

EDS-505A/508A/516A Series

5, 8, and 16-port managed Ethernet switches



- > Turbo Ring, Turbo Chain, RSTP/STP, and MSTP* for network redundancy
- > TACACS+*, SNMPv3, IEEE 802.1X, HTTPS, and SSH to enhance network security
- > Easy network management by web browser, CLI*, Telnet/serial console, Windows utility, and ABC-01

*Available in Q3, 2011



Introduction

The EDS-505A/508A/516A are standalone 5, 8, and 16-port managed Ethernet switches. With their advanced Turbo Ring and Turbo Chain technology (recovery time < 20 ms), RSTP/STP, and MSTP* support the EDS-505A/508A/516A switches increase the reliability and availability of your industrial Ethernet network. Models with a wide

operating temperature range of -40 to 75°C are also available, and the switches support advanced management and security features, making the EDS-505A/508A/516A switches suitable for any harsh industrial environment.

*Available in Q3, 2011

Features and Benefits

- Command Line Interface (CLI) for quickly configuring major managed functions*
- IPv6 Ready logo awarded (IPv6 Logo Committee certified)
- IEEE 1588 PTP V2* (Precision Time Protocol) for precise time synchronization of networks
- DHCP Option 82 for IP address assignment with different policies
- Support EtherNet/IP* and Modbus/TCP protocols for device management and monitoring
- Compatible with EtherNet/IP and PROFINET protocols for transparent data transmission
- Turbo Ring and Turbo Chain (recovery time < 20 ms), RSTP/STP, and MSTP* 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/1Q) and TOS/DiffServ to increase determinism
- Port Trunking for optimum bandwidth utilization
- RMON for efficient network monitoring and proactive capability
- SNMPv1/v2c/v3 for different levels of network management
- TACACS+*, SNMPv3, IEEE 802.1X, HTTPS, and SSH to enhance network security
- Bandwidth management to prevent unpredictable network status
- Lock port function for blocking unauthorized access based on MAC address
- Automatic warning by exception through e-mail, relay output

*Available in Q3, 2011

Specifications

Technology

Standards:

- IEEE 802.3 for 10BaseT
- IEEE 802.3u for 100BaseT(X) and 100BaseFX
- IEEE 802.3x for Flow Control
- IEEE 802.1D-2004 for Spanning Tree Protocol*
- IEEE 802.1w for Rapid STP
- IEEE 802.1s for Multiple Spanning Tree Protocol*
- 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, GVRP, SNMPv1/v2c/v3, DHCP Server/Client, BootP, TFTP, SNMP, SMTP, RARP, GMRP, LACP, RMON, HTTP, HTTPS, Telnet, Syslog, DHCP Option 66/67/82, SSH, SNMP Inform, EtherNet/IP*, Modbus/TCP, LLDP, IEEE 1588 PTP V2*, IPv6, NTP Server/Client*

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
- MAC Table Size:** 8 K
- Packet Buffer Size:** 1 Mbit (EDS-505A/508A), 2 Mbit (EDS-516A)

Interface

- Fiber Ports:** 100BaseFX ports (SC/ST connector)
- 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 (EDS-505A/508A series only)

LED Indicators: PWR1, PWR2, FAULT, MSTR/HEAD, CPLR/TAIL, 10/100M

Alarm Contact: 2 relay outputs with current carrying capacity of 1 A @ 24 VDC

Digital Inputs: 2 inputs 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

Optical Fiber

| | 100BaseFX | | |
|------------------|--|--------------------|--------------------|
| | Multi-mode | Single-mode | Single-mode, 80 km |
| Wavelength | 1300 nm | 1310 nm | 1550 nm |
| Max. TX | -10 dBm | 0 dBm | 0 dBm |
| Min. TX | -20 dBm | -5 dBm | -5 dBm |
| RX Sensitivity | -32 dBm | -34 dBm | -34 dBm |
| Link Budget | 12 dB | 29 dB | 29 dB |
| Typical Distance | 5 km ^a 4 km ^b | 40 km ^c | 80 km ^d |
| Saturation | -6 dBm | -3 dBm | -3 dBm |

- a. 50/125 μm, 800 MHz*km fiber optic cable
- b. 62.5/125 μm, 500 MHz*km fiber optic cable
- c. 9/125 μm single-mode fiber optic cable
- d. 9/125 μm single-mode fiber optic cable (80 km)

Power Requirements

Input Voltage: 24 VDC (12 to 45 VDC), redundant dual inputs

Input Current:

- EDS-505A: 0.24 A @ 24 V
- EDS-505A-MM/SS: 0.35 A @ 24 V
- EDS-508A: 0.26A @ 24 V
- EDS-508A-MM/SS: 0.36 A @ 24 V
- EDS-516A: 0.41 A @ 24 V
- EDS-516A-MM: 0.51 A @ 24 V

Overload Current Protection: Present

Connection: 2 removable 6-contact terminal blocks

Reverse Polarity Protection: Present

Physical Characteristics

Housing: Metal, IP30 protection

Dimensions:

EDS-505A/508A Series: 80.2 x 135 x 105 mm

(3.16 x 5.31 x 4.13 in)

EDS-516A Series: 94 x 135 x 142.7 mm (3.7 x 5.31 x 5.62 in)

Weight:

EDS-505A/508A Series: 1040 g

EDS-516A Series: 1586 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

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

EMI: FCC Part 15 Subpart B Class A, EN 55022 Class A

EMS:

EN 61000-4-2 (ESD) (EDS-505A/508A: Level 3; EDS-516A: Level 2),

EN 61000-4-3 (RS) Level 3, EN 61000-4-4 (EFT) Level 2,

EN 61000-4-5 (Surge) Level 3, EN 61000-4-6 (CS) Level 3,

EN 61000-4-8

Marine: DNV, GL

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.

MTBF (mean time between failures)

Time:

EDS-505A Series: 352,000 hrs

EDS-508A Series: 339,000 hrs

EDS-516A Series: 247,000 hrs

Database: Telcordia (Bellcore), GB

Warranty

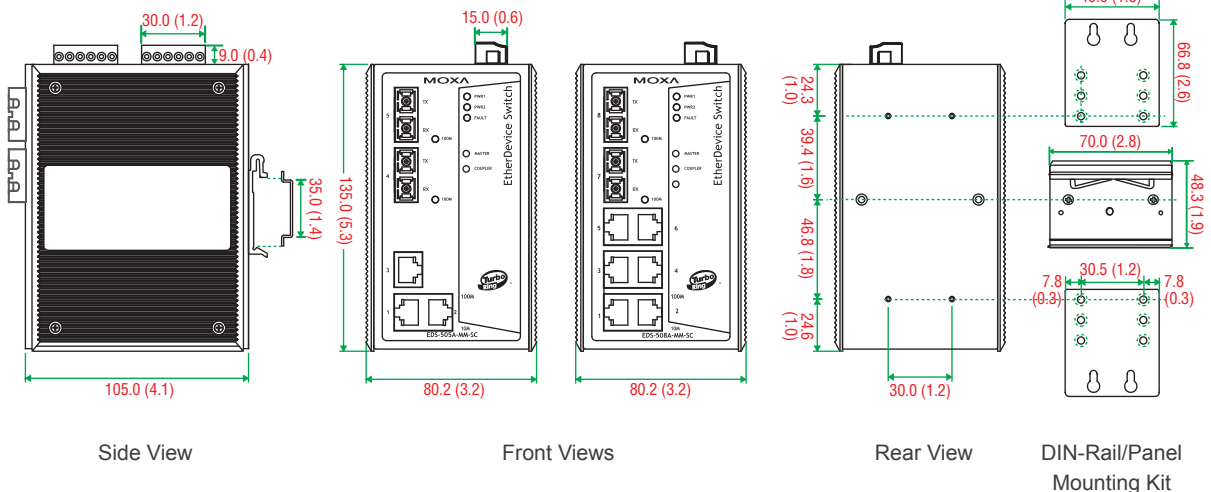
Warranty Period: 5 years

Details: See www.moxa.com/warranty

Dimensions

EDS-505A/508A Series

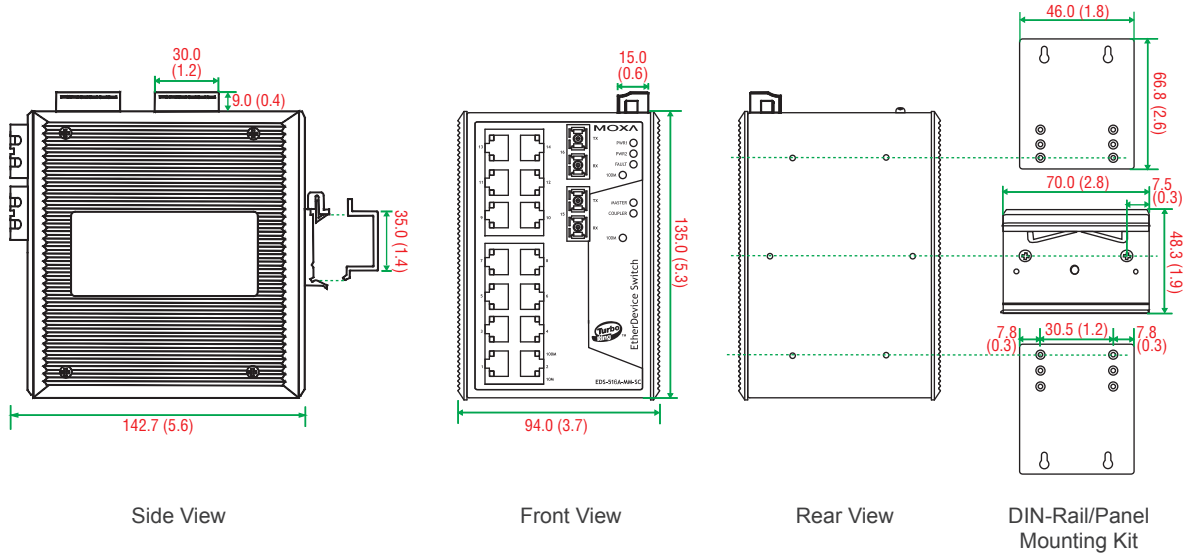
Unit: mm (inch)



Dimensions

EDS-516A Series

Unit: mm (inch)



Ordering Information

| Available Models | | Port Interface | | | | |
|-------------------------------------|-----------------------------------|----------------|-----------------------------|-----------------------------|------------------------------|-------------------------------------|
| Standard Temperature (0 to 60°C) | Wide Temperature (-40 to 75°C) | 10/100Base(T)X | 100BaseFX | | | |
| | | | Multi-mode, SC Connector | Multi-mode, ST Connector | Single-mode, SC Connector | Single-mode, SC Connector, 80 km |
| EDS-505A/508A Series | | | | | | |
| EDS-505A/508A | EDS-505A/508A-T | 5/8 | - | - | - | - |
| EDS-505A/508A-MM-SC | EDS-505A/508A-MM-SC-T | 3/6 | 2 | - | - | - |
| EDS-505A/508A-MM-ST | EDS-505A/508A-MM-ST-T | 3/6 | - | 2 | - | - |
| EDS-505A/508A-SS-SC | EDS-505A/508A-SS-SC-T | 3/6 | - | - | 2 | - |
| EDS-505A/508A-SS-SC-80 | - | 3/6 | - | - | - | 2 |
| EDS-516A Series | | | | | | |
| EDS-516A | EDS-516A | 16 | - | - | - | - |
| EDS-516A-MM-SC | EDS-516A-MM-SC-T | 14 | 2 | - | - | - |
| EDS-516A-MM-ST | EDS-516A-MM-ST-T | 14 | - | 2 | - | - |

Optional Accessories (can be purchased separately)

- MXview:** Moxa industrial network management software with 50, 100, 250, 500, or 1000 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-4524/75-24/120-24:** 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
- WK-46:** Wall mounting kit
- RK-4U:** 4U-high 19" rack mounting kit

Package Checklist

- EDS-505A or EDS-508A or EDS-516A switch
- RJ45 to DB9 console port cable
- Protective caps for unused ports
- Documentation and software CD
- Hardware installation guide (printed)
- Warranty card

Tento produkt můžete zakoupit u společnosti AutoCont IPC a.s.



AutoCont IPC a.s.

Váš dodavatel průmyslových počítačů, komponent a speciálních průmyslových IT systémů.

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eshop.autocont-ipc.cz



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PRODLOUŽENÁ ZÁRUKA

Záruka 2 roky na vyráběné počítače s možností jejího prodloužení až na 5 let.



ODMĚNA ZA VĚRNOST

Pravidelní zákazníci u nás nakupují za nižší ceny. Výše slevy se odvíjí od realizovaného obrátu.



SERVIS ON-SITE A IN-TIME

K projektovým dodávkám nabízíme rozšířenou podporu a servis s garancí výměny zařízení do 48 hodin.