FRM220-100AS-1

OAM/IP Managed 10/100Base-TX to 100Base-FX Media Converter

FRM220-10/100AS-2

2x 10/100Base-TX + 2x 100Base-FX OAM / IP Managed Switch

The FRM220-100AS-1and FRM220-10/100AS-2 are an IEEE802.3ah OAM compliant copper to fiber Fast Ethernet solution designed to make conversion between 10/100Base-TX and 100Base-FX with SFP. With stand-alone SNMP and Web-based management, the network administrator can monitor, configure and control the activity of each IEEE802.3ah series card and remotely connected OAM compliant converter. By offering IEEE802.3ah OAM in-band management, this converter can also be completely controlled and monitored from a centrally located managed rack. Based on a powerful L2 switch architecture, this converter supports bandwidth control, duplex and speed configuration, VLAN tagging, Q-in-Q, QoS, Spanning tree as well as auto laser shutdown, link fault pass through, OAM loop back and dying gasp.
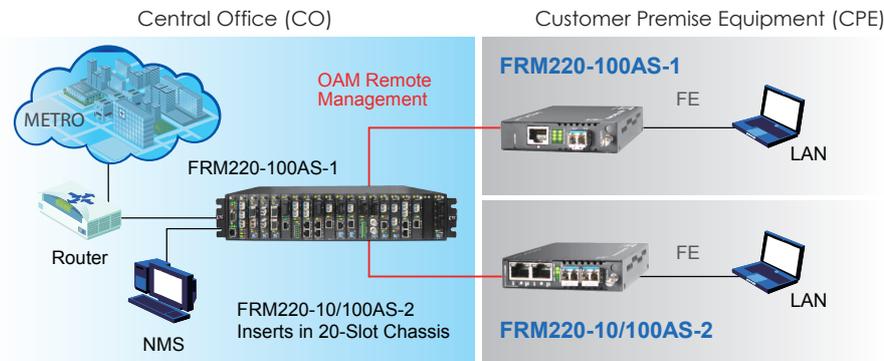
Features

- 10/100Base-TX to 100Base-FX SFP (100AS-1)
- 2x 10/100Base-TX + 2x 100Base-FX SFP (10/100AS-2)
- Supports local / remote IEEE802.3ah OAM/IP In-band management
- Stand-alone IP Based, Web GUI, Telnet, SNMP management
- Auto-Negotiation or forced mode
- Auto MDI/MDIX
- Supports IEEE 802.1Q Tagging
- Supports Q in Q double tagging
- Max. MTU size 10K bytes (100AS-1), 1536 bytes (10/100AS-2)
- Supports Flow control (Pause)

- Supports OAM remote loopback to assist in diagnosing network problems
- Supports bandwidth control
- Supports remote CPE power fail detect (dying gasp)
- Supports Far End Fault Indication (FEFI)
- Supports Link Fault Pass-Through (LFPT)
- Supports remote loopback
- D/D function for supported SFP fiber transceiver
- Auto Laser Shutdown (ALS)
- Online local / remote f/w upgrade
- Default port and IEEE802.1Q Tagging priority QoS
- SNMP trap and LED alarm for loss of light and loss of signal

Specifications

Optical Interface	Connector	SFP LC
	Data rate	100Mbps
	Duplex mode	Full duplex
	Fiber	MM 50/125μm, 62.5/125μm. SM 9/125μm
	Distance	MM 550m, 2km, SM15/30/50/80/120km WDM 20/40/60km
	Wavelength	MM 1310nm, SM 1310, 1550nm WDM 1310Tx/1550Rx (type A) 1550Tx/1310Rx (type B)

Power Consumption	< 12W
Dimensions	Card: 155 x 20.8 x 88mm (D x W x H)
Weight	120g

Electrical Interface	Connector	RJ45
	Data rate	10Mbps, 100Mbps
	Duplex mode	Half / Full duplex

Electrical Interface	Cable: 10Base-T Cat.3, 4, 5, UTP 100Base-TX Cat.5, 5e or higher
Standards	IEEE 802.3, IEEE 802.3u, IEEE 802.1Q, ITU-T G.664
Indications	LED : Power, FX-Link, FEF, TEST, Speed(10,100), FULL
Power Input	Card : 12VDC
	Standalone : AC, DC options
Temperature	Storage conditions
	Temperature range : -5~+45°C
	Relative Humidity : 5~95% Rh
	Absolute Humidity : 1~25g H2O/m^3
	Operation conditions
	Temperature range : -5~+45°C
	Relative Humidity : 5~95% Rh
	Exist conditions for condensation and icing
	Absolute Humidity : 1~29g H2O/m^3
Certification	CE, FCC, EN60950 LVD compliant
MTBF	65,000 hrs

Application

Central Office (CO) — METRO — FRM220-100AS-1 — Router — NMS — FRM220-10/100AS-2 Inserts in 20-Slot Chassis — OAM Remote Management

Customer Premise Equipment (CPE) — FRM220-100AS-1 — FE — LAN — FRM220-10/100AS-2 — FE — LAN

Ordering Information

Model Name	Description
FRM220-100AS-1	10/100Base-TX to 100Base-FX with OAM/IP-Based managed FE Media Converter (optional SFP)
FRM220-10/100AS-2	2x 10/100Base-TX + 2x 100Base-FX with OAM/IP Based Managed FE Switch (optional SFP)

Note: This card may use CH01M to provide console for initial TCP/IP settings, or use CH01 with default IP.