

FRM220-MSW202

2x 10/100/1000Base-T + 2x 100/1000Base-X
L2+ Carrier Ethernet Switch (EDD)



The FRM220-MSW202 is a carrier class Ethernet Demarcation Device (EDD) with 2 x 10/100/1000Base-T Ethernet ports and 2x 100/1000Base-X dual rate 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-MSW202 also provides extensive fault detection and diagnostic capabilities to ensure that actual network use complies with pre-agreed service level agreements (SLAs). This card may be controlled and monitored via an NMC in a managed chassis or used as a completely manageable device when used stand-alone. Stand-alone management is supported by Telnet/SSH, HTTP/HTTPS and SNMP v1, v2C or v3.

Features

- Complies with MEF CE1.0
- Supports 8K MAC
- Spanning Tree 802.1D, 802.1s, 802.1w
- Supports 802.1Q / 4K 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

Interface	100/1000Mbps SFP slots x 2 + 10/100/1000Base-T RJ45 x 2	Management	Web/Telnet CLI/SNMP/console interface, Web/CLI authentication, SSH v2, HTTPs, port mirroring, syslog, IPv6 management, NTP, SNTP, sFlow
Filter & Forward Rate	14880pps at 10Mbps, 148800pps at 100Mbps, 1488000pps at 1Gbps	SNMP Agent	SNMP v1/v2c/v3, RMON Group 1,2,3 and 9
Switching Fabric Capacity	8Gbps	Software Upgrade	TFTP/HTTP
Transmission Method	Store and Forward Switching	Ethernet OAM	IEEE 802.3ah, IEEE 802.1ag, ITU-T Y.1731
Standard	IEEE 802.3u, IEEE 802.3z, IEEE 802.3ab, IEEE 802.3x, IEEE 802.1p, IEEE 802.1Q, IEEE 802.1ad, IEEE 802.1D, IEEE 802.1w, IEEE 802.1s, IEEE 802.1x, IEEE 802.3ad, IEEE802.3ah, IEEE802.1ag, ITU-T Y.1731, ITU-T G.8031, ITU-T G.8032	LED Display	Power, System, Console, Link, Speed/Act
Packet Buffer	4M bits	Power Input	100V ~ 240VAC, -18 ~ -72VDC
MAC Table Size	8K	Power Consumption	< 12W
Max. Packet Size	9.6K Bytes	Operating Temperature	0 ~ 50°C
VLAN Feature	IEEE 802.1Q tagged VLAN(Max. 4K VLAN groups), port based VLAN, MAC based VLAN, protocol based VLAN, private VLAN, IEEE 802.1ad Q-in-Q, VLAN translation, GVRP	Humidity	5% ~ 90% (non-condensing)
QoS Feature	IEEE 802.1p 8 priority queues per port, CoS based on switch port; VLAN ID; DSCP; TCP/UDP port, IEEE 802.1p priority tag remarking, DSCP remarking, Port based ingress/egress rate limit, 3 colors marker-CIR/EIR/Burst bandwidth control	Dimensions	Card: 201 x 135 x 35 mm (D x W x H)
L2 switching protection	STP, RSTP, MSTP, ITU-T G.8031/G.8032 Ethernet ring protection	Regulatory	FCC, CE
Trunking	IEEE 802.3ad LACP(Max. 2 trunking group, Max. 4 ports per trunking group)		
Security	IEEE 802.1x port based access control, MAC based access control authentication, RADIUS authentication, limited MAC address learning, IP/MAC binding, ACL rule based filtering, TACACS+, IP source guard, DHCP snooping/relay option 82, ARP inspection		
IP Multicasting	IGMP throttling, IGMP filtering, IGMP fast leave, IGMP snooping v1/v2/v3, MVR, MLD snooping v1/v2		
Storm Control	Unicast/Broadcast/Multicast storm suppression		

Application



Ordering Information

Model Name	Description
FRM220-MSW202	2x 10/100/1000Base-T + 2x 100/1000Base-X OAM Managed Switch

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