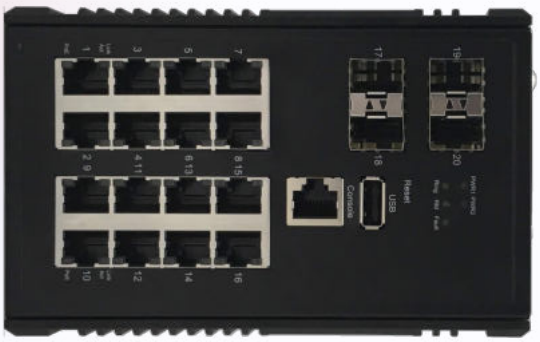
MP-1604XB

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



- 16x Gigabit Ethernet ports with 8x IEEE 802.3at 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
- Support industrial automation protocols Ethernet/IP and Modbus TCP
- Supports PoE PD Alive Check Function for PoE Device Power Recycle

Specifications

Technology

Standard

IEEE 802.3 10BaseT
IEEE 802.3u 100BaseTX
IEEE 802.3ab 1000BaseT
IEEE 802.3z 1000BaseX
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

Processing Type

Store and Forward

Switch properties

Priority Queues	8 Queues	**Packet Buffer**	12Mbits
Jumbo Frame	9216bytes	**VLAN Table Size**	4094
MAC Table Size	16K	**IGMP Group**	512
Switch Fabric	112Gbps	**ACL Group**	512

Software Feature

Network Redundancy	RSTP, MSTP, G.8032 ERPSv2, Port Trunking with LACP	**Time Sync.**	NTP, IEEE1588v2 OC (Software Timestamp), TC (Hardware Timestamp)
Security	802.1X, RADIUS, TACACS+, SSL, SSH	**QoS**	CoS, DSCP, WRR/SPQ Queuing, Storm Protection
Management	IPv4, IPv6, Web, Telnet, Serial Console, CLI, SNMP v1/v2c/v3, uPnP	**PoE**	Powering Status, PoE Monitoring, Scheduling, PD Alive Check
Diagnostics	RMON, SNMP Inform/Trap, Syslog, SMTP, Port Mirroring, LLDP	**Industrial Profiles**	Ethernet/IP, Modbus TCP, Profinet
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		

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Interface

RJ45 Ports	16x 10/100/1000T(x) with PoE+, auto negotiation speed duplex mode, auto MDI/MDI-X
Fiber Port	4x 1/10 Gigabit Ethernet SFP+ Slot
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
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
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	48-57VDC, redundant dual inputs, >50VDC for PoE+ output recommended
Connection	1x removable 4-contact terminal block
Power Consumption	0.43A@48VDC without PDs' consumption
Protection	Overload Current Protected, Reverse Polarity Protected
PoE Power Budget	Max. 240 W for total PD consumption, Max. 30 W per PoE port

Mechanical Construction

Enclosure	Aluminum
Protection Class	IP30
Dimensions	91x145x118 mm (WxHxD)
Weight	1.4 kg
Mounting	DIN-Rail Mounting, Optional Wall Mounting Kits

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

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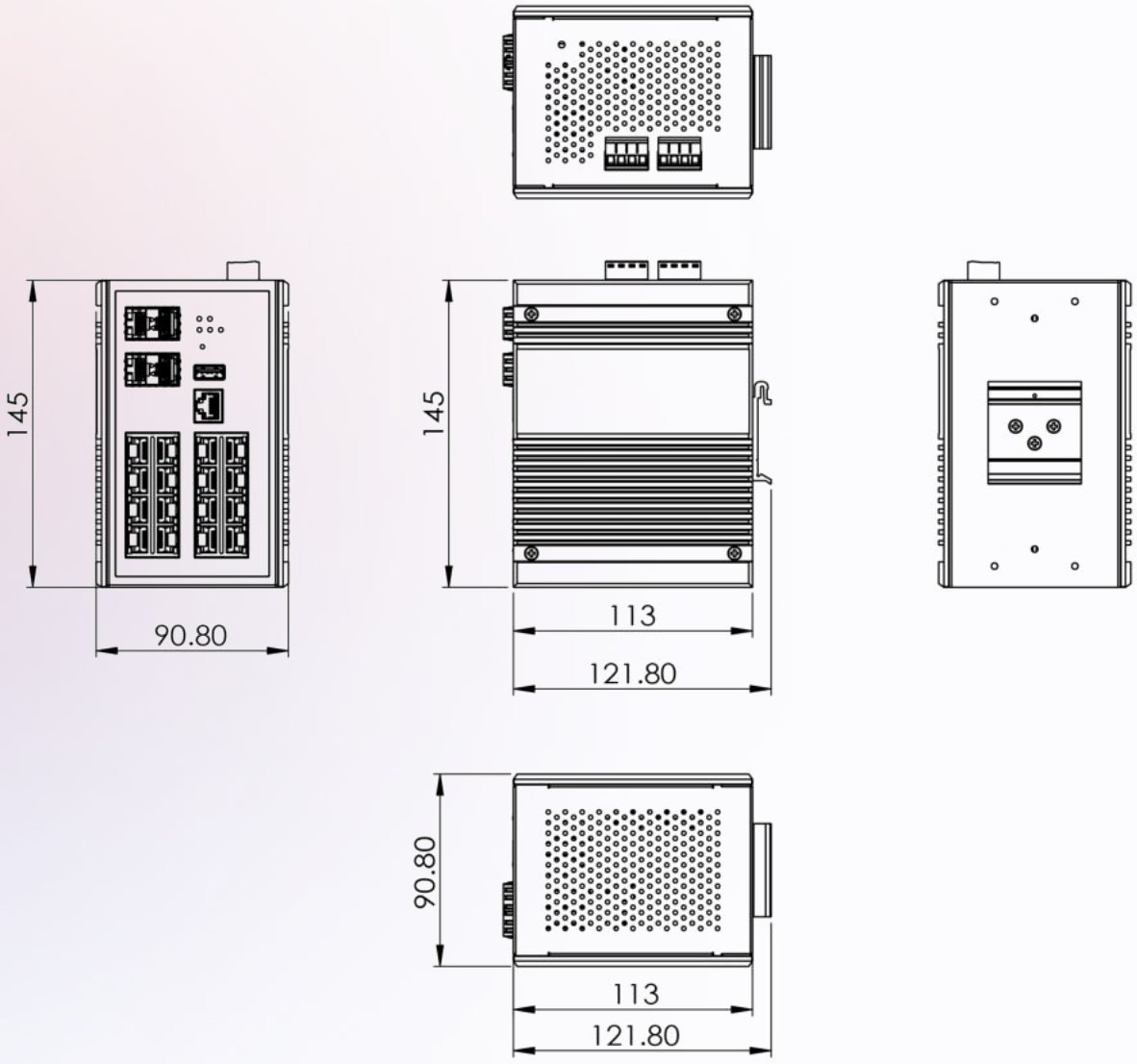

Ordering Information

Available Models

MP-1604XB-T 16+4 Port Industrial Managed PoE+ Ethernet Switch with 10G Uplink
- 16x 10/100/1000T(x) with 30W 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)