

Product Specification

10/100Base-TX to 100Base-FX
Smart Fast Ethernet Media Converter

FST- 80x

Version 1.0

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Change History:

Revision	Date	Author	Change List
Version 1.0	2006/11/20	Marc Liao	Initial release

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1. PRODUCT DESCRIPTION

The FST-80x series Smart Media Converter provide 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(WDM,20km) fiber connection options for various application.

The FST-80x series Smart Media Converter provide Auto MDI/MDI-X on its TP port and store-and-forward mechanism for 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 interface. Also the LLR and LLCF function can immediately alarm network administrator the media link issue and provide efficient solution to monitor the entire network.

The FST-80x series Smart Media Converter can allow two type segments connect easily with efficiently and cost effective, these Smart Media converter can be use us a standalone unit when it power on by it's DC adapter. Or use as a slide-in module to the PLANET 19-inch Web Smart 16-Slots Media converter chassis (MC-1600MR/MC-1600MR48), with this Web Smart Media converter chassis, the FST-80x able to manage and status monitor through the local RS-232 console and remote web interface.

2. PRODUCT FEATURES

- Complies with IEEE 802.3, 10Base-T, IEEE 802.3u, 100Base-TX and 100Base-FX Ethernet standard
- Provides one 10/100Base-TX port with RJ-45 connector, one 100Base-FX port with ST/SC/WDM connector supporting multi-mode or single-mode fiber optic cable
- LED indicators for converter status
- Provide DIP switch to setting fiber(HDX/FDX), UTP(Auto-negotiation / Manual), speed(10/100Mbps), duplex mode(Half / Full duplex mode), LLR(Disable / Enable), LLCF(Disable / Enable)
- Auto-MDI / MDI-X for 10/100Base-TX port
- Store-and-Forward mechanism
- Back-pressure & IEEE 802.3x compliant flow control and full wire-speed forwarding rate
- Link Loss Return(LLR) switch on each fiber optic to aid in troubleshooting remote network connections
- Link Loss Carry Forward(LLCF) work with LLR in diagnosing network connections
- Manageable through Web Smart Media Converter Chassis System
- Used as a stand-alone device or with a chassis for up to 16 converter with redundant power supply for optional expansion use
- EMI standards complies with FCC, CE class B

3. PRODUCT SPECIFICATION

3.1 MAIN COMPONENT

Microcontroller:	Winbond W78L054C	x1
Media converter chip:	IC Plus IP113M	x1
Fiber-optic transceiver:	Vary by models	x1

3.2 FUNCTIONAL SPECIFICATIONS

Model	FST-801	FST-802	FST-802S15	FST-802S35	FST-802S50	FST-806A20	FST-806B20
Hardware Specification							
Standards	IEEE 802.3 10Base-T, IEEE 802.3u 100Base-TX and 100Base-FX						
Ports	1 10/100Base-TX port , 1 100Base-FX port						
Fiber connector	ST	SC	SC	SC	SC	SC, WDM	SC, WDM
Wavelength Deployment	1310nm (Transmit and Receive)					1310 (TX) 1550 (RX)	1550 (TX) 1310 (RX)
Cable	10Base-T: 2-pair Cat. 3,4,5 UTP cable, up to 100 meters 100Base-TX: 2-pair Cat. 5 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, provide long distance for 15/20/35/50km						
Maximum Cable distance	MM, 2km	MM, 2km	SM, 15km	SM, 35km	SM, 50km	SM, 20km Single wire	SM, 20km Single wire
LED indicator	System: PWR TP: LNK/ACT, FDX/COL, 100 FX: LNK/ACT, FDX/COL						
DIP switch	Fiber (HDX/FDX), UTP (Auto-negotiation / Manual), speed (10/100Mbps), duplex mode (Half / Full duplex mode), LLR (Disable / Enable), LLCF (Disable / Enable)						
Speed	Ethernet: 10/20Mbps for half / full-duplex Fast Ethernet: 100/200Mbps for half / full-duplex						

3.3 PHYSICAL SPECIFICATION

■ **Dimensions**

81 x 94 x 26 mm (W x D x H)

■ **Weight:**

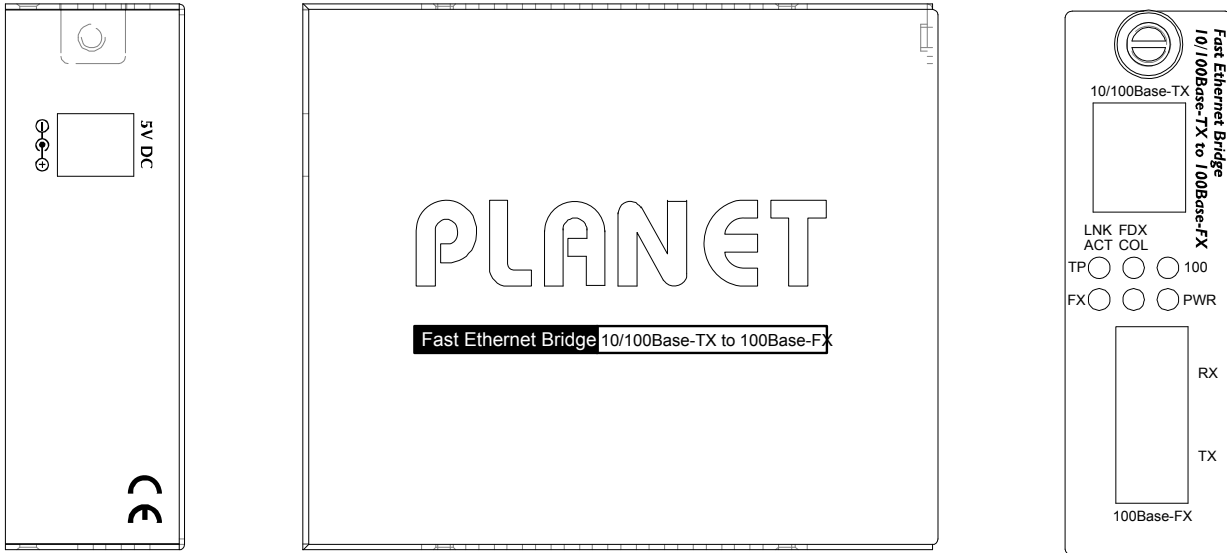
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■ **Right view**

There is one RJ-45 twisted-Pair jack (**Auto-MDI/MDI-X**), one fiber-optic connector (**vary by model**) and six LED indicators.

■ **Left view**

There is one DC jack for DC 5V power adapter.

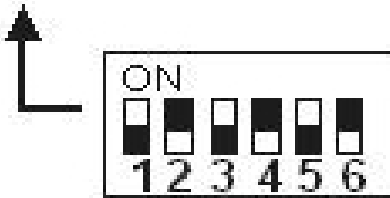


LED Indicators

LED	Color	Status	Indication
PWR(Power)	Green	Lights On	Power on – when +5V DC detected.
		Lights Off	Power off.
TP Speed (100Mbps)	Green	Lights On	The port is operating at 100Mbps.
		Lights Off	The port is operating at 10Mbps.
TP FDX/COL	Green	Lights On	Connection at Full-Duplex mode.
		Lights Off	Connection at Half-Duplex mode.
		Lights Blinking	The port is experiencing collisions.
TP LINK/ACT	Green	Lights On	The link through that port is successfully established.
		Lights Off	The link through that port is not established.
		Lights Blinking	Data transmitting or receiving on that port.
FX FDX/COL	Green	Lights On	Connection at Full-Duplex mode.
		Lights Off	Connection at Half-Duplex mode.
		Lights Blinking	The port is experiencing collisions.
FX LINK/ACT	Green	Lights On	The link through that port is successfully established.
		Lights Off	The link through that port is not established.
		Lights Blinking	Data transmitting or receiving on that port.

■ **DIP Switch**

DIP Switch	Mode	Description
DIP Switch 1	On	Fiber operates at Half Duplex mode.
	Off	Fiber operates at Full Duplex mode (default) .
DIP Switch 2	On	TX operates at Forced Mode.
	Off	TX operates at Auto-Negotiation (default) .
DIP Switch 3	On	TX operates at 10Mbps duplex mode.
	Off	TX operates at 100Mbps duplex mode (default) .
DIP Switch 4	On	TX operates at Half Duplex mode.
	Off	TX operates at Full Duplex mode (default) .
DIP Switch 5	On	LLR Enable.
	Off	LLR Disable (default) .
DIP Switch 6	On	LLCF Enable.
	Off	LLCF Disable (default) .



3.4 ENVIRONMENTAL SPECIFICATION

Operating

Temperature: 0~50°C
Relative Humidity: 5~90 %(non-condensing)

Storage

Temperature: -10~70°C
Relative Humidity: 5~90 %(non-condensing)

3.5 ELECTRICAL SPECIFICATION

Power Requirement: 5V DC 2A
Power Consumption: 6.2 Watts / 21 BTU (maximum)

3.6 REGULATORY COMPLIANCE

FCC Part 15 Class B, CE

3.7 RELIABILITY

MTBF > 50,000Hrs @ 25 Degree C

3.8 BASIC PACKAGING

- Smart Fast Ethernet Converter x1
- User's Manual CD x1
- AC-DC Power Adapter (Output: 5VDC, 2A max.) x1

3.9 PACKING INFORMATION

Dimension

140mm x 285mm x 70mm (W x D x H)

Weight

0.53kg (Gross weight)

20pcs in one canton