



## FRM220-MX210 2-Port Gigabit Ethernet Muxponder

FRM220-MX210 is 4-port Gigabit Ethernet Muxponder which is able to aggregate two wire-speed Gigabit Ethernet services into one 2.5G uplink, reducing CAPEX by effectively increasing fiber utilization. The Multiplexer, based on L2 Ethernet switch technology, can be used either in point-to-point topology, functioning as a media converter for transporting 2 Gigabit Ethernet services over one fiber, or in CWDM systems working as a wavelength converter for extending transmission capacity. FRM220-MX210 is equipped with one 10/100/1000M RJ-45 network management port and three SFP based ports: one 1G Ethernet service port and two 1G/2.5G service/uplink ports. Additionally its advanced features such as downlink and uplink loop back, auto laser shutdown and remote network management provide carriers a flexible, reliable and cost-effective two Gigabit Ethernet over one wavelength conversion solution.

### Features

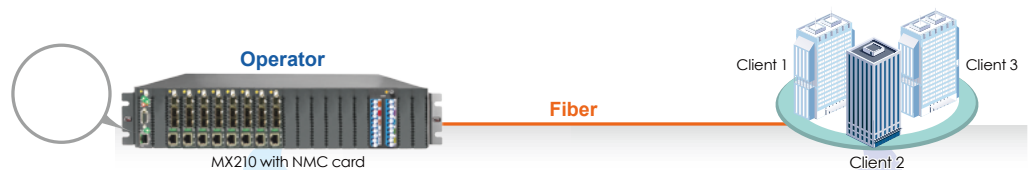
- Complies with MEF CE1.0
- Supports 8K MAC
- Spanning Tree 802.1D, 802.1s, 802.1w
- Supports 802.1Q / 256 active VLANs
- Double VLAN Tagging (C-tag/S-tag) (IEEE 802.1ad) support for ISP application
- Various QoS capability (MAC/port/802.1p/Diffserv)
- Port-based rate limiting
- DHCP Snooping
- IGMP 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
<b>Electrical Interface</b>	Port3	100Base-FX or 1000Base-X
	Port4	RJ45
		10/100/1000Base-T MDI/MDIX auto crossover IEEE802.3x flow control
<b>Standards</b>	IEEE 802.3, 802.3u, 802.3z, 802.3ab	
<b>LEDs</b>	PWR, Link (Port1, Port2, Port3) Port4: Link/Speed	
<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>Qos Feature</b>	IEEE 802.1p 8 priority queues per port, Cos based on switch port; VLAN ID; TCP/UDP port.	

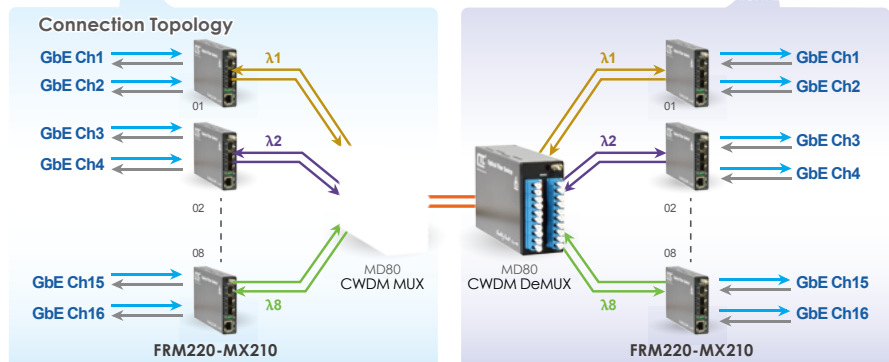
<b>Qos Feature</b>	IEEE802.1p priority tag remarking, DSCP remarking, Port based ingress/egress rate limit
<b>L2 switching Protection</b>	STP, RSTP, MSTP, ITU-T G8031/G.8032
<b>Trunking</b>	IEEE 802.3ad LACP
<b>Power</b>	12VDC
<b>Power Consumption</b>	< 10W
<b>Dimensions</b>	155 x 88 x 23mm (D x W x H)
<b>Weight</b>	120g
<b>Temperature</b>	0 ~ 50°C (Operating), -10 ~ 70°C (Storage)
<b>Humidity</b>	5 ~ 90% non-condensing
<b>Certification</b>	CE, FCC, RoHS compliant
<b>MTBF</b>	65,000 hrs

### Application



#### In-band Management MX210

- IP address configuration
- Port Configuration—speed, flow control, max frame, traffic statistics
- VLANs configuration
- Mux Mode configuration
- DDM information
- Device Reset
- Set to Default
- Save Startup Configuration



### Ordering Information

Model Name	Description
FRM220-MX210	2-port Gigabit Ethernet Muxponder for transporting two Gigabit Ethernet over one 2.5G Fiber

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