

MS-0828X

8+28 Port Industrial Managed Ethernet Switch with 10G Uplink



- 8x Gigabit Ethernet ports
- 4x 1/10 Gigabit Ethernet SFP+ Slot
- 24x 100/1000F(x) SFP Slot
- Built for harsh environments and wide temperature range application
- RSTP, MSTP, ERPS, LACP for Network Redundancy
- QoS CoS/DSCP to increase determinism
- Supports IGMP Snooping v1/v2/v3, up to 4096 groups
- DHCP Relay Option 82 for policies IP address assignment
- SNMP v1/v2c/v3 for network management
- Supports Storm Protection
- USB storage for configuration-free replacement
- Supports industrial automation protocols Ethernet/IP and Modbus TCP

Specifications

Technology

IEEE 802.3 10BaseT
IEEE 802.3u 100BaseTX
IEEE 802.3ab 1000BaseT
IEEE 802.3z 1000BaseX
IEEE 802.3ae 10GBase over Fiber
IEEE 802.3x Flow Control
IEEE 802.3az Energy-Efficient Ethernet
IEEE 802.3ad/802.1AX LACP
IEEE 802.1D Spanning Tree Protocol
IEEE 802.1w Rapid STP
IEEE 802.1s Multiple STP
ITU-T G.8032 / Y.1344 ERPS
IEEE 802.1Q VLAN Tagging
IEEE 802.1ad Stacked VLANs
IEEE 802.1p Class of Service
IEEE 802.1X Network Authentication
IEEE 802.1AB LLDP
IEEE 1588 PTP

Standards

Processing Type Store and Forward

Switch Properties

Switch Fabric 160Gbps

Priority Queues 8 Queues

Jumbo Frame 12288byte

MAC Table Size 32K

Packet Buffer 32Mbits

VLAN Table Size 4094

IGMP Group 4096

ACL Group 4096

Software Feature

Network Redundancy RSTP, MSTP, G.8032 ERPSv2, Port Trunking with LACP

Security 802.1X, RADIUS, TACACS+, SSL, SSH, ACL

Management IPv4, IPv6, Web, Telnet, Serial Console, CLI, SFTP, SNMP v1/v2c/v3, uPnP

Diagnostics RMON, SNMP Inform/Trap, Syslog, SMTP, Port Mirroring, LLDP, Cable Diagnostic, RSPAN

Configuration DHCP Server/Client, Relay Option 82, TFTP, USB

Filter 802.1Q VLAN, Q-in-Q, IGMP Snooping v1/v2/v3, IGMP Querier, Independent Vlan Learning

Time Sync. NTP, IEEE1588v2 OC (Software Timestamp), TC (Hardware Timestamp)

QoS CoS, DSCP, WRR/SPQ Queuing, Storm Protection, Bandwidth Control

Industrial Profiles Ethernet/IP, Modbus TCP, Profinet

Interface

RJ45 Port 8x 10/100/1000T(x), auto negotiation speed duplex mode, auto MDI/MDI-X

Fiber Port	4x 1/10 Gigabit Ethernet SFP+ Slot 24x 100/1000F(x) SFP Slot
LED Indicators	Per unit: PWR1, PWR2(AC2/DC2), Fault, Ring Master, Ring State Ports: Link/Active with highest speed(Green), low speed(Amber)
Alarm Contact	1x relay output with current carrying capacity of 1A @ 24 VDC
Digital Inputs	1x isolated input from the electronics. +13 to +30V for state "1" -30 to +3V for state "0" Max. input current: 8mA
Button	Multiple functions reset button
Serial Console	1x RS232 in RJ45 connector with console cable, 115.2Kbps, 8N1
Storage	1x USB 2.0 storage for firmware update, configuration backup, restore, boot up and syslog

Power Requirements

Operation Voltage	100~240VAC, 12~48VDC, redundant dual inputs
Connection	AC socket, DC 4-pin terminal block
Power Consumption	1.67A@24VDC; 0.494A@220VAC
Protection	Overload Current Protected, Reverse Polarity Protected

Mechanical Construction

Enclosure	Aluminum / Steel metal
Protection Class	IP30

Dimensions	440x44x331 mm (WxHxD)
Weight	6.1 kg
Mounting	Rack Mounting

Environmental Limits

Operating Temperature	Extended: -40°C ~ 75°C (-40°F ~ 167°F) For 10G SFP+: -40 ~ 60°C (32°F ~ 140°F)
Storage Temperature	-40°C ~ 85°C (-40°F ~ 185°F)
Ambient Relative Humidity	5 to 95%, (Non-Condensing)

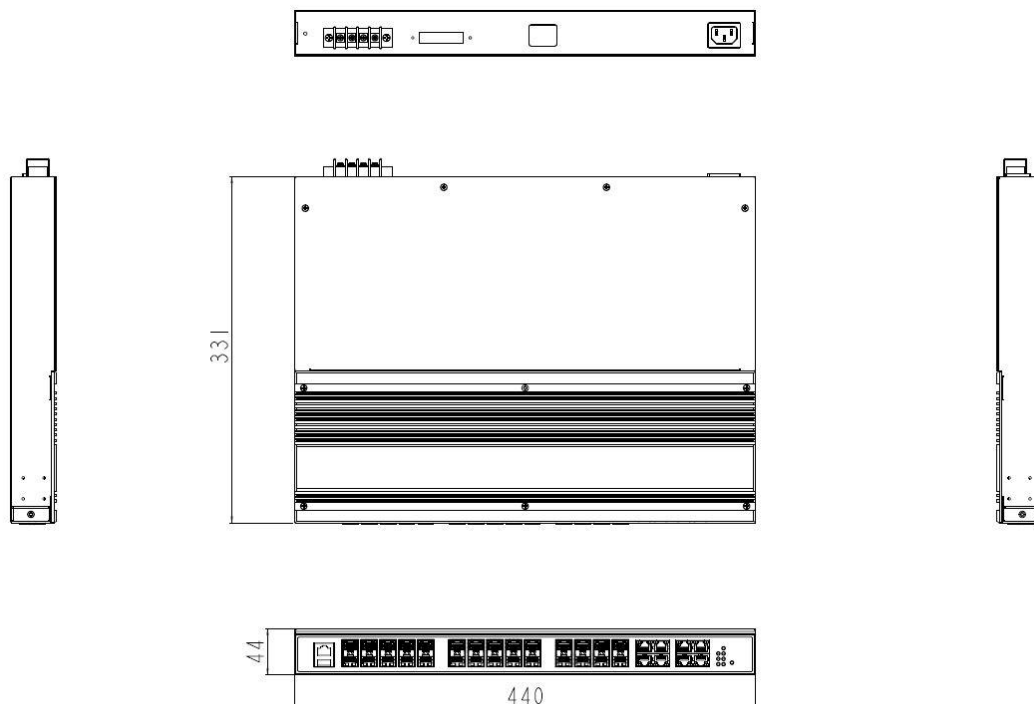
Regulatory Approvals

EMI	FCC Part 15 Subpart B Class A CE EN 55032 Class A
EMS	IEC61000-4-2 (ESD) IEC61000-4-3 (RS) IEC61000-4-4 (EFT) IEC61000-4-5 (Surge) IEC61000-4-6 (CS) IEC61000-4-8 (Magnetic Field)
Free Fall	IEC60068-2-32
Shock	IEC60068-2-27
Vibration	IEC60068-2-6
Green	RoHS Compliant
Certifications	IEC 61000-6-2 IEC 61000-6-4
MTBF	>100,000 hours
Warranty	5 Years

Features with star(*) implies those are under development.

In a continuing effort of improvement and updated technology, product specifications are subject to change without notice.

Dimensions (unit = mm)



Ordering Information

MS-0828X-1AC	8+28 Port Industrial Managed Ethernet Switch with 10G Uplink - 8x 10/100/1000T(x) + 24x 100/1000F(x) SFP Slot + 4x 1/10 Gigabit Ethernet SFP+ Slot - Operating Temperature: -40°C ~ 75°C (-40°F ~ 167°F) - 1x 90~264VAC Power Input
MS-0828X-AD	8+28 Port Industrial Managed Ethernet Switch with 10G Uplink - 8x 10/100/1000T(x) + 24x 100/1000F(x) SFP Slot + 4x 1/10 Gigabit Ethernet SFP+ Slot - Operating Temperature: -40°C ~ 75°C (-40°F ~ 167°F) - 1x 90~264VAC Power and 1x 12~48VDC Power Input
MS-0828X-DC	8+28 Port Industrial Managed Ethernet Switch with 10G Uplink - 8x 10/100/1000T(x) + 24x 100/1000F(x) SFP Slot + 4x 1/10 Gigabit Ethernet SFP+ Slot - Operating Temperature: -40°C ~ 75°C (-40°F ~ 167°F) - 2x 12~48VDC Robust Isolation Power Input