

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



Distance Extension with High Performance and Steady Network Communication

The PLANET 10/100Base-TX to 100Base-FX Industrial hardened Media Converter – **IFT-80xT series** extends communication distance with stable performance via fiber optical wire, in which the extension distance could be up to 60km. The models are listed as below:

Model Name	Fiber Interface	Max. Distance
IFT-802T	100Base-FX Multi-mode SC	2km
IFT-802TS15	100Base-FX Single Mode SC	15km
IFT-805AT	100Base-FX SFP	Vary on SFP

The IFT-80xT series is specifically designed 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 in sidewalk. Being able to operate under the temperature range from **-40 to 75 Degree C** allow the IFT-80xT series to be placed in almost any difficult environment.

Robust Media Converter Performance

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

Easy Installation and Wide Range of Power Usage

The IFT-80xT series is packaged in a compact IP-30 case that allows either DIN rail or panel mounting for 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.

KEY FEATURES

INTERFACE

- 1-Port 10/100Base-T RJ-45 with Auto-Negotiation and Auto-MDI/MDI-X function
- 1 Port 100Base-FX SC interface, provides long distance up to 2km on **IFT-802T**
- 1 Port 100Base-FX SC interface, provides long distance for 15km on **IFT-802TS15**
- 100Base-FX SFP slot, provides multi choice of SFP modules on **IFT-805AT**

INDUSTRIAL CONFORMANCE

- 12V to 48V DC, redundant power with polarity reverse protect function
- -40 to 75 Degree C operation temperature
- IP-30 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

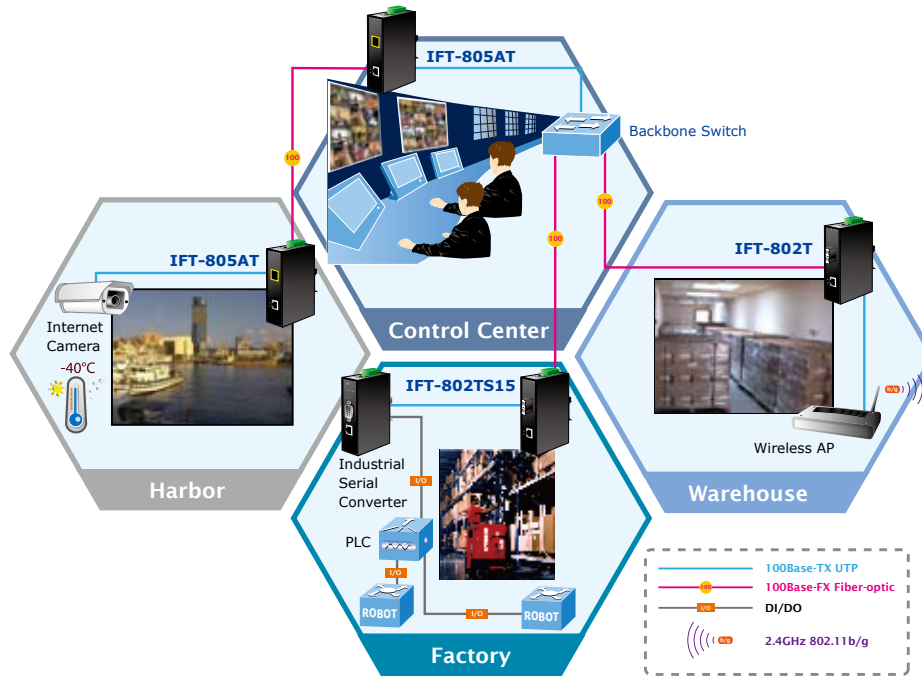
LAYER 2 FEATURES

- Complies with the IEEE 802.3, IEEE 802.3u Fast Ethernet standard
- Auto-MDI / MDI-X detection and Auto-Negotiation with Half-Duplex / Full-Duplex modes 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 to handle up to 1522bytes packet size
- CSMA/CD Protocol
- Automatic source address learning and aging

APPLICATIONS

Transportation 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 the extremely low or high temperatures environments. 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 incredible financial loss. By adopting 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.



SPECIFICATION

Product	10/100Base-TX to 100Base-FX Industrial Media Converter with Wide Operating Temperature		
Model	IFT-802T	IFT-802TS15	IFT-805AT
Hardware Specification			
10/100Base-TX Port	1 RJ-45 Auto-MDI/MDI-X port		
100Base-FX Port	1 SC Interface		1 SFP Slot
Fiber Port Type	SC / Multi-mode	SC / Single-mode	Vary on module
Cable Distance	2km	15km	
Optical Frequency	1310nm	1310nm	
Launch Power (dBm)	Max:-14 Min: -20	Max:0 Min: -20	
Receive Sensitivity (dBm)	-32	-32	
Maximum Input Power (dBm)	-14	0	
Dimension (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	System: <ul style="list-style-type: none"> • Power 1 (Green) • Power 2 (Green) • Fault (Green) 1x copper port: <ul style="list-style-type: none"> • 10/100 (Green) • LNK/ACT (Green) 1 x 100FX port: <ul style="list-style-type: none"> • 100 (Green) • LNK/ACT (Green)
Power Input	12 to 48V DC Redundant power with polarity reverse protection function
Power Consumption	3 Watts/ 10BTU (maximum)
Protection	ESD (Ethernet): 6KV DC
Speed	Twisted-pair: <ul style="list-style-type: none"> • 10/20Mbps for Half / Full-Duplex • 100/200Mbps for Half / Full Duplex Fiber-optic: <ul style="list-style-type: none"> • 200Mbps for Full-Duplex
Network cables	10/100Base-TX: <ul style="list-style-type: none"> • 2-Pair UTP Cat. 3, 4, 5 (100meters, max.) • EIA/TIA-568 100-ohm STP (100meters, max.) 100Base-FX: <ul style="list-style-type: none"> • IFT-802T: Multi-mode optic fiber 62.5/125µm / 50/125µm (2km) • IFT-802TS15: Single-mode optic fiber 9/125µm (15km) • IFT-805AT: SFP Slot (Depends 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 Degree C
Operating Humidity	5~90% non-condensing
Storage Temperature	-40~85 Degree C
Storage Humidity	5~90% non-condensing

ORDERING INFORMATION

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

AVAILABLE SFP MODULES FOR IFT-805AT

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)