

MT-1002X

10+2 Port Industrial Managed PoE+ Booster Ethernet Switch with 10G Uplink



- 10x Gigabit Ethernet ports with 8x IEEE 802.3at PoE+
- 2x 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
- Power Boost for PoE+

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 802.3az 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 60Gbps
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	10x 10/100/1000T(x) with 8x PoE+, auto negotiation speed duplex mode, auto MDI/MDI-X
Fiber Port	2x 1/10 Gigabit Ethernet SFP+ Slot
PoE Pin Out	V+, V+, V-, V-, for pin 1, 2, 3, 6, Endspan, MDI Mode A
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	12-57VDC, redundant dual inputs, >50VDC for PoE+ output recommended
Connection	1x removable 4-contact terminal block
Power Consumption	0.32A@48VDC without PDs' consumption
PoE Power Budget	Max. 240 W for total PD consumption, Max. 30 W per PoE port
Protection	Overload Current Protected, Reverse Polarity Protected

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.

Mechanical Construction

Enclosure	Aluminum
Protection Class	IP30
Dimensions	72x145x118 mm (WxHxD)
Weight	1.12 kg
Mounting	DIN-Rail Mounting, Optional Wall Mounting Kits

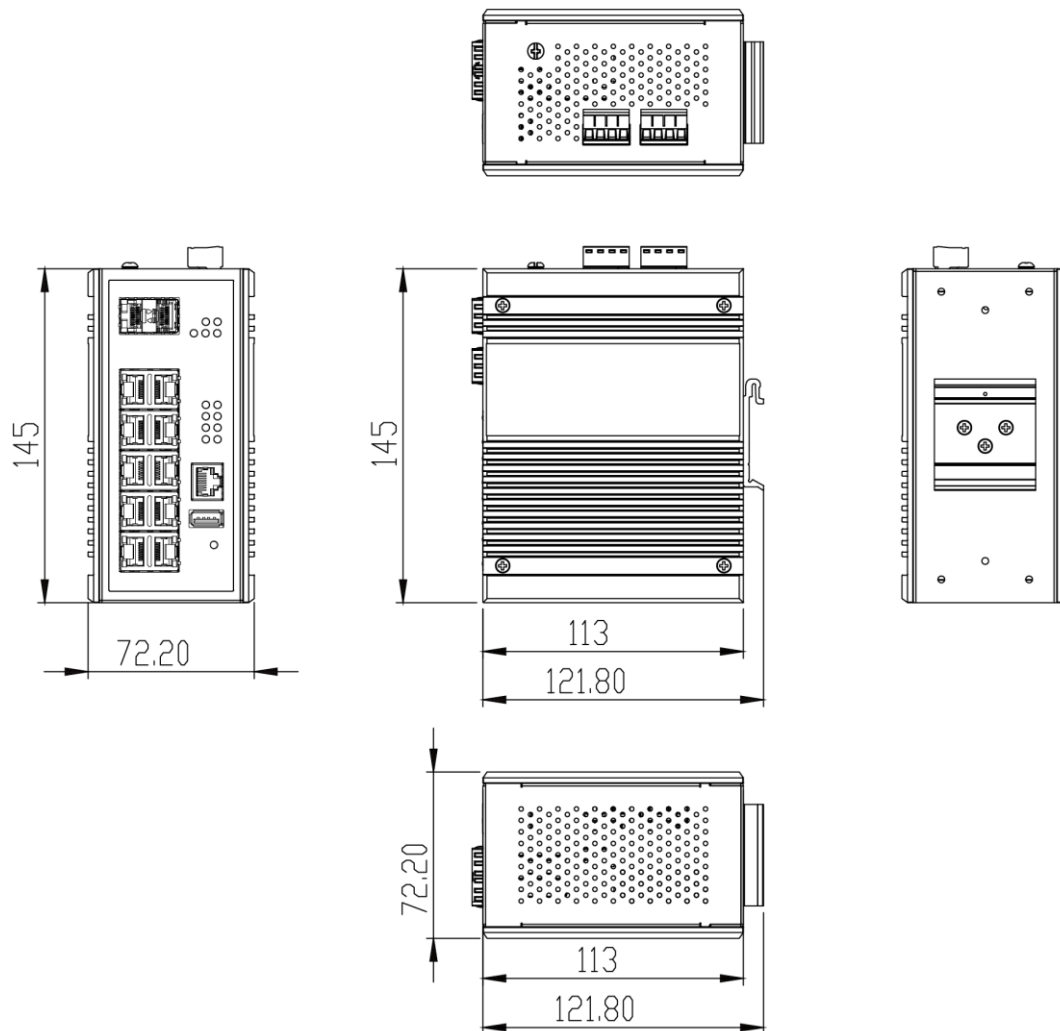
Environmental Limits

Operating Temperature	Standard: -10°C ~ 60°C (14°F ~ 140°F) Extended: -40°C ~ 60°C (-40°F ~ 140°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	UL 60950-1/62368 (Pending) IEC 61000-6-2 IEC 61000-6-4 EN 50121-4
MTBF	>100,000 hours
Warranty	5 Years

Dimensions (unit = mm)



Ordering Information

MT-1002X	10+2 Port Industrial Managed PoE+ Booster Ethernet Switch with 10G Uplink - 10x 10/100/1000T(x) with 8x 30W PSE + 2x 1/10 Gigabit Ethernet SFP+ Slot - Operating Temperature: -10°C ~ 60°C (14°F ~ 140°F)
MT-1002X-T	10+2 Port Industrial Managed PoE+ Booster Ethernet Switch with 10G Uplink - 10x 10/100/1000T(x) with 8x 30W PSE + 2x 1/10 Gigabit Ethernet SFP+ Slot - Operating Temperature: -40°C ~ 60°C (-40°F ~ 140°F) For 10G SFP+: -40 ~ 60°C (-40°F ~ 140°F)

Optional Accessories

NDR-240-24	240W Industrial DIN-Rail Power Supply, 24VDC (metal case)
NDR-480-24	480W Industrial DIN-Rail Power Supply, 24VDC (metal case)