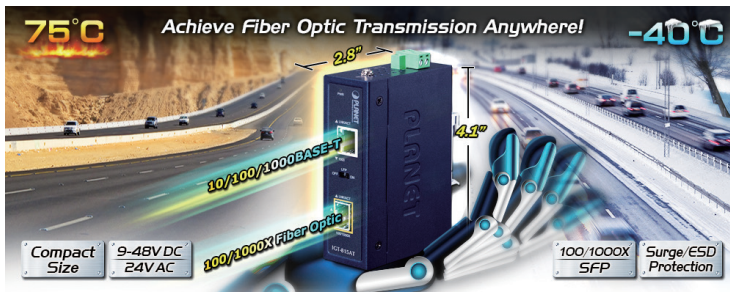


Industrial Compact 100/1000BASE-X to 10/100/1000BASE-T Media Converter



Compact Size for More Practicability and Convenience

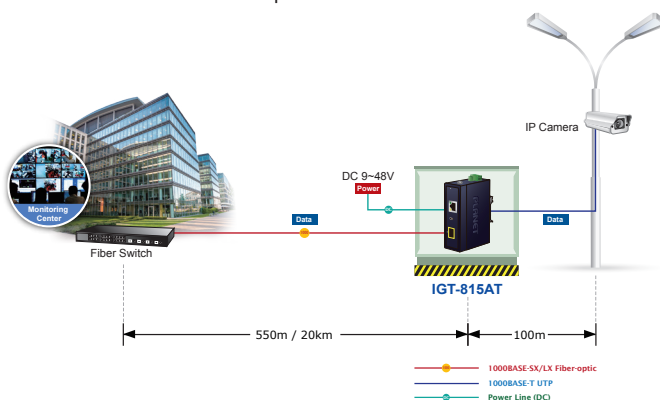
PLANET IGT-815AT is an industrial-grade Gigabit Media Converter, featuring one **100/1000BASE-X SFP fiber port** and one **10/100/1000BASE-T copper port** in an IP30-rated rugged but compact-size case. Being able to operate under the temperature ranging from **-40 to 75 degrees C**, the IGT-815AT provides reliable, stable and continuous long-range data transmission and can be installed in any harsh environment without taking space into consideration.



As the trend for an IIoT (Industrial Internet of Things) infrastructure is gradually in demand, the IGT-815AT is especially designed to make the deployment of an industrial network easy as it comes with a Plug and Play feature. Besides, it is stable and reliable when it comes to fast data and power transmission.

Fiber-optic Link Capability Extends the Range of Network Deployment

The maximum distance between two IP devices via Ethernet UTP cable is 100 meters. To flexibly extend the deployment range of IP devices, the IGT-815AT's SFP slot supporting 100BASE-FX/1000BASE-X, SFP modules, and more can reach a transmission distance of up to 120km.



Physical Port

- 1-port 10/100/1000BASE-T RJ45
- One SFP slot, supporting 1000BASE-X and 100BASE-FX transceiver dual mode

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

- DIP switch: LFP (Link Fault Passthrough) mode selection

Industrial Case and Installation

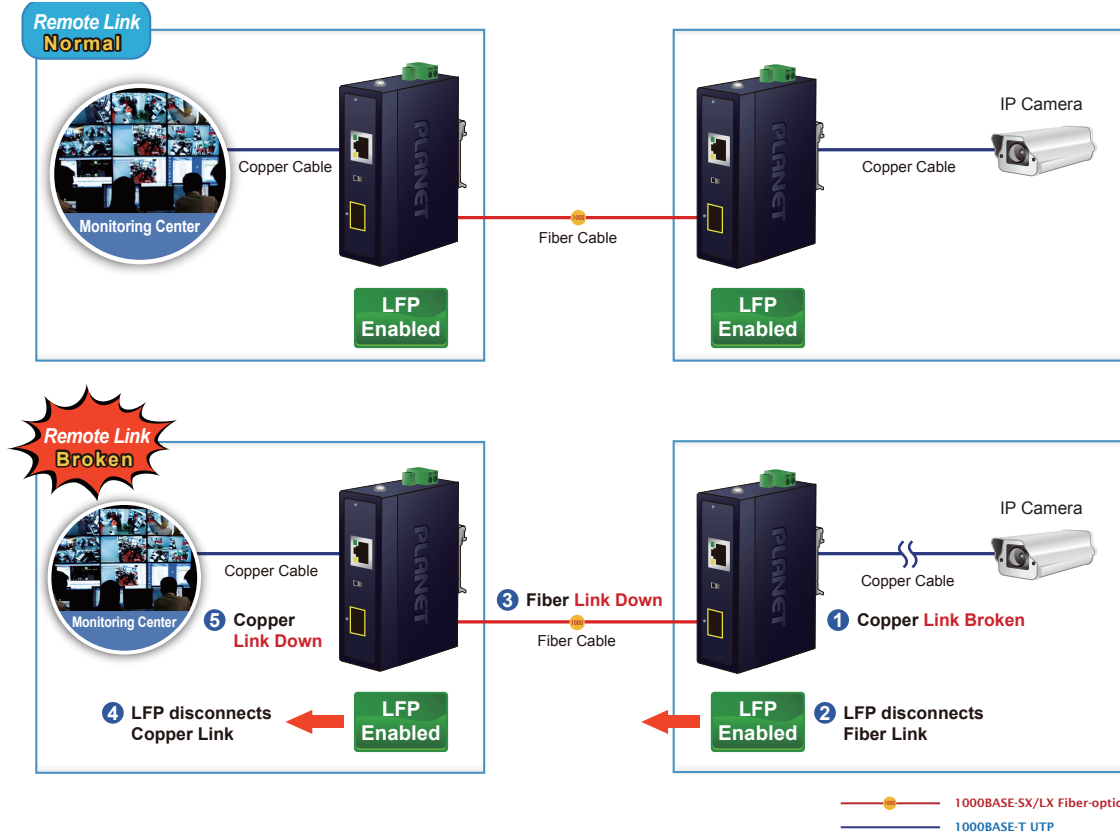
- IP30 metal case
- DIN-rail and wall-mount designs
- 9V~48V DC power with reverse polarity protection
- Connective removable terminal block
- Supports 6000 VDC Ethernet ESD protection
- -40 to 75 degrees C operating temperature
- Free fall, shock-proof and vibration-proof for industries

Interactive Network Detection

The IGT-815AT can support **LFP** (Link Fault Passthrough) function via its built-in DIP switch. The LFP function includes **Link Loss Carry Forward (LLCF)** and **Link Loss Return (LLR)**:

- LLCF means when a device connected to the converter and the TP line loses the link, the converter's fiber port will disconnect the link of transmission.
- LLR means when a device connected to the converter and the fiber line loses the link, the converter's fiber port will disconnect the link of transmission

Both of which can immediately alarm the administrators the issue from the link media and provide efficient solution to monitor the remote network.



Environmentally Hardened Design

The IGT-815AT 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. With wide operating temperature range of -40 to 75 degrees C, the IGT-815AT is ideal for service providers, campuses and public areas to deploy outdoor wireless access points, outdoor IP cameras or IP phones in any places easily and efficiently.

Robust Protection

The IGT-815AT provides contact discharge of ±6KV DC and air discharge of ±8KV DC for Ethernet ESD protection. It also supports ±6KV surge immunity to improve product stability and protects users' networks from devastating ESD attacks, making sure the flow of operation does not fluctuate.

Flexible and Easy Installation with Limited Space

The compact-sized IGT-815AT is specially designed to be installed in a narrow environment, such as wall enclosure. It can be installed by fixed wall mounting or DIN rail, thereby making its usability more flexibly and easily in any space-limited location.



Wide Range of Power Usages

The IGT-815AT supports a wide range of voltages for worldwide operation. It also offers a reverse polarity input of 9V DC to 48V DC for high availability applications.

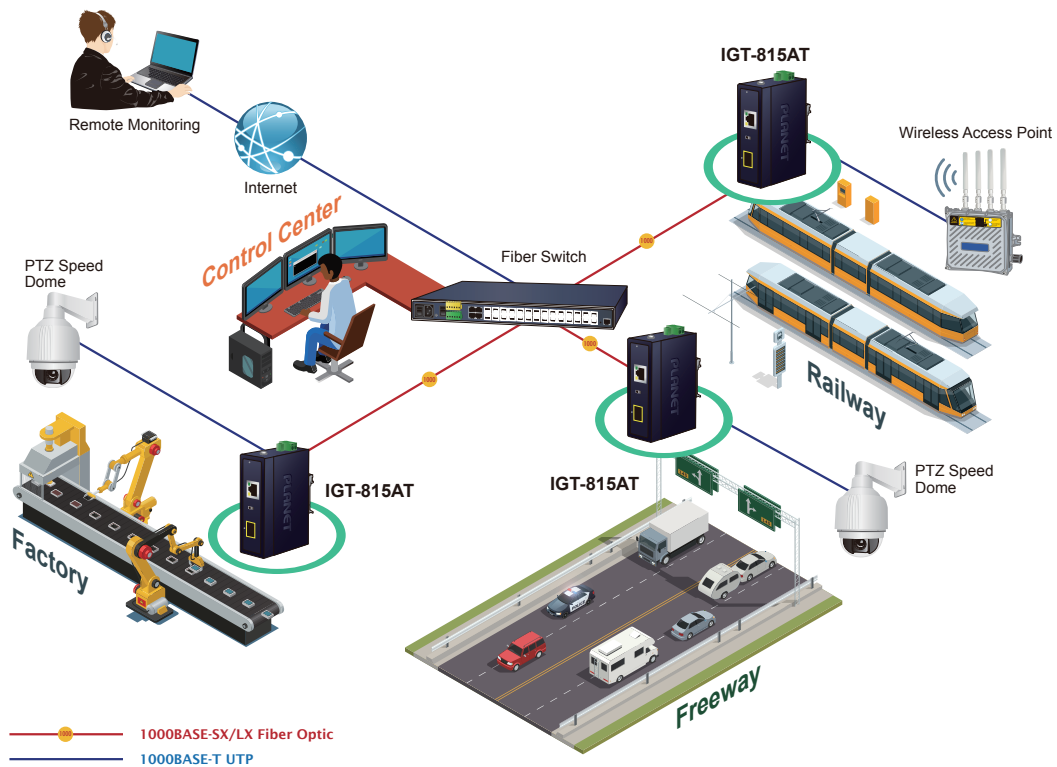
Applications

High Reliability and Security

PLANET IGT-815AT Industrial Gigabit Media Converter offers full port Gigabit speed. It provides very high reliability and security features to make sure the continuous operation in harsh environments such as transportations, factories, outdoors and places where extremely low or high temperatures can be experienced. Moreover, the IGT-815AT is also compatible with 100Mbps and 1000Mbps SFP transceivers to provide a strong, stable and long-distance connection and flexible industrial networking deployment.

Fiber-optic Networking for ISPs, Enterprises, and Homes

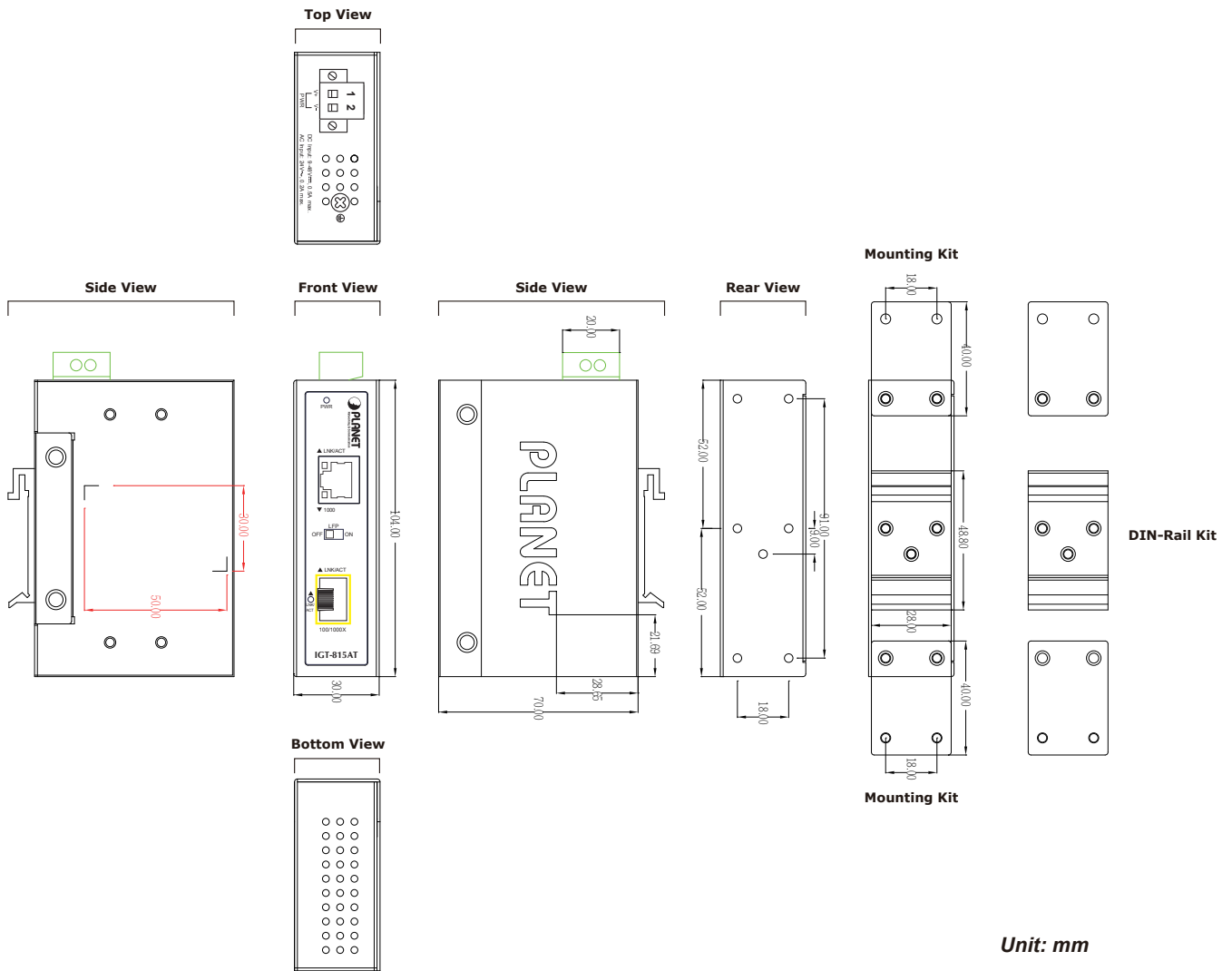
With stable performance of data transmission and easy installation, the IGT-815AT Industrial Media Converter can build an ISP network solution of FTTH (Fiber to the Home), FTTC (Fiber to the Curb) for ISPs, or FTTB (Fiber to the Building) for enterprises with small office network environment.



Specifications

| | |
|------------------------------------|---|
| Model | IGT-815AT |
| Hardware Specifications | |
| Copper Port | 10/100/1000BASE-T Ethernet TP interface. Maximum 100m distance. Auto-negotiation, auto MDI/MDI-X |
| SFP Slot | 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 (green) Fiber 100/1000BASE-X: LNK/ACT (green) TP 10/100/1000BASE-T: LNK/ACT(green), 1000(amber) |
| Dimensions (W x D x H) | 30 x 70 x 104 mm |
| Weight | 251g |
| Power Requirements | DC 9~48V, supports reverse polarity protection |
| Power Consumption | System ON without loading DC 9V: 0.54W/1.84BTU DC 24V: 0.24W/0.81BTU DC 48V: 0.24W/0.81BTU Full loading DC 9V: 1.98W/6.75BTU DC 24V: 1.92W/6.55BTU DC 48V: 1.92W/6.55BTU |
| DIP Switch | Link Fault Passthrough Enable/Disable |
| 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 |
| 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 802.3az 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) |

Mechanical Drawing



Ordering Information

| | |
|-----------|--|
| IGT-815AT | Industrial Compact 100/1000BASE-X to 10/100/1000BASE-T Media Converter |
|-----------|--|

Related Products

| | |
|------------------------|--|
| IGTP-815AT | Industrial Compact 100/1000BASE-X to 10/100/1000BASE-T 802.at PoE+ Media Converter |
| IGT-805AT | Industrial 10/100/1000BASE-T to 100/1000BASE-X SFP Media Converter |
| IGT-1205AT | Industrial 10/100/1000BASE-T to 2-port 100/1000BASE-X SFP Media Converter |
| IGTP-805AT | 100/1000BASE-X to 10/100/1000BASE-T 802.3at PoE+ Industrial Media Converter (mini-GBIC, SFP) |
| IGTP-802T | 1000BASE-SX to 10/100/1000BASE-T 802.3at PoE+ Industrial Media Converter (SC,MM) -- 550m |
| 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 |

Available 1000Mbps Modules

| | |
|----------|---|
| MGB-GT | SFP-Port 1000BASE-T Module |
| MGB-SX | SFP-Port 1000BASE-SX mini-GBIC module - 550m |
| MGB-SX2 | SFP-Port 1000BASE-SX mini-GBIC module - 2km |
| MGB-LX | SFP-Port 1000BASE-LX mini-GBIC module - 20km |
| MGB-L40 | SFP-Port 1000BASE-LX mini-GBIC module - 30km |
| MGB-L80 | SFP-Port 1000BASE-LX mini-GBIC module - 70km |
| MGB-L120 | SFP-Port 1000BASE-LX mini-GBIC module - 120km |
| MGB-LA10 | SFP-Port 1000BASE-LX (WDM,TX:1310nm) mini-GBIC module - 10km |
| MGB-LB10 | SFP-Port 1000BASE-LX (WDM,TX:1550nm) mini-GBIC module - 10km |
| MGB-LA20 | SFP-Port 1000BASE-LX (WDM,TX:1310nm) mini-GBIC module - 20km |
| MGB-LB20 | SFP-Port 1000BASE-LX (WDM,TX:1550nm) mini-GBIC module - 20km |
| MGB-LA40 | SFP-Port 1000BASE-LX (WDM,TX:1310nm) mini-GBIC module - 40km |
| MGB-LB40 | SFP-Port 1000BASE-LX (WDM,TX:1550nm) mini-GBIC module - 40km |
| MGB-TSX | SFP-Port 1000BASE-SX mini-GBIC module - 550m (-40 ~ 75 degrees C) |
| MGB-TSX2 | SFP-Port 1000BASE-SX mini-GBIC module - 2km (-40 ~ 75 degrees C) |
| MGB-TLX | SFP-Port 1000BASE-LX mini-GBIC module - 20km (-40 ~ 75 degrees C) |
| MGB-TL40 | SFP-Port 1000BASE-LX mini-GBIC module - 30km (-40 ~ 75 degrees C) |
| MGB-TL80 | SFP-Port 1000BASE-LX mini-GBIC module - 70km (-40 ~ 75 degrees C) |

Available 100Mbps Modules

| | |
|-----------|---|
| MFB-FX | SFP-Port 100BASE-FX Transceiver (1310nm) - 2km |
| MFB-F20 | SFP-Port 100BASE-FX Transceiver (1310nm) - 20km |
| MFB-F40 | SFP-Port 100BASE-FX Transceiver (1310nm) - 40km |
| MFB-F60 | SFP-Port 100BASE-FX Transceiver (1310nm) - 60km |
| MFB-FA20 | SFP-Port 100BASE-BX Transceiver (WDM,TX:1310nm) - 20km |
| MFB-FB20 | SFP-Port 100BASE-BX Transceiver (WDM,TX:1550nm) - 20km |
| MFB-TFX | SFP-Port 100BASE-FX Transceiver (1310nm) - 2km (-40 ~ 75 degrees C) |
| MFB-TF20 | SFP-Port 100BASE-FX Transceiver (1310nm) - 20km (-40 ~ 75 degrees C) |
| MFB-TFA20 | SFP-Port 100BASE-BX Transceiver (WDM,TX:1310nm) - 20km (-40 ~ 75 degrees C) |
| MFB-TFB20 | SFP-Port 100BASE-BX Transceiver (WDM,TX:1550nm) - 20km (-40 ~ 75 degrees C) |
| MFB-TSA | SFP-Port 100BASE-BX Transceiver (Multi-mode/WDM,TX:1310nm RX:1550nm / DDM) - 2km (-40~75°C) |
| MFB-TSB | SFP-Port 100BASE-BX Transceiver (Multi-mode/WDM,TX:1550nm RX:1310nm / DDM) - 2km (-40~75°C) |