

MT-1604XE-M12

16+4 Port M12 Industrial Managed PoE+ Booster Ethernet Switch with 10G Uplink



- 16x 10/100/1000T(x) M12 connector with IEEE 802.3at PoE+
- 4x 1G/10GBASE-T Ethernet
- 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
- 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

Standards	IEEE 802.3 10BaseT
	IEEE 802.3u 100BaseTX
	IEEE 802.3ab 1000BaseT
	IEEE 802.3ae 10GBaseT
	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

Processing Type Store and Forward

Switch Properties

Switch Fabric 112Gbps

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

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

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

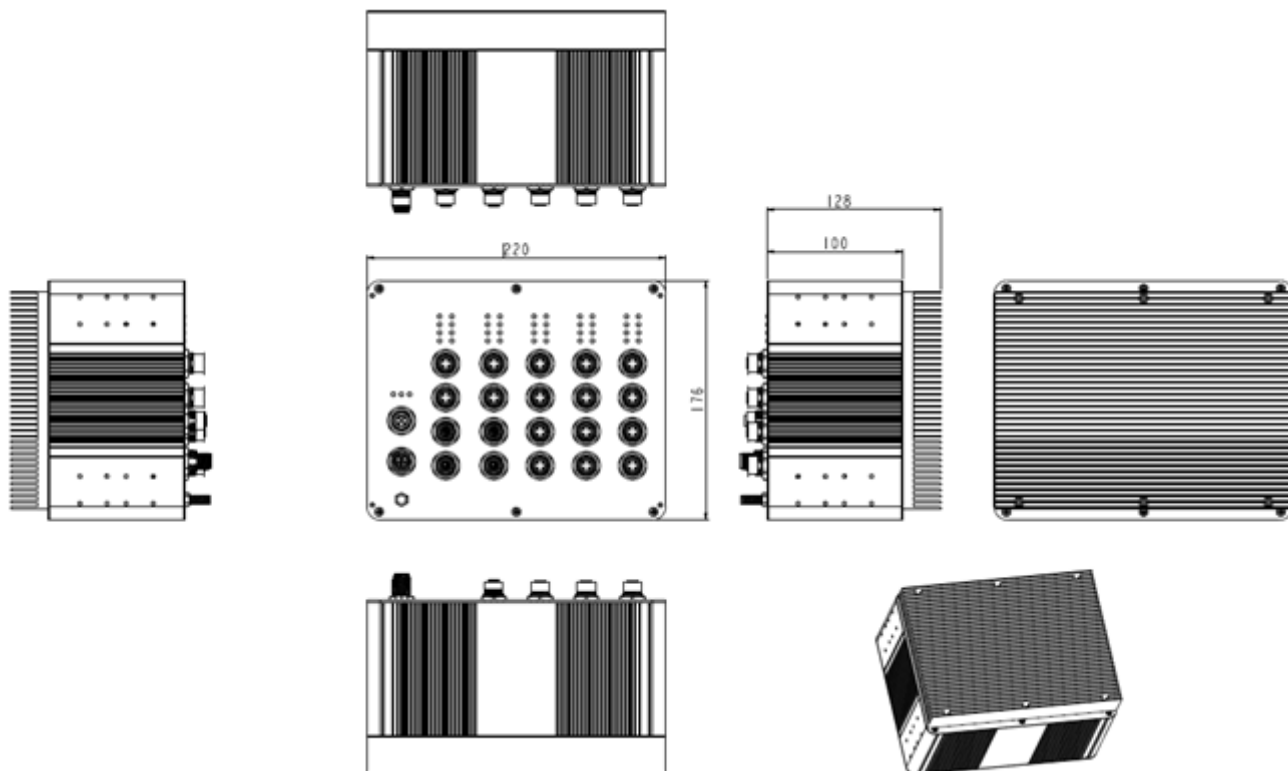
Time Sync. NTP, IEEE1588v2 OC (Software Timestamp), TC (Hardware Timestamp)

QoS	CoS, DSCP, WRR/SPQ Queuing, Storm Protection
PoE	Powering Status, PoE Monitoring, Scheduling, PD Alive Check, PoE Priority
Industrial Profiles	Ethernet/IP, Modbus TCP, Profinet
Interface	
Network Connector	16x 10/100/1000T(x) M12 Female X-coded 8-pole with PoE+, auto negotiation speed duplex mode, auto MDI/MDI-X 4x 1G/10GBASET-T M12 Female X-coded 8-pole, auto negotiation speed duplex mode, auto MDI/MDI-X
LED Indicators	Per unit: PWR1, PWR2 Ports: Link/Active (Green) PoE: Output Power (Amber)
Serial Console	1x RS232 in M12 Male A-coded 5-pole connector with console cable, 115.2Kbps, 8N1
Power Requirements	
Operation Voltage	24VDC, 48VDC, HV: 72-110VDC, redundant dual inputs
Connection	M12 Male K-coded 5-pole
Power Consumption	1.27A@24V without PDs' consumption
PoE Power Budget	Max. 30 W per PoE port. Max. total output power for PD: 140W@24V input; 140W@48V input; 131W@110V input
Protection	Overload Current Protected, Reverse Polarity Protected
Mechanical Construction	

Enclosure	SECC/Aluminum
Protection Class	IP40 IP54/IP65(Optional)
Dimensions	220x176x128 mm (WxHxD)
Weight	3.0 kg
Mounting	Wall Mounting Kits
Environmental Limits	
Operating Temperature	Extended: -40°C ~ 70°C (-40°F ~ 158°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	IEC61373
Vibration	IEC61373
Green	RoHS Compliant
Certifications	EN 50155 (Pending) EN 45545-2
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

MT-1604XE-M12-24V2U-T	16 Port M12 Industrial Managed PoE+ Booster Ethernet Switch - 16x 10/100/1000T(x) X-coded M12 connector with 30W PSE + 4x 1G/10GBASE-T Ethernet - Operating Temperature: -40°C ~ 70°C (-40°F ~ 158°F) - Power Input: 9~36VDC - Max. Power Budget: 165W - Protection Class: IP40
MT-1604XE-M12-24V2U-WT	16 Port M12 Industrial Managed PoE+ Booster Ethernet Switch - 16x 10/100/1000T(x) X-coded M12 connector with 30W PSE + 4x 1G/10GBASE-T Ethernet - Operating Temperature: -40°C ~ 70°C (-40°F ~ 158°F) - Power Input: 9~36VDC - Max. Power Budget: 165W - Protection Class: IP54
MT-1604XE-M12-24V2U-UT	16 Port M12 Industrial Managed PoE+ Booster Ethernet Switch - 16x 10/100/1000T(x) X-coded M12 connector with 30W PSE + 4x 1G/10GBASE-T Ethernet - Operating Temperature: -40°C ~ 70°C (-40°F ~ 158°F) - Power Input: 9~36VDC - Max. Power Budget: 165W - Protection Class: IP65
MT-1604XE-M12-48V2U-T	16 Port M12 Industrial Managed PoE+ Booster Ethernet Switch - 16x 10/100/1000T(x) X-coded M12 connector with 30W PSE + 4x 1G/10GBASE-T Ethernet - Operating Temperature: -40°C ~ 70°C (-40°F ~ 158°F) - Power Input: 16.5~75VDC - Max. Power Budget: 165W - Protection Class: IP40
MT-1604XE-M12-48V2U-WT	16 Port M12 Industrial Managed PoE+ Booster Ethernet Switch - 16x 10/100/1000T(x) X-coded M12 connector with 30W PSE + 4x 1G/10GBASE-T Ethernet - Operating Temperature: -40°C ~ 70°C (-40°F ~ 158°F) - Power Input: 16.5~75VDC - Max. Power Budget: 165W - Protection Class: IP54
MT-1604XE-M12-HV2U-T	16 Port M12 Industrial Managed PoE+ Booster Ethernet Switch - 16x 10/100/1000T(x) X-coded M12 connector with 30W PSE + 4x 1G/10GBASE-T Ethernet - Operating Temperature: -40°C ~ 70°C (-40°F ~ 158°F) - Power Input: 43~160VDC - Max. Power Budget: 156W - Protection Class: IP40
MT-1604XE-M12-HV2U-WT	16 Port M12 Industrial Managed PoE+ Booster Ethernet Switch

- 16x 10/100/1000T(x) X-coded M12 connector with 30W PSE + 4x 1G/10GBASE-T Ethernet
- Operating Temperature: -40°C ~ 70°C (-40°F ~ 158°F)
- Power Input: 43~160VDC
- Max. Power Budget: 156W
- Protection Class: IP54