

# Product Specifications

## 10/100 to 100FX Media Converters

### KEY FEATURES

- DIP switch configuration for link fault signalling, fiber auto/force mode, and SFP speed
- Built-In 10/100BaseT/TX Switch utilizes store-and-forward architecture
- Supports wall mounting, DIN-rail mounting or use with media converter rack mount chassis
- LEDs for functions, links, and activity



The Signamax 10/100 to 100FX Media Converters with Link Fault Signaling provides 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 failsafe design solutions for complex networks. These converters also extend the maximum singlemode fiber distance, spanning over 46 miles with certain options.

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.

### ORDERING INFORMATION

PART NO.	DESCRIPTION
065-1100	10/100BaseT/TX to 100BaseFX Media Converter ST/MM, 2 km Span
065-1110	10/100BaseT/TX to 100BaseFX Media Converter SC/MM, 2 km Span
065-1172	10/100BaseT/TX to 100BaseFX Media Converter MT-RJ/MM, 2 km Span
065-1174	10/100BaseT/TX to 100BaseFX Media Converter LC/MM, 2 km Span
065-1120	10/100BaseT/TX to 100BaseFX Media Converter SC/SM, 15 km Span
065-1120ED	10/100BaseT/TX to 100BaseFX Media Converter SC/SM, 40 km Span
065-1120XLD	10/100BaseT/TX to 100BaseFX Media Converter SC/SM, 75 km Span

## SPECIFICATIONS

### Applicable Standards

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

### Ports

1 - RJ-45 10/100BaseT/TX Auto-Negotiation, Auto-MDIX port plus 1 - fiber optic 100BaseFX port with varying connectors and span per P/N

### LED Status Indicators

**Per Unit:** Power  
**Per RJ-45 Port:** Link/Activity, Full Duplex/Collision (FDX/COL); RJ-45 port speed  
**Per Fiber Port:** Link/Activity, Full Duplex/Collision (FDX/COL)

### 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  
**MAC Address Capacity:** 1K; Memory: 256 KB  
**Non-Switching 100BaseT to 100BaseFX models:**  
**Latency:** < 21 Bit Times

### Electrical Characteristics

12 V DC. External 100 – 240 V AC 50/60 Hz. Power supply included.

### Physical Characteristics

**Dimensions:** 4.33" L x 3.16" W x 0.91" H (109.2 mm x 83 mm x 23.8 mm)  
**Weight:** 0.33 lb (150 g)

### Environmental Requirements

**Operating Temperature:** 32°F to 122°F (0°C to 50°C);  
**Storage Temperature:** -14°F to 158°F (-10°C to 70°C)  
**Relative Humidity:** 5% to 95% (non-condensing)

### Certifications

CE, FCC, ROHS, VCCI Class A

### Warranty

Limited Lifetime

### Fiber Interface

#### Type:

**P/Ns 065-1100/1110/1172/1174:** LED  
**P/Ns 065-1120/1120ED/1120XL:** MQW Laser

#### Wavelength:

**P/Ns 065-1100/1110/1172/1174:** 1300 nm nominal (1270 nm max., 1380 nm min.)  
**P/N 065-1120:** 1300 nm nominal (1260 nm max., 1360 nm min.)  
**P/N 065-1120ED:** 1300 nm nominal (1261 nm max., 1360 nm min.)  
**P/N 065-1120XL:** 1300 nm nominal (1270 nm max., 1350 nm min.)

#### Max Output Power:

**P/Ns 065-1100/1110/1172/1174:** -14.0 dBm  
**P/N 065-1120:** -7.0 dBm  
**P/N 065-1120ED:** -5.0 dBm  
**P/N 065-1120XL:** 3.0 dBm

#### Min Output Power:

**P/Ns 065-1100/1110/1172/1174:** -20.0 dBm  
**P/N 065-1120:** -15.0 dBm  
**P/N 065-1120ED:** -12.0 dBm  
**P/N 065-1120XL:** -3.0 dBm

#### Sensitivity:

**P/Ns 065-1100/1110/1172/1174:** -33.0 dBm  
**P/N 065-1120:** -34.0 dBm  
**P/N 065-1120ED:** -35.0 dBm  
**P/N 065-1120XL:** -37.0 dBm

#### Max Input Power:

**P/Ns 065-1100/1110/1172/1174:** -8.0 dBm  
**P/N 065-1120:** -7.0 dBm  
**P/N 065-1120ED:** -5.0 dBm  
**P/N 065-1120XL:** 0.0 dBm

#### Link Power Budget:

**P/Ns 065-1100/1110/1172/1174:** 13.0 dB  
**P/N 065-1120:** 19.0 dB  
**P/N 065-1120ED:** 23.0 dB  
**P/N 065-1120XL:** 34.0 dB