

# 10/100BASE-TX to 100BASE-FX Bridge Media Converters



PLANET FT-80x is a Fast Ethernet Bridge 100BASE-FX fiber to 10/100BASE-TX shielded twisted pair (STP) converter. It supports both half-duplex and full-duplex operations and a variety of fiber options. The converter auto-adapts to the highest level of performance supported by the device connected to the STP port. When the device is a switch or a workstation that supports full duplex, the converter adapts to the full-duplex mode and provides an effective 200Mbps bandwidth. When the connected device is a hub or a workstation that supports only half duplex, the converter adapts to the half-duplex mode and provides the nominal 100Mbps bandwidth. An override switch provides total manual control over the half/full-duplex operation in fiber-optic interface. The fiber port of the converter operates at 1310 nm and uses ST, SC, MTRJ, VF45 or WDM connectors. Multi-mode models that support distances up to 2km and single-mode models that support distances up to 15/20/35/50/60km are available.

The FT-80x series is with LFP (Link Fault Pass-through function) (LLCF/LLR) and the DIP switch design. LLCF/LLR can immediately alarm administrators the problem of the link media and provide efficient solution to monitoring the net. The DIP switch provides the disabling or enabling of the LFP function.

LLCF (Link Loss Carry Forward) means when a device is connected to the converter and the TP line loses the link, the converter's fiber will disconnect the link of transmit. LLR (Link Loss Return) means when a device is connected to the converter and the fiber line loses the link, the converter's fiber will disconnect the transmit link. Both can immediately alarm administrators the problem of the link media and provide efficient solution to monitoring the net.

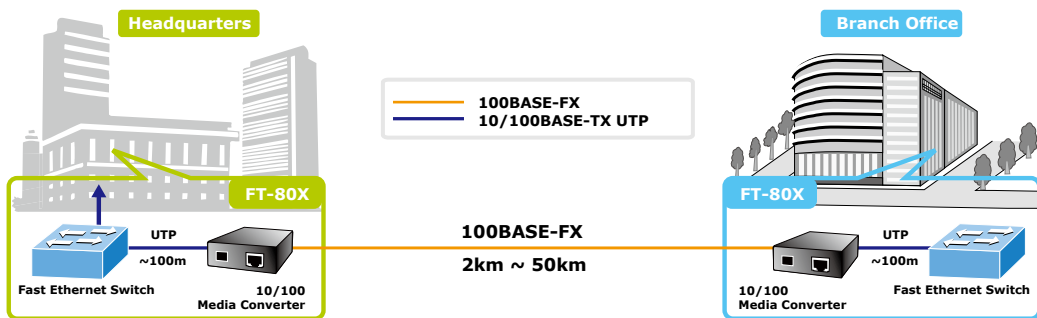
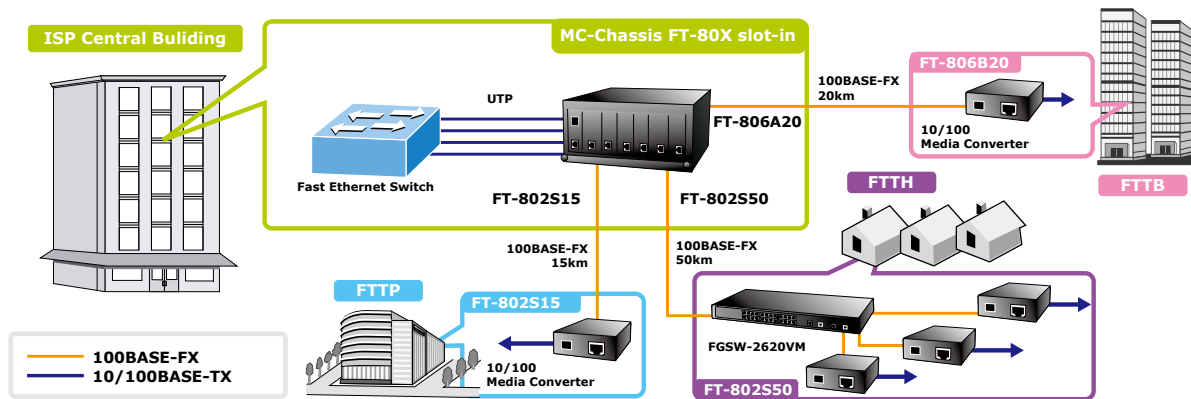
## Features

- Complies with IEEE 802.3, IEEE 802.3u 10/100BASE-TX, 100BASE-FX standard
- Connectors: One RJ45 (auto-MDI/MDI-X) twisted pair, EIA568
- One fiber-optic, 1310nm wavelength, connector type and distance vary with model
  - FT-806A20 / FT-806A60: Tx-1310nm, Rx-1550nm
  - FT-806B20 / FT-806B60: Tx-1550nm, Rx-1310nm
- Data Transfer Rate:
  - TP: 10/100Mbps
  - FX: 100Mbps
- Duplex mode support:
  - Full or half-duplex mode by auto-negotiation (TP)
  - Full or half-duplex mode by DIP switch (FX)
- LED indicators: PWR, FX LNK/ACT, FX FDX/COL, TP 100, TP LNK/ACT, TP FDX/COL
- DIP switch: 2 DIP switches
  - Rear DIP switch: FX duplex mode selection
  - Side DIP switch: LFP (Link Fault Pass-through) mode selection
- IEEE 802.3x Full-Duplex Flow-Control and Back-Pressure in Half-Duplex eliminate the loss of packets

## Applications

### Standalone and Centralized Management Media Converter Installation

To meet the demand for the growing network, PLANET FT-80x has provided the advanced media conversion technology. The FT-80x media converter provides various fiber connecting types to meet different network applications. It is very flexible for the FT-80x to work as a standalone device or install into the central standard media converter chassis for providing centralized power. The FT-80x is an ideal solution to building a network solution of FTTH (Fiber to the Home) or FTTC (Fiber to the Curb) and FTTB (Fiber to the Building) for ISPs, campuses and enterprises.



## Specifications

Product	FT-80x Series
Protocol	IEEE 802.3, 10BASE-T IEEE 802.3u, 100BASE-TX IEEE 802.3u, 100BASE-FX IEEE 802.3x, Flow Control
Dimensions (W x D x H)	97 x 69 x 26 mm
Weight	0.2kg
Power Input	5V DC, 2A, max.
Power Supply	AC Adapter 100-240VAC Frequency: 50-60Hz
Enclosure	Compact-sized metal housing Case with anticorrosion treatment Electrostatic paint
<b>Connectors and Cables</b>	
Shielded Twisted-pair	RJ45, Category 5 (EIA/TIA 568)
Fiber-optic	FT-801 : ST / Multi-mode / 2km FT-802 : SC / Multi-mode / 2km FT-803: MTRJ / Multi-mode / 2km FT-802S15 : SC / Single mode / 15km FT-802S35 : SC / Single mode / 35km FT-802S50 : SC / Single mode / 50km FT-806A20: WDM SC / Single mode / 20km FT-806B20: WDM SC / Single mode / 20km FT-806A60: WDM SC / Single mode / 60km FT-806B60: WDM SC / Single mode / 60km
Multi-mode Cable	50/125, 62.5/125 $\mu$ m
Single-mode (SM) Cable	9/125 $\mu$ m
Optic Wavelength	FT-801: 1310nm FT-802: 1310nm FT-803: 1310nm FT-802S15: 1310nm FT-802S35: 1310nm FT-802S50: 1310nm FT-806A20: TX: 1310nm; RX: 1550nm FT-806B20: TX: 1550nm; RX: 1310nm FT-806A60: TX: 1310nm; RX: 1550nm FT-806B60: TX: 1550nm; RX: 1310nm
Max. Launch Power (dBm)	FT-801: -14 FT-802: -14 FT-803: -14 FT-802S15:0 FT-802S35:-8 FT-802S50:0 FT-806A20:-8 FT-806B20:-8 FT-806A60:0 FT-806B60:0
Min. Launch Power (dBm)	FT-801: -20 (62.5/125 $\mu$ m), -23.5 (50/125 $\mu$ m) FT-802: -20 (62.5/125 $\mu$ m), -23.5 (50/125 $\mu$ m) FT-803: -20 (62.5/125 $\mu$ m), -23.5 (50/125 $\mu$ m) FT-802S15: -20 FT-802S35: -15 FT-802S50:-5 FT-806A20:-14 FT-806B20:-14 FT-806A60:-5 FT-806B60:-5
Receive Sensitivity (dBm)	FT-801: -31.8 FT-802: -31.8 FT-803: -31.8 FT-802S15: -32 FT-802S35:-34 FT-802S50: -35 FT-806A20:-31 FT-806B20:-31 FT-806A60:-34 FT-806B60:-34

Maximum Input Power (dBm)	FT-801: -14 FT-802: -14 FT-803: -14 FT-802S15:0 FT-802S35:0 FT-802S50:0 FT-806A20:0 FT-806B20:0 FT-806A60:0 FT-806B60:0
<b>Supported Distances and Functions</b>	
Shielded Twisted-pair	100m (328 ft.)
Multi-mode Fiber Optic	412m (1,350 ft.) (half-duplex) 2km (1.2 miles) (full-duplex)
Single-mode (SM)	412m (1,350 ft.) (half-duplex) 15km (9 miles) (full-duplex) 20km (12 miles) (full-duplex) 35km (21 miles) (full-duplex) 50km (31 miles) (full-duplex) 60km (37 miles) (full-duplex)
Port Mode	TP: Half and full duplex, auto-negotiation FX: Half and full duplex via DIP switch
<b>Environment &amp; Emissions</b>	
Operating Environment	Temperature: 0~50 degrees C Humidity: 5~90% non-condensing
Storage Environment	Temperature: -40~70 degrees C Humidity: 5~90% non-condensing
Emissions	FCC Class A, CE Class A

## Ordering Information

FT-801	10/100BASE-TX to 100BASE-FX (ST, MM) Bridge Media Converter -- 2km
FT-802	10/100BASE-TX to 100BASE-FX (SC, MM) Bridge Media Converter -- 2km
FT-802S15	10/100BASE-TX to 100BASE-FX (SC, SM) Bridge Media Converter -- 15km
FT-802S35	10/100BASE-TX to 100BASE-FX (SC, SM) Bridge Media Converter -- 35km
FT-802S50	10/100BASE-TX to 100BASE-FX (SC, SM) Bridge Media Converter -- 50km
FT-803	10/100BASE-TX to 100BASE-FX (MT-RJ, MM) Bridge Media Converter
FT-806A20 *	10/100BASE-TX to 100BASE-FX (WDM TX:1310nm, SM) Bridge Media Converter -- 20km
FT-806B20 *	10/100BASE-TX to 100BASE-FX (WDM TX:1550nm, SM) Bridge Media Converter -- 20km
FT-806A60 *	10/100BASE-TX to 100BASE-FX (WDM TX:1310nm, SM) Bridge Media Converter -- 60km
FT-806B60 *	10/100BASE-TX to 100BASE-FX (WDM TX:1550nm, SM) Bridge Media Converter -- 60km
Remarks *	FT-806A20/806B20 and FT-806A60/806B60 should run in pair. It means you must connect FT-806A20 / FT-806A60 to one end while FT-806B20 / FT-806B60 to the other end.

## Related Products

MC-700	7-slot 10" Media Converter Chassis
MC-1500	15-slot 19" Media Converter Chassis
MC-1500R	15-slot Media Converter Chassis (AC Power)
MC-1500R48	15-slot Media Converter Chassis (DC Power)