

SIGNAMAX CONNECTIVITY SYSTEMS

Signamax™ Connectivity Systems
FO-065-1200 Series
12-Port Media Converter

U S E R ' S G U I D E

Signamax™ Connectivity Systems

**12-Port Media Converter
F0-065-1200 Series**

User's Guide

Preface

This manual describes how to install and use the Signamax™ FO-065-1200 series 12-Port Media Converter. The system introduced here is capable of housing up to twelve media converters, each of which offers a single channel media conversion solution:

10/100BaseTX ↔ 100BaseFX

1000BaseT ↔ 1000BaseSX/LX

In this manual, you will find:

- An introduction to the system
- Product features
- Illustrative LED functions
- Installation instructions
- Specifications

Table of Contents

PREFACE	1
TABLE OF CONTENTS	2
PRODUCT OVERVIEW	3
SIGNAMAX™ FO-065-1200 SERIES 12-PORT MEDIA CONVERTER	3
PACKAGE CONTENTS	3
PRODUCT FEATURES	4
FRONT PANEL DISPLAY	5
<i>Front Panel</i>	5
<i>Understanding LEDs</i>	6
INSTALLATION	8
SELECTING A SITE FOR THE EQUIPMENT	8
CONNECTING TO POWER	9
SPECIFICATIONS	10
ORDERING INFORMATION	11
CONTACT INFORMATION	12

Product Overview

Signamax™ FO-065-1200 series 12-Port Media Converter

The Signamax™ FO-065-1200 series 12-Port Media Converter can house up to twelve media converters in a 1U standard 19" rackmountable size. The front panel of the Signamax™ FO-065-1200 12-Port Media Converter provides status LEDs and an uplink push button for each 10/100BaseTX to 100BaseFX media converter or status LEDs and a dip switch array for each 1000BaseT to 1000BaseSX/LX media converter.

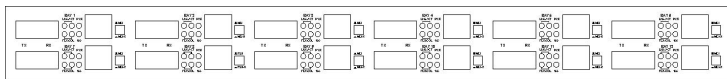


Figure 1: Signamax™ FO-065-1200 12-Port Media Converter

Package Contents

When you unpack the product's package, you should find the items listed below:

- ✓ Signamax™ FO-065-1200 series 12-Port Media Converter
- ✓ Two AC power cords
- ✓ User's manual
- ✓ Rackmount ears with screws

Please inspect the contents, and report any apparent damage or missing items immediately to your authorized reseller.

Product Features

- ◆ *Houses twelve channels of media conversion*
- ◆ *Front panel status LEDs*
- ◆ *Standard 19" rackmountable size, 1U high*
- ◆ *2 Redundant Power Supplies*
- ◆ *10/100BaseTX to 100BaseFX converters:*
 - *Fiber media allowed: multimode fiber using ST, SC, VF-45, or MT-RJ connector, singlemode fiber using SC connector*
 - *One push button for uplink (MDI/MDI-X) crossover configuration*
- ◆ *1000BaseT to 1000BaseSX/LX converters:*
 - *Fiber media allowed: multimode fiber using SC connector or singlemode fiber using SC connector*
 - *Support Auto-MDIX on TX port*
 - *One dip switch for setting auto detecting duplex mode or full duplex*
 - *One dip switch for setting link pass-through: TX port disconnected when SX/LX port is disconnected, SX/LX port still connected when TX port is disconnected*
- ◆ *Support full or half duplex mode on TX port*

Front Panel Display

FRONT PANEL

The front panel of this Signamax™ FO-065-1200 12-Port Media Converter shows the layout of the twelve media converter channels.

There are 12 sets of LED indicators, which provide you with instant feedback on the status of each media converter channel.

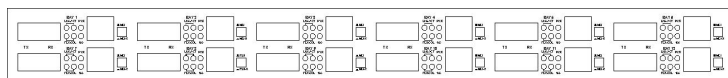


Figure 2: Front Panel of the Signamax™ FO-065-1200 series 12-Port Media Converter

UNDERSTANDING LEDS

10/100TX to 100FX Media Converter

LEDs	State	Indication
PWR	Steady	Power on
	Off	Power off
LNK/ACT	Steady	A valid network connection established LNK stands for LINK
	Flashing	Transmitting & receiving ACT stands for activity
100	Steady	TX port connection at speed of 100Mbps
	Off	TX port connection at speed of 10Mbps
FDX/COL	Steady	Connection in full duplex mode FDX stands for FULL-DUPLEX
	Flashing	Collision occurred COL stands for collision
	Off	Connection in half-duplex mode

1000T to 1000SX/LX Media Converter

LEDs	State	Indication
Power	Steady	Power feeding in
	Off	No power
LNKC	Steady	TX port: A valid network connection established. LNKC stands for LINK/Copper
	Off	No connection
LNKF	Steady	FX port: A valid network connection established. LNKF stands for LINK/Fiber
	Off	No connection
FDX/COL	Steady	Connection in full duplex mode FDX stands for FULL DUPLEX
	Flashing	Collision occurred COL stands for COLLISION
	Off	Connection in half duplex mode
RX	Steady	Receiving data
	Off	No reception
TX	Steady	Transmitting data
	Off	No transmission

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 (RF) 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 switch.

Connecting to Power

Step 1: Connect the supplied AC power cords to the receptacles on the rear panel of the system.

Step 2: Attach the plugs from each of the dual power supplies into standard AC outlets with a voltage range from 100~240V AC.

Step 3: Turn on the system by flipping the ON/OFF switches beside the dual power supplies' receptacles to the ON position.

Step 4: The power LED of each media converter will shine after turning on the system.

Step 5: The link LED of each media converter will shine after connecting twisted pair copper cabling between the TX port (or fiber optic cabling between the FX port) and another working networked device.**

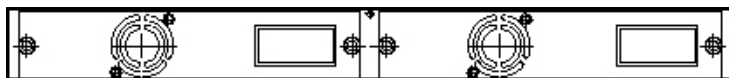


Figure 3: Rear view of the Signamax™ FO-065-1200 12-Port Media Converter

**** PLEASE NOTE:** The primary function of the Signamax 065-1200 series 12-channel media converters is to convert existing twisted-pair network switch or hub ports in a network to fiber optic connectivity for distance extension or immunity to electro-magnetic or radio frequency interference (EMI/RFI). These devices do not contain a network switching matrix; rather, they “front-end” a network switch or hub to convert the twisted-pair connections to fiber optic capability. Each channel of media conversion in these devices has a one-to-one relationship with an available network switch port.

Ports from the Signamax 065-1200 series 12-channel media converters can be routed to network switch ports located on different network switches. There is no requirement for the Signamax 1200 series' converter channels to be routed to a single switch. When used in multiple switch configurations, twisted-pair ports from multiple Signamax 065-1200 series converters may be assigned and cabled to multiple network switches to avoid a single point of failure in redundant network configurations.

Specifications

Applicable Standards	IEEE 802.3 10BaseT, IEEE 802.3u 100BaseTX/FX, IEEE 802.3ab 1000BaseT, IEEE 802.3z 1000BaseSX/LX
Fixed Ports	12-Bay of 1 TX port and 1 FX port
Speed – 10BaseT 100BaseTX/FX 1000BaseT/SX/LX	10/20Mbps for half/full-duplex 100/200Mbps for half/full-duplex 1000/2000Mbps for half/full-duplex
Forwarding rate	14,880pps for 10Mbps 148,800pps for 100Mbps 1,488,000pps for 1000Mbps
LED Indicators	10/100TX to 100FX: Per Bay- (1 LED): Power TX Port- (3 LEDs): LNK/ACT; FDX/COL; 100 FX Port- (2 LEDs): LNK/ACT; FDX/COL 1000T to 1000SX/LX: Per Bay- (4 LEDs): Power; TX; RX; FDX/COL TX Port- (1 LED): LNK/C FX Port- (1 LED): LNK/F
Dimensions	440 × 243 × 45 mm
Power	100 ~ 240 VAC, 50/60 Hz, 5.4A (x2)
Power Consumption	65W (x2) 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

Ordering Information

FO-065-1200ST00	10/100BaseT/TX to 100BaseFX 12-Port Media Converter – ST Multimode Connectors
FO-065-1200SC10	10/100BaseT/TX to 100BaseFX 12-Port Media Converter – SC Multimode Connectors
FO-065-1200SC20	10/100BaseT/TX to 100BaseFX 12-Port Media Converter – SC Singlemode Connectors
FO-065-1200MT72	10/100BaseT/TX to 100BaseFX 12-Port Media Converter – MT-RJ Multimode Connectors
FO-065-1200LC74	10/100BaseT/TX to 100BaseFX 12-Port Media Converter – LC Multimode Connectors
FO-065-1200SC95	1000BaseT to 1000BaseSX 12-Port Media Converter – SC Multimode Connectors
FO-065-1200SC97	1000BaseT to 1000BaseLX 12-Port Media Converter – SC Singlemode Connectors

Contact Information

SIGNAMAX™ CONNECTIVITY SYSTEMS

An AESP Company

16295 N.W. 13th Avenue

Suite A

Miami, Florida 33169, U.S.A.

Phone: 305-944-7710 Fax: 305-949-4483

Sales: 800-446-2377 Tech. Support: 800-446-2377, ext. 201

[Http://www.signamax.com](http://www.signamax.com)

E-mail: info@signamax.com