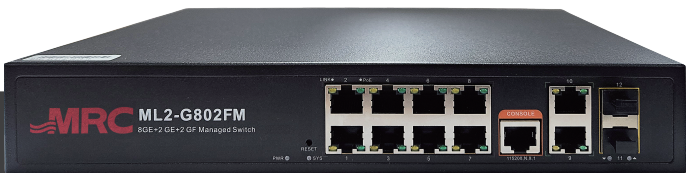


ML2-G802FM

FIBER OPTIC L2 Switch

GENERAL DESCRIPTION

This product is an L2 Switch that provides 10/100/1000Mbps on 10 ports and utilizes 100/1000Mbps SFP 2 ports for transmission via optical cables. Built to withstand extreme conditions, our IEC 60945 compliant equipment withstands harsh maritime conditions (temperature, humidity, vibration, EMI) for reliable and safe navigation and operation.



PRODUCT INFORMATION

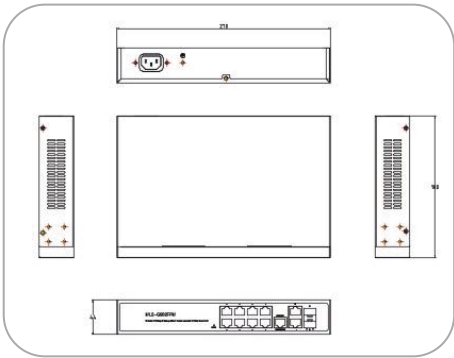
FEATURES

- 100/1G SFP 2 port
- 10/100/1000M 8port + Uplink 2Port Console 1 port
- IEEE802.3 10Base-T, 802.3u 100Base-TX and 100Base-FX, 802.3ab 1000Base-TX
- 24G backplane bandwidth
- SNMP v1/v2,/ RMON(groups1,2,3,9), Telnet, CLI,WEB Management
- 10/100/1000Mbps Auto-Negotiation
- Full-Duplex, Half-Duplex mode Auto-negotiation
- Support G.8032 ERPS(Ethernet Ring Protection Switching)

APPLICATION

- CCTV, ITV and Traffic Control System
- Ship Network
- Community Network
- Security System
- Process Control and Monitoring System

Dimensions



Width	270mm
Height	44mm
Depth	180mm

Standard configuration	10Port 10/100/1000M RJ-45 MDI/MDI-X, auto-adaptable interfaces 2Port 100/1000M SFP, 1 Console port		
Flash	16MB	MAC table	16K
RAM	128MB	Jumbo frame	10K
Forwarding	17.86Mpps	Size	270*188*44mm
Backplane	24Gbps	Weight	2.2Kg
Switching	Store forwarding		
Power Source	90-240VAC (auto-adaptable), 50-60Hz, 1A/230V Max. 30W		
Power consumption	20W		
Indicator	Power:PWR((green), system :SYS(green), network ; Link/Act(yellow),Fiber port: L/A(green).		

Environment	Working temperature: -20~ 55℃ Storage temperature: -40~75℃ Humidity: 5-90% no condensation
STP	IEEE 802.1D STP IEEE 802.1w RSTP IEEE 802.1S MSTP
VLAN	4K VLAN based on port, IEEE802.1q VLAN based on the protocol VLAN based on MAC Voice VLAN, QinQ configuration Port configuration of Access, Trunk, Hybrid
Port Aggregation	LACP, Static aggregation Max 5 aggregation groups and 8 ports per group.
Industrial Ring Network	G.8032 (ERPS), Recovery time less than 20ms
Protocol	255 Ring at most, Max 1024 devices per ring
Port Mirroring	Bidirectional data mirroring based on port
DHCP	DHCP Client, DHCP Snooping, DHCP Server, DHCP Relay
Multicast	IGMP Snooping v1/v2, Max 1024 multicast groups, Fast log out MLD Snooping v1/v2, Multicast VLAN
Security features	User hierarchical management and password protection SSH 2.0, SSL, Port isolation,ARP message speed limit Broadcast storm control, Backup for host datum IEEE802.1X & MAC address authentication Mac black holes, IP source protection AAA & RADIUS, MAC learning limit ARP inspection,Anti-DoS attack IP-MAC-VLAN-Port binding
QoS	Diff-Serv QoS, Priority Mark/Remark 8*Output queues of each port 802.1p/DSCP priority mapping Queue Scheduling Algorithm (SP, WRR, SP+WRR) Flow-based Packet Filtering Flow-based Redirection Flow-based Rate Limiting
ACL	L2 to L4 packet filtering, matching first 80 bytes message. Provide ACL based on MAC, Destination MAC address, IP Source, Destination IP, IP Protocol Type, TCP/UDP Port, TCP/UDP Port Range, and VLAN, etc. Port-based Issuing ACL. ACL based on port and VLAN
Management	Console/AUX Modem/Telnet/SSH2.0 CLI Web Management (HTTPS) Download & Management on FTP, TFTP, Xmodem, SFTP, SNMP V1/V2C/V3 One-key recovery NTP, System work log,Ping Test Cable Diagnose, LLDP CPU instant utilization status view NMS - Smart Network Management System Platform (LLDP+SNMP)

ML2-G2404FM

FIBER OPTIC L2 Switch



GENERAL DESCRIPTION

This product is an L2 Switch that provides 10/100/1000Mbps Ethernet UTP 24Ports and utilizes Giga SFP 4Ports for transmission via optical cables. Built to withstand extreme conditions, our IEC 60945 compliant equipment withstands harsh maritime conditions (temperature, humidity, vibration, EMI) for reliable and safe navigation and operation.

PRODUCT INFORMATION

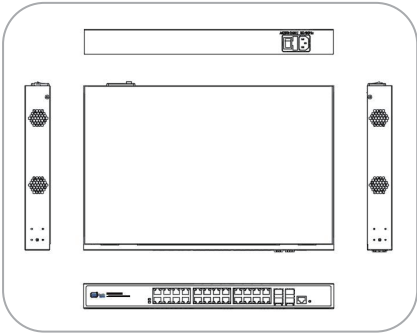
FEATURES

- 10/100/1000M 24 port, Giga SFP 4 port
- IEEE802.3 10Base-T, 802.3u 100Base-TX and 100Base-FX, 802.3ab 1000Base-TX
- Network GUI based management and Web support
- Network Security port Enable/Disable, MAC Based Port Security
- Support IEEE 802.1xPort Authentication, User Management and Password
- Support IEEE 802.3x Flow Control Network GUI based management and Web Support
- Support IEEE 802.1D/1W/1S STP/RSTP/MSTP
- Support G.8032 ERPS(Ethernet Ring Protection Switching)
- (TSS) Thyristor Surge Suppressor applied for lightning protection on each port basis

APPLICATION

- CCTV, ITV and Traffic Control System
- Ship Network
- Community Network
- Security System
- Process Control and Monitoring System

Dimensions



Width	440mm
Height	44mm
Depth	290mm

Standard configuration	24-Port 10/100/1000Base-T(PoE) + 4-Port SFP		
Flash	16MB	MAC table	8K
RAM	128MB	Jumbo frame	10K
Forwarding	41.67Mpps	Size	440*290*44mm
Backplane	56Gbps	Weight	4.4Kg
Switching	Store forwarding	Reset Switch	Yes, One-button factory reset
LED Indicator	Power:PWR(yellow), System :SYS(yellow), Network ;Link/Act(yellow), POE: PoE (green), Fiber port: L/A(green)		
Power Consumption	Backpressure is adopted for half-duplex, Standby:<18W; Full load:<30W		
Interface	IEEE802.3X (Full-duplex) Broadcast storm control based on port speed Port real-time traffic management (Flow Interval) The speed limit of the message flow in the access port. The minimum particle size is 1Gbps.		

Layer 3 Features	L2+ Network management IPV4 management Static route, Default route @ 128 pcs, APR @ 1024 pcs
VLAN	VLAN based on the protocol 4K VLAN based on port, IEEE802.1q Port configuration of Access, Trunk, Hybrid
Port Aggregation	LACP, Static aggregation Max 14 aggregation groups and 8 ports per group.
Spanning Tree	STP (IEEE802.1d), RSTP (IEEE802.1w), MSTP (IEEE802.1s)
Multicast	IGMP Snooping v1/v2, Max 1024 multicast groups, Fast log out Multicast VLAN
Port Mirroring	Bidirectional data mirroring based on port
QoS	Flow-based redirection, Flow-based rate limiting Flow-based packet filtering, 8*Output queues of each port 802.1p/DSCP priority mapping Diff-Serv QoS,Priority Mark/Remark Queue Scheduling Algorithm (SP, WRR, SP+WRR)
ACL	Port-based Issuing ACL ACL based on port and VLAN L2 to L4 packet filtering, matching first 80 bytes message. Provide ACL based on MAC, Destination MAC address, IP Source, Destination IP, IP Protocol Type, TCP/UDP Port, TCP/UDP Port Range, and VLAN, etc.
DHCP	DHCP Client,DHCP Snooping,DHCP Server
Security	IP-MAC-VLAN-Port binding ARP inspection,Anti-DoS attack AAA & RADIUS,MAC learning limit Mac black holes,IP source protection Broadcast storm control,Backup for host datum SSH 2.0,SSL,Port isolation,ARP message speed limit User hierarchical management and password protection
Indicator	90~240VAC (auto-adaptable), 50-60Hz indicator, 10/100M indicator
Environment	Working temperature: -20 ~ 55°C Storage temperature: -40 ~ 75°C Humidity: 5-95% no condensation
Lightning protection/ protection level	Lightning protection: 4KV 8/20us; Protection level: IP30