



## E1/T1 Fiber modem FRM220-E1/T1

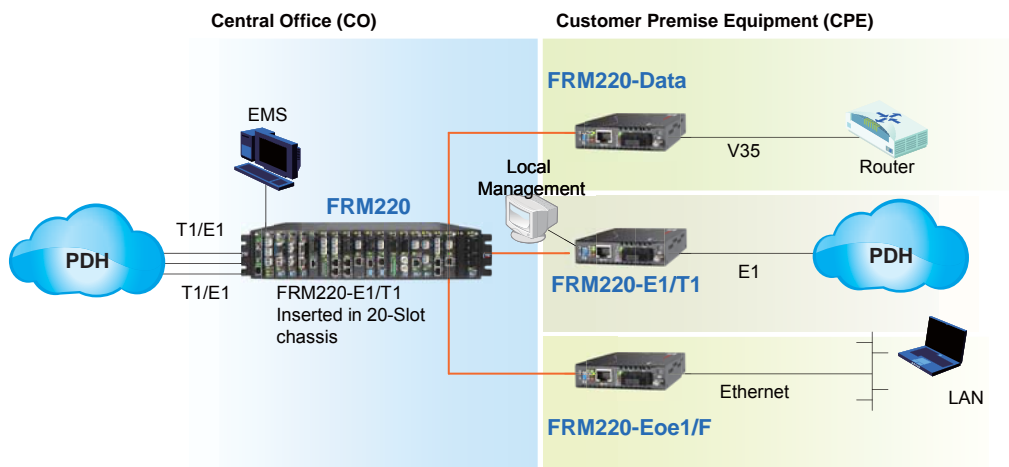
The FRM220-E1/T1 is a fiber media transport for G.703 E1/T1 transmissions. The BNC model provides unbalanced 75 Ohm coaxial E1 connections while the RJ-45 model provides switchable balanced 120 Ohm E1 or 100 Ohm T1 connections over twisted pair wiring. When the FRM220-E1/T1 card is placed in the FRM220 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 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

<b>Optical Interface</b>	Connector 1x9 (SC, ST, FC) Data rate 36.864Mbps Line coding Scrambled NRZ Bit Error Rate Less than 10 <sup>-10</sup> Distance MM 2km, SM 15/30/50/80/120km, WDM 20/40/60/80km Wavelength 1310nm, 1550nm
<b>Electrical Interface</b>	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
<b>Standard</b>	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
<b>Indications</b>	Power, FX-Link, E1/T1 SIG, Test, SYN, RD, TD, AIS (E1/T1R) Power, FX-Link, E1 SIG, Test(E1B)
<b>Power Input</b>	Card : 12VDC Standalone : AC, DC options
<b>Power Consumption</b>	< 5W
<b>Dimensions</b>	155 x 88 x 23mm (D x W x H)
<b>Weight</b>	120g
<b>Temperature</b>	0 ~ 60°C (Operating), -10 ~ 70°C (Storage)
<b>Humidity</b>	10~90% non-condensing
<b>Certification</b>	CE, FCC, LVD, RoHS
<b>MTBF</b>	65,000 hrs (25°C)

### In-band Managed PDH Fiber Modem



### Ordering Information

- FRM220-E1/T1: E1/T1 Fiber modem
- Smart View Element Management System (EMS)
- SV-PLF-05 (5, 25, 50): Platform Server (5, 25, 50 admissions)
- SV-AGT-50 (50, 100, 200, 500): Device Agent (50, 100, 200, 500 Devices)
- SV-Fiber: FRM220 Managed Module