

TC1200

RS-232 Async (with Control) Fiber Optic Modem

User's Manual

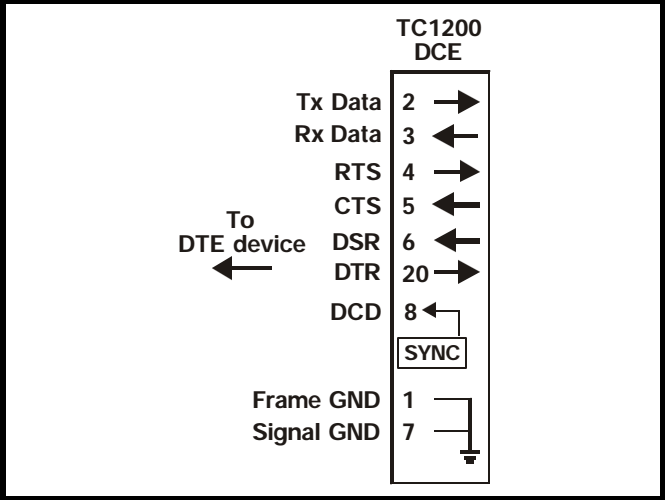
1. Description

The TC1200 is a compact RS-232 Fiber Optic Modem that transmits asynchronous data up to 128Kbps with data flow controlled by RTS (request to send) and CTS (clear to send). It is a DCE only device and comes in both Multimode (850nm/1310nm) and Single Mode (1310nm) versions. The TC1200 allows the user to plug into a PC's COM port and, using popular communications software such as PC ANYWHERE, link two computers together over fiber. It also works with a mouse connected to the PC's port.

2. Electrical Specifications

Interface: RS-232
 Data Rate: Asynchronous DC to 128Kbps
 Data Flow Control: XON/XOFF or RTS/CTS
 Connector: DB25 Female
 Pinouts:

2	Tx Data:	Transmit Data
3	Rx Data:	Receive Data
4	RTS:	Request To Send
5	CTS:	Clear To Send
6	DSR:	Data Set Ready
20	DTR:	Data Terminal Ready
8	DCD:	Data Carrier Detect (Optic Signal Detect)
1	FGND:	Frame Ground
7	SGND:	Signal Ground



3. Optical Specifications

Transmitter: LED/ELED; typical Launch Power: -19dBm* (850nm/1300nm Multimode, @62.5/125µm)
 -14dBm* (1300nm Single Mode, @9/125µm)

Receiver: PIN Diode; typical Sensitivity: -34dBm* (850nm/1300nm Multimode, @62.5/125µm)
 -34dBm* (1300nm Single Mode, @9/125µm)

Loss Budget: 850nm/1300nm MM, @62.5/125µm: 15dB
 1300nm Single Mode, @9/125µm: 20dB

Distance: 850nm Multimode, @62.5/125µm: up to 3km distance*
 1300nm Multimode, @62.5/125µm: up to 4km distance*
 1300nm Single Mode, @9/125µm: up to 30km distance*

Wavelength: 850nm Multimode (Model TC1200-01-XX-XX-12)
 1300nm Multimode (Model TC1200-03-XX-XX-12)
 1300nm Single Mode (Model TC1200-L1-XX-XX-12)

Connector: ST (Model TC1200-XX-ST-XX-12)
 FC (Model TC1200-XX-FC-XX-12)

**Launch power, sensitivity and distance are listed for reference only. These numbers may vary.*

4. Power Requirements

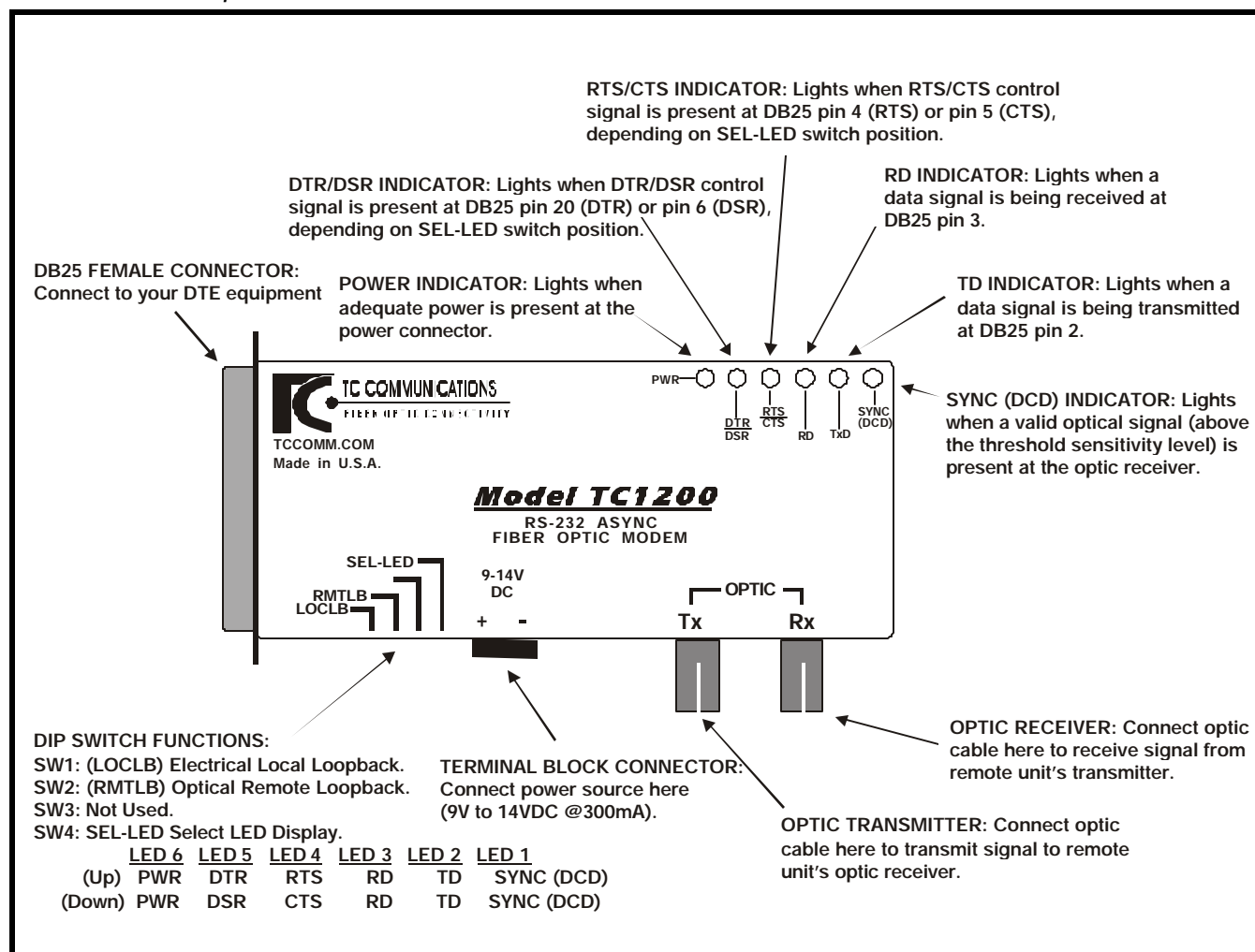
The TC1200 is designed to draw power from the power jack only and consumes very low power. The input DC voltage is from 12Vdc and current is @150mA. The connector is a terminal block type with polarity indicated on the top cover of the unit. Should the external power adapter need to be replaced, use one with the following specifications: 12VDC @800mA. You may order it from TC Communications.

5. Physical Characteristics

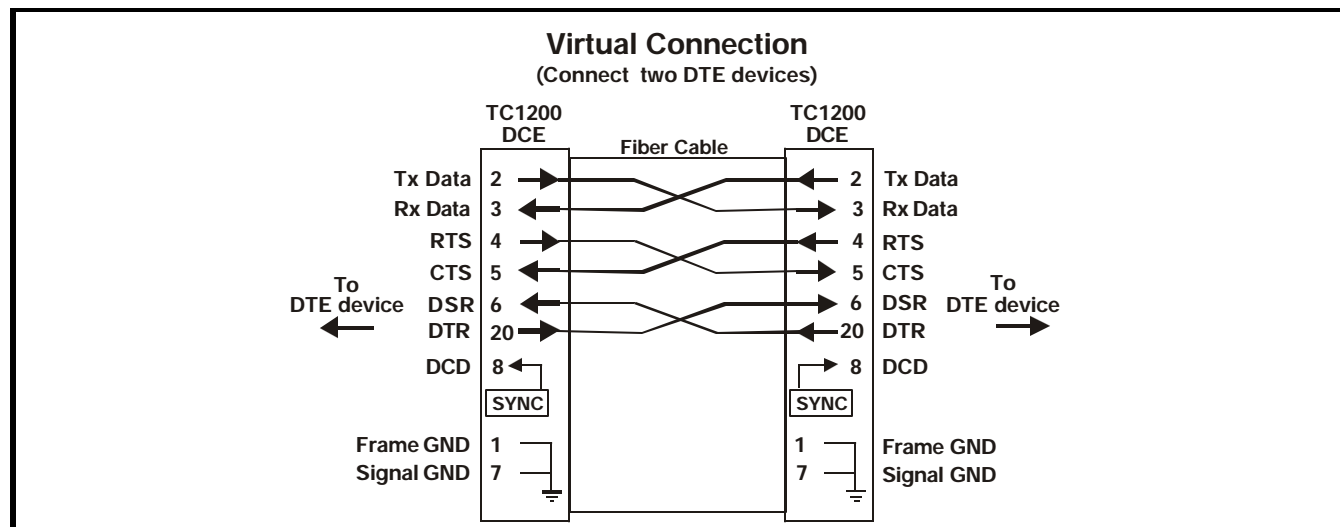
Height: 0.75" (1.91 cm) Depth: 2.4" (6.10 cm)
 Width: 4.0" (10.16 cm) Weight: 7 oz. (137 gm)



6. Connectors, Indicators & Switches



7. Connection



8. Temperature

Operation: -10 to 50 degree C
Storage: -40 to 90 degree C

Hi-Temp (optional): -20 to 70 degree C
Humidity: 95% non-condensing

9. Warranty & Return Policy

Return Policy

To return a product, you must first obtain a Return Material Authorization number from the Customer Service Department. If the product's warranty has expired, you will need to provide a purchase order to authorize the repair. When returning a product for a suspected failure, please provide a description of the problem and any results of diagnostic tests that have been conducted.

Warranty

Damages by lightning or power surges are not covered under this warranty.

All products manufactured by TC Communications, Inc. come with a five year (beginning 1-1-02) warranty. TC Communications, Inc. warrants to the Buyer that all goods sold will perform in accordance with the applicable data sheets, drawings or written specifications. It also warrants that, at the time of sale, the goods will be free from defects in material or workmanship. This warranty shall apply for a period of five years from the date of shipment, unless goods have been subject to misuse, neglect, altered or destroyed serial number labels, accidents (damages caused in whole or in part to accident, lightning, power surge, floods, fires, earthquakes, natural disasters, or Acts of God.), improper installation or maintenance, or alteration or repair by anyone other than Seller or its authorized representative.

Buyer should notify TC Communications, Inc. promptly in writing of any claim based upon warranty, and TC Communications, Inc., at its option, may first inspect such goods at the premises of the Buyer, or may give written authorization to Buyer to return the goods to TC Communications, Inc., transportation charges prepaid, for examination by TC Communications, Inc. Buyer shall bear the risk of loss until all goods authorized to be returned are delivered to TC Communications, Inc. TC Communications, Inc. shall not be liable for any inspection, packing or labor costs in connection with the return of goods.

In the event that TC Communications, Inc. breaches its obligation of warranty, the sole and exclusive remedy of the Buyer is limited to replacement, repair or credit of the purchase price, at TC Communications, Inc.'s option.

To return a product, you must first obtain a Return Material Authorization (RMA) number and RMA form from the Customer Service Department. If the product's warranty has expired, you will need to provide a purchase order to authorize the repair. When returning a product for a suspected failure, please fill out RMA form provided with a description of the problem(s) and any results of diagnostic tests that have been conducted. The shipping expense to TC Communications should be prepaid. The product should be properly packaged and insured. After the product is repaired, TC Communications will ship the product back to the shipper at TC's cost to U.S. domestic destinations. (Foreign customers are responsible for all shipping costs, duties and taxes [both ways]. We will reject any packages with airway bill indicating TC communications is responsible for Duties and Taxes. To avoid Customs Duties and Taxes, please include proper documents indicating the product(s) are returned for repair/retest).