OM1000P

Fiber Optic Ethernet Media Converter
1000BASE-X to 1000BASE-T
With Power over Ethernet

Applications

- IP telephones
- Noisy RFI environments - factory floor
- 1000 Mbps communication systems
- Secure data environments

Description

The OM1000P media converter has one optical and one electrical port. It primarily connects a 1000BASE-T Ethernet device to a 1000BASE-X fiber optic Local Area Network over a pair of optical fibers; however a switch setting also allows it to connect a 100BASE-TX electrical port to a 100BASE-FX optical network. The transceiver architecture is not switch based; therefore the unit transmits the data as it is received with only a few bits of delay. The OM1000P can supply 48 Volts to attached equipment for PoE applications. The optical I/O uses an SFP pluggable interface that supports a variety of modules. Auto-negotiation provides plug-and-play operation on the electrical and optical ports. Alternately the unit may be manually configured for MDI/MDI-X and full/half duplex operation. A serial port allows performance and configuration monitoring.

Features:

- 5 Year warranty
- Supports 10 kB jumbo packets
- Supplies power for PoE applications
- IEEE 802.3ah compatible
- Internal power supply
- SFP optical interface
- Heavily shielded case
- Diagnostic monitor port
- Auto or manual configuration
- Link failure pass through

Specifications

Optical

Standard ..... IEEE 802.3z
Transceiver ..... Small Form Factor Pluggable (SFP)
Connector LC

Model	Light Source	Fiber Size	Optical Output Minimum	Optical Sensitivity[1] Maximum	Optical Range[2]	
SX	850 nm laser	50/125 µm	-9 dBm	-18 dBm	550 m	
SX	850 nm laser	62.5/125 µm	-9 dBm	-18 dBm	275 m	
FX	1310 nm LED	50/125 µm	-14 dBm	-32 dBm	2 km	(multimode 100BASE-FX)
LX	1310 nm laser	50/125 µm	-9 dBm	-20 dBm	1 km	
LX	1310 nm laser	62.5/125 µm	-9 dBm	-20 dBm	1 km	
LX	1310 nm laser	9/125 µm	-9 dBm	-20 dBm	10 km	
LXE	1310 nm laser	9/125 µm	-4 dBm	-23 dBm	40 km	
BU	1310 nm TX laser	9/125 µm	-9 dBm	-20 dBm	10 km	
BD	1550 nm TX laser	9/125 µm	-9 dBm	-20 dBm	10 km	
S80	1550 nm laser	9/125 µm	0 dBm	-23 dBm	80 km	

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Specifications (continued)

Electrical

Data & PoE standards	IEEE 802.3/ab/u/af
Data I/O connector	RJ-45
Power supply (internal)	100-240V, 50-60Hz
Power consumption (excluding powered device load)	< 3 W
Attached device power consumption	13.5 W max

General

Operating temperature	0°C to 70°C
Humidity (RH)	10% to 95%
MTBF	> 50,000 hours
Dimensions	25 * 110 *170 mm

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.

Part Numbers

OM1000P - XXX - LC

SX	= SX SFP Module
LX	= LX SFP Module
LXE	= LXE SFP Module
FX	= FX SFP Module (100B-FX only)
BU	= BU SFP Module
BD	= BD SFP Module
S80	= S80 SFP Module

LUXCOM Technologies Inc.
102 Walgreen Road, Ottawa, Ontario K0A **1L0** Canada Tel.: +**1 (613) 831-7777** Fax: +**1 (613) 831-7778**
email: sales@luxcom.com
www.luxcom.com