



## Specifications - Media Converters



 [Download Datasheet](#) (PDF 83 Kb) Revised 06.18.07

 [Download User's Guide](#) (PDF 109 Kb) Revised 5.30.05

Signamax Connectivity Systems' Switching Media Converters with Link Fault Signaling (LFS) provide the means for an SNMP-Managed switch to recognize a failure on a fiber channel or twisted-pair connection, enabling the switch to automatically route to a backup path if the connected switch is equipped with Spanning Tree Algorithm. This intelligence maximizes the power of managed switches, and enables fail-safe design solutions for complex networks. These converters also extend the maximum singlemode fiber distance, spanning over 46 miles with the 065-1120XLD model.

The built-in 10/100 switch enables the fiber cable connection to operate at 100 Mbps connected to either a 10BaseT or a 100BaseTX network, while remaining completely 100BaseFX standard-compliant. Fiber connection can also operate in full duplex mode whether the RJ-45 port is connected to a full duplex switch or a half duplex hub, with the built-in switch providing the network segmentation that permits the maximum fiber distance. Each Media Converter provides a 10/100BaseT/TX auto-negotiating RJ-45 twisted-pair connector port featuring store-and-forward switching architecture. Auto-MDIX capability on the twisted-pair port allows for convenient connections.

### KEY FEATURES

- Built-In Twisted-Pair Port 10/100 Switch
- Auto-Negotiation RJ-45 Connector with Auto-MDIX
- SC, ST, MT-RJ or SC Connector
- LEDs for Functions, Links & Activity
- Link Fault Signaling For Use with Managed Switches
- 1,024 MAC Address Capacity
- Store-and-Forward Architecture
- Full and Half Duplex Operation
- Singlemode Spans up to 75 Km
- Wall or Chassis Mountable
- IEEE 802.3 and IEEE 802.3u Compliant
- Lifetime Performance Warranty

## ORDERING INFORMATION

Part Number	Description
065-1100	10/100BaseT/TX to 100BaseFX Media Converter ST Multimode, 2 km Span
065-1110	10/100BaseT/TX to 100BaseFX Media Converter SC Multimode, 2 km Span
065-1172	10/100BaseT/TX to 100BaseFX Media Converter MT-RJ Multimode, 2 km Span
065-1174	10/100BaseT/TX to 100BaseFX Media Converter LC Multimode, 2 km Span
065-1120	10/100BaseT/TX to 100BaseFX Media Converter SC Singlemode, 15 km Span
065-1120ED	10/100BaseT/TX to 100BaseFX Media Converter SC Singlemode, 40 km Span
065-1120XLD	10/100BaseT/TX to 100BaseFX Media Converter SC Singlemode, 75 km Span

### DIN Rail Mounting Brackets

065-11DINMT      DIN Rail Mounts Bracket for 065-11xx Series Media Converters

## SPECIFICATIONS

- **APPLICABLE STANDARDS**

- IEEE 802.3 10BaseT
- IEEE 802.3u 100BaseTX
- IEEE 802.3u 100BaseFX

- **FIXED PORTS**

**Models: 065-1100/1110/1172/1174/1120/1120ES 1120XLD**

1 Auto-MDIX twisted-pair port meeting IEEE 802.3 10BaseT & IEEE 802.3u 100BaseTX standard specifications; Category 5 or better cable, 100 meters maximum distance for 100BaseTX, Category 3 or better cable, 100 meters maximum distance for 10BaseT

**plus**

1 fiber optic port meeting IEEE 802.3u 100BaseFX standard specification; 62.5/125 or 50/125 micron multimode fiber optic cable, 2,000 meters maximum distance

**or**

1 fiber optic port meeting IEEE 802.3u 100BaseFX standard specification; 9/125 micron singlemode fiber optic cable, spanning: 15 kilometers maximum distance (Model 065-1120)

**or**

40 kilometers maximum distance (Model 065-1120ED)

**or**

75 kilometers maximum distance (Model 065-1120XLD)

- **LED INDICATORS**

**Per Unit:** Power status, RJ-45 port speed

**Per Port:** LNK/ACT, FDX/COL

Six LEDs total

- **PERFORMANCE**

**Latency:** < 4.2  $\mu$ s (LIFO)

**Throughput @ 100Base:** 148,809 pps (64-byte packets)

**Speed:**

100BaseTX: 100/200 Mbps for half/full duplex

10BaseT: 10/20 Mbps for half/full duplex

**Switching Method:** Store-and-Forward

**Maximum MAC Addresses:** 1,024 entries

**Memory:** 256 KB

- **FIBER INTERFACE, MULTIMODE MODELS**
  - Type:** LED
  - Wavelength:** 1300 nm nominal (1270 nm maximum, 1380 nm minimum)
  - Maximum Output Power:** - 14.0 dBm
  - Minimum Output Power:** - 20.0 dBm
  - Sensitivity:** -33.0 dBm
  - Maximum Input Power:** - 8.0 dBm
  - Link Power Budget:** 13.0 dB
- **FIBER INTERFACE, SINGLEMODE PN 065-1120**
  - Type:** MQW Laser
  - Wavelength:** 1300 nm nominal (1260 nm maximum, 1360 nm minimum)
  - Maximum Output Power:** - 7.0 dBm
  - Minimum Output Power:** - 15.0 dBm
  - Sensitivity:** -34.0 dBm
  - Maximum Input Power:** - 7.0 dBm
  - Link Power Budget:** 19.0 dB
- **FIBER INTERFACE, SINGLEMODE PN 065-1120ED**
  - Type:** MQW Laser
  - Wavelength:** 1300 nm nominal (1261 nm maximum, 1360 nm minimum)
  - Maximum Output Power:** - 5.0 dBm
  - Minimum Output Power:** - 12.0 dBm
  - Sensitivity:** -35.0 dBm
  - Maximum Input Power:** - 5.0 dBm
  - Link Power Budget:** 23.0 dB
- **FIBER INTERFACE, SINGLEMODE PN 065-1120XLD**
  - Type:** MQW Laser
  - Wavelength:** 1300 nm nominal (1270 nm maximum, 1350 nm minimum)
  - Maximum Output Power:** + 3.0 dBm
  - Minimum Output Power:** - 3.0 dBm
  - Sensitivity:** -37.0 dBm
  - Maximum Input Power:** - 0.0 dBm
  - Link Power Budget:** 34.0 dB
- **PHYSICAL CHARACTERISTICS**
  - Case dimensions:** 4.33"L x 3.19"W x 0.91"H  
(110mm x 81mm x 23mm)
  - Fiber connector protrusion varies with model.
  - Weight:** 0.33 pounds (150 grams)
- **ENVIRONMENTAL CHARACTERISTICS**
  - Operating Temperature:** 32°F ~ 104°F (0°C ~ 40°C)
  - Storage Temperature:** -13°F ~ 158°F (-25°C ~ 70°C)
  - Relative Humidity:** 10 ~ 90%, non-condensing
- **POWER**
  - External power adapter:** 12 Volts DC; 600 mA
  - Power Consumption:** 5 Watts Maximum
- **EMISSIONS**
  - FCC part 15 Class A, CISPR Class A, VCCI Class A, CE Mark
- **SAFETY**
  - UL Listed