

# FRM220-MX210

10/100/1000Base-T + 3x 100/1000/2500Base-X and 100/1000Base-X L2+ Gigabit Carrier Ethernet Switch (EDD)



The FRM220-MX210 is a carrier class Ethernet Demarcation Device (EDD) with 10/100/1000Base-T Ethernet ports + 2x 100/1000/2500Base-X and 100/1000Base-X SFP fiber ports which enables EPL (Ethernet Private Line) & EVPL (Ethernet Virtual Private Line) services with advanced carrier Ethernet features per the Metro Ethernet Forum (MEF 9 and 14). By supporting link and service Ethernet OAM schemes, the FRM220-MX210 also provides extensive fault detection and diagnostic capabilities to ensure that actual network use complies with pre-agreed service level agreements (SLAs).

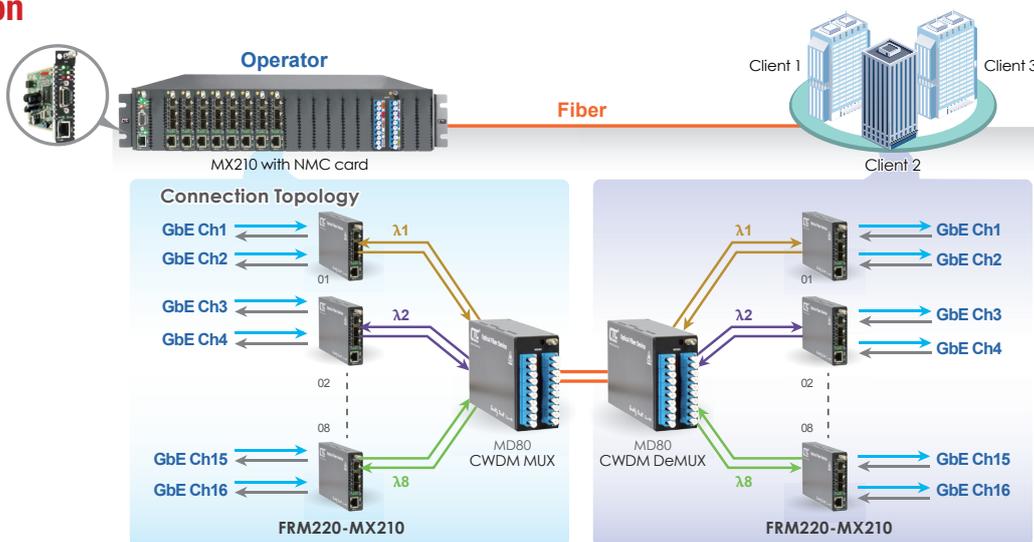
## Features

- Complies with MEF CE1.0
- Supports 8K MAC
- Spanning Tree 802.1D, 802.1s, 802.1w
- Supports 802.1Q / 256 active VLANs
- Double VLAN Tagging (C-tag/S-tag) (IEEE 802.1ad) support for ISP application
- Various QoS capability (MAC/port/802.1p/Diffserv)
- Port-based rate limiting
- DHCP Snooping
- IGMP Snooping
- IPv6 support
- IEEE 802.3x and IEEE 802.1x support
- Jumbo frame for up to 9.6K
- Extensive Ethernet OAM support
- IEEE 802.3ah, IEEE 802.1ag, ITU-T Y.1731
- SNMP v1/v2c/v3, Telnet, Web GUI
- IEEE 1588 V2 aware (Optional)

## Specifications

|                             |  |  |                          |   |
|-----------------------------|--|--|--------------------------|---|
| <b>Optical Interface</b>    | Port1/Port2  | 100Base-FX, 1000Base-X or 2500Base-X SFP-LC  | <b>Qos Feature</b>       | IEEE802.1p priority tag remarking, DSCP remarking, Port based ingress/egress rate limit |
|                             | Port3  | 1000Base-FX or 1000Base-X SFP-LC   |                          | <b>L2 switching Protection</b>  |
| <b>Electrical Interface</b> | Port4  | 10/100/1000Base-T RJ45 MDI/MDIX auto crossover IEEE802.3x flow control<br>(Supports manual 10,100,1000Base-T, Full, Half duplex, or n-way (Auto-Negotiation) each channel) | <b>Trunking</b>          |   |
|                             | <b>Standards</b>   | IEEE 802.3 10Base-T, IEEE 802.3u, 100Base-TX, 100Base-FX, IEEE 802.3z 1000Base-X, IEEE 802.3ab, 1000Base-T   | <b>Power</b>             | 12VDC   |
| <b>LEDs</b>                 | PWR, Link (Port1, Port2, Port3) Port4: Link/Speed  |  | <b>Power Consumption</b> | < 12W   |
| <b>VLAN Feature</b>         | IEEE 802.1Q tagged VLAN, port based VLAN, MAC based VLAN, protocol based VLAN, private VLAN, IEEE 802.1ad Q-in-Q |  | <b>Dimensions</b>        | Card: 155 x 20.8 x 88mm (D x W x H)   |
| <b>Qos Feature</b>          | IEEE 802.1p 8 priority queues per port, Cos based on switch port; VLAN ID; TCP/UDP port.                         |  | <b>Weight</b>            | 120g  |
|                             |  |  | <b>Temperature</b>       | 0 ~ 50°C (Operating), -10 ~ 70°C (Storage)  |
|                             |  |  | <b>Humidity</b>          | 20 ~ 80% non-condensing (Operating); 10 ~ 90% (Storage)                                 |
|                             |  |  | <b>Certification</b>     | CE, FCC   |
|                             |  |  | <b>MTBF</b>              | 65,000 hrs  |

## Application



## Ordering Information

| Model Name   | Description  |
|--------------|--|
| FRM220-MX210 | 10/100/1000Base-T + 2x 100/1000/2500Base-X + 100/1000Base-X OAM Managed Switch |

### Note:

To support console Interface management, this card must be placed in CH01M chassis.