac) wireless LAN access points and other network devices that need higher power to function normally. For instance, users can flexibly install security IP camera, wireless access point and other IEEE 802.3af/at/bt compliant network equipment in the public areas such as stations, freeways, airports and campuses for surveillance and wireless roaming needs.
## Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>IGUP-805AT</th>
</tr>
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### Hardware Specifications

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
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<tr>
<td>Copper Port</td>
<td>One 10/100/1000BASE-T port</td>
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<tr>
<td>SFP Slot</td>
<td>One 1000BASE-SX/LX/BX SFP interface. Compatible with 100BASE-FX SFP</td>
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<tr>
<td>Flow Control</td>
<td>Back pressure for half duplex mode. IEEE 802.3x pause frame for full duplex mode</td>
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<tr>
<td>Maximum Frame Size</td>
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</table>

**LED Indicators**

- **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)

<table>
<thead>
<tr>
<th>Dimensions (W x D x H)</th>
<th>32 x 87 x 135 mm</th>
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<tbody>
<tr>
<td>Weight</td>
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</tbody>
</table>

**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**

- Legacy mode On (POH)/Legacy mode Off (BT)

**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
- **PoE Power Supply Type**
  - End-span + Mid-span
- **Power Pin Assignment**
  - Pair 1 End-span: 1/2 (-), 3/6 (+)
  - Pair 2 Mid-span: 4/5 (+), 7/8 (-)
- **PoE Power Budget**
  - 95 watts@24-56V DC input
  - 60 watts@12V DC input
- **PoE Mode**
  - Standard: To provide power to the PD devices that follow the IEEE 802.3at/bt standard.
  - Legacy: To provide power to the PD devices that do not fully follow the IEEE 802.3at/bt standard. Besides, the Legacy mode supports PoH and Ultra PoE.

**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 802.3at 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)
- **Temperature**
  - Operating: -40~75 degrees C
  - Storage: -40~85 degrees C
- **Humidity**
  - Operating: 5~90% (non-condensing)
  - Storage: 5~90% (non-condensing)
Ordering Information

| IGUP-805AT | Industrial 1-Port 100/1000X SFP to 1-Port 10/100/1000T 802.3bt PoE++ Media Converter |

Unit: mm
Related Products

IGUP-1205AT Industrial 2-Port 100/1000X SFP to 1-Port 10/100/1000T 802.3bt PoE++ Media Converter
IGUP-2205AT Industrial 2-Port 100/1000X SFP to 2-Port 10/100/1000T 802.3bt PoE++ Media Converter
IGTP-815AT Industrial Compact 100/1000BASE-X to 10/100/1000BASE-T 802.at PoE+ Media Converter
IGTP-802T 1000BASE-SX to 10/100/1000BASE-T 802.3at PoE+ Industrial Media Converter (mini-GBIC, SFP)
IGTP-802TS 1000BASE-LX to 10/100/1000BASE-T 802.3at PoE+ Industrial Media Converter (SC,SM) -- 10km
GTP-805A 100/1000BASE-X to 10/100/1000BASE-T 802.3at PoE Media Converter (mini-GBIC, SFP)
MGB-Series Transceiver 1000BASE-SX/LX SFP Transceiver
MFB Series Transceiver 100BASE-FX SFP Transceiver
ICA-ES260 2 Mega-pixel PoE Plus Speed Dome IP Camera with Extended Support
ICA-ES285 2 Mega-pixel IR PoE Plus Speed Dome IP Camera with Extended Support
ICA-HM620 2 Mega-pixel PoE Plus Speed Dome Internet Camera
IPOE-171-60W Industrial Single-Port 10/100/1000Mbps 802.3bt PoE++ Injector
IPOE-E172 Industrial 1-Port Ultra PoE to 2-Port 802.3bt/at Gigabit PoE Extender
WDAP-1750AC 1750Mbps 802.11ac Dual Band Wall-mount Enterprise Wireless Access Point
WDAP-802AC 1200Mbps Dual Band 802.11ac Outdoor Wireless AP
WAP-552N 5GHz 802.11a/n 300Mbps Outdoor Wireless AP
WAP-252N 2.4GHz 802.11n 300Mbps Outdoor Wireless AP
ICF-1800 HD Touch Screen Android Multimedia Conferencing Phone

Gigabit Ethernet Transceiver (1000BASE-X SFP)

<table>
<thead>
<tr>
<th>Model</th>
<th>Speed (Mbps)</th>
<th>Connector Interface</th>
<th>Fiber Mode</th>
<th>Distance</th>
<th>Wavelength (nm)</th>
<th>Operating Temp.</th>
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</thead>
<tbody>
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Gigabit Ethernet Transceiver (1000BASE-BX, Single Fiber Bi-directional SFP)

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**Fast Ethernet Transceiver (100BASE-X SFP)**

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<tr>
<th>Model</th>
<th>Speed (Mbps)</th>
<th>Connector Interface</th>
<th>Fiber Mode</th>
<th>Distance</th>
<th>Wavelength (nm)</th>
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**Fast Ethernet Transceiver (100BASE-BX, Single Fiber Bi-directional SFP)**

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