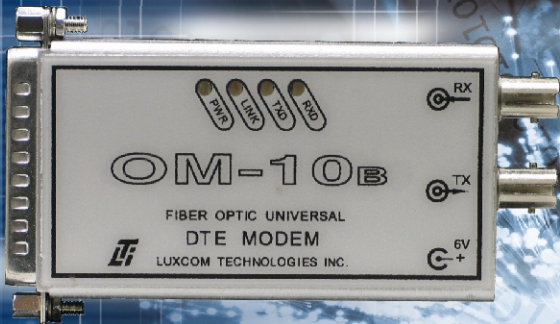


# OM-10B

## Fiber Optic Serial Data Modem

### Applications

- Computer to computer
- Computer to printer
- Computer to encrypter
- Server to PC links



### Description

The OM-10B modem transmits and receives serial asynchronous and synchronous data over a pair of optical fibers. The interface can be set to EIA530, EIA530A, RS232, or RS485. The modem is data rate transparent from DC to 128K Baud. Data, two clocks, and all hand-shake lines are passed across the link. There are two models of the OM-10B, a DCE and a DTE. The OM-10B-DCE connects to Data Terminal Equipment such as a computer. It has an on-board bit rate generator which outputs standard clock frequencies, if a clock is desired for synchronous communication. The OM-10B-DTE connects to Data Communication Equipment such as a modem.

### Features:

- |                       |  |
|-----------------------|--|
| Compact               | All handshake lines implemented            |
| Programable interface | Wide operating temperature (-40°C to 75°C) |
| Data plus two clocks  | EMI/RFI immune                             |
| DC to 128K baud       | Low power consumption                      |
| DCE and DTE version   | 5 year warranty                            |

### Specifications

#### Optical

Light source .....	850 nm LED	M	multimode fiber version
	1300 nm SLED	MM	multimode fiber version
	1300 nm ELED	SM	singlemode fiber version
Optical connectors .....	ST		
Optical sensitivity .....	>-32 dBm (10-9 BER)		
Operating distance			
M version	-18dBm launch,	62.5/125 fiber,	3 dB loss/Km ..... 5 Km
MM version	-18dBm launch,	62.5/125 fiber,	1 dB loss/Km ..... 14 Km
SM version	-16dBm launch,	9/125 fiber,	.4 dB loss/Km ..... 40 Km

# OM-10B

## Fiber Optic Serial Data Modem



### Specifications (continued)

#### Electrical

Data rate .....	Transparent up to 128k Baud
Baud clock (on OM-10B DCE only) .....	1.2K, 2.4K, 4.8K, 9.6K, 19.2K, 56K, 64K, 112K, AND 128K
(Note that 112K and 128K are above RS232 data rates)	
Data I/O connector .....	OM-10B-DCE DB25 FEMALE OM-10B-DTE DB25 MALE (terminal block is optional)
Interfaces (switch selectable) .....	EIA-530, EIA-530A, RS-232, EIA-485 -2 wire
Power source (supplied) .....	External 6V DC power cube
Supply voltage range .....	5-8V
Power consumption (6 V supply) .....	< 2 Watts

#### General

Operating temperature .....	-40 C to 75 C
Humidity (RH) .....	10% to 95%
MTBF .....	>100,000 hrs.
Dimensions .....	8 * 1.6 * 5 cm

\*Specifications subject to change without notice

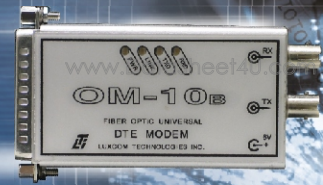
### I/O Interface

Switches on the side of the OM-10B are used to select any of the following interfaces: EIA-530, EIA-530A, RS-232, EIA-485 -2 wire. The modems will work with different interfaces at each end. For instance, one end may be configured as EIA-530 and the other as RS-232.

The OM-10B-DCE usually connects to another OM-10B-DTE; in this configuration, the modem simulates a straight through cable connection; however an OM-10B-DCE to OM-10B-DCE or OM-10B-DTE to OM-10B-DTE configurations is valid. Two possible configurations are shown below.

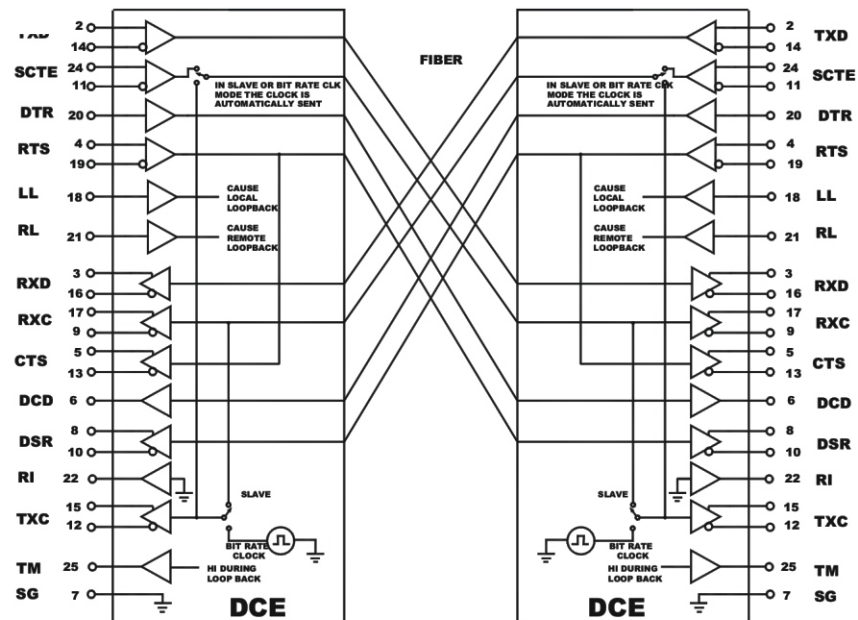
# OM-10B

## Fiber Optic Serial Data Modem

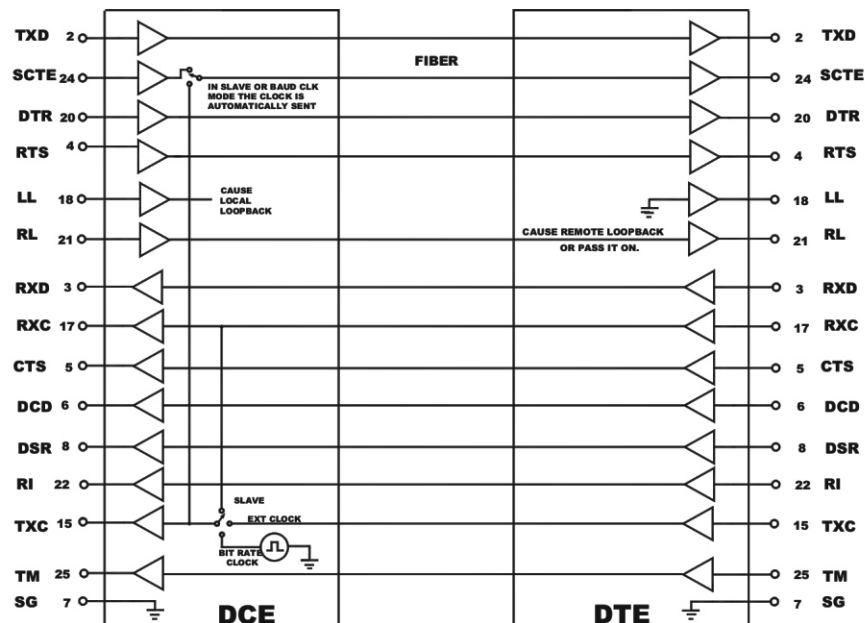


### Interconnect Examples

#### EIA-530A DCE to DCE



#### RS-232 DCE to DTE



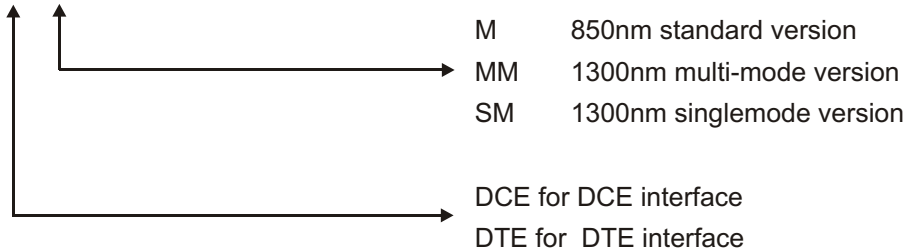
# OM-10B

## Fiber Optic Serial Data Modem



### Part Numbers

OM10B-XX-YY



### Accessories

#### Mounting Clip (MC-OM10B)

This is a machined plastic mounting clip which is used for surface mounting the modem. The clip may be mounted to any flat surface with user provided screws, or double-sided adhesive tape. The modem snaps into the clip.



#### Mounting Panel, non-powered (MP-3)

#### Mounting Panel, powered (MP-3P)

The MP-3 mounting panel provides rack mounting for up to six OM-10B modems. The panel is 1RU (1.75") high, 19" wide. It comes complete with all mounting hardware with the exception of the 10-32 screws for attaching the panel to the rack. This panel is also available with a power supply/harness which powers all six modems. The photo on the right shows the powered version; the non-powered version is the same minus the power supply and harness.



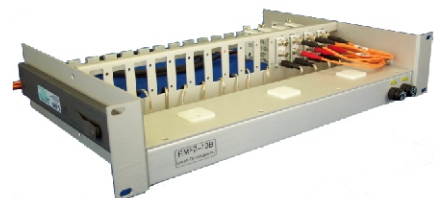
#### I/O DCE-DTE

The I/O DCE-DTE is a DB25 to terminal block breakout box for the OM-10B modems



#### Rack Mount Unit For 14 OM-10B MODEMS (RMF-2-10B)

The mounting unit provides rack mounting for up to 14 OM-10B modems. The panel is 2RU (3.5") high, and fits a 19" wide rack. Two built-in power supplies give redundancy and reliability. The slide rails allow easy access.



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