

In-band Managed Family

In-band Managed slide-in card E1/T1 to Fiber converter for FRM220

FRM220-E1/T1R, E1B FRM220-E1/T1R-S, E1B-S



The FRM220-E1/T1 is a fiber media transport for G.703 E1/T1 transmissions. The BNC model provides unbalanced 75 Ohm coaxial E1 connections while the RJ-45 model provides switchable balanced 120 Ohm E1 or 100 Ohm T1 connections over twisted pair wiring. When the FRM220-E1/T1 card is placed in the FRM220 rack with in-band management, the card status, type, version, fiber link status, E1 or T1 link status and alarms for both local card and remote unit can all be displayed. Configuration is also available to enable or disable the port, reset the port, do far end fault setting, and initiate local or far end loop-back tests. When set for E1 mode, the FRM220-E1/T1 also supports fractional (structured) E1 when connected to a remote FRM220-Data, synchronous data communications converter. In an E1 transmission network where end connection requires synchronous data communication such as V.35 or RS-530 (X.21, RS-449), these units eliminate the need for an extra CSU/DSU.

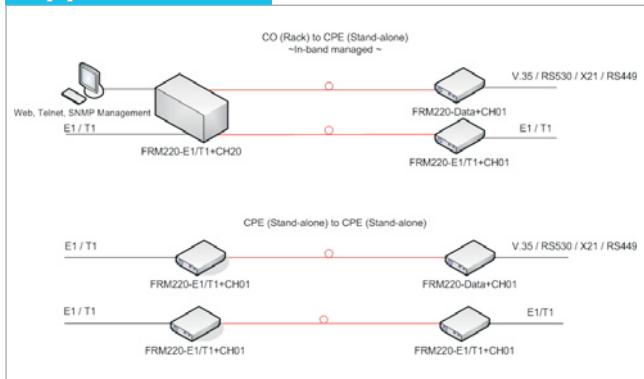
Features

- In-band network Managed via Terminal, web or SNMP in FRM220-CH20 chassis
- T1/E1 RJ-45 (USOC RJ-48C) or E1 Coax (BNC) to Fiber converter
- Supports AMI or B8ZS/HDB3 line codes
- T1 supports unframed to FRM220-Data
- E1 supports unframed or fractional (N x 64k) to FRM220-Data
- User selectable E1 or T1 setting
- Electrical and optical Loop back tests

Specifications

Ports	Connector : 1x9 (SC, ST, FC) or SFP LC
Optical Interface :	Cable type : MM 62.2/125µm, 50/125µm. SM 9/125µm
	Cable length: MM 2km, SM 15/30/50/80/120km, WDM 20/40/60/80km
	Wavelength: MM 1310nm, SM 1310, 1550nm, WDM 1310Tx/1550Rx(type A), 1550Tx/1310Rx(type B)
Electrical Interface :	Connector : RJ45 E1-120Ω, T1-100 Ω, BNC E1-75 Ω
	Data rate : E1: 2.048Mbps, T1:1.544Mbps
	Line Code : E1 HDB3/AMI, T1: B8ZS/AMI
	Cable type : Cat.3 or higher Twisted-Pair cable
Standard	E1 ITU-T G.703, G.704, G.706, G.732, G.823 T1 ITU-T G.703, G.704, AT&T, TR-62411, ANSI T1.403
LEDs	Power, FX-Link, E1/T1 SIG, Test, SYN, RD, TD, AIS (E1/T1R) Power, FX-Link, E1 SIG, Test(E1B)
Power	DC In 12V
Power Consumption	< 5W
Dimensions (D x W x H)mm	155 x 88 x 23mm
Weight	120g
Temperature	0~50°C (Operating) ,0~70°C (Storage)
Humidity	10~90% non-condensing
Certification	CE, FCC, LVD, RoHS
MTBF	65,000 h (25°C)

Application



Ordering Information

- **FRM220-E1/T1R** E1/T1 (RJ45) to fiber slide-in card
- **FRM220-E1/T1R-S** E1/T1 (RJ45) to fiber SFP slide-in card
- **FRM220-E1B** E1 (BNC) to fiber slide-in card
- **FRM220-E1B-S** E1 (BNC) to fiber SFP slide-in card

Stand-alone:

All of FRM220 Series slide-in card can be converted to stand-alone by inserting in FRM220-CH01 single slot chassis. Please refer to FRM220-CH01 data sheet page 2.