In-band Managed Platform
FRM220-10/100 I

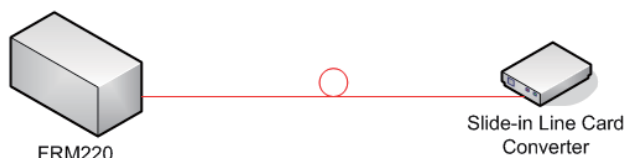### In-band Management Slide-in line card converter for FRM220 Series

The FRM220-10/100 I is a 10/100Base Ethernet to 100Base-FX fiber slide-in line card converter designed for CPE applications when connection to the FRM220 managed media converter platform. With advanced features like in-band management, this media converter is targeted for customer premises equipment in metro LAN, campus, enterprise and FTTx applications. By offering in-band management, this converter can be completely controlled and monitored from a centrally located managed rack to provide control over all converter settings including band-width 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

- Supports Loop Back Test
- Auto-Cross over for MDI/MDIX in TP port
- Supports far end fault (FEF) function
- Auto-Negotiation or Manual mode in TP port
- Supports link fault pass through (LFP) function
- Supports flow control
- Bandwidth control (32K or 512Kbps x N)
- Forward 2046 bytes (max.) packets in switch mode
- Forward 9K jumbo packets in converter mode
- Supports forwarding mode option
- Store and forward (switch) mode , Convert mode (small latency)
- Supports local or remote In-band management (Monitor and Configure status) by the SNMP manager in FRM220
- Supports remote CPE power fail detection (Dying gasp)
- Provides Auto Laser Shutdown (ALS) function
- Supports Fiber Hardware Reset (FHR) function
- Provides fiber transceiver information for management
- Supports On-Line In-band F/W upgrade (local or remote) by the SNMP manager in FRM220

Application

CO (Rack) to CPE (Stand-alone)
~In-band Management~

FRM220

Slide-in Line Card Converter

Specifications

LAN Interface Specification
- One RJ-45 female connector for straight or cross-over connection.
- Supports 10/100Base-T, Full, Half duplex n-way (Auto-Negotiation).
- Supports Full, Half duplex, 10M, 100M speed manual mode selections.
- Transmission Packet Rate for 10/100Base-T : 14880bps /148800bps.
- Copper TP cable 4 pair Cat. 3 or 5 UTP

Optical Interface Specification
- Transceiver Connector type：ST, SC & FC
- Wavelength(typical)：multi-mode: 1310nm；
        single-mode：1310nm/1550nm up to 120Km
        WDM：1310/1550nm or 1550/1310nm(A/B type) up to 80Km
- Supports Full, Half duplex selections
- Supports the auto-adjustment function, no extra attenuations needs.

General Specification

Complies with	IEEE 802.3 10Base-T, 802.3u 100Base-TX and 100Base-FX standards.
6 diagnostic LEDs :	Power / FEF / FX-Link ,TX-Speed / TX-Duplex / TX-Link
Temperature:	0 - 50° C (Operating); 0 - 70° C (Storage).
Humidity:	20-80% non-condensing (Operating); 10-90% (Storage).
Power:	DC Jack : Switching adaptor (12V, 400mA) Consumption: < 4W
Dimensions:	155mm x 88mm x 23mm (LxWxH).
Weight:	100g.
Compliance:	FCC part 15, Subpart B, Class A, ANSI C63.4:2003 CE EN55022:2006, Class A EN55024:1998+A1:2001+A2:2003 LVD: EN 60 950-1:2001
MTBF:	65,000 h (25°C)

Ordering Information

- **FRM220-10/100 I**   In-band Managed, 10/100Base-TX to 100Base-FX slide-in line card converter