

EDS-608 Series

Preliminary

8-port compact modular managed Ethernet switches



- > Modular design lets you choose from a variety of media combinations
- > Turbo Ring and RSTP/STP (IEEE 802.1w/D) for Ethernet redundancy
- > QoS, IGMP snooping/GMRP, VLAN, LACP, SNMPv1/v2c/v3, RMON supported
- > IEEE 802.1X, HTTPS, and SSH to enhance network security
- > -40 to 75°C operating temperature (T models)

The certification logos shown here apply to some or all of the products in this section. For details, see "Regulatory Approvals" under "Specifications" below.



Introduction

The versatile modular design of the compact EDS-608 Ethernet switch allows users to combine fiber and copper modules to create switch solutions suitable for any automation network. The EDS-608's modular design lets you install up to 8 fast Ethernet ports, and the advanced Turbo Ring (recovery time < 20 ms) technology and RSTP/STP (IEEE 802.1w/D) helps increase the reliability and availability of

your industrial Ethernet network. Models with an extended operating temperature range of -40 to 75°C are also available. The EDS-608 supports several reliable and intelligent functions, including QoS, IGMP snooping/GMRP, VLAN, Port Trunking, SNMPv1/v2c/v3, IEEE 802.1X, HTTPS, SSH, and RMON, making the Ethernet switches suitable for any harsh industrial environment.

Features and Benefits

- IPv6 Ready logo awarded (IPv6 Logo Committee certified)
- IEEE 1588 PTP (Precision Time Protocol) for precise time synchronization of networks
- DHCP Option 82 for IP address assignment with different policies
- Modbus/TCP industrial Ethernet protocol supported
- Turbo Ring (recovery time < 20 ms at full load) and RSTP/STP (IEEE 802.1w/D)
- IGMP snooping and GMRP for filtering multicast traffic
- Port-based VLAN, IEEE 802.1Q VLAN, and GVRP to ease network planning
- QoS (IEEE 802.1p/1Q) and TOS/DiffServ to increase determinism
- Port Trunking for optimum bandwidth utilization
- IEEE 802.1X, HTTPS, and SSH to enhance network security
- SNMPv1/v2c/v3 for different levels of network management
- RMON for efficient network monitoring and proactive capability
- Bandwidth management prevents unpredictable network status
- Lock port function for blocking unauthorized access based on MAC address
- Port mirroring for online debugging
- Automatic warning by exception through e-mail, relay output
- Digital inputs to integrate sensors and alarms with IP networks

Specifications

Technology

Standards:

IEEE 802.3 for 10BaseT
 IEEE 802.3u for 100BaseT(X) and 100Base FX
 IEEE 802.3x for Flow Control
 IEEE 802.1D for Spanning Tree Protocol
 IEEE 802.1w for Rapid STP
 IEEE 802.1Q for VLAN Tagging
 IEEE 802.1p for Class of Service
 IEEE 802.1X for Authentication
 IEEE 802.3ad for Port Trunk with LACP

Protocols: IGMPv1/v2 device, GMRP, GVRP, SNMPv1/v2c/v3, DHCP Server/Client, DHCP Option 66/67/82, BootP, TFTP, SNMP, SMTP, RARP, RMON, HTTP, HTTPS, Telnet, SSH, Syslog, LLDP, Modbus/TCP, IEEE 1588 PTP, IPv6

MIB: MIB-II, Ethernet-Like MIB, P-BRIDGE MIB, Q-BRIDGE MIB, Bridge MIB, RSTP MIB, RMON MIB Group 1, 2, 3, 9

Flow Control: IEEE 802.3x flow control, back pressure flow control

Switch Properties

Priority Queues: 4

Max. Number of Available VLANs: 64

VLAN ID Range: VID 1 to 4094

IGMP Groups: 256

Interface

Fast Ethernet: 2 slots for any combination of 4-port interface modules, 10/100BaseT(X) or 100BaseFX

System LED Indicators: PWR1, PWR2, FAULT, MASTER, COUPLER

Module LED Indicators: 10/100M for TP port, 100M for Fiber port

Alarm Contact: 1 relay output with current carrying capacity of 1 A @ 24 VDC

Digital Inputs: 1 input with the same ground, but electrically isolated from the electronics.

- +13 to +30V for state "1"
- -30 to +3V for state "0"
- Max. input current: 8 mA

Power Requirements

Input Voltage: 12/24/48 VDC, redundant dual inputs
Overload Current Protection: Present
Connection: 1 removable 5-contact and 1 removable 6-contact terminal block
Reverse Polarity Protection: Present

Physical Characteristics

Housing: IP30 protection
Dimensions: 124.9 x 151 x 157.2 mm (4.92 x 5.95 x 6.19 in)
Installation: DIN-Rail mounting, wall mounting (with optional kit)

Environmental Limits

Operating Temperature:
 Standard Models: 0 to 60°C (32 to 140°F)
 Wide Temp. Models: -40 to 75°C (-40 to 167°F)
Storage Temperature: -40 to 85°C (-40 to 185°F)
Ambient Relative Humidity: 5 to 95% (non-condensing)

Regulatory Approvals

Safety: UL508 (Pending), EN60950-1 (Pending)
Hazardous Location: UL/cUL Class I, Division 2, Groups A, B, C, and D (Pending); ATEX Class I, Zone 2, Ex nC IIC (Pending)

EMI: FCC Part 15, CISPR (EN55022) class A
EMS:
 EN61000-4-2 (ESD), level 3
 EN61000-4-3 (RS), level 3
 EN61000-4-4 (EFT), level 3
 EN61000-4-5 (Surge), level 3
 EN61000-4-6 (CS), level 3
 EN61000-4-8
 EN61000-4-11
 EN61000-4-12

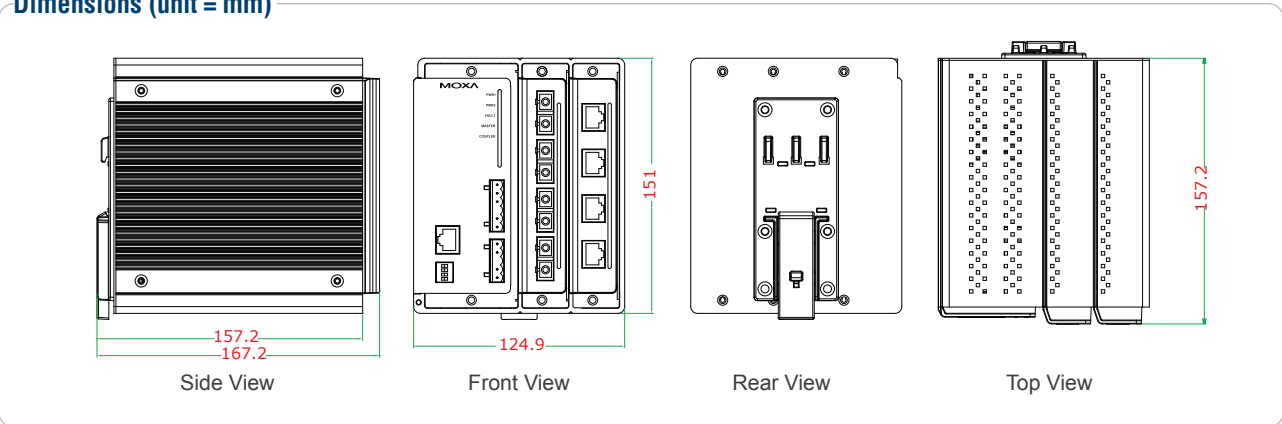
Maritime: DNV (Pending), GL (Pending)
Shock: IEC 60068-2-27
Freefall: IEC 60068-2-32
Vibration: IEC 60068-2-6

Note: Please check Moxa's website for the most up-to-date certification status.

Warranty

Warranty Period: 5 years
Details: See www.moxa.com/warranty

Dimensions (unit = mm)



Ordering Information

Step 1: Select Ethernet switch system

EDS-608



Step 2: Select interface modules

CM Series

Note: The EDS-608 switch system is delivered without interface modules. Please see page 3-28 for product information related to the CM series fast Ethernet interface modules.

Available Models

EDS-608: Compact managed Ethernet switch system with 2 slots for 4-port fast Ethernet interface modules, up to 8 ports, 0 to 60°C operating temperature

EDS-608-T: Compact managed Ethernet switch system with 2 slots for 4-port fast Ethernet interface modules, up to 8 ports, -40 to 75°C operating temperature

Optional Accessories (can be purchased separately)

- EDS-SNMP OPC Server Pro:** OPC server software that works with all SNMP devices
- ABC-01:** Configuration backup and restoration tool for managed Ethernet switches, 0 to 60°C operating temperature
- DR-4524/75-24/120-24:** 45/75/120 W DIN-Rail 24 VDC power supplies
- MDR-40-24/60-24:** 40/60 W DIN-Rail 24 VDC power supplies, -20 to 70°C operating temperature
- RK-4U:** 4U-high 19" rack mounting kit