

10/100BASE-TX to 100BASE-FX Smart Media Converter



Distance Extended with Fiber Optic Cable

PLANET FST-80x Smart Media Converter series provides media conversion between 10/100BASE-TX and 100BASE-FX interfaces, such as multi-mode ST/SC connectors (2km), single-mode SC connector (15/35/50km) and single fiber connector using the wavelength-division multiplexing (WDM) technology (20/60km) to enable to extend links over long distances using fiber optic cable.

Enhanced Smart Management Features

The FST-80x series provides auto MDI/MDI-X on their TP port and store-and-forward mechanism to eliminate faulty packets. Use the DIP switch from the FST-80x to configure the available smart functions, such as the half/full duplex, auto-negotiation / force and 10/100Mbps options for TP and fiber interfaces. Besides, the Link Loss Return (LLR) and Link Loss Carry Forward (LLCF) functions can immediately alarm network administrator once there is a media link issue, thus helping to monitor the status of the entire network.

Easy Installation

The FST-80x series can be connected easily and cost-effectively as these smart media converters can be used as a standalone unit when powered on by its DC adapter, or used as a slide-in module connected to PLANET 19-inch, 16-slot web smart/managed media converter chassis (MC-1600MR/MC-1600MR48 and MC-1610MR/MC-1610MR48). When working with the web smart/managed media converter chassis, the status of the FST-80x can be monitored via the local RS-232 console and remote web interface.

Standards

- Complies with IEEE 802.3, 10BASE-T, IEEE 802.3u, 100BASE-TX and 100BASE-FX Ethernet standards

Interface

- One 10/100BASE-TX port with RJ45 connector
- One 100BASE-FX port with ST/SC/WDM connector supporting multi-mode or single-mode fiber optic cable
- Auto-negotiation and auto-MDI / MDI-X for 10/100BASE-TX port

Layer 2 Features

- Back-pressure and IEEE 802.3x compliant flow control and full wire-speed forwarding rate
- Link Loss Return (LLR) switch on each fiber optic is to aid in troubleshooting remote network connections
- Link Loss Carry Forward (LLCF) works with LLR in diagnosing network connections

Smart Management

- Provides DIP switch for setting fiber (HDX/FDX), UTP (auto-negotiation / manual), speed (10/100Mbps), duplex mode (half/full), LLR (disable/enable), LLCF (disable/enable)
- Manageable through web smart/managed media converter chassis system (MC-1600MR/MC-1610MR series)

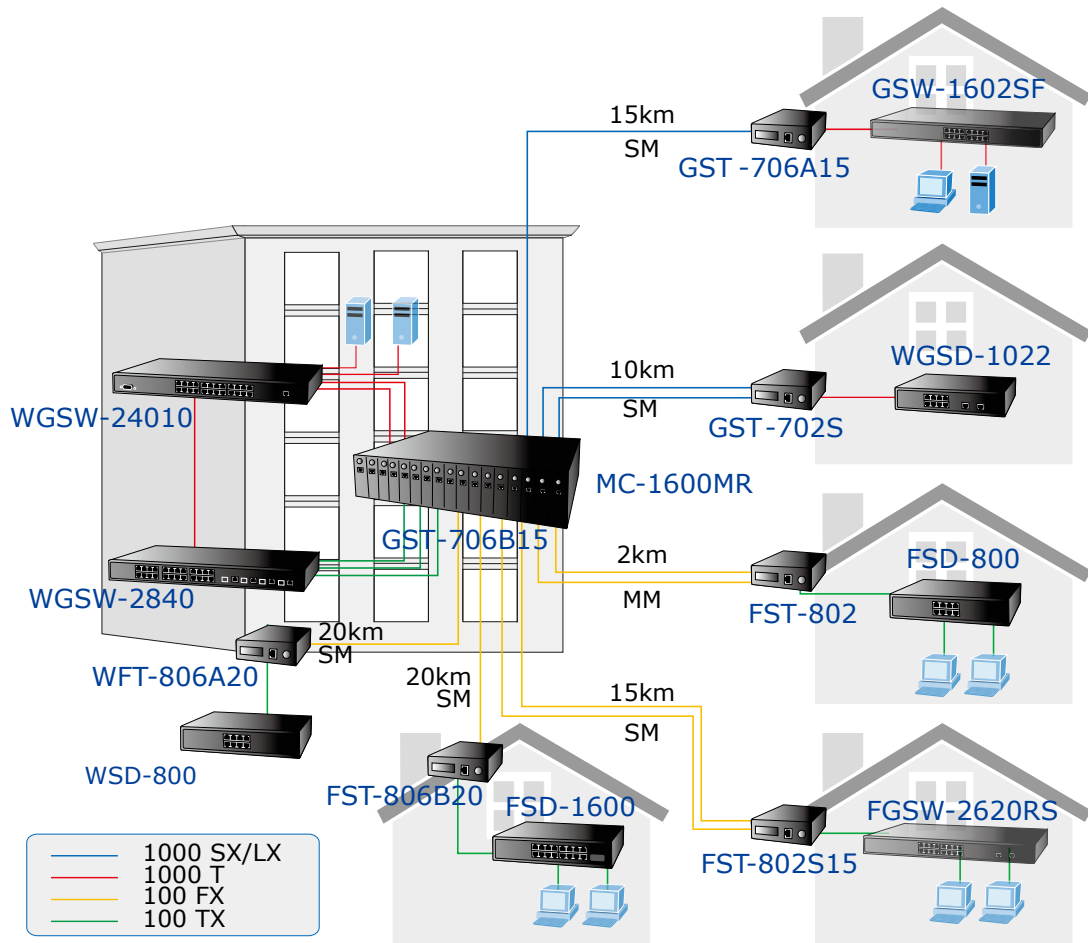
Hardware

- Used as a stand-alone device or works with web smart/managed media converter chassis for up to 16 converters with redundant power supply for optional expanding use
- LED indicators for converter status
- Choice of fiber-connector from ST/SC/WDM, multi-mode/single-mode fiber
- EMI standards complies with FCC, CE class B

Applications

Standalone and Centrally-managed Media Converter Installation

PLANET FST-80x adopts the advanced media conversion technology to meet the demand for today's growing networking. It provides a diverse choice of fiber connecting types to meet different network applications. It is very flexible for the FST-80x to work as a standalone device or to be installed in the central web smart media converter chassis for centralized management, which supports hot swapping to avoid network downtime. The FST-80x is ideal for 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.



Product Specifications

Hardware Specifications	
Standards	IEEE 802.3 10BASE-T IEEE 802.3u 100BASE-TX and 100BASE-FX
Copper Port	1 x 10/100BASE-TX port, auto-negotiation, auto-MDI-MDI-X
Optical Port	1 x 100BASE-FX
Fiber Connector	FST-801: ST / Multi-mode -- 2km FST-802: SC / Multi-mode -- 2km FST-802S15: SC / Single Mode -- 15km FST-802S35: SC / Single Mode -- 35km FST-802S50: SC / Single Mode -- 50km FST-806A20: WDM SC / Single Mode -- 20km FST-806B20: WDM SC / Single Mode -- 20km FST-806A60: WDM SC / Single Mode -- 60km FST-806B60: WDM SC / Single Mode -- 60km
Optical Wavelength	FST-801: 1310nm FST-802: 1310nm FST-802S15: 1310nm FST-802S35: 1310nm FST-802S50: 1310nm FST-806A20: TX: 1310nm, RX: 1550nm FST-806B20: TX: 1550nm, RX: 1310nm FST-806A60: TX: 1310nm, RX: 1550nm FST-806B60: TX: 1550nm, RX: 1310nm
Maximum Launch Power (dBm)	FST-801: -14 FST-802: -14 FST-802S15:0 FST-802S35:-8 FST-802S50:0 FST-806A20:-8 FST-806B20:-8 FST-806A60:0 FST-806B60:0
Minimum Launch Power (dBm)	FST-801: -20 (62.5/125 μ m), -23.5 (50/125 μ m) FST-802: -20 (62.5/125 μ m), -23.5 (50/125 μ m) FST-802S15: -20 FST-802S35: -15 FST-802S50:-5 FST-806A20:-14 FST-806B20:-14 FST-806A60:-5 FST-806B60:-5
Receive Sensitivity (dBm)	FST-801: -31.8 FST-802: -31.8 FST-802S15: -32 FST-802S35:-34 FST-802S50: -35 FST-806A20:-31 FST-806B20:-31 FST-806A60:-34 FST-806B60:-34
Maximum Input Power (dBm)	FST-801: -14 FST-802: -14 FST-802S15:0 FST-802S35:0 FST-802S50:0 FST-806A20:0 FST-806B20:0 FST-806A60:0 FST-806B60:0
Speed	Ethernet: 10/20Mbps for half / full-duplex Fast Ethernet: 100/200Mbps for half / full-duplex
Maximum Forward Packet Size	1600Bytes

DIP Switch	DIP-1: Fiber full / half duplex mode DIP-2: Copper forced mode / auto-negotiation mode DIP-3: Copper speed 10Mbps / 100Mbps DIP-4: Copper full / half duplex mode DIP-5: Fiber LLR (Link Loss Return) enable / disable DIP-6: Fiber LLCF(Link Loss Carry Forward) enable / disable
LED Indicator	System: PWR TP: LNK/ ACT, FDX/ COL, 100 FX: LNK/ ACT, FDX/ COL
Power Input	DC 5V, 2A
Power Consumption	6.2 watts/ 21 BTU (maximum)
Dimensions (W x D x H)	94 x 81 x 26 mm
Weight	0.22kg
Cable	10BASE-T: 2-pair Cat3, 4, 5 UTP cable, up to 100 meters 100BASE-TX: 2-pair Cat5 UTP cable, up to 100 meters 100BASE-FX: -50/ 125µm or 62.5/ 125µm multi-mode fiber cable, up to 2km - 9/ 125µm single-mode cable, providing long distance of 15/20/35/50/60km
Operating Environment	0~50 degrees C, 5~90% RH
Storage Environment	-10~70 degrees C, 5~90% RH
Emission	FCC Class B, CE mark

Ordering Information

FST-801	10/100BASE-TX to 100BASE-FX (ST, MM) Smart Media Converter -- 2km
FST-802	10/100BASE-TX to 100BASE-FX (SC, MM) Smart Media Converter -- 2km
FST-802S15	10/100BASE-TX to 100BASE-FX (SC, SM) Smart Media Converter -- 15km
FST-802S35	10/100BASE-TX to 100BASE-FX (SC, SM) Smart Media Converter -- 35km
FST-802S50	10/100BASE-TX to 100BASE-FX (SC, SM) Smart Media Converter -- 50km
FST-806A20*	10/100BASE-TX to 100BASE-FX (SC WDM, SM) Smart Media Converter -- TX:1310nm-20km
FST-806B20*	10/100BASE-TX to 100BASE-FX (SC WDM, SM) Smart Media Converter -- TX:1550nm-20km
FST-806A60*	10/100BASE-TX to 100BASE-FX (SC WDM, SM) Smart Media Converter -- TX:1310nm-60km
FST-806B60*	10/100BASE-TX to 100BASE-FX (SC WDM, SM) Smart Media Converter -- TX:1550nm-60km
Remarks	FST-806A20/806B20 and FST-806A60/806B60 should run in pair, meaning FST-806A20 / FST-806A60 must be connected at one end while FST-806B20 / FST-806B60 at the other end.

Related Products

MC-1600MR	16-slot Web Smart Media Converter Chassis (AC power)
MC-1600MR48	16-slot Web Smart Media Converter Chassis (DC power)
MC-1610MR	16-slot Managed Media Converter Chassis (AC power)
MC-1610MR48	16-slot Managed Media Converter Chassis (DC power)
MC-RPS130	130W Redundant Power Supply for MC-1600MR / MC-1610MR, 100-240V AC
MC-RPS48	Redundant Power Supply for MC-1600MR48 / MC-1610MR48, DC-48V