

10/100 to 100FX Mini Media Converters



Signamax Connectivity Systems' Switching Mini Fiber Optic Media Converters provide an intelligent solution for fiber optic connectivity where simplicity, low cost, and minimum footprint are the primary considerations. These converters are designed to handle both legacy 10BaseT and 100BaseTX Fast Ethernet devices on their twisted pair port while maintaining 100BaseFX Fast Ethernet transmission on the fiber optic port. Plug-and-play simplicity makes connection easy.

Each Media Converter provides a 10/100BaseT/TX auto-negotiating RJ-45 twisted-pair connector port with Auto-MDIX capability for more convenient connection. 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. .

KEY FEATURES

- Built-in Twisted-Pair Port 10/100 Switch
- Auto-negotiation RJ-45 Connector with Auto-MDIX
- SC, ST, or SC Singlemode Models Available
- Extremely Compact Size
- Store-and-Forward Architecture
- Single-mode Spans up to 75 Km
- IEEE 802.3 and IEEE 802.3u Compliant
- Lifetime Performance Warranty

ORDERING INFORMATION

Part Number	Description
Multimode Converters	
065-1000	10/100 to 100FX MM/ST, 2 km Mini Converter
065-1010	10/100 to 100FX MM/SC, 2 km Mini Converter
Singlemode Converters	
065-1020	10/100 to 100FX SM/SC, 20 km Mini Converter
065-1020ED	10/100 to 100FX SM/SC, 40 km Mini Converter
065-1020XLD	10/100 to 100FX SM/SC, 75 km Mini Converter

SPECIFICATIONS

• **APPLICABLE STANDARDS**

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

• **FIXED PORTS**

Models 065-1000/1010/1020/1020ED/1020XLD:

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: 20 kilometers maximum distance (Model 065-1020)

or

40 kilometers maximum distance (Model 065-1020ED)

or

75 kilometers maximum distance (Model 065-1020XLD)

• **LED INDICATORS**

Per Port: FX LNK/ACT, TX LNK/ACT
Two LEDs total

• **PERFORMANCE**

Latency: < 4.2 μs (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

• **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 065-1020**

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 065-1020ED**

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 065-1020XLD**

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: 3.15"L x 2.13"W x 0.87"H
(80mm x 54mm x 22mm)
Fiber connector protrusion varies with model.
Weight: 0.27 pounds (122 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: 5 Volts DC; 1.0 A
Power Consumption: 5 Watts Maximum

• **EMISSIONS**

FCC part 15 Class A, CISPR Class A, VCCI Class A, CE Mark

• **SAFETY**

UL Listed

• **WARRANTY**

Lifetime

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