Preface

This manual describes how to install and use the Fast Ethernet media converter. The Converter introduced here provides one channel media conversion between:

100BaseTX ← → 100BaseFX or WDM 100BaseFX

100BaseFX or WDM 100BaseFX ← → 100BaseFX or WDM 100BaseFX

The Converter fully complies with IEEE802.3u 100BaseTX/FX standards.

In this manual, you will find:

- Product overview
- Features on the media converter
- Illustrative LED functions
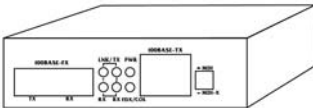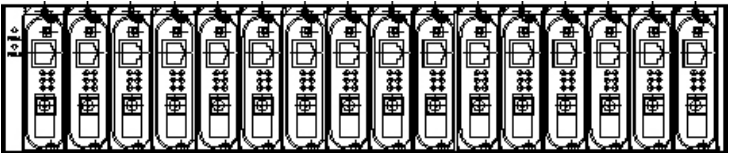- Installation instructions
- Specifications

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Introduction

The media converter provides one channel for media conversion between:

100BaseTX ← → 100BaseFX or WDM 100BaseFX

100BaseFX or WDM 100BaseFX ← → 100BaseFX or WDM 100BaseFX

It can be used as a stand-alone device or with a standard 19" chassis as shown below.

Product Overview

<NOTE>   The chassis is to be ordered separately.

Product Features

• One-channel media conversion between:

   100BaseTX ← → 100BaseFX or WDM 100BaseFX

   100BaseFX or WDM 100BaseFX ← → 100BaseFX or WDM 100BaseFX

• Fiber media allows:
   Multi-mode fiber using SC, ST, VF-45 or MT-RJ connector up to 2km;
   Single-mode fiber using SC connector up to 75km;
   WDM single-fiber (bi-direction) transceiver: Single-mode WDM fiber uses SC connector up to 40km
   A type: WDM single-fiber (bi-direction) transceiver transmits with 1310nm wavelength and receives with 1550nm wavelength
   B type: WDM single-fiber (bi-direction) transceiver transmits with 1550nm wavelength and receives with 13100nm wavelength
• Support full and half duplex mode on TX port
• Full wire-speed forwarding rate
• Front panel status LEDs
• One push button for uplink purpose

- Used as a stand-alone device or with a chassis
- Hot-swappable when used with a chassis

Packing List

When you unpack this product package, you will find the items listed below. Please inspect the contents, and report any apparent damage or missing items immediately to our authorized reseller.

• The Media Converter

• User's Manual

• AC to DC Power Adaptor

One-Channel Media Converter

Ports

For the FX port, it provides options of multi-mode using ST, SC, VF-45, MT-RJ, or LC connector; single-mode fiber using SC connector; or single strand fiber WDM single-mode using single SC connector. For the TX port, it uses RJ-45 connector.

Front Panel & LEDs

MDI/MDI-X button

There is one MDI/MDI-X button next to the TX port for uplink use. Push the button to enable the uplink function.

100BaseTX ← → 100BaseFX or WDM 100BaseFX
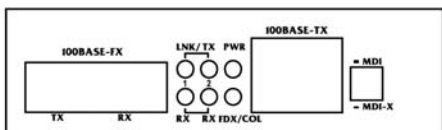
100BaseFX or WDM 100BaseFX ← → 100BaseFX or WDM 100BaseFX

LED Indicators

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

100BaseTX ← → 100BaseFX or WDM 100BaseFX

LEDs	State	Indication
Power	Steady	Power on
	Off	Power off
LNK/TX 1 (100FX)	Steady	A valid network connection established LNK stands for LINK
	Flashing	Transmitting, TX stands for Transmitting
	Off	Neither valid network connection nor transmitting established
RX 1 (100FX)	Flashing	Receiving, RX stands for Receiving
	Off	No receiving established
LNK/TX 2 (100TX)	Steady	A valid network connection established LNK stands for LINK
	Flashing	Transmitting, TX stands for Transmitting
	Off	Neither valid network connection nor transmitting established
RX 2 (100TX)	Flashing	Receiving, RX stands for Receiving
	Off	No receiving established
FDX/COL (100TX)	Steady	Connection in full duplex mode FDX stands for FULL-DUPLEX
	Flashing	Collision occurred
	Off	Connection in half-duplex mode

100BaseFX or WDM 100BaseFX ← → 100BaseFX or WDM 100BaseFX

LEDs	State	Indication
PWR	Steady	Power on
	Off	Power off
SDA/ SDB (100FX)	Steady	A valid network connection established, Transmitting and Receiving
	Off	Neither valid network connection nor transmitting established

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:

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

Connecting to Power

• This Converter is a plug-and-play device.

• Connect the supplied AC to DC power adaptor 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 240 Vac.
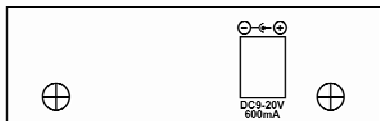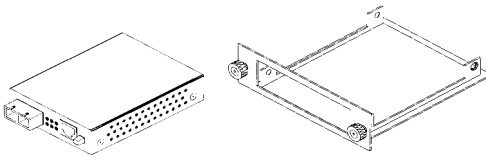
Installing in a Chassis

The Converter can be fit into any of the expansion slots on a special designed chassis.

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

Step 1- Unscrew the carrier from the desired expansion slot on the chassis.
Step 2- Fit the converter onto the carrier.

• When the converter is completely seated onto the carrier, insert the carrier to the guide rails of the expansion slot.

• Carefully slide in the carrier until it is fully and firmly fit the chassis. Fasten the screws on the carrier.

<NOTE>   Never insert any converter into the chassis directly without using the supplied carriers. The carriers allow secure and consistent placement of the converters into the chassis' backplane without causing any damage.

Specifications

Applicable Standards	IEEE 802.3u 100BaseTX & 100BaseFX
Fixed Ports	1 TX port, 1 FX port or 1 WDM FX port
	2 FX port or WDM FX port
Speed – **100BaseTX/FX**	100/200Mbps for half/full-duplex
Forwarding rate	148,800pps for 100Mbps
LED Indicators	1 TX port, 1 FX port or 1 WDM FX port:
	Per Unit- (1 LED): PWR
	FX Port- (2 LEDs): LNK/TX 1; RX 1
	TX Port- (3 LEDs): LNK/TX 2; RX 2; FDX/COL
	2 FX port or WDM FX port:
	Per Unit- (1 LED): PWR
	FX Port- (2 LEDs): SDA; SDB
Dimensions	L110 × W81 (max.) × H23 mm
Weight	150 g
Power	External power adaptor
	9 ~ 20 Vdc; 600mA
Power Consumption	5W 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 A, CE Mark
Safety	UL

Ordering Information

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
ST	Multi-Mode Fiber	Max. 2 km
MT-RJ	Multi-Mode Fiber	Max. 2 km
VF-45	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
Single SC	Single fiber strand Single-Mode Fiber	Max. 20 km
Single SC	Single fiber strand Single-Mode Fiber	Max. 40 km