

1-4 Ch. T1/E1 & 10/100 Ethernet Fiber Optic Multiplexer

Model TC8510

- Multiplexes 1 - 4 Ch. T1/E1 and 10/100 Ethernet, Optional RS-232, RS-530
- Network Management (Web, Telnet, SNMP)
- Ethernet Rate Control
- One Fiber Bi-Directional Fiber Optic Option
- Multimode or Single Mode (1300/1550nm)
- Power Redundancy, Optical Redundancy Optional
- 12VDC, Optional 24VDC, -48VDC, 125VDC or 115/230VAC
- Industrial Hardened (optional)
- Hi-Temp2 Version Exceeds NEMA & Caltrans Traffic Control Specs



TC8510S Standalone/Wallmount Version



TC8510P 19" Wide, 1U High Rackmount Version

The TC8510 Ethernet & T1/E1 Fiber Multiplexer provides 10/100 Ethernet and T1/E1 Connectivity. It multiplexes various combinations of one-to-four T1/E1 or Serial Data channels and a 10/100M Ethernet over single mode (1300/1550nm) or multimode fiber (1300/1550nm).

The TC8510 supports distances to more than 100 km and offers a two-way, "one fiber" communication option to maximize fiber cable usage. Optional redundant power and optics include automatic switchover for maximum reliability.

Setup, diagnostics and control is accessed via Serial Terminal, Telnet or SNMP management ports. Diagnostics include LED indicators, dry contact alarms and local and remote loopback.

The Ethernet port supports full 10Mbps bandwidth and rate control in increments of 32Kbps. It is IEEE 802.3/802.3u/802.3x compliant. Each T1 or E1 channel is independent, transparent to the framing format and supports all applicable standards and line codes. Serial interface options are RS-232, RS-422, RS-449 and RS-530.

The TC8510 is available basic standalone or 1U high "pizza box." Fiber optic connectors are ST, FC or SC. Standard power is 12VDC and includes built-in redundancy. Optional power sources include 24VDC, -48VDC, 125VDC or 115/230VAC with an external power cube.



Applications

Typical applications include extending SDH/SONET backbones and adding Ethernet service to existing T1 or E1 fiber optic links. Service Providers use the TC8510 as an efficient, cost effective method to provide their customers with Ethernet (including Rate Control) connections for data and T1 for voice. The one fiber bi-directional option can double usage of existing fiber optic cable plants.

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Typical Application Using TC8510 T1/E1 and 10/100 Ethernet Fiber Optic Multiplexers

Data Rates

- T1.....1.544 Mbps
- E1.....2.048 Mbps
- Ethernet10/100 Mbps
.....(10 Mbps throughput)
- RS-232Up to 128 Kbps Async
.....64 Kbps Sync
- RS-422.....Up to 1Mbps

Channel Capacity

- T1, E1 or Combo.....4
- Ethernet1
- RS-232, RS-422.....4

Optical

- TransmitterELED/LASER*
- ReceiverPIN Diode
- Wavelength
.....1300nm Multimode
.....1300/1550nm Single Mode
- Optical Connectors.....ST , FC, SC
- Loss Budgets* -
LED/ELED ...15dB MM @62.5/125mm
LASER.....20dB SM @9/125mm

Electrical

- InterfaceT1, E1 (G.703)
.....IEEE 802.3, RS-232, RS-422
- T1 Connectors.....Terminal Blocks
- E1 Connectors.....Terminal Blocks
- 10/100 Ethernet Connectors....RJ45F
- RS-232, RS-422.....RJ45F

System

Bit Error Rate.....1 in 10¹⁰ or Better

Visual Indicators

- System LEDs.....PWR A, PWR B, Vcc
- Channel Status (each port).....RXD,
.....RLOS, LOS, RLPB, BPV, Alarm
- Optical Signal StatusSyncB
.....Optic in Use, RXA, RXB, VLIN

Diagnostic Functions

Local and Remote Loopback

Power

- Standard12VDC @ 1.2A
- Optional24VDC, -48VDC,
.....125VDC, 115/230VAC

Temperature

- Operating.....-10°C to 50°C
- Hi-Temp1 (option)-20°C to 70°C
- Hi-Temp2 (option)-40°C to 80°C
- Storage.....-40°C to 90°C
- Humidity.....95% non-condensing

Physical (Standalone Unit)

- Height.....(6.70 cm) 2.6"
- Width.....(18.14 cm) 7.1"
- Depth.....(24.8 cm) 9.8"
- Weight.....(1.36 kg) 3.0 lbs

*Contact factory for higher requirements



ISO 9001
QMI-SAI Global
#1045959

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