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T1 and E1 Fiber Muxes

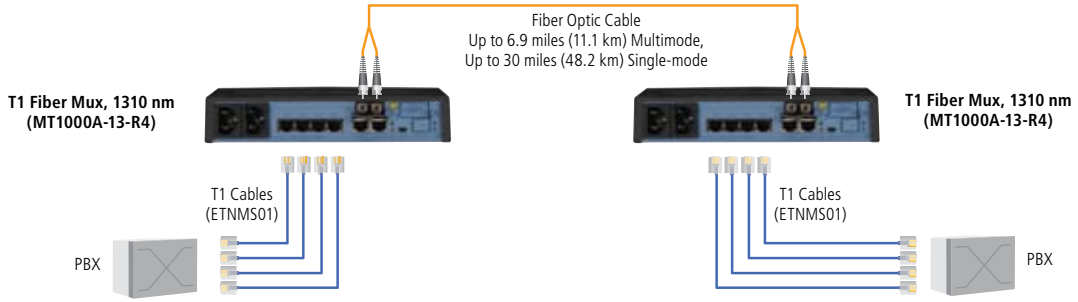
Multiplex four or more T1 or E1 channels over fiber optic cable!

FEATURES

T1 and E1 Fiber Muxes:

- Multiplex four T1 or E1 lines onto one duplex fiber optic line.
- T1 models available for 850-nm multimode or 1310-nm single-mode fiber optics; E1 model available for 1310-nm single-mode.
- Single-mode models have a 30-mile range.
- Fiber optic security.
- Full diagnostics.
- Rackmount Kit included.

Multiplex four T1 channels plus a voice service channel over a duplex fiber cable!



OVERVIEW

T1 and E1 Fiber Muxes

Save money on T1 or E1 costs while enjoying high-speed data transfers. How? By using fiber optic cable and a pair of T1 or E1 Fiber Muxes!

The muxes combine four T1 or E1 channels over a single fiber optic link—that saves you the expense of multiple long-distance T1 runs by using a single fiber cable. Our T1 850-nm multimode model transmits up to nearly 7 miles (11.3 km), and our T1 or E1 1310-nm single-mode versions transmit up to 30 miles (48.3 km)!

With fiber optic cable, your communications are secure. Plus, fiber is immune to EMI and RFI and can provide protection against harmful ground loops.

T1 or E1 Fiber Muxes also feature comprehensive diagnostics that make sure everything's running smoothly. Each of the four T1 or E1 ports has its own indicators that show link status at a glance. If you have fewer than four lines running into a mux, you can disable alarm indications normally generated by an unused port. When you power up a mux, each unit performs an automatic test to local and remote loopbacks. You can also manage a mux by connecting its RS-232 port to an ASCII terminal.

Rackmount a T1 or E1 Fiber Mux using our T1/E1 Fiber Mux Rackmount Kit (included). Only 1U high, the Fiber Muxes take up minimal space inside a standard rack.

For high speed and security, a pair of T1 or E1 Fiber Muxes is your inexpensive solution for campus and enterprise networks.

TECH SPECS

Distance (Maximum) — MT1000A-85-R4: 6.9 mi. (11.1 km); MT1000A-13-R4, MT1000A-E1RJ-13-R3: 30 mi. (48.3 km)
Fiber Type — MT1000A-85-R4: 850-nm, 62.5-/125-µm multimode; MT1000A-13-R4, MT1000A-E1RJ-13-R3: 1310-nm, 9-/125-µm single-mode
Line Code — B8ZS and AMI
Line Impedance — 100 ohms
Optical Budget — MT1000A-85-R4: 14 dB; MT1000A-13-R4, MT1000A-E1RJ-13-R3: 16 dB
Power Coupled into Fiber — -18 dBm
Receiver Dynamic Range — MT1000A-85-R4: 22 dB; MT1000A-13-R4: 24 dB
Receiver Input Power (Maximum) — -10 dBm
Receiver Sensitivity — MT1000A-85-R4: -32 dBm; MT1000A-13-R4, MT1000A-E1RJ-13-R3: -34 dBm
Speed (Maximum) — Line: 1.544 Mbps; Control Port: 9.6, 19.2, 38.4 kbps
Transmitter Type — MT1000A-85-R4: LED; Call Indication: LED and internal buzzer; Input Impedance: 33 ohms; Input Level: 5 mV; Output Level: 50 mW @ 8 ohms
Connectors — Alarm: (1) DB9 F; Control port: (1) DB9 F, async RS-232 (DTE); Fiber: (1) pair of ST; T1 channels: (4) RJ-48C
Temperature Tolerance — 32 to 122° F (0 to 50° C)
Relative Humidity — Up to 90%, noncondensing
Power — 100- to 240-VAC, 50- to 60-Hz, 24 W redundant power supply
Size —1.75"H (1U) x 17"W x 8.2"D (4.4 x 43.2 x 20.8 cm)
Weight — 4.4 lb. (2 kg)

Top: MT1000A-13-R4: rear view
Bottom: MT1000A-85-R4: rear view

Technically Speaking

The benefits of T1 and E1.

If you manage a heavy-traffic data network and you demand high bandwidth for high speeds, Black Box has what you need to send your data digitally over super-fast T1 or E1 communication lines.

Both T1 and E1 are foundations of global voice communication.

Developed more than 30 years ago and commercially available since 1983, T1 and E1 go virtually anywhere phone lines go, but faster.

T1 sends data up to 1.544 Mbps. E1 supports speeds to 2.048 Mbps. No matter where you need to connect—North, South, or Central America; Europe; or the Pacific Rim—T1 and E1 can get your data there—fast!

Both services provide flexibility for a multitude of applications.

Whether you need to drive a private, point-to-point line or a high-speed circuit; provide corporate access to the Internet or inbound access to your own Web server; or support a voice/data/fax/video WAN that extends halfway around the world, T1 or E1 can make the connection.

Both offer cost-effective connections.

In recent years, competition among telco service providers has led to increasingly more affordable prices for T1 and E1 services. In fact, most companies seriously considering a shift to T1 or E1 find they can negotiate even better rates with just a little comparative cost analysis.

What's included

T1 and E1 Fiber Muxes include:

- ✦ Multiplexor
- ✦ T1/E1 Fiber Mux Rackmount Kit (RM1001)
- ✦ User's manual on CD-ROM

Item	Code
T1 Fiber Muxes	
850-nm Multimode	**MT1000A-85-R4**
1310-nm Single-Mode	**MT1000A-13-R4**
For an extra rackmount kit, order…	
T1/E1 Fiber Mux Rackmount Kit	**RM1001**
For multimode fiber optic connections, order…	
Premium Ceramic, Multimode, 62.5-Micron Fiber Optic Patch Cable	
Custom Lengths	**EFN110-STST**
For T1 connections, order…	
T1 Cable, Straight-Pinned	**ETNMSR01-XXXX**
For E1 connections, order…	
Coax Cable, RG59 PVC (CL2)	**ETN59**