

MQ-0804X2

8+4 Port Industrial Managed PoE++ Ethernet Switch with 10G Uplink



- 8x Gigabit Ethernet ports with 4x IEEE 802.3at PoE+ and 2x IEEE 802.3bt 95W PoE++
- 4x 1/10 Gigabit Ethernet 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 512 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
- Supports PoE PD Alive Check Function for PoE Device Power Recycle

Specifications

Technology

IEEE 802.3 10BaseT
 IEEE 802.3u 100BaseTX
 IEEE 802.3ab 1000BaseT
 IEEE 802.3ae 10GBase over Fiber
 IEEE 802.3x Flow Control
 IEEE 802.3af Power over Ethernet
 IEEE 802.3at PoE+
 IEEE 802.3bt PoE++
 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

Processing Type Store and Forward

Switch Properties

Switch Fabric 96Gbps
Priority Queues 8 Queues
Jumbo Frame 9216bytes

MAC Table Size 16K

Packet Buffer 12Mbits

VLAN Table Size 4094

IGMP Group 512

ACL Group 512

Software Feature

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

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

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

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

PoE Powering Status, PoE Monitoring, Scheduling, PD Alive Check

Industrial Profiles Ethernet/IP, Modbus TCP, Profinet

Interface

RJ45 Port	8x 10/100/1000T(x) with 4x PoE+ and 2x PoE++, auto negotiation speed duplex mode, auto MDI/MDI-X
Fiber Port	4x 1/10 Gigabit Ethernet SFP+ Slot
PoE Pin Out	V+, V+, V-, V-, for pin 1, 2, 3, 6, Endspan, MDI Mode A V+, V+, V-, V-, for pin 4, 5, 7, 8, Endspan, MDI Mode B 4-pair mode for 802.3bt
LED Indicators	Per unit: PWR1, PWR2, Fault, Ring Master, Ring State Ports: Link/Active with highest speed(Green), low speed(Amber) PoE: Output Power
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	50-57VDC, redundant dual inputs, >50VDC for PoE+ output recommended
Connection	1x removable 4-contact terminal block
Power Consumption	0.36A@50VDC without PDs' consumption
PoE Power Budget	Max. 240 W for total PD consumption, Max. 90W/30W per PoE port
Protection	Overload Current Protected, Reverse

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.

Polarity Protected

Mechanical Construction

Enclosure	Aluminum
Protection Class	IP30
Dimensions	72x145x118 mm (WxHxD)
Weight	0.90 kg
Mounting	DIN-Rail Mounting, Optional Wall Mounting Kits

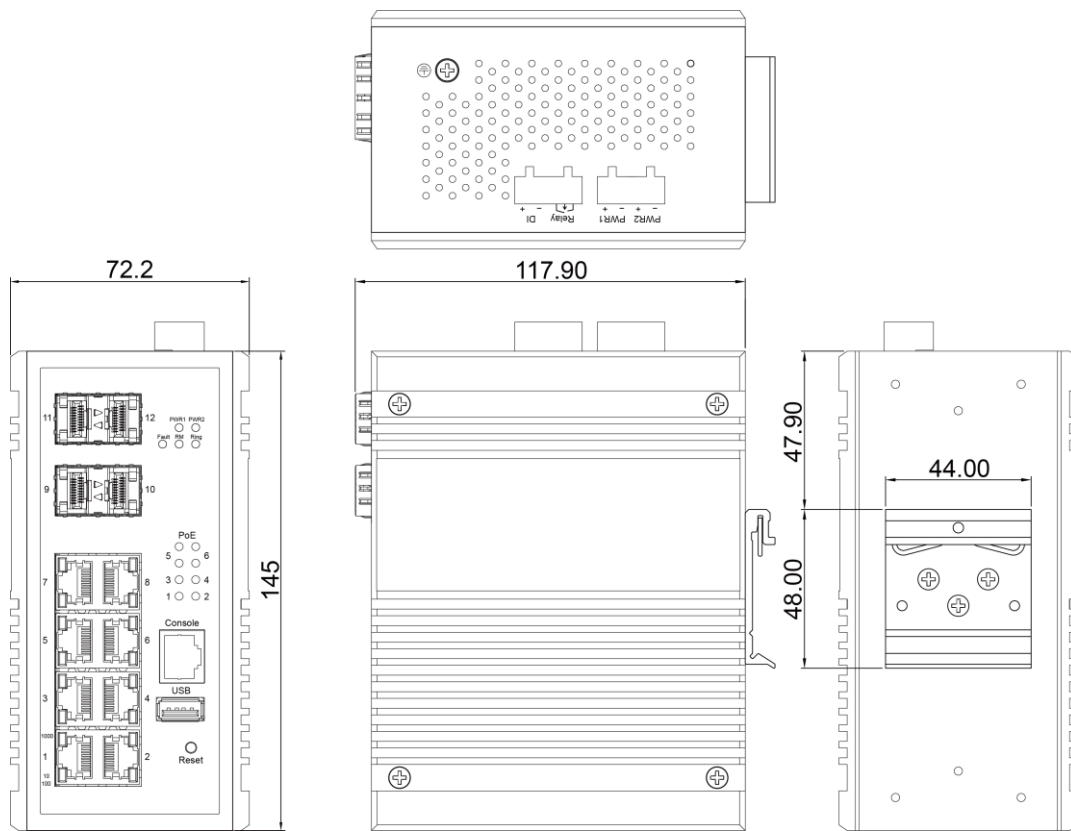
Environmental Limits

Operating Temperature	Standard: -10°C ~ 60°C (14°F ~ 140°F) 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	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	UL 60950-1/62368 (Pending) IEC 61000-6-2 IEC 61000-6-4
MTBF	>100,000 hours
Warranty	5 Years

Dimensions (unit = mm)



Ordering Information

MQ-0804X2	8+4 Port Industrial Managed PoE++ Ethernet Switch with 10G Uplink - 8x 10/100/1000T(x) with 4x 30W PSE and 2x 95W PSE + 4x 1/10 Gigabit Ethernet SFP+ Slot - Operating Temperature: -10°C ~ 60°C (14°F ~ 140°F)
MQ-0804X2-T	8+4 Port Industrial Managed PoE++ Ethernet Switch with 10G Uplink - 8x 10/100/1000T(x) with 4x 30W PSE and 2x 95W PSE + 4x 1/10 Gigabit Ethernet SFP+ Slot - Operating Temperature: -40°C ~ 75°C (-40°F ~ 167°F) For 10G SFP+: -40 ~ 60°C (-40°F ~ 140°F)

Optional Accessories

NDR-240-48	240W Industrial DIN-Rail Power Supply, 48VDC (metal case)
NDR-480-48	480W Industrial DIN-Rail Power Supply, 48VDC (metal case)