



## Fast Ethernet In-band Managed Converter

# FRM220-10/100i

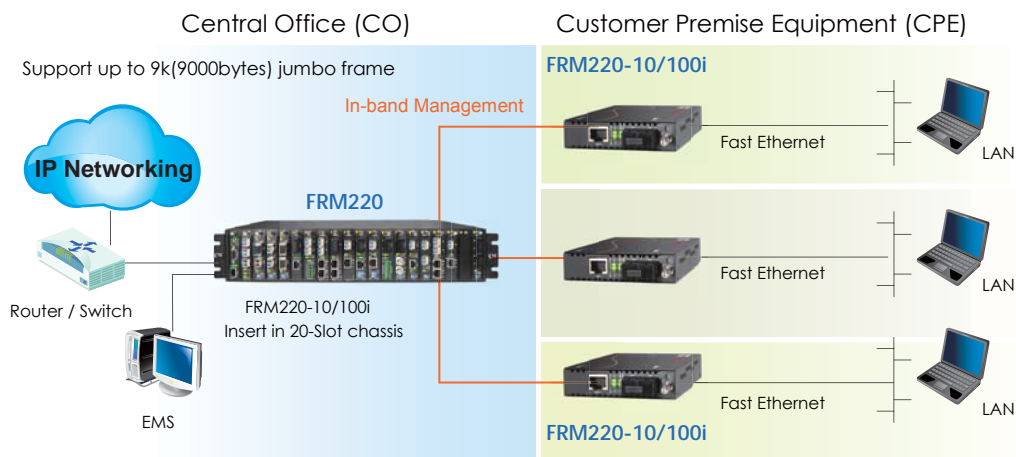
The FRM220-10/100i is a 10/100Base Ethernet to 100Base-FX fiber slide-in card converter designed for central and remote applications. With advanced features like bandwidth control, this media converter is targeted for customer premises equipment in metro LAN, campus, enterprise and FTx applications. By offering in-band management, this converter can be completely controlled and monitored from a centrally located managed rack controlling all converter settings including bandwidth control, duplex, and speed configuration. This media converter is completely transparent to Layer 2 and Layer 3 protocols including IEEE 802.1q, VLAN tag, Q in Q, STP, IPX, IP, etc.

### Features

- 10/100Base-TX to 100Base-FX Converter
- Auto-Negotiation or forced mode
- Supports remote CPE power fail detect (dying gasp)
- Supports Far End Fault
- Supports Link Fault Pass through (LFP)
- Supports Loop Back Test
- Supports RMON counter
- D/D function for supported SFP fiber transceiver
- Auto Laser Shutdown (ALS)
- Auto MDI/MDIX
- Forward 2046 bytes (max.) packets in switch mode
- Forward 9K jumbo packets in converter mode
- Supports Q in Q double tagged frame transparent
- Supports IEEE 802.1q Tag VLAN pass thru
- Supports local / remote In-band management (Monitor and Configure) by the SNMP manager.
- Bandwidth control (Nx32K or Nx512Kbps)
- Support flow control (Pause)
- Fiber Hardware Reset (FHR)
- Online local / remote f/w upgrade
- Must be placed in managed chassis to realize any management features

### Specifications

Optical Interface	
Connector	1x9 (SC, ST, FC)
Data rate	100Mbps
Duplex mode	Full duplex
Fiber	MM 50/125µm, 62.5/125µm. SM 9/125µm
Distance	MM 2km, SM 15/30/50/80/120km, WDM 20/40/60/80km
Wavelength	MM 1310nm, SM 1310,1550nm WDM 1310Tx/1550Rx (type A) 1550Tx/1310Rx (type B)
Electrical Interface	
Connector	RJ-45
Data rate	10Mbps, 100Mbps
Duplex mode	Half / Full duplex
Cable	10Base-T Cat.3, 4, 5, UTP, 100Base-TX Cat.5, 5e or higher
Standard	IEEE 802.3, IEEE 802.3u, TS-1000
Indications	LED (Power, FEF, FX-Link, TX-SPD, TX-Duplex, TX-Link)
Power Input	Card : 12VDC Standalone : AC, DC options
Power Consumption	< 4W
Dimension / Weight	155 x 88 x 23mm (D x W x H) ; 0.12kg
Temperature	0 ~ 60°C (Operating), -10 ~ 70°C (Storage)
Humidity	10 ~ 90% non-condensing
Certification	CE, FCC, LVD, RoHS
MTBF	65,000 hrs



### Ordering Information

Model Name	Description
FRM220-10/100i	10/100Base-TX to 100Base-FX In-band managed converter

Note: The card is suitable for using in CH01 standalone chassis.

Connector Type	Connectivity	Distance
FRM220 - 10/100i -	<input type="checkbox"/>	<input type="checkbox"/>
Example: FRM220 - 10/100i -	SC002	

Connector Type	Connectivity	Distance
SC, ST, FC	002: 2km 015: 15km 030: 30km 050: 50km 080: 80km 120: 120km	
	20A: WDM 20km A type 20B: WDM 20km B type 40A: WDM 40km A type 40B: WDM 40km B type	
	60A: WDM 60km A type 60B: WDM 60km B type 80A: WDM 80km A type 80B: WDM 80km B type	