

Overview

The TM8 fiber optic multiplexer is designed to transmit up to 8 T1 (DSX-1) or 8 E1 (G.703) circuits via optical fiber. With an embedded micro-controller, each channel of the TM8 can easily be configured and monitored through the Network Management Software (NMS). Configuration control includes LBO Settings, Line Code Selection, and AIS Enabling.

The TM8 's front panel provides LED status indicators, including **local and remote alarms, audio disable push button controls, and NMS ports**. The rear panel provides AC and DC power inputs, E1/T1 channel connections, and relay contacts.

The management port provides complete system function access with a graphical user interface menu for channel configuration, test, alarm reporting, and status display. System performance monitoring including code violation per each individual data channel, and the system optical composite signal. In addition, the TM8 's internal memory provides and updates **historical data performance for every 15 minutes, 24 hours and 7 days intervals**.

Specific application optics provide the flexibility to meet any system requirements. These optics support multimode and singlemode fiber, and all major connector types. Transmission distances up to 10 Km via multimode and up to 50 Km via singlemode are possible. The TM8 may be configured with single or dual optics. The dual optic version provides automatic switch over in the event that a fault on the primary optical path is detected.

The TM8 is ideal for implementing simple trunking systems for premise, metropolitan, and industrial environments. Applications for the TM8 include PCS trunking, SCADA, ITS, railway networks, electrical utility networks, and cellular networks.



Features

- ◆ 8 Channel Multiplexer
- ◆ T1 and E1 Interfaces Comply with ITU G.703 and G.823
- ◆ Singlemode Transmission Distance up to 50 Km
- ◆ Local and Remote monitoring
- ◆ Audio Alarm
- ◆ Redundant Optic & Power Supply
- ◆ NMS (GUI) Monitoring Package TCP/IP, SNMP Option
- ◆ 19" or 23" Rack mounted or Standalone
- ◆ Meet FCC Part 15 Class A

Applications

- ◆ Local Exchange Digital Service
- ◆ PCS Trunking
- ◆ Fractional T1/E1 Campus Networks
- ◆ Teleconferencing
- ◆ T1/E1 splitting
- ◆ SCADA Networks
- ◆ Traffic Networks
- ◆ Corporate and Enterprise Networks

Ordering Information

Model	Description
TM8ST01	8-Channel T1/E1 Multiplexer, 850nm MM, ST, 90-240 VAC
TM8ST03	8-Channel T1/E1 Multiplexer, 1310nm SM, ST, 90-240 VAC
TM8DST03	8-Channel T1/E1 Multiplexer, Dual Optic, 1310nm SM, ST, 90-240 VAC

** Please consult factory for additional models and specifications*

System:

Error Rate	1 in 10 ¹⁰
NMS Display	GUI,
TCP/IP, SNMP	Optional
NMS Connector	RJ12
Diagnosics	Local and Remote
	Loopback
Data Performance	Individual Channel and Optic
	Code Violation (CV)
Historical data storage	Error Second (ES)
	Several Error Second (SES)
	15 Min, 24 Hrs, 7 Days
Status Monitoring	Power, Links, Local and Remote Test, Alarms
Alarms	Major Alarm, Audio Alarm, ACO, Relay Contacts

Environment:

Operating	0 ⁰ C to 65 ⁰ C
Storage	-40 ⁰ C to 95 ⁰ C
Humidity	95% Non-Condensing

Optical:

	1:1 Protection (Dual Optic)
Coding Format	4B5B
Transmitter	LED, LASER
Receiver	PIN
Wavelength	850/1310/1550 nm
Power Budget	17 dBm MM LED
	30 dBm SM LASER
Connectors	ST, SC, FC

Channel:

	8
Line Code	T1 - B8ZS/AMI
	E1 - HDB3/AMI
Data Rate	T1 - 1.544 Mbps +/- 50 ppm
	E1 - 2.048 Mbps +/- 50 ppm
Impedance	E1 120 / 75 Ohms
	T1 100 Ohms
Connector	RJ45

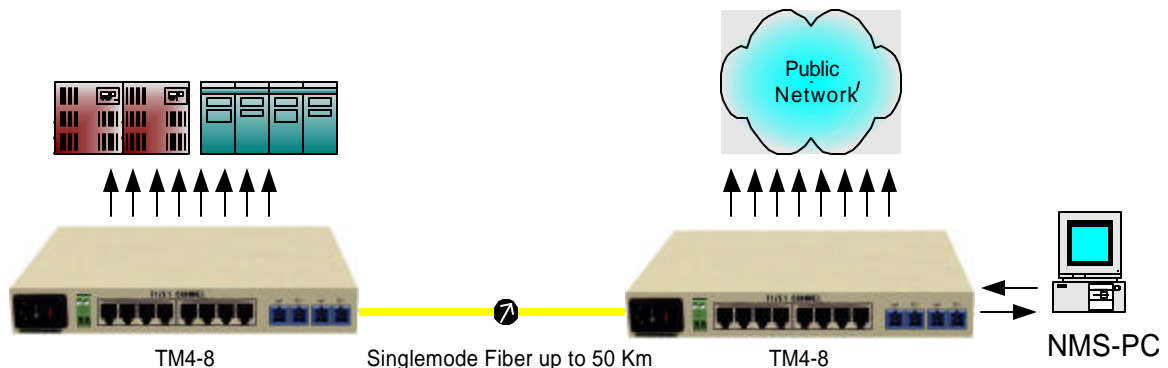
Physical:

Dimensions	17" x 1.75" x 10"
Weight	5 lbs.

Power:

AC	90-240 VAC, 47-63 Hz
DC	-48 VDC (Optional)
Volts/Amp	5 VDC @ 5 Amp

Example Applications



Typical TM8 T1/E1 Fiber Optic Multiplexer Application