

Signal Powered Fiber Optic Modem

\$154
Basic Unit



- ✓ Data Rates to 19.2K Baud at 2.2 Miles (3.5KM)
- ✓ 17dB Optical Link Power Budget
- ✓ Powered by RS-232 Host Port Signals
- ✓ Full Duplex Asynchronous Operation
- ✓ Indicating LEDs
- ✓ DCE/DTE Switch
- ✓ Designed for FCC Class A Requirements
- ✓ Complies with FCC Class A Requirements
- ✓ Pinned or Socketed RS-232 Connectors

The LDM80 is a small, inexpensive fiber optic transmitter/receiver completely powered by the host RS-232 port. The enclosure for the LDM80 is a conductive shell which greatly reduces RF radiation and susceptibility. The rugged metal enclosure is small enough to mount on the back panel of typical computer equipment saving valuable desk and floor space. A pair of these units allows most RS-232C cable links to be replaced and extended with a duplex fiber optic cable. The normal 50-foot RS-232 limit may be extended to 2.2 miles (3.5 km). Fiber optic data communications provide complete EMI/RFI rejection, isolation, elimination of ground loops, and reduced error rates. Data security is enhanced by almost nonexistent electromagnetic emissions.



LDM80-P-025, \$130, Shown smaller than actual size

The RS-232 connection is through male or female EIA 25-pin connectors. The fiber optic connection is through ST connectors. The LDM80 is equivalent to a 3-wire, full duplex, RS-232 circuit. Handshake signals are locally connected as in Figure 1.

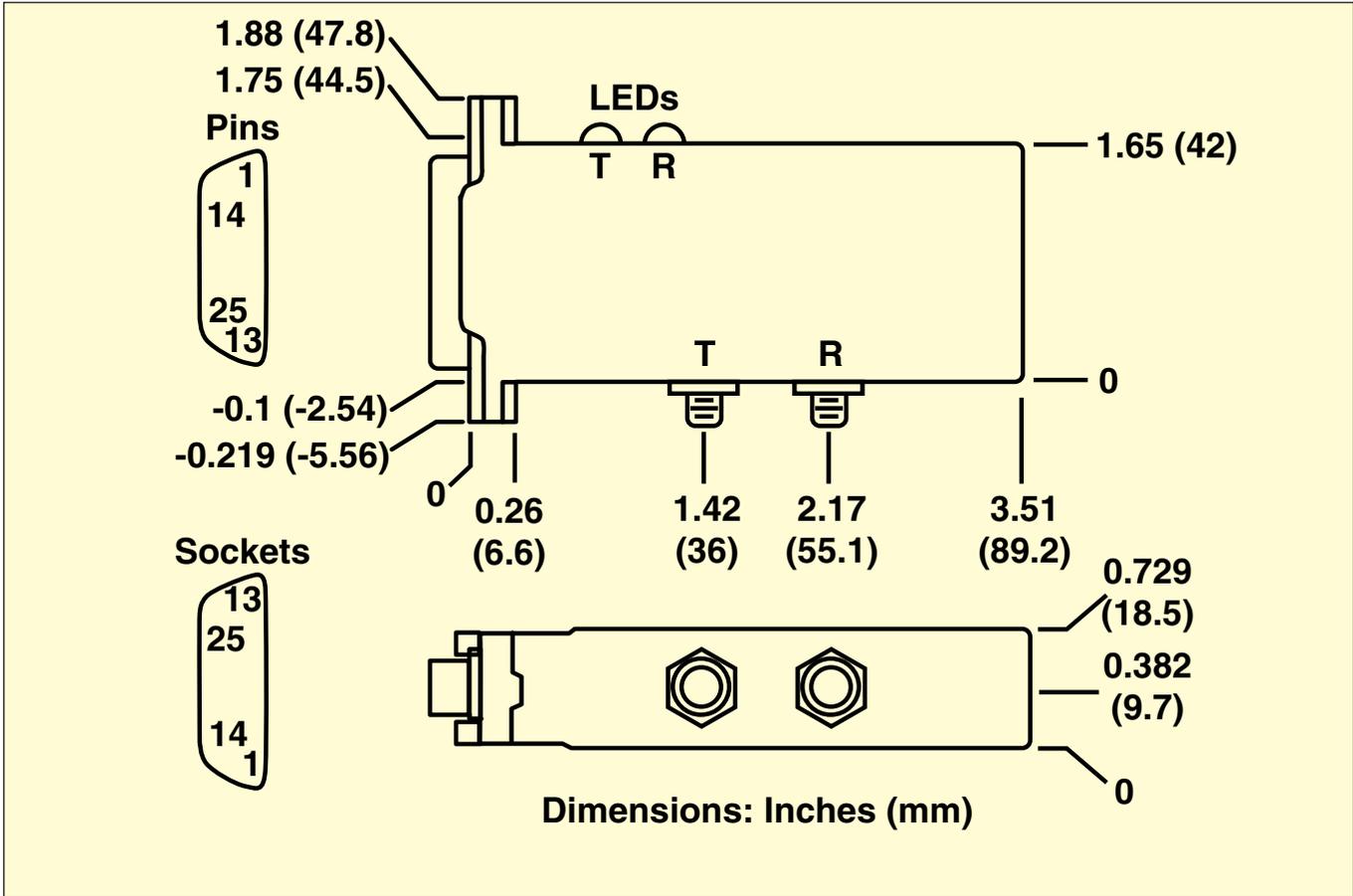
Indicating LEDs come on during a "SPACE" on transmit or receive data. A TD/RD reversing DIP switch is provided for connection to DTE (Data Terminal Equipment) or DCE (Data Communication Equipment) ports.

Recommended Cables
The LDM80 optical transmitter may be used with a wide range of fiber sizes. Specifications are for 100/140µm. Other fiber sizes may be used with a resulting different cable loss budget.

Specifications

Model	LDM80		
Baud Rate Range	0 – 19.2K		
Distance: Over Baud Rate Range			
Fiber Core Diameter (µm)	Max. Cable Length (km)	Loss Budget (dB)	
100 (glass)	3.5	17	
50 (glass)	2.5	9	
62.5 (glass)	2.0	11	
85 (glass)	3.5	16	
200 (glass)	3.5	23	
1000 (plastic)	30 meters	32	
Channel Lines ⁽¹⁾	TD, RD		
Control Lines ⁽¹⁾	RTS, CTS, DSR, DTR, RLSD		
Modes	Asynchronous 2-fiber full duplex, 1-fiber simplex		
Optical Transmitter	850 nm wavelength		
Output from 1 m cable	-26dB typ, -27dB min, -18dB max		
Optical Receiver Power Input for 4 µs Pulse Distortion	-44dB min		
Optical Connectors	ST		

Notes: (1) TD = Transmit Data, RD = Receive Data, RTS = Request To Send, CTS = Clear To Send, DTR = Data Terminal Ready, DSR = Data Set Ready, RLSD = Received Line Signal Detect.



Model	LDM80
RS-232 Output Voltage	+5V logic 0, -5V logic 1 with 3kW Load
DCE/DTE Switch	One
Diagnostic LEDs	Two
Power: Port Power and/or DC operation	+5.0 to +8.5VDC, no current limit, 5mA >+8.5 VDC, 10mA current limit
Operating Environment	-20 to +70°C, 0 to 95% relative humidity, non-condensing
Dimensions	3.51" x 1.88" x 0.729" (89.2 x 47.8 x 18.5 mm)
Weight	8.1 oz (230 g) max
MTBF ⁽¹⁾	>100,000 hrs

Notes: (1) Ground-benign environmental conditions (no salt atmosphere, <50°C ambient temperature).

AVAILABLE FOR FAST DELIVERY!

To Order (Specify Model Number)			
Model No.	Price	RS232 Connector	Field Connector
LDM80-P-025	154	25 Pin male	ST fiber optic connector
LDM80-S-025	154	25 Pin female	ST fiber optic connector

Includes operator's manual.

OMEGACARESM extended warranty is available for models shown on this page.

Ask your sales representative for full details when placing order.

Ordering Example: LDM80-S-025 converter, OMEGACARESM 1year warranty for LDM80-S-025 (adds 1 year to standard 1 year warranty), \$130 + 25 = \$154.

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