

OM100S

Fiber Optic Ethernet to Serial Data Bridge
100BASE-FX to EIA-530/A, V.35, RS-232

Applications

- Connecting Ethernet LANs using a dedicated link
- Ethernet to serial HDLC interface



Description

The OM100S converts Ethernet packets to serial HDLC data. The optical port of the OM100S connects to a 100BASE-FX Ethernet port. The electrical port connects to a synchronous serial modem. At the far end of this modem link, the data is input to another OM100S, and from there output onto a 100BASE-FX network. Thus, two Ethernet devices or networks can be bridged with a serial link. It is sometimes used with a secure terminal encryptor to provide link security. The serial interface is switch selectable as EIA-530, EIA-530A, V.35, or RS-232. The speed of the serial link clock determines the maximum packet transfer rate.

Features

- IEEE 802.3 100BASE-FX compatible
- Priority queue for quality of service
- Singlemode or multimode optics
- 5 Year warranty
- Tempest compliant

- Serial data rate up to 15 Mbps
- Selectable EIA-530/A, V.35, RS-232 interface
- Serial link failure pass through to optical link
- Compatible with RAD TinyBridge-100™
- VLAN filtering and RSTP under development

Specifications*

Optical

Light source	1300 nm LED MM version
	1300 nm LASER SM version
Optical output (62.5/125 fiber) MM version	-19 dBm min.
Optical output (9/125 fiber) SM version	-18 dBm min.
Optical sensitivity (10 ⁻¹⁰ BER)	-32.5 dBm
Optical connectors	SC or ST

Serial Interface

Data I/O	EIA-530/A, V.35, RS-232
Data format.....	HDLC
Data I/O connector	DB25P

Electrical

Power supply input	100-240 Vac, 50-60 Hz
Power consumption	3.9 Watts

General

Operating temperature	-10 C to 70 C
Humidity (RH).....	10% to 95%
MTBF	> 50,000 hours
Dimensions	25 x 220 x 170 mm

*Specifications subject to change

OM100S

Fiber Optic Ethernet to Serial Data Bridge
100BASE-FX to EIA-530/A, V.35, RS232



Indicators

- POWER** on when the modem has an AC power connection.
- O-LINK** on when the modem has an Ethernet Optical Link.
- RXC** on when a receive clock is present on input pins 17/9.
- RXD** flashes when a packet has been received on the input data pins 3/16.
- TXC** on when a send clock is present on input pins 15/12 and a transmit clock is being output on pins 24/11.
- TXD** flashes when a packet has been transmitted on the output data pins 14/2.

Switch Settings

Switch 1 and 2 set the serial interface mode to RS-232, V.35, EIA-530A, or EIA-530.

Switch 3 enables forwarding of all packets; down enables MAC address packet filtering.

Switch 4 enables transmission of flow-control *pause packets*.

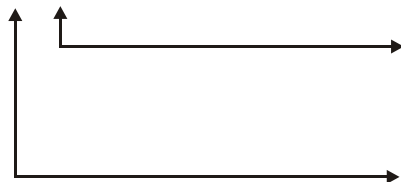
Switch 5 delays the output serial data by half a bit time. It is used to correct clock/data phase problems at high data rates.

Switch 6 enables the optical link only when the serial CTS line is high (fault propagation).

Switch 7 and 8 are unused.

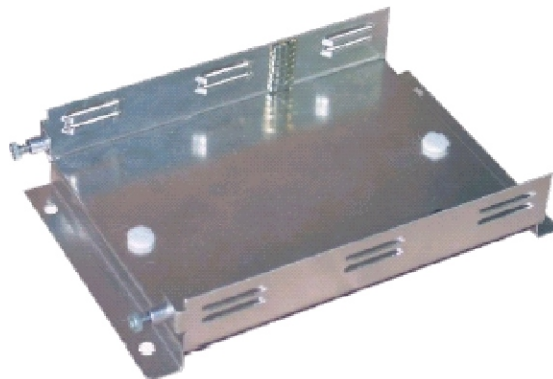
Part Numbers

OM100S - XX-YY



ST	=	ST optical connector
SC	=	SC optical connector
MM	=	1300 nm multimode optics
SM	=	1300 nm singlemode optics

The OM100S may be desktop mounted, or it may be mounted in Luxcom's MB-1 mounting plate shown below. The modem slides into the plate and is held in place with two thumb lock screws.



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