SIGNAMAX
CONNECTIVITY SYSTEMS

**Signamax™ Connectivity Systems
100BaseTX to 100BaseFX
Converter Series**

U S E R ' S   G U I D E

Signamax™ Connectivity Systems

100BaseTX 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.

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Trademarks

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- 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.

Preface

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

The Signamax™ Ethernet Media 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
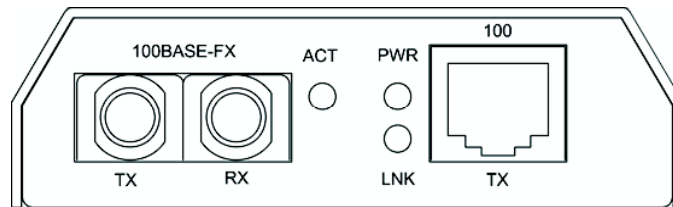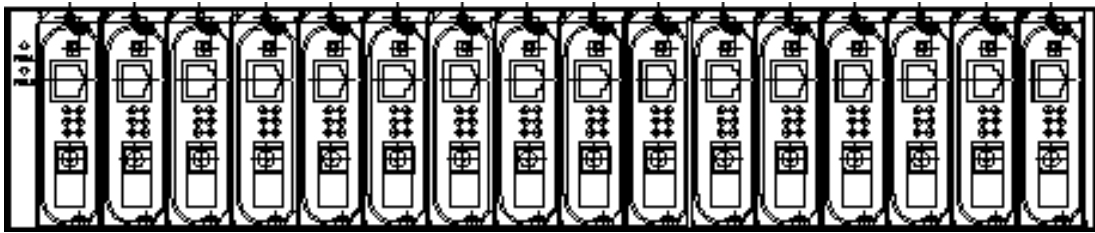- Installation instructions
- Specifications

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Introduction

The media converter provides one channel for media conversion between 100BaseTX and 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 and 100BaseFX
- Fiber media allows:
- Multi-mode fiber using SC, ST, VF-45, MT-RJ or LC connector
- Single-mode fiber using SC or ST connector
- WDM single-fiber (bi-direction) transceiver: Multi-mode/Single-mode WDM fiber uses SC connector
- 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 1310nm wavelength
- Auto MDIX on TX port
- 2048 MAC addresses, 768K bits buffer memory
- Store-and-forward mechanism
- Non-blocking full wire-speed forwarding rate
- Supports broadcast storm filtering
- Back-pressure & IEEE802.3x compliant flow control
- Supports Link-Fault-Pass-Through
- Front panel status LEDs
- External AC to DC power adapter
- 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

The Converter provides one TX port and one FX port. For the FX port, it provides options of multi-mode fiber using SC, ST, VF-45, MT-RJ or LC connector, single-mode fiber using SC or ST connector, and WDM single-fiber (bi-direction) transceiver using SC connector. For the TX port, it uses RJ-45 connector, auto-MDIX.

Front Panel & LEDs
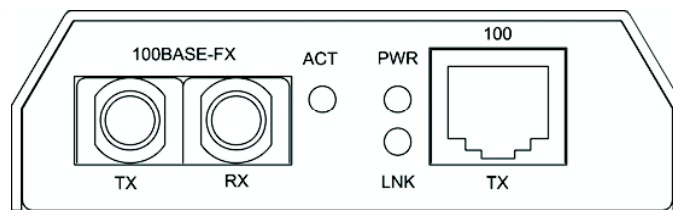
LED Indicators

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

LEDs	State	Indication
Power	Steady	Power on PWR stands for Power
	Off	Power off
LNK	Steady	Connection at the speed of 100Mbps LNK stands for Link
	Off	No connection at the Speed of 100Mpbs
ACT	Steady	A valid network connection established ACT stands for Activity
	Flashing	Transmitting or receiving data
	Off	Neither valid network connection nor transmitting/ receiving data

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 113 degrees Fahrenheit (0 to 45 degrees Celsius).
- The relative humidity should be less than 95 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 equipment.
- The power outlet should be within 1.8 meters of the product.

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 240VAC.
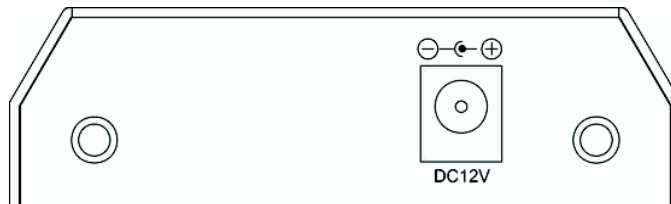
Installing in a Chassis

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 onto 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
Speed - 100BaseTX/FX	100/200Mbps for half/full-duplex
Switching Method	Store-and-Forward
Forwarding rate	148,810pps for 100Mbps
LED Indicators	Per Unit- (3 LEDs): PWR LNK, ACT
Dimensions	80.3mm (W) × 109.2mm (D) × 23.8mm (H) (3.16" (W) x 4.30" (D) x 0.94" (H))
Weight	150g (0.33lb.)
Power	External power adaptor 12VDC, 0.16A
Power Consumption	1.92W Max.
Operating Temperature	0℃ ~ 45℃ (32℉ ~ 113℉)
Storage Temperature	-10℃ ~ 70℃ (14℉ ~ 158℉)
Humidity	5 ~ 95%, non-condensing
Emissions	FCC part 15 Class A, CE Mark

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