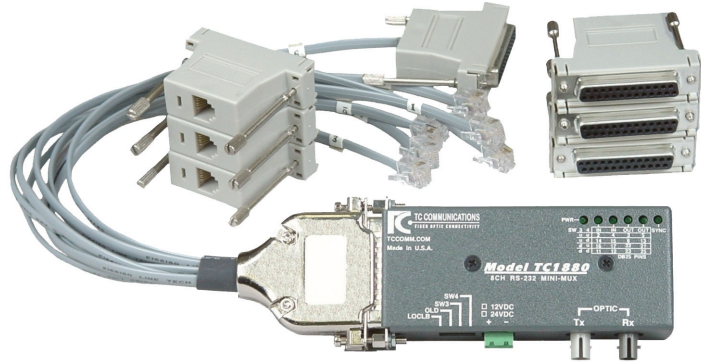# 8-Channel RS-232 Fiber Optic Micro-Mux

Model TC1880

- Multiplexes Async/Sync Simultaneously

- Data Rates up to 56 Kbps

- Multimode or Single Mode (850/1300/1550nm)

- Small Size (5/6" x 4" x 13/4")

- Up to 8 Async Channels

- Up to 4 Sync Channels (Ext. Clock)

- Extend Up to 8 Telephones with TC1900 Quick-Talk Telephone Extender.

- Hardened Temperature Version (optional)

TC1880 (Shown with 1-foot Cable Assembly and Adapters)

Packaged in a remarkably small pocket-sized unit, the TC1880 RS-232 Fiber Optic Micro-Multiplexer offers the lowest per-channel cost of any comparable fiber optic multiplexer currently available in today's marketplace.

Using a fan-out cable adapter, the TC1880 can be configured for up to 8 asynchronous channels, or 4 synchronous channels, or combinations of both.

Configurations can be easily changed in the field by replacing the fan-out adapter. For example, a user could multiplex four channels of asynchronous data and two channels of synchronous data simultaneously over one duplex fiber optic cable.

The TC1880 can also be used to extend up to eight telephones to remote locations with the Model TC1900 "Quick-Talk" Telephone Extender.

The TC1880 is compatible with all popular sizes and types of fiber optic cable. It supports data rates up to 56 Kbps and is available single mode (1300/1550nm) or multimode (850/1300nm).

Fiber optic connectors are ST or FC. Electrical connectors are DB25 female. Power is 12VDC or 115/230VAC with an external power cube. A hardened temperature version (-20°C to 70°C), Model TC1880T, is also available.

TC COMMUNICATIONS
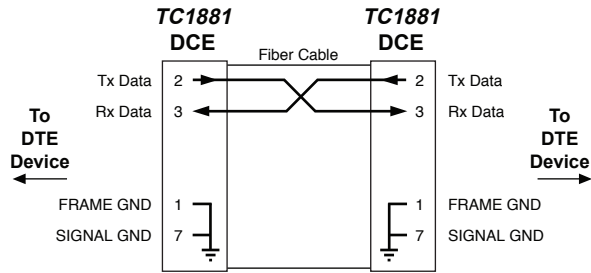### FIBER OPTIC CONNECTIVITY

Applications

The TC1880 Micro Multiplexer is a simple and cost effective method for connecting large numbers of async or synchronous terminals, printers and status collecting devices. It is typically used in harsh environments where ground loops, EMI/RFI interference and lightning conditions may affect transmission signal quality.

TC Communications, Inc.

17881 Cartwright Rd. Irvine, CA 92614 U.S.A.

Tel: (949) 852-1972, Fax: (949) 852-1948

Sales: (800) 569-4736

Web Site: www.tccomm.com

E-mail: sales@tccomm.com

Virtual Connection (per channel)
(connect two Async DTE devices)

TC1881
DCE   **TC1881**
                           DCE

To DTE Device	Tx Data	2	Fiber Cable	2	Tx Data	To DTE Device
	Rx Data	3		3	Rx Data	
	FRAME GND	1		1	FRAME GND	
	SIGNAL GND	7		7	SIGNAL GND	

Virtual Connection (per channel)
(connect two Async w/Control DTE devices)

TC1885
DCE   **TC1885**
                           DCE

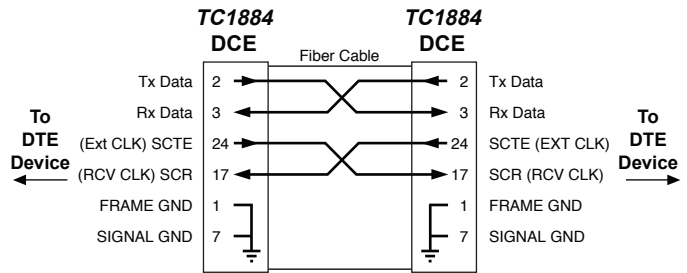| To DTE Device | Tx Data | 2 | Fiber Cable | 2 | Tx Data | To DTE Device |
	Rx Data	3		3	Rx Data	
	RTS	4		4	RTS	
	CTS	5		5	CTS	
	FRAME GND	1		1	FRAME GND	
	SIGNAL GND	7		7	SIGNAL GND	
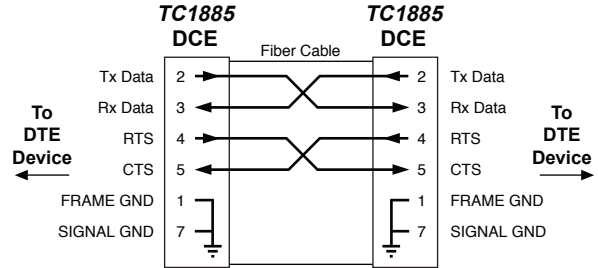
Configurations

The TC1880 can be configured as an 8 Channel Async Multiplexer, a 4 Channel Sync Multiplexer, or various combinations of both.

Model Number	Async Channels	Sync (Ext. Clock) Channels
TC1881	8	0
TC1882	4	2
TC1883	2	3
TC1884	0	4
TC1885	4 (w/ 1 Ctrl)	0
TC1886	2 (w/ 1 Ctrl)	2

Virtual Connection (per channel)
(connect two Sync w/Ext. Clock DTE devices)

TC1884
DCE   **TC1884**
                           DCE

To DTE Device	Tx Data	2	Fiber Cable	2	Tx Data	To DTE Device
	Rx Data	3		3	Rx Data	
	(Ext CLK) SCTE	24		24	SCTE (EXT CLK)	
	(RCV CLK) SCR	17		17	SCR (RCV CLK)	
	FRAME GND	1		1	FRAME GND	
	SIGNAL GND	7		7	SIGNAL GND	

Data Rates (per channel)

Async or Sync (w/ ext. clock) ....up to 56 Kbps

Channel Capacity

....8

Optical

Transmitter..........................LED/ELED
Receiver..............................PIN Diode
Wavelength
...............................850/1300nm MM
...............................1300/1550nm SM
Fiber Optic Connectors
...................................ST, Optional FC
Loss Budget* - 850/1300/1550nm
Multimode @ 62.5/125µm.........15dB
Single Mode @ 9/125µm...........20dB

Electrical

Connector ....DB25 Female
Interface ....(DCE) RS-232

System

Bit Error Rate ....1 in 10^9 or better

Visual Indicator

LEDs...............................Power, Sync
.Signal Presence of Each Channel

Power

Standard ....12VDC @250mA
Optional 24VDC, 115/230VAC
(w/ external power cube)

Temperature

Operating ....−10°C to 50°C
Hi-Temp (optional)........−20°C to 70°C
Storage ....−40°C to 90°C
Humidity ....95% non-condensing

Physical (Standalone Unit)

Height..........................(2.24 cm) 0.88"
Width.........................(10.05 cm) 3.96"
Depth...........................(4.40 cm) 1.73"
Weight ....(104.0 gm) 3.67 oz
Cable Assembly*....................1 ft long

Contact factory for higher requirements

TC COMMUNICATIONS®
FIBER OPTIC CONNECTIVITY

Certified System ™

ISO 9001
QMI-SAI Global
#1045959

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