TFC-110 Series

10/100BASE-TX to 100BASE-FX

Fast Ethernet

Media Converter

Quick Installation Guide

FCC Class B Certification

This equipment has been tested and found to comply with the regulations for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with this user's guide, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.

CE Mark Warning

This is a Class B product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

VCCI Class B Compliance (Japan)

注意
この装置は、情報処理装置等電波障害自主規制協議会(VCCI)の基準に基づく第一種情報技術装置です。この装置を家庭環境で使用すると電波妨害を引き起こすことがあります。この場合には使用者が適切な対策を講ずるよう要求されることがあります。

Introduction

Thank you for choosing the 10/100BASE Fast Ethernet Media Converter, The Converter introduced here provides one channel media conversion between 10/100BASE-TX and 100BASE-FX.

About Media Converter

The Media Converter is a network technology specified by IEEE 802.3 10BASE-T, IEEE802.3u 100BASE-TX, and 100BASE-FX standards.

Product Features

- One-channel media conversion between 10/100BASE-TX and 100BASE-FX
- Fiber media allows: multi-mode fiber using SC, LC, or MT-RJ connector; single-mode fiber using SC connector
- Auto negotiation of speed and duplex mode on TX port
- Auto MDI-X on TX port
- One slide switch for configuring fixed half/full duplex modes
- Store-and-forward mechanism
- Back-pressure & IEEE802.3x compliant flow control
- Full wire-speed forwarding rate
- Front panel status LEDs
- Used as a stand-alone device or with a chassis
- Hot-swappable when used with a chassis

Installation

This chapter gives step-by-step installation instructions for the Converter.

Selecting a Site for the Equipment

As with any electric device, you should place the equipment where it will not be subjected to extreme temperatures, humidity, or electromagnetic interference. Specifically, the site you select should meet the following requirements:

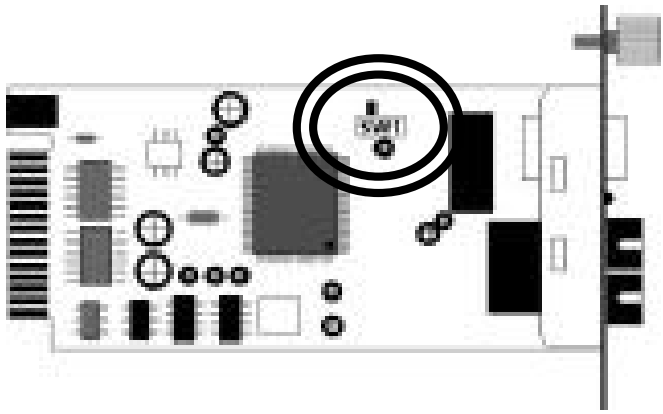
1. The ambient temperature should be between 32 and 104 degrees Fahrenheit (0 to 40 degrees Celsius).
2. The relative humidity should be less than 90 percent, non-condensing.
3. Surrounding electrical devices should not exceed the electromagnetic field (RFC) standards for IEC 801-3, Level 2 (3V/M) field strength.
4. Make sure that the equipment receives adequate ventilation. Do not block the ventilation holes on either side of the switch or the fan exhaust port on the side or rear of the equipment.
5. The power outlet should be within 1.8 meters of the switch.

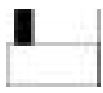
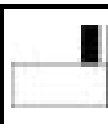
Connecting to Power

1. This Converter is a plug-and-play device.
2. Connect the supplied AC to DC power adaptor with a power voltage of 7.5VDC/1.5Amp to the receptacle on the rear panel of the converter, and then attach the plug into a standard AC outlet with a voltage range from 100 to 260VAC.

Sliding Switch

There is a sliding switch for duplex mode setting for fiber port. Refer to the table below for more details.



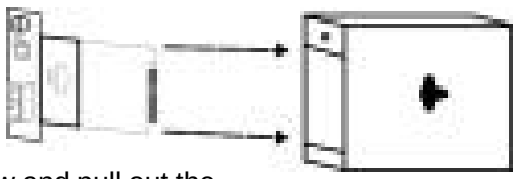
	Half Duplex		Full Duplex (default)

Please select the correct duplex mode according to the incoming/outgoing fiber connection.

If the Fiber Connection is running at half-duplex mode, the maximum cable distance is 412 meters for both multimode and single mode fiber cables.

Installing in a Chassis

The Converter can be fit into any of the expansion slots on a special designed chassis (TFC-1600).



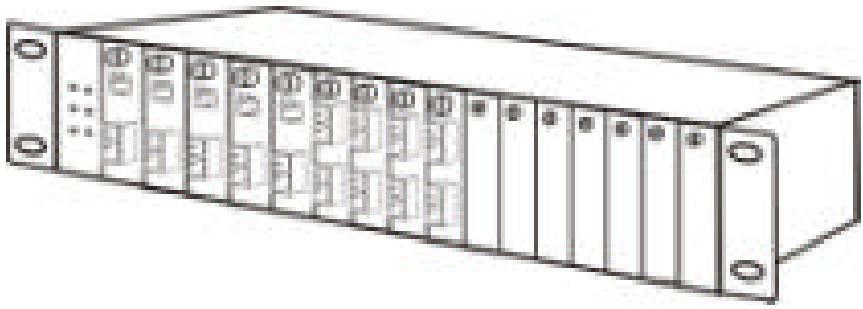
Unscrew and pull out the media converter board

✍First, install the converter onto a carrier supplied with the chassis:

Step 1- Locate a vacant slot on the chassis, unscrew the thumbscrew, and remove the dust cover (save the cover).

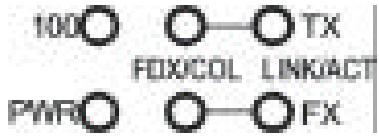
Step 2- Remove the screw on the converter as shown above pull put the converter board.

Step 3- Insert the converter board in the empty slot, make sure it is fully seated to the slot, and tighten the thumbscrew to secure it on the chassis.



LED Indicator

The LED indicators give you instant feedback on status of the converter:



LEDs	State	Indication
PWR (Power)	Solid	Power on
	Off	Power off
100 (100Mbps)	Solid	Runs at 100Mbps on TX port
	Off	Runs at 10Mbps on TX port
FDX/COL TX Port (TX) FX Port (FX)	Solid (FDX)	Connection in full duplex mode FDX stands for FULL-DUPLEX
	off	Connection in half duplex mode
	Blinking (COL)	Data collision
LINK/ACT TX Port (TX) FX Port (FX)	Solid (LINK)	A valid network connection established
	off	No connection
	Blinking (ACT)	Transmitting or receiving data (ACT stands for Activity)

Specifications

Applicable Standards	IEEE 802.3 10BASE-T IEEE802.3u 100BASE-TX & 100BASE-FX
Fixed Ports	1 TX port, 1 FX port
Speed	10/20Mbps for half/full-duplex 100/200Mbps for half/full-duplex
Forwarding rate	148,800pps
LED Indicators	Per Unit- (2 LEDs): Power; Speed (100)
	Per Port- (2 LEDs): FDX/COL, LINK/ACT
Cable	**10BASE-T --** 2-pair UTP Cat. 3,4,5, up to 100 m (328 ft) **100BASE-TX --** 2-pair UTP Cat. 5, up to 100 m (328 ft) **100BASE-FX --** 62.5/125um or 50/125um multi-mode fiber optic cable, up to 2 km (412 meters in half-duplex mode) 9/125um or 10/125um single-mode fiber optic cable, up to 75 km (412 meters in half-duplex mode)
Dimensions	L120 × W88 × H25 mm
Weight	305 g
Power	External power adaptor 7.5V 1.5A
Power Consumption	7.2W Max.

Operating Temperature	0°C ~ 40°C (32°F ~ 104°F)
Storage Temperature	-25°C ~ 70°C (-13°F ~ 158°F)
Humidity	10 ~ 90%, non-condensing
Emissions	FCC part 15 Class B, CISPR ClassB, VCCI Class B, CE Mark

Ordering Information

Please include the following information when ordering:
Fiber type: multi-mode or single-mode
Fiber connector type: SC, LC or MT-RJ
Segment distance range for the fiber port

TX port		
Connector Type	Cabling	Segment Distance
RJ-45	Copper Wire	Max. 100 m
FX port		
Connector Type	Cabling	Segment Distance
SC	Multi-Mode Fiber	Max. 2 km
MT-RJ	Multi-Mode Fiber	Max. 2 km
LC	Multi-Mode Fiber	Max. 2 km
SC	Single-Mode Fiber	Max. 15 km
SC	Single-Mode Fiber	Max. 40 km
SC	Single-Mode Fiber	Max. 75 km

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