EDS-405A/408A-EIP Series

5 and 8-port managed Ethernet switches with EtherNet/IP enabled

> EtherNet/IP and IGMP snooping enabled by default
> Port mirroring, QoS, IEEE 802.1Q VLAN, and port-based VLAN supported
> EtherNet/IP EDS (Electronic Data Sheet) file, custom AOI (Add-On Instructions) file, and FactoryTalk® View faceplate included

Turbo Ring — Self-Healing Ethernet
Turbo Chain — Beyond Redundant Ring

IndustrialIT ▶▶▶enabled   IP6 READY   Ex   c UL us LISTED   DNV   EN 50121   NEMA TS2   G L   C E   F C

: Introduction

The EDS-405A/408A-EIP are 5 and 8-port managed Ethernet switches with EtherNet/IP enabled. With Ethernet/IP embedded, the EIP switches are visible with custom faceplate in FactoryTalk® View industrial management software, for greater operational and network visibility in factory automation HMIs. The EDS-405A/408A-EIP also supports a variety of useful management functions, such as IGMP snooping, IEEE 802.1Q VLAN, QoS, port mirroring, SNMP, bandwidth management and warning by email or relay.

Features and Benefits

- Command Line Interface (CLI) for quickly configuring major managed functions
- IPv6 Ready logo awarded (IPv6 Logo Committee certified)
- DHCP Option 82 for IP address assignment with different policies
- Support EtherNet/IP and Modbus/TCP protocols for device management and monitoring
- EtherNet/IP EDS (Electronic Data Sheet) file, custom AOI (Add-On Instructions) and FactoryTalk® View faceplate available
- Turbo Ring and Turbo Chain (recovery time < 20 ms @ 250 switches), and RSTP/STP for network redundancy

- 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 and TOS/DiffServ) to increase determinism
- RMON for efficient network monitoring and proactive capability
- SNMPv1/v2c/v3 for different levels of network management security
- Bandwidth management to prevent unpredictable network status
- Port mirroring for online debugging

: Specifications

Technology
Standards:
IEEE 802.3 for 10BaseT
IEEE 802.3u for 100BaseT(X)
IEEE 802.3x for Flow Control
IEEE 802.1D-2004 for Spanning Tree Protocol
IEEE 802.1w for Rapid STP
IEEE 802.1p for Class of Service
IEEE 802.1Q for VLAN Tagging

Software Features
Management: IPv4/IPv6, SNMP v1/v2c/v3, LLDP, Port Mirror, RMON, DHCP Server/Client, DHCP Option 66/67/82, BootP, TFTP, SNTP, SMTP, RARP, Telnet, Syslog, SNMP inform, Flow Control, Backpressure flow control
Filter: 802.1Q, Port-Based VLAN, GVRP, IGMP v1/v2, GMRP
Redundancy Protocols: STP, RSTP, Turbo Ring v1/v2, Turbo Chain
Time Management: SNTP, NTP Server/Client
Industrial Protocols: EtherNet/IP, Modbus/TCP
MIB: MIB-II, Ethernet-Like MIB, P-BRIDGE MIB, Bridge MIB, RSTP MIB, RMON MIB Group 1, 2, 3, 9

Switch Properties
MAC Table Size: 2 K (EDS-405A-EIP), 8 K (EDS-408A-EIP)
Packet Buffer Size: 1 Mbit

Interface
RJ45 Ports: 10/100BaseT(X) auto negotiation speed, Full/Half duplex mode, and auto MDI/MDI-X connection

Console Port: RS-232 (RJ45 connector)
DIP Switches: Turbo Ring, Master, Coupler, Reserve
LED Indicators: PWR1, PWR2, FAULT, MSTR/HEAD, CPLR/TAIL, 10/100M
Alarm Contact: 1 relay output with current carrying capacity of 1 A @ 24 VDC

Power Requirements
Input Voltage: 24 VDC, redundant dual inputs
Operating Voltage: 12 to 45 VDC
Input Current:
EDS-405A-EIP: 0.21 A @ 24 V
EDS-408A-EIP: 0.22 A @ 24 V
Overload Current Protection: Present
Connection: 1 removable 6-contact terminal block
Reverse Polarity Protection: Present

Physical Characteristics
Housing: Metal, IP30 protection
Dimensions: 53.6 x 135 x 105 mm (2.11 x 5.31 x 4.13 in)
Packing Size: 19.2 x 16.8 x 9.3 cm
Weight: 650 g
Packing Weight:
EDS-405A-EIP series: 1140 g
EDS-408A-EIP series: 1220 g
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)

Standards and Certifications

Note: Please check Moxa's website for the most up-to-date certification status.
Safety: UL 508, UL 60950-1, CSA C22.2 No. 60950-1, EN 60950-1*
Hazardous Location: UL/cUL Class I Division 2 Groups A/B/C/D, ATEX Zone 2 Ex nC IIC
EMC: EN 55032 Class A
EMI: CISPR 32, FCC Part 15B Class A
EMS:
IEC 61000-4-2 ESD: Contact: 6 kV; Air: 8 kV
IEC 61000-4-3 RS: 80 MHz to 1 GHz: 10 V/m
IEC 61000-4-4 EFT: Power: 4 kV; Signal: 2 kV
IEC 61000-4-5 Surge: Power: 2 kV; Signal: 2 kV
IEC 61000-4-6 CS: 10 V
IEC 61000-4-8

Traffic Control: NEMA TS2
Rail Traffic: EN 50121-4*
Marine: DNV, GL
Shock: IEC 60068-2-27
Freefall: IEC 60068-2-32
Vibration: IEC 60068-2-6

MTBF (mean time between failures)

Time:
EDS-405A-EIP Series: 392,000 hrs
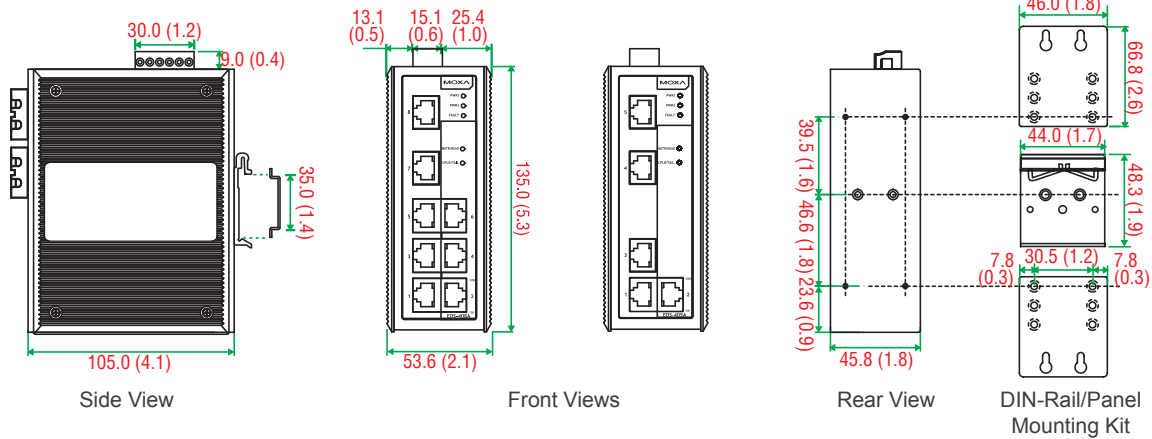EDS-408A-EIP Series: 363,000 hrs
Standard: Telcordia (Bellcore), GB

Warranty

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

Dimensions

Unit: mm (inch)

Side View   Front Views   Rear View   DIN-Rail/Panel Mounting Kit

Ordering Information

Available Models		Port Interface			
			100BaseFX		
Standard Temperature (0 to 60˚C)	Wide Temperature (-40 to 75˚C)	10/100BaseT(X)	Multi-mode, SC Connector	Multi-mode, ST Connector	Single-mode, SC Connector
EDS-405A/408A-EIP	EDS-405A/408A-EIP-T	5/8	–	–	–

Optional Accessories (can be purchased separately)

MXview: Moxa industrial network management software with 50, 100, 250, 500, 1000, or 2000 nodes
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-4524/75/120-24: 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
WK-46: Wall mounting kit

Package Checklist

- EDS-405A-EIP or EDS-408A-EIP switch
- RJ45 to DB9 console port cable
- Protective caps for unused ports
- Documentation and software CD
- Hardware installation guide (printed)
- Warranty card