



## 8E1 Inverse Multiplexer FRM220A-iMux8

The FRM220A-iMux8 is an E1 inverse multiplexer capable of bundling up to 8 E1 lines for cost-effective connection of 10/100BaseTX or 100Base-FX LANs over multiple E1 transports. The FRM220A-iMux8 inverse multiplexer transmits up to a 15.87Mbps Ethernet bridge channel (GFP-F encapsulated) over 8 E1 links. The FRM220A-iMux8 bridges the gap between E1 and E3, allowing bridges to operate at faster rates. It also provides high speed access to SDH/SONET backbones where the only access services available are E1 lines. The FRM220A-iMux8 supports an E1 attenuation of up to 43 dB on twisted pair or coax cable. This provides an approximate operating range up to 2km (using 22AWG). The FRM220A-iMux8 fully meets E1 specifications including ITU-T G.703 and G.823. The FRM220A-iMux8 features diagnostic capabilities for performing remote loopback. The operator at either end of the line may test both the FRM220A-iMux8 and the line in the digital loopback mode. The Ethernet copper interface supports auto-negotiation and auto MDI/MDIX, allowing plug-and-play Ethernet connection without any additional configuration.

### Features

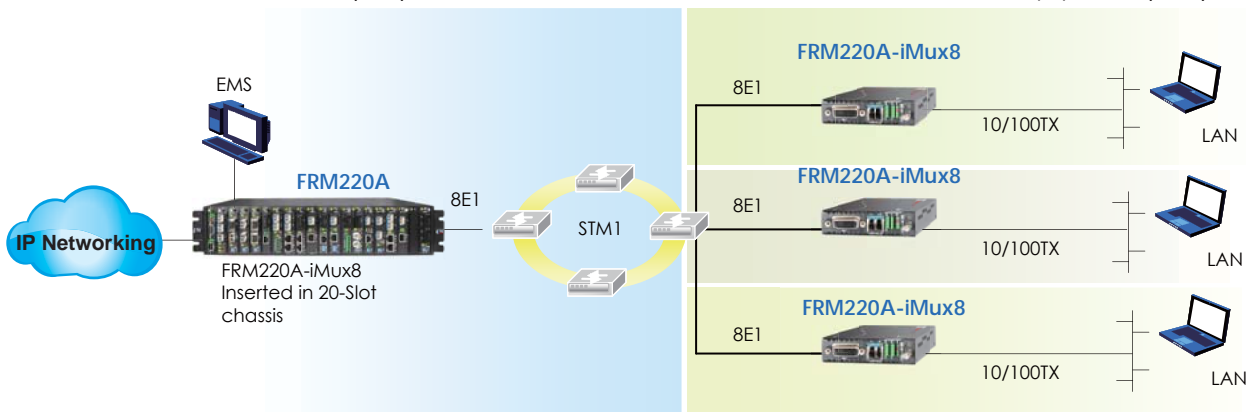
- Connects one Fast Ethernet over 8E1 links (1.984Mbps to 15.87Mbps)
- Built-in GFP bridge operates at WAN rate
- Auto-Negotiation
- Maximum 220ms delay variance between E1 link
- Unbalanced E1/BNC or balanced E1/RJ45
- Fully compatible with FRM220A chassis
- SNMP management with FRM220A chassis
- LED Alarm indication
- Standalone RS232 console management via CH01M

### Specifications

Interface	Framing	CCS+CRC
	Standard	ITU-T G.703/G.704/G.706 & G.732, G.823
	Bit rate	2.048Mbps± 50ppm (up to 8E1)
	Line code	HDB3
	Clock setting	Internal OSC or recovery clock
	Receive level	-43dB
	Line impedance	75 ohm (BNC) / 120 ohm (RJ45)
	Jitter Performance	Complies with ITU-T G.823
	Pulse Mask	Complies with ITU-T G.703
	Pulse amplitude	Nominal 2.37V ± 10%
	Delay Variance	220ms
	Connector	BNC / RJ45
	Diagnostics	Digital remote loopback
Standard	IEEE 802.3, 802.3u	
Data rate	10/100Base-TX, Half/Full duplex	
Connector	RJ45	10/100Base-TX
	SFP-LC	100Base-FX
Indications	Power, ALM, E1 signal loss , E1 Alarm(AIS · LOF · RAI, LOMF), LAN link /ACT, 10/100M , SD(100Base-FX)	
	Power Input	AC adapter : 100~240VAC to 12VDC AC 100 ~ 240V, DC -18 ~ 75V
	Power Consumption	< 12W
	Dimensions	DC12
AC/DC48/AD		: 201 x 135 x 35mm (D x W x H)
Weight	DC 12 : 0.28kg, AC/DC48/AD : 0.58kg	
Temperature	0 ~ 60°C (Operating), -10 ~ 70°C (Storage)	
Humidity	10 ~ 90% RH (non-condensing)	
Certifications	CE, FCC, RoHS	
MTBF	65,000 hrs	

### Central Office (CO)

### Customer Premise Equipment (CPE)



### Ordering Information

Model Name	Description
FRM220A-iMux8T-R	10/100Base-TX to 8E1 mux card with 8E1 RJ45 cable
FRM220A-iMux8T-B	10/100Base-TX to 8E1 mux card with 8E1 BNC cable

Note: The card is suitable for using in CH01M standalone chassis.

**FRM220A - iMux8T -**   
Example: FRM220A - iMux8T - R