

FVT-0100TXFT

100Mbps ST Fiber Converter

FVT-0100TXFC

100Mbps SC Fiber Converter

FVT-0101TXFC

100Mbps SC Fiber Converter, Single Mode

User's Maunal

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FVT-0101TXFC 100Mbps SC Fiber Converter, Single Mode

1. Overview

IEEE802.3u 100Mbps Fast Ethernet supports two types media for network connection such as 100Base-TX and 100Base-FX. The media converter is used to convert one type media signal to other type equivalent that allows two type segments connect easily and inexpensively. The converter can be used as a standalone unit or as a slide-in module to the 19" converter rack(up to 10 units) for use at a central wiring closet.

2. Model Description

Model	Connector Type		
FVT-0100TXFT	RJ-45 ↔	ST	1300nm
FVT-0100TXFC	RJ-45 ↔	SC	1300nm
FVT-0101TXFC	RJ-45 ↔	SC	Single mode

The 100Mbps 1300nm Fiber Transceivers:	
ST/SC multi-mode	Default
SC.S20/S40/S60Km single-mode	* Optional

*: SC single-mode S20/S40/S60Km are optional

3. Checklist

Before you start installing the Converter, verify that the package contains the following:

- The Fiber Converter
- AC-DC Power Adapter
- This User's Manual

Please notify your sales representative immediately if any of the aforementioned items is missing or damaged.

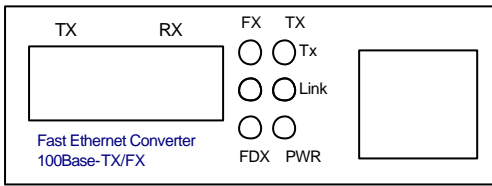


Fig. 1 100Mbps ST/ST Fiber Converter Front Panel

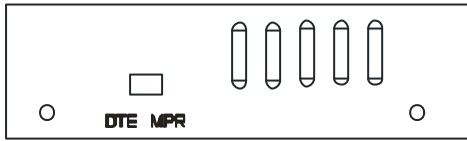


Fig. 2 100Mbps ST/SC Fiber Converter Side Panel

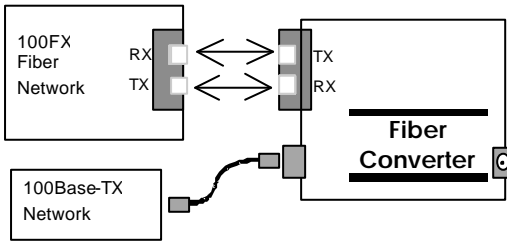


Fig. 3 Basic Network Connection

2. Installing the Converter

For as a standalone unit:

- ⇒ Verify the AC-DC adapter conforms to your country AC power requirement and insert the power plug
- ⇒ Connect the media cable for network connection

For as a slide-in unit:

- ⇒ The slide-in Media Converter and Converter Rack should be supplied only from the same source, both Media Converter and Rack are built to match each other at dimensions, DC jack, DC receptacle and power safety
- ⇒ Turn off the 19" converter rack power
- ⇒ Ensure that there is no activity in the network
- ⇒ Locate +5VDC power jack on converter back, carefully slide in and plug to 19" rack +5VDC power receptacle
- ⇒ Connect the media cable for network connection
- ⇒ Turn on the converter rack power, the Power LED will light up

Fiber Port	Attach the fiber cable. The Tx, Rx fiber cable must be paired at both ends
TP Port	Attach TP Cat. 5 cable to TP port MPR(Default): To a Switch or Hub DTE : To a workstation or NIC "DTE"/"MPR" slide switch is on the side panel

Note:

- a. Use the straight-through cable.
Cable pin-outs for RJ-45 jack 1, 2, 3, 6 to 1, 2, 3, 6
- b. **MPR(Default):** To a Switch or Hub
DTE : To a workstation, or NIC(Network Interface Card)
(DTE pin-outs is crossover on board already)

Configure the MPR-DTE slide switch on the side panel for cable connection to a hub or NIC(Network Interface Card)

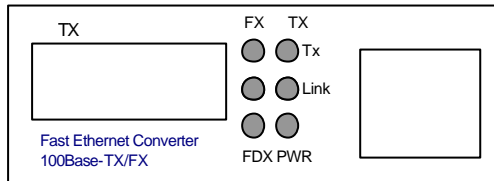
5. Connecting to 10/100Mbps NWay Device

Converter TP Port	Default: 100Mbps auto-duplex-negotiation a. Full-duplex for 10/100 NWay TP partner b. Half-duplex for non-NWay TP partner or Class II hub
Converter Fiber Port	100Mbps and comes to: a. Full-duplex for 100Fdx fiber link partner b. Half-duplex for 100Hdx fiber link partner

Note:

- TP Partner must be set at 10/100 NWay Auto-Negotiation for full duplex operation. When connecting to non-NWay TP partner, it will come to 100/half-duplex operation
- Fiber Link Partner should be set at full duplex mode

6. LED Description



LED	Color	Function
FX Tx	Green	Blinks when fiber data is transmitting
FX Link	Green	Lit when fiber connection is good Blinks when fiber data is receiving
TX Tx	Green	Blinks when TP data is transmitting
TX Link	Green	Lit when TP connection is good Blinks when TP data is receiving
FDX	Green	Lit when full-duplex mode is active
PWR	Green	Lit when +5V power is coming up

7. Cable Connection Parameter

100Base-FX network allows 512-bit time delay between any two node stations in a collision domain. The overall bit-time of TP/Fiber wires and devices must be within 512 bit in a segment. You may use a switch to break up collision domain and extend the cabling distance.

- **TP Cable Limitations:** Cat.5 100m
- **Multi-mode Converter Fiber Cable Limitations:**

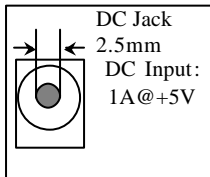
SC/ST/VF/MT Multi-Mode Converter Models:		
Multi-mode	Node to Node	: 412m
Half-duplex	Node to Switch	: 412m
Multi-mode	Node to Node	: 2Km
Full-duplex	Node to Switch	: 2Km

- **Single-mode Converter Fiber Cable Limitations:**

SC Single-Mode Converter Optional Models:		
SC.S20	Node to Node	: 20Km
Full-duplex	Node to Switch	: 20Km
SC.S40	Node to Node	: 40Km
Full-duplex	Node to Switch	: 40Km
SC.S60	Node to Node	: 60Km
Full-duplex	Node to Switch	: 60Km

8. DC Jack and AC-DC Power Adapter

The DC jack's central post is 2.5mm wide, it conforms to the DC receptacle(2.5mm) on the 19-inch Converter Rack slot.



Keep the AC-DC adapter as spare parts when Media Converter is installed in a 19-inch Media Converter Rack.

AC-DC power adapter
AC Input : 100~240VAC 50/60Hz
DC Output: 1A@+5VDC

9. TP-Fiber Technical Specifications

- **Standards:** IEEE802.3u 100Base-TX/FX
- **Models :**

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UTP Cable : Cat. 5 cable up to 100m

Fiber Cable:

50/125, 62.5/125, or 100/140mm multi-mode
 8.3/125, 8.7/125, 9/125 or 10/125mm single-mode

- **Data Transfer Rate:**
 - 100Mbps auto-duplex-negotiation
 - 100Mbps for half-duplex mode
 - 200Mbps for full-duplex mode
- **LED Indicators :**
 - FX Tx, FX Link, TX Tx, TX Link, FDX, POWER
- **Power Requirement :** 1A@+5VDC
- **Ambient Temperature:** 0° to 50°C
- **Humidity** : 5% to 90%
- **Dimensions** : 26.2(H) × 70.3(W) × 94(D) mm

Note: Connecting to Router, Bridge, or Switch, please refer to the device's Technical Manual.