

New



The FRM220-FTEC is a slide-in card T1 (US Standard), E1 (European Standard) converter and timeslot cross connect which enables conversion between one T1 signal and one E1 signal. T1 and E1 signals with frames employ u-Law and A-Law compander encoding principles respectively and encode those analog signals into 64kbps digital data. The E1 interface supports CCS (PCM31) or CAS (PCM30) frames with or without CRC-4 and with HDB3 line coding. The T1 interface supports D4 or ESF frame formats with B8ZS or AMI line code. Multiple clock source selection provides maximum flexibility in connecting both T1 and E1. The clock source may be from the T1 recovery clock, from the E1 recovery clock, from the internal oscillator, from an external clock or via transparent timing. All setup controls can be performed via FRM220 CH01M RS-232 console port and ASCII terminal. Tests and diagnostics can easily be performed. Diagnostics include T1 local/remote and E1 local/remote loop back.

When FRM220-FTEC card is placed in the FRM220 chassis, SNMP management allows viewing the card converter's status, type, link status, data link status and alarms.

Features

- Converts between T1 and E1 data and signaling
- Enable equipment to operate at T1 and E1 rates
- Support G.802 Annex B (T1 over E1)
- Configures A-law/ μ -law and signaling conversion
- Transparent conversion at 64kbps timeslot level
- Controlled slip for buffer over or under flow
- 24 timeslots of T1 Nx64 can be inserted into E1 Nx64, 30/CAS or 31/CCS timeslots

E1/T1 Cross Rate Converter FRM220-FTEC

E1 interface		
Framing	CAS/PCM30 or CCS/PCM31 selectable	
Bit rate	2.048Mbps	
Line Code	HDB3	
Line Impedance	75 ohm (BNC) / 120 ohm (RJ-45)	Voice channel sample rule A-Law
CRC check	CRC-4 enable/disable	
Pulse amplitude	Nominal 2.37V \pm 10% for 75ohm, Nominal 3.00V \pm 10% for 120ohm	
Zero amplitude	\pm 0.1V	
Connector	RJ-45 and BNC pair	
T1 interface		
Framing	D4, ESF selectable	
Bit rate	1.544Mbps	
Line Code	B8ZS / AMI	
Equalization	0 ~ 655 feet settable	Voice channel sample rule μ -Law
CRC check	CRC-6 when ESF	
Line Impedance	100 ohms	
Transmit Pulse level	3.0V \pm 10%,	
Receive signal level	0 ~ -10dB	
Connector	RJ-45 and Bantam Jacks	
LEDs	Power Alarm	
Standard	ITU-T G.703, G.704, G.706, G.823, G.824, ANSI T1.403	
Power	Card: 12VDC Standalone: AC, DC Option	
Power Consumption	<15W	
Dimensions	160 x 88 x 24mm(D x W x H)	
Weight	280g	
Temperature	0 ~ 60°C (Operating), -10 ~ 70°C (Storage)	
Humidity	10~90% non-condensing	
Certification	CE, FCC, RoHS	
MTBF	57,000 hours	



Ordering Information

FRM220-FTEC: E1/T1 Cross Rate Converter

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