SIGNAMAX
CONNECTIVITY SYSTEMS

Signamax Ô Connectivity Systems
100BaseTX/FX to 100BaseFX
Converter Series

USER'S GUIDE

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100BaseTX/FX to 100BaseFX Converter Series

User's Guide

FCC Warning

This equipment has been tested and found to comply with the limits for a Class A 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 A product. In a domestic environment, this product may cause radio interference in which case the user may be required to take adequate measures.

Trademarks

Product names mentioned in this manual may be trademarks or registered trademarks of those products and are hereby acknowledged.

- Ethernet is a trademark of Xerox Corporation.
- Microsoft Windows is a trademark of Microsoft Corporation.
- Signamax™ is a trademark of Advanced Electronic Support Products, Inc.

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INTRODUCTION

Product Overview

This manual describes how to install and use the Signamax™ Fast Ethernet Media Converter. The Signamax™ Media Converter introduced here provides one channel of media conversion between 100BaseFX fiber optic cable and 100BaseFX fiber optic cable.

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

In this manual, you will find:

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

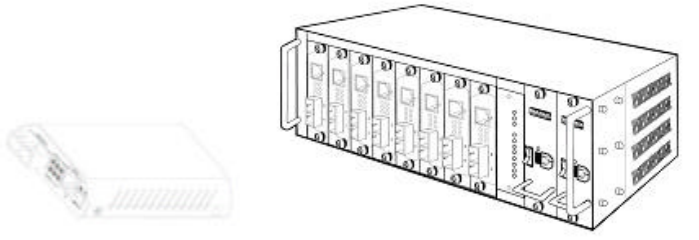

Figure 1: Signamax® Media Converter

100BaseTX/FX 100BaseFX Media Converter

FO-065-1180 8-Port Rack Mount Chassis

<NOTE> The chassis is to be ordered separately.

Product Features

- High quality 19" rack mountable chassis
- One-channel media conversion between 100BaseTX/FX and 100BaseFX.
- Fiber media allowed: multi-mode fiber using SC or ST connector; single-mode fiber using SC connector.
- Full wire-speed forwarding rate.
- Back-pressure & IEEE802.3x compliant flow control.
- Front panel status LEDs.
- Useable as a stand-alone device or with FO-065-1180 8-Port Rack Mount Chassis.
- Hot-swappable when used with a FO-065-1180 8-Port Rack Mount Chassis.
- One push button for uplink (MDI/MDI-X) crossover configuration of TX port.

Package Contents

- One Media Converter
- User's Manual
- AC to DC Power Adapter
- Warranty Card

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PORTS AND LEDS

Ports

The Converter provides one channel of 100BaseTX/FX port to 100BaseFX port. For the FX port, the different models in the series provide options of either multi-mode or single-mode fiber and a wide range of connectors.

Front Panel & LEDs

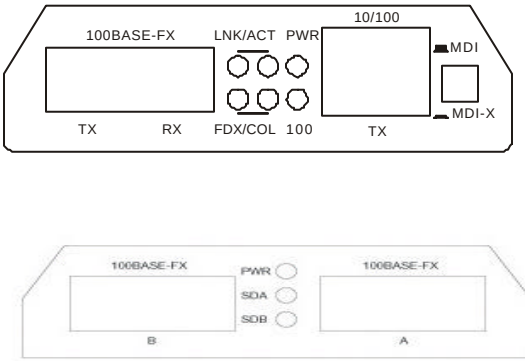

Figure 2: Front Panel of the Single-Channel 100TX to 100FX and the Single-Channel 100FX to 100FX Media Converter Module

LED Indicators

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

100TX to 100FX media converter:

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 (COL stands for COLLISION)
	Off	Connection in half-duplex mode

100FX to 100FX media converter:

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

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INSTALLATION

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 6 feet (1.8 meters) of the converter.

Connecting to Power

- This Converter is a plug-and-play device.
- Connect the supplied AC to DC power adapter 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 260 volts AC.

Installation into the FO-065-1180 8-Port Rackmount Chassis

The Converter can be fit into any of the expansion slots on the specially-designed rackmount 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- Remove the four screws on the converter as shown below.

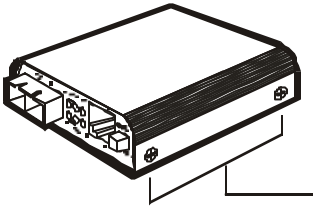
Step 3- Fit the converter onto the carrier and use those four screws to secure it.

- When the converter is completely seated onto the carrier, insert the carrier into the guide rails of the expansion slot.
- Carefully slide in the carrier until it is fully and firmly fit into the chassis. Fasten the screws on the carrier.

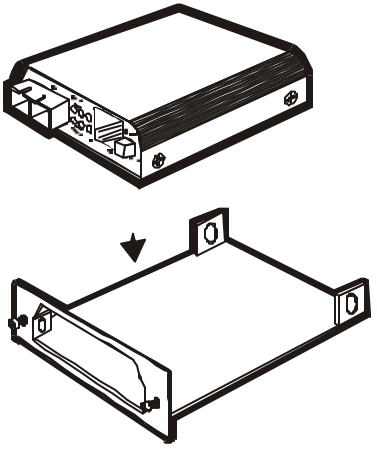
<NOTE> NEVER insert any converter into the chassis directly without using the supplied carriers. The carriers allow secure and consistent placement of the converters into the chassis' backplane without causing any damage.

Media Converter Carrier provided by FO-065-1180 Chassis

Step 1:



Step 2:



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SPECIFICATION

Applicable Standards	IEEE 802.3u 100BaseTX & 100BaseFX
Fixed Ports	1 TX port, 1 FX port or 2 FX ports
Speed-	
100BaseTX/FX	100/200Mbps for half/full-duplex
Forwarding rate	148,800pps for 100Mbps
LED Indicators	100TX to 100FX: Per Unit- (2 LEDs): Power; FDX/COL Per Port- (2 LEDs): LNK/TX; RX
	100FX to 100FX: Per Unit- (1 LED): Power Per Port- (1 LED): SDA/ SDB
Dimensions	L110 × W81 (max.) × H23 mm
Weight	150 g
Power	External power adapter 9 ~ 20 V DC; 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, CISPR Class A, VCCI Class A, CE Mark
Safety	UL

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ORDERING INFORMATION

Please include the following information when ordering:

1. Fiber type: multi-mode or single-mode
2. Fiber connector type: SC, ST, MT-RJ or VF-45
3. Segment distance range for the fiber port

Available Models:

FO-065-1132: 100BaseFX -- SC to 100BaseFX Single-Mode 15km Converter -- SC

FO-065-1132ED: 100BaseFX -- SC to 100BaseFX Single-Mode 40km Converter -- SC

FO-065-1132XLD: 100BaseFX -- SC to 100BaseFX Single-Mode 75km Converter -- SC

FO-065-1130: 100BaseFX -- ST to 100BaseFX Single-Mode 15km Converter -- SC

FO-065-1130ED: 100BaseFX -- ST to 100BaseFX Single-Mode 40km Converter -- SC

FO-065-1130XLD: 100BaseFX -- ST to 100BaseFX Single-Mode 75km Converter – SC

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