

**JMG-2400M**

Features

- ✓ **High Performance Network Switching Technology**
- ✓ Complies with IEEE 802.3, IEEE 802.3u, IEEE802.3z, IEEE802.3ab, IEEE802.3x, IEEE802.3ad, IEEE802.1w, IEEE802.1p, IEEE802.1q, IEEE802.1x, IEEE 802.1ab
- ✓ Modules selectable:
8 x 10/100/1000T RJ45, 8 x 1000T Fiber, 8 x 1000T SFP
- ✓ Provides broadcast storm protection
- ✓ IGMP snooping for multicast traffic
- ✓ QoS / ToS to increase network packet determinism
- ✓ VLAN for easy network planning
- ✓ Port trunking with flexible load distribution control and fail-over function
- ✓ Supports IP security
- ✓ Supports Web/ SNMP / Telnet / CLI management
- ✓ Supports LLDP
- ✓ **Robust Industrial Design**
- ✓ Metal case complying to IP-20 housing standard
- ✓ Rack mount or desktop installation
- ✓ **Reliable Power Design**
- ✓ Supports 2 Fans with failure detection power detection technology
- ✓ Supports AC 100~240V 50/60Hz, optional redundant Power: DC (12V~48V)



Overview

The JMG-2400M is a new generation Modular Managed Enterprise switch with an optimized platform which offers a flexible, cost-effective LAN solution with high quality and reliability in 10/100/1000 scalable solutions that integrate easily into any network over twisted pair and fiber optic cable. Jaguar JMG-2400M comes with a hot swappable three slot modular design for low cost of ownership. It allows different optional modules like 8-port 10/100/1000T RJ-45, 8-port 1000T fiber, 8-port 1000T SFP, 8-port 1000SX multimode, 8-port 1000SX single mode and 4-port 10/100/1000T with 4-port SFP. JMG-2400M is configurable through WEB, Telnet and Console and SNMP. The switch provides user with high-speed network connections with a store-and-forward architecture for abnormal packet filtering. This switch also supports STP/RSTP to maintain a loop-free network and IGMP to limit the flow of IP multicast traffic. JMG-2400M supports VLAN up to 2048 groups and provides port security for improved network security. The modularized design is suitable to meet mission critical applications for backbone use.

Hardware Specifications

Interface

Ports:

RS-232 console: 1 x DB-9 Female
 Gigabit copper module: 8 x RJ-45
 MINI GBIC module: 8 x MINI GBIC (SFP) socket
 Gigabit Fiber module: 8 x SC for Gigabit SX or LX
 Gigabit copper + MINI GBIC module: 4 x RJ-45 + 4 x MINI GBIC

LEDs:

System Power
 Gigabit copper module: Link/Activity, Full duplex/collision
 Gigabit Fiber module: Link/Activity
 MINI GBIC module: Link/Activity
 Gigabit copper + MINI GBIC module: RJ-45 (Link/Activity, Full duplex/ collision), SFP (Link/Activity)

Power Input: AC 100 to 240V 50/60Hz

Power Consumption: 35 watts

Dimensions: IP-20 standard, 440 mm(W) x 44 mm(H) x 224 mm(D)

Ventilation: 2 FAN with failure detection, Power detection

Environmental

Operating Temp: Regular: 0 to 60°C

Storage Temp: -40 to 85°C (-40 to 185°F)

Operating Humidity: 5% to 90% RH (non-condensing)

Technical Specifications

Standard:

IEEE 802.3 10BASE-T
 IEEE 802.3u 100BASE-TX
 IEEE 802.3z Gigabit fiber
 IEEE 802.3ab 1000Base-T
 IEEE 802.3x Flow control and Back pressure
 IEEE 802.3ad Port trunk with LACP
 IEEE 802.1w Rapid spanning tree
 IEEE 802.1p Class of service
 IEEE 802.1q VLAN Tagging
 IEEE 802.1x User authentication
 IEEE 802.1ab LLDP

Protocol Technology: CSMA/CD

Switching Architecture: Store and Forward

Performance

Data Transfer Rate:

14,880 pps for Ethernet port
148,800 pps for Fast Ethernet port

Jumbo Frame: 10KB

MAC Address: 16K

Packet Buffer: 6Mbytes

Regulatory Approvals

EMI: FCC Class A

EMI:

EN61000-4-2, EN61000-4-3, EN-61000-4-4, EN61000-4-5
EN61000-4-6, EN61000-4-8, EN61000-4-11

Safety: CE/EN60950

Shock: IEC60068-2-27

System Memory: 32Mbytes

Back-plane: 48 Gbps

Vibration: IEC60068-2-6

Free Fall: IEC60068-2-32

Environmental: WEEE, RoHS

MTBF: 350,000 hrs based on Mil-Hdbk-217F, GB

Warranty: 3 years

Management Specifications

Management Protocols:

SNMP v1/v2c, Telnet, RMON1, CLI and Web management

SNMP MIB:

RFC 2863 Interface Group MIB,
RFC 1213 MIBII,
RFC 1493 Bridge MIB,
RFC 2674 VLAN MIB,
RFC 1643 Ethernet Like MIB,
RFC 1215 Trap MIB,
RFC 1757 RMON MIB,
Private MIB

SNMP Trap:

Cold start/Warm start trap, Link down/Link up trap, Authentication fail trap,
Fan fail trap, Power event trap

Flow Control:

IEEE802.3x Flow control: Flow control for 10/100/1000 full duplex,
Back pressure for 10/100 half duplex

Port Trunk:

Support IEEE802.3ad with LACP function.
Up to 7 trunk groups, trunk member up to 8 ports and include 2 uplink ports

Spanning Tree:

IEEE802.1w Rapid Spanning tree protocol

VLAN:

Port-based VLAN, up to 24 groups, IEEE802.1Q Tag VLAN
Static VLAN groups up to 4K entries
Dynamic VLAN groups up to 2048, the VLAN ID can be assigned from 1 to 4094.
GVRP

Quality of Service:

Port based, Tag based, IPv4 Type of service, IPv4 Different service

Class of Service:

Per port 8 priority queues and support strict and WRR priority rule.
Weight round ratio (WRR): 14: 12: 10: 8: 6: 4: 2: 1

IGMP Snooping:

IGMP snooping v1,v2
256 multicast groups and IGMP query

Port Security:

128 entries of MAC address for static MAC and another 128 for MAC filter

Port Mirror:

3 mirroring types: "RX, TX and Both packet"

Bandwidth Control:

Per port supports ingress rate limiting and egress rate shaping control
The rate limiting and rate shaping can be setting 64kbps by each level
(64kbps, 128kbps,256kbps...etc)

IP Security: IP address security to prevent unauthorized intruder

802.1x Authentication:

Supports IEEE802.1x User-Authentication, and can report to RADIUS server
Reject
Accept
Authorize
Disable

Access Control List:

The system provides control list on Source IP & Destination IP

DHCP: DHCP client and DHCP Server

DNS:

Provides DNS client feature and supports Primary and Secondary DNS server

System Log:

1000 records (Maximum)
Provides remote storage ability and
also can view the log by Web/Telnet/SNMP interface

SNTP: Supports RFC 2030 SNTP client

SMTP:

System supports 5 mail accounts and 2 Mail servers for Primary and Secondary
The SMTP will auto send event message to supervisor whom is pre-defined
in the SMTP system through the pre-defined mail server.

LLDP: Supports IEEE 802.1ab Link Layer Discovery Protocol