LUXCOM Technologies Inc.

OM101E

Fiber Optic Ethernet Media Converter
10/100/1000BASE-T to 100BASE-X

Applications

- Secure data environments
- Noisy RFI environments - factory floor
- 10/100/1000 Mbps communication systems
- Can be used to implement a low cost Fiber Optic hub

Description

The OM101E media converter connects a 10/100/1000BASE-T device to a 100BASE-FX device. The RJ-45 twisted-pair port operates at 10, 100 and 1000 Mbps, full and half-duplex. Auto mode provides plug-and-play operation; alternately the twisted-pair port can be configured with switches to force duplex, speed, and crossover. The OM101E does not support Jumbo Packets. Optics are available for multimode, singlemode and single fiber applications. Two OM101Es can be optically connected together in order to interconnect widely separated networks. A OM101E is available with an extended input voltage range of 4.5V to 32V.

Features

- Shielded RJ45 10/100/1000BASE-T compatible twisted-pair port
- 100BASE-FX singlemode or multimode optics
- Auto or manual configuration
- Link Pass Through support
- 5 Year warranty
- LC, SC or ST optical connectors
- Single bidirectional fiber option
- Wide temperature range (-40°C to 75°C)
- Extended distance options (40, 80 and 100 km)
- 802.3, 802.3ab, 802.3u, 802.3z compatible

Specifications

Optical

OM101 version	Sensitivity 10^{-10}BER dBm	Light source	Fiber size micron	Optical output dBm	Distance typical km
MM	-32.5	1310 LED	50/125	-23	2
MM	-32.5	1310 LED	62/125	-19	2
SM	-32.5	1310 Laser	62/125	-5	10
SM	-32.5	1310 Laser	9/125	-15	15
SME	-35	1310 Laser	9/125	-5	60
BU	-32.5	1310 Laser	9/125	-14	20
BD	-32.5	1550 Laser	9/125	-14	20
SFP Modules					
100-FX	-32.5	1310 LED	50/125	-23	2
	-32.5	1310 LED	62/125	-19	2
100-LX10	-25	1310 Laser	9/125	-15	15
100-LX10E	-35	1310 Laser	9/125	-5	60
100-BU	-32.5	1310 LED	9/125	-14	20
100-BD	-32.5	1550 LED	9/125	-14	20

Optical connectors .....LC, SC or ST

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Specifications (continued)

Electrical

Data I/O levels	IEEE 802.3 compatible
Data I/O connector	RJ-45
Power source (supplied)	5V DC power cube
Supply voltage	4.8-5.2V DC
Power consumption	2.3 Watts

General

Operating temperature	-40°C to 75°C
Humidity (RH)	10% to 95%
MTBF	> 50,000 hours
Dimensions	6.5 x 1.8 x 10 cm

Notes:

* Specifications are subject to change without notice.
[1] Optical sensitivity measured at 10^{-10} BER.
[2] The optical range values are for typical fiber.
[3] Operating temperature range is 0°C to 70°C.

Part Numbers

OM101E - XX-YY

ST	=	ST optical connector
SC	=	SC optical connector
LC	=	LC optical connector (SFP)

Standard/SFP module

MM/100-FX	=	1300 multimode optics
SM/100-LX10	=	1300 singlemode optics
SME/100-LX10E	=	1310 nm singlemode optics extended distance optics
BU/100-BU	=	100BASE-BX 1310 nm TX single-fiber bidirectional optics†
BD/100-BD	=	100BASE-BX 1550 nm TX single-fiber bidirectional optics†

EXTENDED VOLTAGE RANGE +4.5 ~ 32vdc

† The BU and BD versions must be paired together

Information on accessories can be found at www.luxcom.com.

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