

FO-E1T1-L

COMPACT FIBER OPTIC MODEM

Benefits

- E1, 2 Mbps, G703 extension over fiber
- E1, 1.544 Mbps extension over fiber
- E1 interface : 75/120 Ohms, BNC and RJ45
- E1 mode : G703, HDB3, transparent to framing
- T1 coding B8ZS, AMI
- T1 : 100 Ohms, RJ45/ RJ48C, DSX-I and CSU LBO
- G703, codirectional clocking
- Full choice of fiber interface : fixed or SFP module
- Multi mode fiber with ST connector
- Single mode fiber with SC, LC connector
- WDM and CWDM options
- Test loop
- Alarm relay on fiber loss
- Plug and Play solution
- Compact enclosure : wall and DIN rail mounting capability
- Dual power input : 110 / 230 Vac mains and 48 Vdc (36-72)

E1, 2 MBPS OPTICAL LINK

The FO-E1T1-L is a cost effective fiber optic modem in a compact enclosure aimed at transporting an E1, G703, 2 Mbps, or T1, B8ZS / AMI, 1.544 Mbps interface in a telecommunication operator or corporate environment. It satisfies the transmission requirements for E1/T1, G703, PBX, MIC, base station connection .



The FO-E1T1-L is designed to simplify all its usage phases and to reduce its operating costs on 2 Mbps networks. IT is very easy to install thanks to a plug and play configuration that is well suited for framing transparent applications with codirectional clocking. It is proposed with a factory fixed fiber interface or with a SFP slot which module can be provisioned separately to optimize inventories and network maintenance.

The FO-E1T1-L is a high quality design which characteristics can be set on installation for impedance, clocking, long or short haul receiver sensitivity. It complies with European standards (E1, G703, 2 Mbps) as well as US standards (T1, B8ZS, AMI, 1.544 Mbps). It restores a high quality signal as per G.823 requirements.

The FO-E1T1-L operates with other CXR fiber optic modems, especially those for 19 inches chassis, AMS4 and AMS16 : FO-E1E2, FO-E1T1.

The FO-E1T1-L comes with a complete choice of fiber, fixed or SFP interfaces :

- Fixed multimode, 2 km, ST connector
- Fixed single mode, 30 km, SC connector
- SFP 30/60/100/120 km, 1310 or 1550 nm, LC connector
- SFP, single fiber, WDM 1310 / 1550 nm, SC connector
- SFP, two fibers, WDM 60 km, lambda C9 to C18, 1430 to 1610 nm

The FO-E1T1-L is embedded into a compact enclosure that can be installed as stand alone, or wall mounted, or even fixed on a DIN rail. It has two power supply inputs, a 110 / 230 Vac mains input and a 48 Vdc input that can be used together to provide a supply redundancy with mains priority. The FO-E1T1-L embeds an alarm relay that activates in case of power failure or loss of fiber link.



E1/T1 Line Extension over Fiber

SPECIFICATIONS

E1 2 Mbps Interface

- G703, 2 Mbps +/- 50 ppm
- Line coding : HDB3
- Clocking : codirectional or internal
- Impedance : 75 or 120 Ohms
- Connectors : BNC and RJ45
- Receiver sensitivity: 12 or 43 dB

T1 1,544 Mbps Interface

- T1, 1.544 Mbps +/- 50 ppm
- Line coding : B8ZS, AMI
- Clocking : codirectional or internal
- Impedance : 100 Ohms
- Connector : RJ45
- Receiver sensitivity : 12 or 43 dB
- Line Build Out : CSU, DSX-1

Fiber Optic interface

- M8T : fixed, multi mode, 820 nm, 15 dB budget, 2 km reach, ST connector
- SLC : ELED, single mode, 1310 nm, 14 dB budget, 30 km reach, SC connector
- SFP-E1-SMx0 : SFP module, 1310 or 1550 nm, LC connector, 30, 60, 100 or 120 km reach
- SFP-E1-SMx0-Wy : SFP module, single fiber WDM, 1310 and 1550 nm, 30 or 60 km reach, SC connector
- SFP-E1-SMx0-Cz : CWDM SFP module

General characteristics

- Test loop at fiber and E1/T1 interface
- Light indicators:
 - Normal operation
 - Valid fiber signal
 - Valid E1/T1 signal
 - AIS / Blue Alarm
 - Test indicator
- Alarm relay on three poles screw bloc
- Size : 170 x 120 x 41mm (WxDxH)
- Weight : 0,5 kg
- Power supply : 110 / 230 Vac or 48 Vdc (36-72)
- Power consumption : 5 W
- Operating temperature : -15 à +60 °C
- Hygrometry : 90%, non condensing
- MTBF : 150,000 H



PRODUCT RANGE

FO-E1T1 -L- XX Y Z

XX : Fiber optic interface

MT : multimode LED diode, 820 nm, 2 km reach
 SL : single mode ELED, 1310 nm, 30 km reach
 SFP : SFP slot. CXR SFP module to be ordered separately

Y : Optical connector

C : SP/PC connector
 T : ST connector (M8T only)
 F : FC/PC connector on option

Z : Power supply

C : 48 Vdc power input
 V : 230 Vac mains input (Europe)
 U : 110 Vac mains input (USA)
 VE : dual 230 Vac and 48 Vdc inputs (Europe)
 UE : dual 110Vac and 48 Vdc inputs (USA)



Rue de l'Ornette
 28410 Abondant
 France

Tel. : +33 (0) 237.628.790
 Fax : +33 (0) 237.628.801
 Email: trans@cxr.fr

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