



FRM220-GFOM04

4X E1/T1 + GbE Fiber Multiplexer

2

Gigabit Fiber Multiplexer

The FRM220-GFOM04 is a 4 channel E1/T1 fiber multiplexer with an additional Gigabit Ethernet trunk, plus order wire and clear channel RS-232, constructed as a two slot wide card for the FRM220 series. When the FRM220-GFOM04 card is placed in the FRM220 rack with NMC, the management can view the converter card's status, type, version, fiber link status and alarms. The card can be configured to enable or disable the port, reset the port, and provide local or remote diagnostic loopback. The 1+1 redundant optical aggregate of this multiplexer employs industry standard pluggable optics (SFP) operating at 1.25Mbps data rates. The SFP modules can be chosen to support single-mode, multi-mode, single fiber bi-directional or Coarse and Dense Wave Division Multiplexing (CWDM and DWDM).

Features

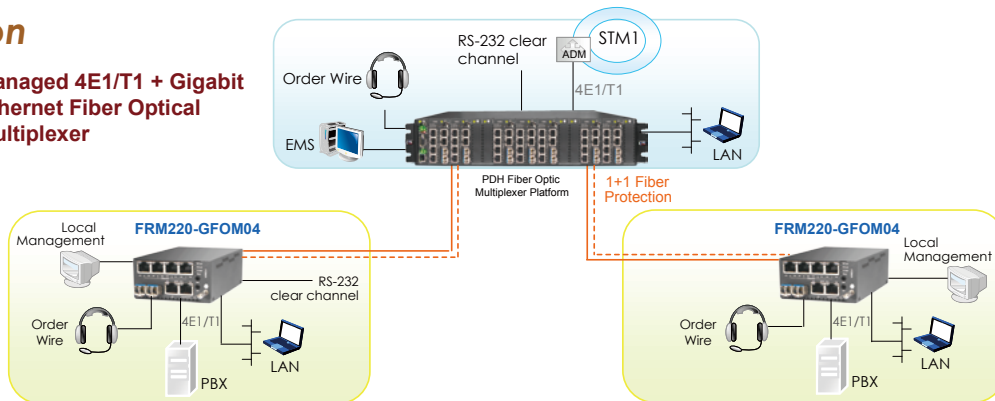
- 4 channels unframed E1/T1 (transparent)
- 10/100/1000Base-T Ethernet
- Auto MDI/MDIX & Auto-Negotiation or Force Mode
- Supports flow control 802.3x & 9K jumbo packets
- Supports link fault Pass-Through for Ethernet
- One clear channel RS232 up to 250Kbps(Async)
- 1+1 fiber protection, less than 50ms
- Supports Digital Diagnostics Monitoring Interface (DDMI) SFP
- AIS on signal loss on E1/T1 and fiber port
- Loopback test on E1/T1, RS232, fiber ports
- Supports local or remote In-band management (Monitor or Configure status) by SNMP manager and console port
- Supports Order wire Ear / Microphone port
- Supports On-Line F/W upgrade & Dying Gasp

Specifications

E1/T1 ports	Framing	Unframed (transparent)	E1/T1 ports	Test Loops	RLB (Remote Loop Back) RRLB (Request Remote Loop Back)		
	Bit Rate	E1:2.048 Mb/s, T1: 1.544Mb/s		Fiber	Connector	SFP LC	
	Line Code	E1:AMI/HDB3, T1: AMI/B8ZS			Data Rate	1.25 Gbps	
	Line Impedance	E1: Unbalanced 75 ohms (BNC) E1: Balanced 120 ohms (RJ-45) T1: Balanced 100 ohms (RJ-45)		Ethernet	Interface Type	10/100/1000Base-T	
	Receiver sensitivity	Short haul			Connector	RJ-45	
	"Pulse" Amplitude	Nominal 2.37V+/-10% for 75 ohms Nominal 3.00V+/-10% for 120 ohms			Standards	IEEE 802.3, 802.3u, 802.3ab	
	"Zero" Amplitude	+/-0.3V		Duplex modes	full/half	Indications	FX1 Link, FX2 link, E1/T1 Mode/Link/Loopback test, Order wire phone indicator, LAN Link/Speed.
	Internal Timing	+/-30 ppm		Power Input	12VDC		
	Jitter Performance	According to ITU-T G.823			Power Consumption		< 12W
	Performance monitoring	According to ITU-T G.821		Dimensions		140 x 88 x 42mm (D x W x H)	
	Standards	ITU-T G.703, G.704, G.706 and G.732			Weight	200g	
	Interface Connectors	RJ-45		Temperature		0 ~ 50°C (Operating), -10 ~ 70°C (Storage)	
	E1/T1 ports	Test Loops			LLB (Local Loop Back)	Humidity	10 ~ 90% RH (non-condensing)
NELB (Near End Loop Back)			Certifications	CE, FCC, RoHS compliant			

Application

Managed 4E1/T1 + Gigabit Ethernet Fiber Optical Multiplexer



Ordering Information

Model Name	Description
FRM220-GFOM04-SR	4x E1/T1 RJ-45 and 10/100/1000Base-T Ethernet Fiber Optic Multiplexer (optional SFP module)
FRM220-GFOM04-SB	4x E1 BNC and 10/100/1000Base-T Ethernet Fiber Optic Multiplexer (optional SFP module)

FRM220 – GFOM04 – Connector Type
 Example: FRM220 – GFOM04 – SR

Note: This card may be locally configured by its own console when placed in CH02M with fan. When connected as a remote to a managed central chassis, this card supports in-band management and only needs a CH02M chassis.