

# 10/100Base-TX to 100Base-FX Industrial Media Converter with Wide Operating Temperature



## *Distance Extension with High Performance and Steady Network Communication*

PLANET 10/100Base-TX to 100Base-FX Industrial Media Converter IFT-80xT series extends communication distance with stable performance via fiber optic wire, in which the extended distance could be up to 2km with the IFT-802T, up to 15km with the IFT-802TS15 or up to 20km with the IFT-805AT (depending on SFP module). The IFT-80xT series is specifically equipped with durable components and strong housing case to operate reliably in electrically harsh and climatically demanding environments. The industrial level media converter provides a high level of immunity to electromagnetic interference and heavy electrical surges which are usually found on plant floors or traffic control cabinets on sidewalk. Being able to operate under the temperature range from -40 to 75 degrees C allows the IFT-80xT series to be placed in almost any difficult environment.

## *Robust Media Converter Performance*

PLANET IFT-80xT 10/100Base-TX to 100Base-FX Industrial Media Converter series efficiently converts data between 10/100Base-TX and 100Base-FX network. The IFT-80xT series provides the flexibility to all kinds of 10/100Mbps Ethernet Media on RJ-45 port and performs highly stable fiber performance.

## *Easy Installation and Wide Range of Power Usages*

The IFT-80xT series is packaged in a compact IP-30 case that allows either DIN rail or panel mounting to have efficient usage of cabinet space. It provides an integrated power supply with a wide range of voltages for worldwide operation. It also offers dual-redundant, reversible polarity 12V DC to 48V DC power supply inputs for high availability applications requiring dual or backup power inputs.

## Interface

- 1-port 10/100Base-T RJ-45 with auto negotiation and auto-MDI/MDI-X function
- 1 100Base-FX SC interface, providing long distance up to 2km on IFT-802T
- 1 100Base-FX SC interface, providing long distance for 15km on IFT-802TS15
- 1 Mini-GBIC slot, providing multi choice of SFP modules on IFT-805AT

## Industrial Conformance

- 12V to 48V DC, redundant power with polarity reverse protect function
- -40 to 75 degrees C operating temperature
- IP30 metal case
- Relay alarm for port breakdown
- Supports 6KV DC Ethernet ESD protection
- Supports 6KV DC EFT protection for power line
- Free Fall, Shock and Vibration Stability
- DIN-rail and wall-mountable hardware design

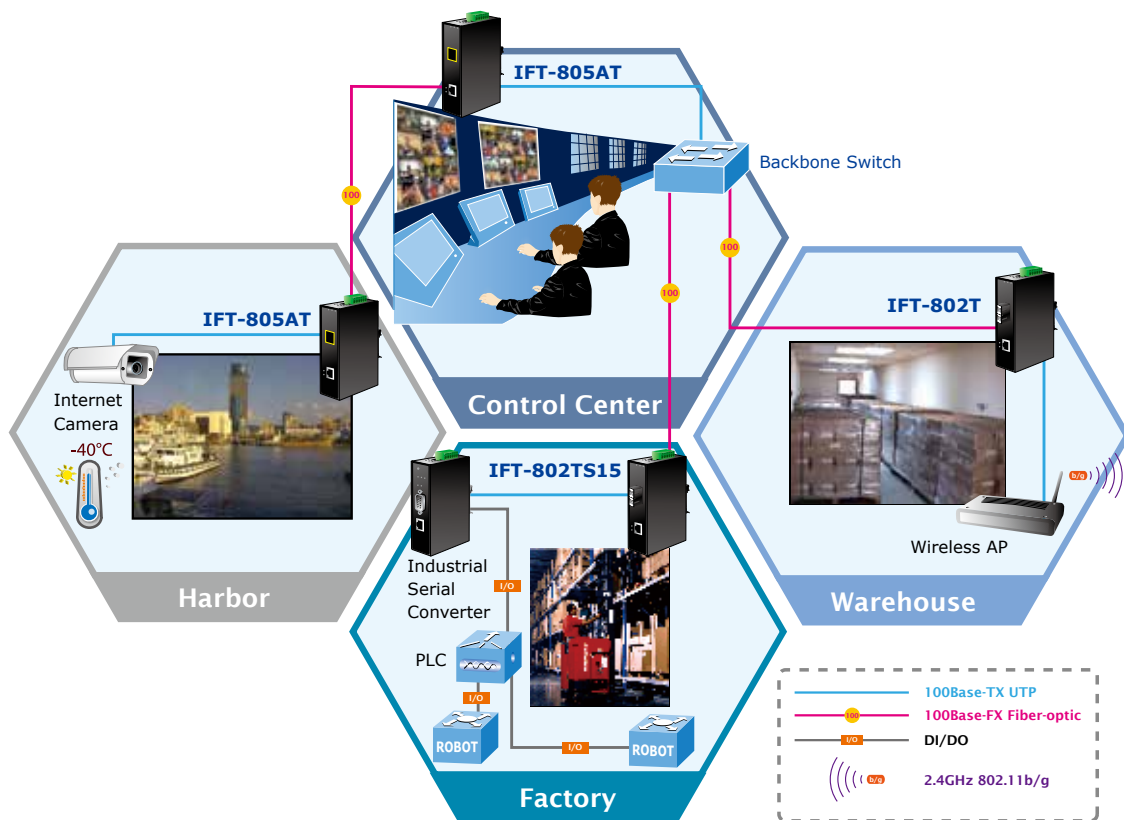
## Layer 2 Features

- Complies with the IEEE 802.3, IEEE 802.3u Fast Ethernet standard
- Auto-MDI / MDI-X detection and auto negotiation in half-duplex / full-duplex mode for 10 /100Base-TX RJ-45 port
- Store-and-Forward Switching Architecture
- Features Store-and-Forward mode with wire-speed filtering and forwarding rates
- Prevents packet loss with back pressure (half-duplex) and IEEE 802.3x pause frame flow control (full-duplex)
- Supports packet size of up to 1522bytes
- CSMA/CD Protocol
- Automatic source address learning and aging

## Applications

### Transport Networking

PLANET's Industrial Media Converter, IFT-80xT series, offers high reliability and security to guarantee the continuous industrial operation in harsh environments such as **control cabinet of transportation, factory floors** or and **environments with extremely low or high temperature**. In the industrial networking environments, each networked device is required to keep running continuously in the hazardous status. If industrial equipment fails to connect to the network, it might influence the entire operation of industrial systems and thus cause incredibly financial loss. With the IFT-80xT Industrial Media Converter, which complies with all the requirements of industrial applications, customers may enjoy high reliability, fast recovery capability, and safe Ethernet network operation.



### Fiber-optic Networking for ISPs, Enterprises, and Homes

With stable performance of data transmission and easy installation, the IFT-80xT Industrial Media Converter series 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

Product	IFT-802T / IFT-802TS15 / IFT-805AT
10/100Base-TX Port	1 RJ-45 auto-MDI / MDI-X port
100Base-FX Port	IFT-802T: 1 SC interface IFT-802TS15: 1 SC interface IFT-805AT: 1 SFP slot
Fiber Port Type	IFT-802T: SC / multi-mode IFT-802TS15: SC / single-mode IFT-805AT: Vary on module
Cable Distance	IFT-802T: 2km IFT-802TS15: 15km IFT-805AT: Vary on module
Optical Frequency	IFT-802T: 1310nm IFT-802TS15: 1310nm IFT-805AT: Vary on module
Launch Power (dBm)	<b>Max</b> IFT-802T: -14 IFT-802TS15: 0  <b>Min</b> IFT-802T: -20 IFT-802TS15: -20  <b>Vary on module</b> IFT-805AT
Receive Sensitivity (dBm)	IFT-802T: - 32 IFT-802TS15: -32 IFT-805AT: Vary on module
Maximum Input Power (dBm)	IFT-802T: -14 IFT-802TS15: 0 IFT-805AT: Vary on module
Dimensions (W x D x H)	135 x 85 x 32 mm
Weight	430g
Installation	DIN rail kit and wall mount ear
Maximum Frame Size	1522bytes packet size
Flow Control	Back pressure for half duplex, IEEE 802.3x pause frame for full duplex
Enclosure	IP-30 slim type metal case
LED Indicator	<b>System:</b> <ul style="list-style-type: none"> <li>▪ Power 1 (Green)</li> <li>▪ Power 2 (Green)</li> <li>▪ Fault (Green)</li> </ul> <b>1 x copper port:</b> <ul style="list-style-type: none"> <li>▪ 10/100 (Green)</li> <li>▪ LNK/ACT (Green)</li> </ul> <b>1 x 100FX port:</b> <ul style="list-style-type: none"> <li>▪ 100 (Green)</li> <li>▪ LNK/ACT (Green)</li> </ul>
Power Input	12 to 48V DC redundant power with polarity reverse protection function
Power Consumption	3 watts / 10BTU (maximum)
Protection	ESD (Ethernet): 6KVDC Surge (Power): 6KVDC
Speed	<b>Twisted-pair:</b> <ul style="list-style-type: none"> <li>▪ 10/20Mbps for half / full duplex</li> <li>▪ 100/200Mbps for half / full duplex</li> </ul> <b>Fiber-optic:</b> <ul style="list-style-type: none"> <li>▪ 200Mbps for full duplex</li> </ul>
Network cables	<b>10/100Base-TX:</b> 2-pair UTP Cat. 3, 4, 5 (100 meters, max.) EIA/TIA-568 100-ohm STP (100 meters, max.) <b>100Base-FX:</b> IFT-802T: Multi-mode optical fiber 62.5/125µm / 50/125µm (2km) IFT-802TS15: Single-mode optical fiber 9/125µm (15km) IFT-805AT: SFP slot (depending on SFP module)

Standards Conformance	
Emissions	FCC Class A, CE Class A
Standards Compliance	IEEE 802.3 10Base-T IEEE 802.3u 100Base-TX / 100Base-FX IEEE 802.3x flow control and back pressure
Stability Testing	IEC60068-2-32 (Free Fall) IEC60068-2-27 (Shock) IEC60068-2-6 (Vibration)
Environment	
Operating Temperature	-40~75 degrees C
Operating Humidity	5~90% non-condensing
Storage Temperature	-40~85 degrees C
Storage Humidity	5~90% non-condensing

## Ordering Information

IFT-802T	10/100Base-TX to 100Base-FX Industrial Media Converter - 2km (-40~75 degrees C)
IFT-802TS15	10/100Base-TX to 100Base-FX Industrial Media Converter - 15km (-40~75 degrees C)
IFT-805AT	10/100Base-TX to 100Base-FX (SFP) Industrial Media Converter (-40~75 degrees C)

## Related Products

MFB-FX	SFP-Port 100Base-FX Module; LC, Multi-Mode (1310nm) - 2km (0~50°C)
MFB-F20	SFP-Port 100Base-FX Module; LC, Single Mode (1310nm) - 20km (0~50°C)
MFB-F40	SFP-Port 100Base-FX Module; LC, Single Mode (1310nm) - 40km (0~50°C)
MFB-F60	SFP-Port 100Base-FX Module; LC, Single Mode (1310nm) - 60km (0~50°C)
MFB-FA20	SFP-Port 100Base-BX Module; WDM / Bidi LC, Single Mode (TX:1310nm, RX:1550nm) - 20km (0~50°C)
MFB-FB20	SFP-Port 100Base-BX Module; WDM / Bidi LC, Single Mode (TX:1550nm, RX:1310nm) - 20km (0~50°C)
MFB-TFX	SFP-Port 100Base-FX Module; LC, Multi-Mode (1310nm) - 2km (-40~75°C)
MFB-TF20	SFP-Port 100Base-FX Module; LC, Single Mode (1310nm) - 20km (-40~75°C)

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### C-IFT-802T / IFT-802TS15 / IFT-805AT

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