



iAccess™ Ethernet Aggregation Platform - FRM220A

The FRM220A series is an Ethernet based aggregation platform, which incorporates a 24+4 port L2 Gigabit Ethernet switch (FRM220A-GSW/SNMP-(n)) or a new 20+4 port L2 Gigabit Ethernet switch with 4x10Gigabit uplink (FRM220A-GSW/SNMP-10G). The FRM220A has a built-in Gigabit Ethernet backplane to interconnect the Ethernet access with the FRM220-GSW/SNMP card. The L2 switch card supports many advanced Layer 2 switch technologies including port and tag based VLAN, QoS, LACP, RSTP to name just a few. The FRM220A chassis solution significantly lowers the OPEX for operator and service provider when deploying fiber access networks.

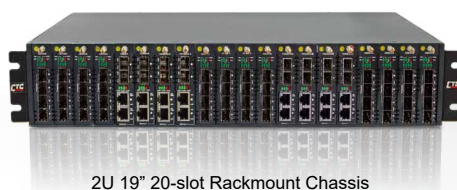
Specifications

| | | |
|-------------------------|--------------------|-------------------------------|
| Physical Specifications | Dimensions | 303 x 438 x 88 mm (D x W x H) |
| | Weight (w/o Power) | 5.2kg |
| Power | AC | 18~240VAC |
| | DC24 | 18~36VDC |
| | DC48 | 36~72VDC |

| | | |
|---------------|-----------|---|
| Temperatures | Operating | 0~60°C |
| | Storage | -10~70°C |
| Humidity | | 5%~90% non-condensing |
| MTBF | | 65,000 hrs |
| Certification | | FCC Class A, VCCI Class A, CE, RoHS compliant |

Chassis Overview

(Front Side)



2U 19" 20-slot Rackmount Chassis

(Rear Side)



Cooling Fan Redundant Power Cooling Fan
10G/1G Ethernet Aggregation Switch Card

1G/10G Uplink Ethernet Aggregation Switch Card

The FRM220A chassis incorporate an Ethernet trunk card (FRM220A-GSW/SNMP-10G), for grooming traffic from all twenty (20) card slots and for Device Management. This card has four (4) uplink ports of either 1G/10G SFP+, depending on model, and is built with GbE interfaces to connect the backplane with each slot of FRM220A chassis. The FRM220A-GSW/SNMP-10G Ethernet switch trunk card transmits Ethernet between the subscriber equipment (bridge/modem or network interface card) and provides a user-networking interface with Ethernet packets.

FRM220A-GSW/SNMP-10G

10G uplink Ethernet Aggregation Switch Card with In-Band Management



FRM220A-GSW/SNMP(n)

Gigabit uplink Ethernet Aggregation Switch Card with In-Band Management



- Provides chassis aggregation via 4x1G/10Gigabit Base-X SFP/SFP+ plus 4x10/100/1000Base-T uplink ports
- Supports IEEE 802.1p HW based 8 priority queues and L2~L4 QoS functions
- Supports IPv6 management
- Provides Web (https), Telnet, SSHv2, SNMP(V1, V2c, V3) management interfaces
- Supports secure authentication by IEEE802.1x, RADIUS or TACACS+
- Supports IEEE802.1D/802.1w/802.1s for ring protection on all interfaces
- Supports IEEE 802.1Q tagged VLAN and IEEE 802.1ad Q-in-Q application

FRM220 Module Cards

The products listed below are designed for FRM220A-CH20 Ethernet Aggregation Applications

FRM220A-1000EAS/X



- 2-port 10/100/1000Base-T and 2-port 100/1000Base-X SFP
- Supports local / remote IEEE 802.3ah OAM / IP In-band management
- Standalone IP Based, Web GUI, Telnet, SNMP management
- Auto-Negotiation or forced mode
- Supports IEEE 802.1Q Tagged and Port based VLAN
- Supports remote CPE power fail detect (dying gasp)
- Supports Link Fault Pass-Through (LFPT)
- Loop Protection

FRM220A-GSW40S



NEW

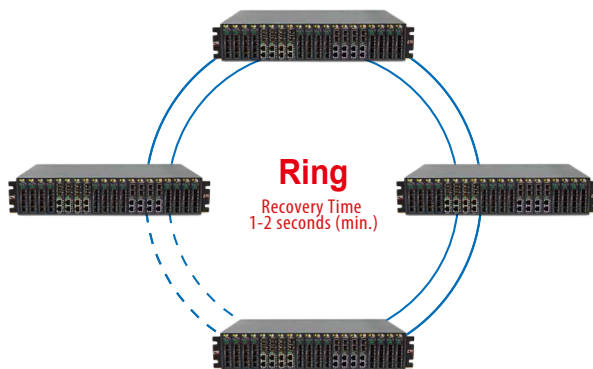
- 4-port 100/1000Base-X SFP
- Supports local / remote IEEE 802.3ah OAM / IP In-band management
- Standalone IP Based, Web GUI, Telnet, SNMP management
- Supports IEEE 802.1Q Tagged and Port based VLAN
- Supports dying gasp
- Spanning Tree Protocol
- Online local / remote f/w upgrade
- Auto Laser Shutdown (ALS)

Benefit of FRM220A Chassis Platform

Enabling IP Transportation Protection Mechanism

- STP/RSTP Featured Ring Protection

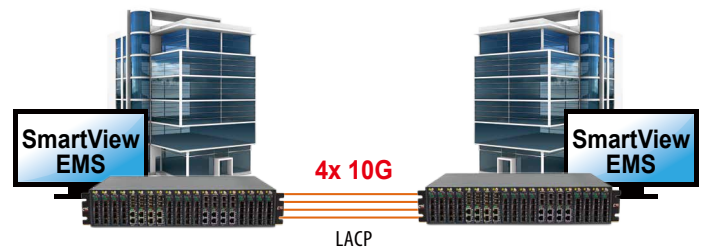
- Standard based but advanced fault protection systems
- Rapidly recovery path from failed connection (1-2 seconds min. recovery time)



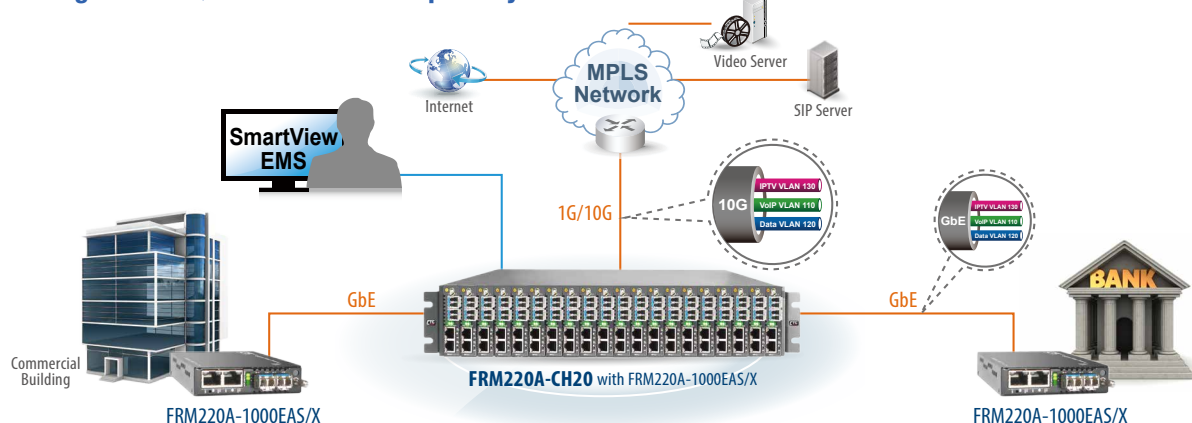
LACP Enabled Traffic Aggregation

- Fiber Redundant / Trunking Application

- Dynamic port aggregation or trucking to increase bandwidth between LACP peer devices
- Redundant paths to reduce network fault risk



Enabling VLAN & QoS Prioritized Multiple Play Services



Secured Access Control Enhancement - Centralized Management of Accessing the Network for user or device

