



Fiber Optical E1/T1, Datacom & Ethernet Multiplexer



FOM-E/T

The **FOM-E/T** is a single unit (1U), 19" rack mountable, E1/T1, Datacom & Ethernet multiplexer that transmits over a single fiber optic link. The **FOM-E/T** features a modular design that provides a wide variety of customized user configurations. The optical fiber interface module is available in a number of standard fiber connections and with standard or optional redundant optical connections. The **FOM-E/T** chassis is available in five different power configurations : single AC, single DC, dual AC, dual DC or AC+DC. The AC supplies operate from 90~260VAC while DC supplies operate from 20~60VDC. From the rear of the chassis, one to four quad E1 or T1 line cards are supported. Depending upon the configuration, the QUAD line cards are RJ-45 (E1/T1 balanced) or BNC (E1 unbalanced), for a total of 4, 8, 12, or 16 E1 or T1 links. All line cards provide completely transparent transmission of E1 or T1 regardless of frame mode or timeslot assignment. Optional hardware cards are also available for external clock and SNMP. The standard **FOM-E/T** configuration may be viewed or set via the front panel LCD/menu keys, serial terminal connection or Telnet/SNMP with SNMP option.

Features

- Auto Laser Shutdown (ALS) to prevent hazardous laser radiation to personnel
- Real Time Clock (RTC) run by backup battery to avoid time setting loss caused by power disruption.
- Configuration data can be stored into flash buffer to avoid any loss caused by power disruption.
- System performance : Less than 1 error in 10¹⁰ bits
- Modularized interface : G.703
Datacom (V.35/RS-449,530/X.21)
Ethernet Bridge 10/100Base-T
- Alarm relay contacts provided which can offer major and minor alarms with audible and visible alarm output.
- TFTP remote software upgradable
- Local and Remote Loop-Back Functions.
- Redundant Fiber 1+1 Protection. (Optional)
- Management : Local side can be managed via Keypad,
- Terminal and Telnet ; Remote side can be managed via Inband Terminal, Telnet & SNMP (optional)

Specifications

E1/T1 Interface

Channel Capacity	4,8,12, or 16 channels
Bit rate	(E1) 2.048Mbps±50ppm (T1) 1.544Mbps±50ppm
Line Code	(E1) HDB3/AMI (T1) B8ZS/AMI
Line Impedance	(E1) 120 ohms/ 75 ohms±5% (T1) 100 ohms±5%
Jitter Performance	(E1) complies with G.823 (T1) complies with G.824
Pulse Mask	Complies with ITU-T G.703
Connector	Uses 25 pin D type Female

V.35/Ethernet 10/100 auto-negotiation Interface (Under Development)

POWER

(Can be single/dual DC or single/dual AC in one set or one AC plus one DC in one set)

DC	20 ~ 60VDC
AC	90 ~ 260VAC@47-63Hz
Consumption	< 15 watts
MTBF Figure	50,000 hours

Optical interface

Connector Type	FC/PC, SC/PC or ST/PC type
Wave Length	1310nm ±50nm (single or mult mode)
Line Coding	ScrambledNRZ
Nominal Gain	25dB@1X10 ⁻¹⁰ BER
Nominal Power	-8dBm
Input RangeData Rate	-8dBm to -40dBm (BER<10 ⁻¹⁰)51.84Mbps
Fiber Cable Type	9/125µm, single mode 62.5/125µm, multi-mode

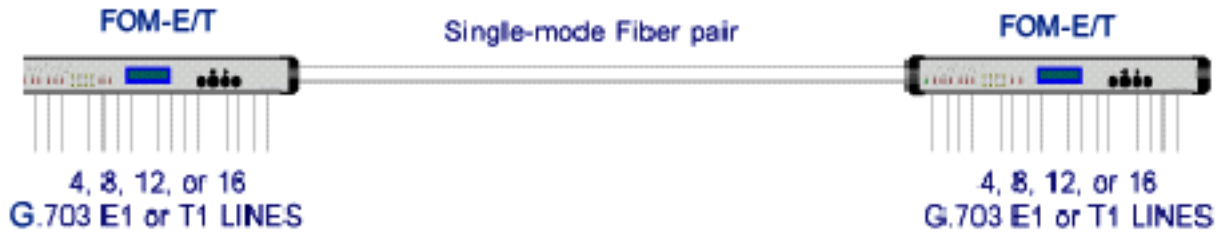
Craft interface

Interface	RS-232C Asynchronous
Bit rate	19200,8,N,1

SYSTEM

Alarm	4 relay contacts
Temperature	0~60°C, 32~140°F (operating)
Humidity	Up to 95% (non-condensing)
Dimensions	45 x 436 x 257 mm (HxWxD) 1.75 x 17 x 10.125 inch (HxWxD)

Application



Ordering Information

FOM-E/T-XXX / XXXX / X XX XXX

Power Module Type

AC one AC module
DC one DC module
AC2 two AC modules
DC2 two DC modules
AD one AC & one DC module

Line Card I/F Type

0 Empty slot
A Quad E1 BNC I/F
B Quad E1 RJ-45 I/F
C Quad T1 RJ-45 I/F
D Quad V.35 I/F*
E Quad Ethernet 10/100
auto-negotiation I/F*

* Under development

Fiber Redundant Type

S: Standard
R: Redundant

Distance Connectivity

002: 2Km [multi-mode only]
015: 15Km
030: 30Km
050: 50Km
120:120Km
*20A:20Km [WDM only]
*20B:20Km [WDM only]
*40A:40Km [WDM only]
*40B:40Km [WDM only]
*020A must be coupled with 020B
*040A must be coupled with 040B

Connector Type

SC SC Type
ST ST Type
FC FC Type

Options

External Clock Option

FOM-EXT/CLK I/F Fiber MUX optional external clock I/F

SNMP Management Option

FOM-SNMP Fiber MUX SNMP management option

Examples

FOM-E/T-AC2/AABB/SSC120

FOM-E/T unit with dual AC power, 8-port E1 BNC & 8-port E1 RJ-45 connectors, one single mode 120 Km, SC type connector optical interface

FOM-E/T-DC/CC00/RSC40A

FOM-E/T unit with one DC power, 8-port T1 RJ-45 connectors, dual WDM 40 Km, SC type connector optical interface for redundant use, must be coupled with FMUX01-DC/RSC40B

FOM-E/T-AD/A000/RSC2

FOM-E/T unit with AC & DC power modules, 4-port E1 BNC connectors, dual multi-mode 2 Km, SC type connector optical interface for redundant use



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* Specifications subject to change without notice.

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