

NEW



FRM220A-iMux4

Ethernet to 4E1 Multiplexer

The FRM220A-iMux4 is an E1 inverse multiplexer capable of bundling up to 4 E1 lines for cost-effective connection of 10/100Base-TX or 100Base-FX LANs over multiple E1 transports. The FRM220A-iMux4 inverse multiplexer transmits up to a 9.92Mbps Ethernet bridge channel (GFP-F encapsulated) over 4 E1 links. The FRM220A-iMux4 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-iMux4 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-iMux4 fully meets E1 specifications including ITU-T G.703 and G.823. The FRM220A-iMux4 features diagnostic capabilities for performing remote loopback. The operator at either end of the line may test both the FRM220A-iMux4 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

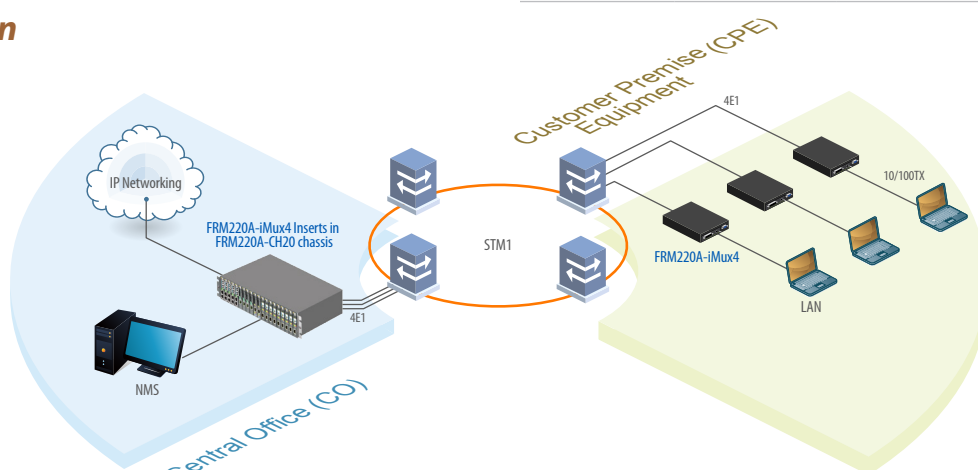
- Connects one Fast Ethernet over 1-4 E1 links (1.984 ~ 7.92Mbps)
- Built-in GFP bridge operates at WAN rate
- Auto-Negotiation
- Unbalanced E1/BNC or balanced E1/RJ45
- Fully compatible with FRM220A chassis
- SNMP management with FRM220A chassis
- LED Alarm indication
- Standalone RS232 console management via CH01M
- Supports IEEE 802.1Q VLAN & VLAN trunking

Specifications

E1 Interface	Framing	CCS+CRC
	Standard	ITU-T G.703/G.704/G.706 & G.732, G.823
	Bit rate	2.048Mbps± 50ppm (up to 4E1)
	Line code	HDB3
	Clock setting	Internal OSC or recovery clock
	Receive level	-43dB
	Line impedance	75 ohm (BNC) / 120 ohm (RJ45)
	Jitter	Complies with ITU-T G.823
	Performance	
	Pulse Mask	Complies with ITU-T G.703
	Pulse amplitude	Nominal 2.37V ± 10%
	Delay Variance	220ms
	Connector	RJ45, BNC
	Diagnostics	Digital remote loopback

Ethernet Interface	Standards	IEEE 802.3, 802.3u
	Data rate	10/100Base-TX, Half/Full duplex
Ethernet Interface	Connector	RJ45 10/100Base-TX
Indications	Power, ALM, E1 signal loss, E1 Alarm (AIS, LOF, RAI, LOMF), LAN link /ACT, 10/100M, SD (100Base-FX)	
Power Input	12VDC	
Power Consumption	< 6W	
Dimensions	140 x 88 x 24mm (D x W x H)	
Weight	130g	
Temperature	0 ~ 50°C (Operating), -10 ~ 70°C (Storage)	
Humidity	10 ~ 90% RH (non-condensing)	
Certifications	CE, FCC, RoHS Compliant	
MTBF	75,000 hrs	

Application



Ordering Information

Model Name	Description
FRM220A-iMux4T-R	10/100Base-TX to 4 E1 mux card with 4E1 RJ45 cable
FRM220A-iMux4T-B	10/100Base-TX to 4 E1 mux card with 4E1 BNC cable

FRM220A – iMux4T – ☐

Example: FRM220A – iMux4T – R

Note: This card must use CH01M, with serial console, to configure standalone settings.

When connected as a remote to a managed central chassis, this card supports in-band management and only needs a CH01 chassis.

Cable Type



RJ45 Cable



BNC Cable