

EDS-408A/405A Series

8- and 5-Port Entry-level Managed Ethernet Switch



Highlights

- Plug-n-Play Turbo Ring with fast recovery time within 20 ms
- QoS, port-based VLAN, SNMP V1/V2c/V3, RMON supported
- Automatic warning by exception through e-mail, relay output
- User-friendly web-based configuration and management
- ABC-01 (Automatic Backup Configurator) for system configuration backup



Features

Advanced Industrial Networking Capability

- Plug-n-Play, Turbo Ring (recovery time < 20 ms at full load) and RSTP/STP (IEEE802.1 W/D) capability
- Port-based VLAN to ease network planning
- QoS-IEEE 802.1p/1Q and TOS/DiffServ to increase determinism
- RMON for efficient network monitoring and proactive capability
- SNMP V1/V2c/V3 for different levels of network management security

Designed for Industrial Applications

- Bandwidth management prevents unpredictable network status
- ABC-01 (Automatic Backup Configurator) for system configuration backup
- Port mirroring for online debugging
- Automatic warning by exception through e-mail and relay output
- Automatic recovery of connected device's IP addresses

- Line-swap fast recovery (Patented)
- Redundant, dual DC power inputs
- Regular (0 to 60°C) and extended (-40 to 75°C) operating temperature models available
- IP30, rugged high-strength case
- Long-haul transmit distance of 40 km
- DIN-Rail or panel mounting ability
- Configurable by Web browser, Telnet/Serial console, Windows utility
- Ping commands to identify network segment integrity

Recommended Software and Accessories

- ABC-01 RS-232 RJ45-based Automatic Backup Configurator
- EDS-SNMP OPC Server Pro
- DR series DIN-Rail 24 VDC power supplies

Introduction

EDS-408A/405A series switches are entry-level 8- and 5-port managed Ethernet switches that are designed especially for industrial applications. The switches support many different management functions, such as Turbo Ring, ring coupling, VLAN, QoS, RMON,

bandwidth management, port mirroring, and warning by email or relay. The ready-to-use Turbo Ring can be set up easily using a web-based management interface, or simply by using the default settings, which are plug-and-play.

Specifications

Technology

Standards: IEEE802.3, 802.3u, 802.3x, 802.1D, 802.1W, 802.1Q, 802.1p, 802.1X, 802.3ad

Protocols: IGMP V1/V2/V3 device, GVRP, SNMP V1/V2c/V3, DHCP Server/Client, DHCP Option 82, BootP, TFTP, SNT, SMTP, RARP, GMRP, LACP, RMON

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

Flow Control: IEEE802.3x flow control, back pressure flow control

Interface

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

Fiber Ports: 100BaseFX ports (SC/ST connector)

Console: RS-232 (RJ45)

LED Indicators: PWR1, PWR2, FAULT, MASTER, COUPLER, 10/100M

DIP Switch: Turbo Ring, Master, Coupler, Reserve

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

Digital Input: Two 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

Distance:

Multi mode: 0 to 5 km, 1300 nm (50/125 μm, 800 MHz*km)
0 to 4 km, 1300 nm (62.5/125 μm, 500 MHz*km)
Single mode: 0 to 40 km, 1310 nm (9/125 μm, 3.5 PS/(nm*km))

Min. TX Output:

Multi mode : -20 dBm
Single mode: 0 to 40 km, -5 dBm

Max. TX Output:

Multi mode : -14 dBm
Single mode: 0 to 40 km, 0 dBm

RX Sensitivity: -34 to -30 dBm (Multi), -36 to -32 dBm (Single)

Power

Input Voltage: 24 VDC (12 to 45 VDC), redundant dual inputs
Connection: Two removable 6-pin terminal blocks
Overload Current Protection: Present
Reverse Polarity Protection: Present

Mechanical

Casing: IP30 protection, aluminum case
Dimensions (W x H x D): 80.5 x 135 x 105 mm
 3.17 x 5.31 x 4.13 in.

Weight: 1040 g
Installation: DIN-Rail, Wall Mounting (optional kit)

Environmental

Operating Temperature: 0 to 60°C (32 to 140°F)
 -40 to 75°C (-40 to 167°F) for T models
Storage Temperature: -40 to 85°C (-40 to 185°F)
Ambient Relative Humidity: 5 to 95% (non-condensing)

Regulatory Approvals

Safety: UL508, UL60950-1, CSA C22.2 No. 60950-1, EN60950-1
Hazardous location:
 UL/cUL Class I, Division 2, Groups A, B, C, and D (Pending)
 ATEX Class I, Zone 2, EEx nC IIC (Pending)

Maritime: DNV, GL

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 4
 EN61000-4-5 (Surge), level 3
 EN61000-4-6 (CS), level 3
 EN61000-4-8
 EN61000-4-11

Shock: IEC60068-2-27

Freefall: IEC60068-2-32

Vibration: IEC60068-2-6

MTBF: EDS-408A series: 363,000 hrs

EDS-405A series: 392,000 hrs

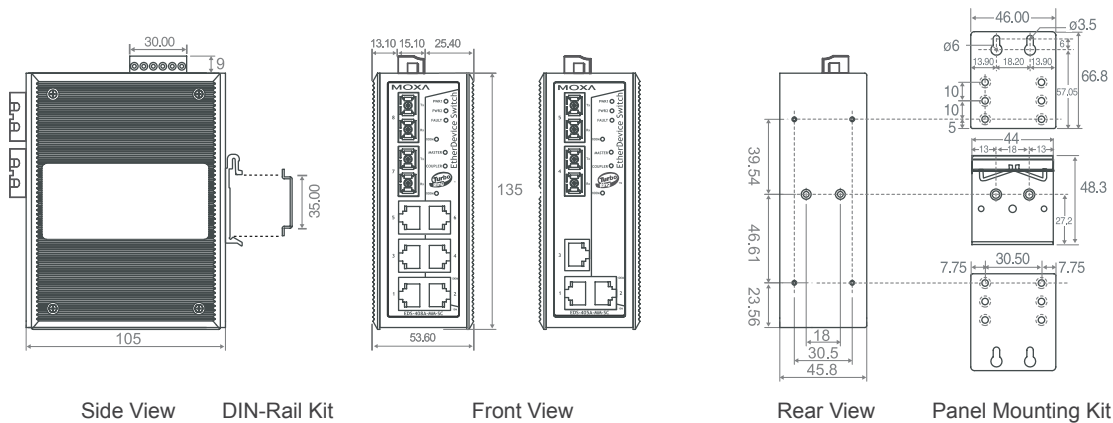
Database: Telcordia (Bellcore), GB

*Please check MOXA's website for the most up-to-date certification status.

Warranty

5 years

Dimensions (unit = mm)



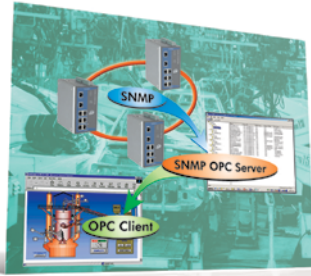
Ordering Information

EDS-408A/405A-AA-BB-C

Ordering Code Definition	Fiber Port	FO Connector	Operating Temperature
	MM: Two Multi Mode SS: Two Single Mode	SC: SC Connector ST: ST Connector	T: Operating Temp. -40 to 75°C (Standard Models: 0 to 60°C)
Available Models	EDS-408A Series Standard: <ul style="list-style-type: none"> EDS-408A EDS-408A-MM-SC EDS-408A-MM-ST EDS-408A-SS-SC 		Wide Temperature: <ul style="list-style-type: none"> EDS-408A-T EDS-408A-MM-SC-T EDS-408A-MM-ST-T EDS-408A-SS-SC-T
	EDS-405A Series Standard: <ul style="list-style-type: none"> EDS-405A EDS-405A-MM-SC EDS-405A-MM-ST EDS-405A-SS-SC 		Wide Temperature: <ul style="list-style-type: none"> EDS-405A-T EDS-405A-MM-SC-T EDS-405A-MM-ST-T EDS-405A-SS-SC-T
Optional Accessories	<ul style="list-style-type: none"> ABC-01: Industrial RS-232, RJ45-based, Automatic Backup Configurator DR-4524: 45W/2A DIN-Rail 24 VDC Power Supply, 85 to 264 VAC input DR-75-24: 75W/3.2A DIN-Rail 24 VDC Power Supply, 85 to 264 VAC input DR-120-24: 120W/5A DIN-Rail 24 VDC Power Supply, 88 to 132 VAC/176 to 264 VAC input by switch WK-46: Wall Mounting Kit 		

EDS-SNMP OPC Software Pro

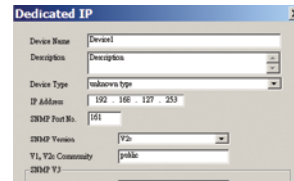
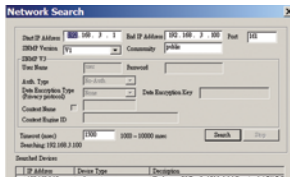
Network Management Software Designed for All SNMP Devices



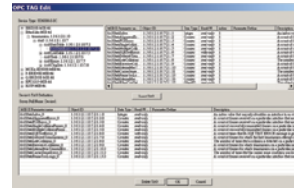
Seamlessly integrate EDS-SNMP OPC Server Pro with the leading HMI/SCADA software to create a comprehensive Ethernet network Management solution for SNMP Devices

Features

- “Broadcast Search” the network for EDS-800/700/500A/400A series, PT-7800/7700 series, and any SNMP device
- Easy to create and edit the configuration of connected devices in advance



- Easy to create and edit the MIB Template for dedicated tag file of any SNMP device
- User-definable tag file meets the requirements of many different applications



Real-time Management for Any SNMP Device

EDS-SNMP OPC Server Pro provides a user-editable Tag file for any SNMP device. Use the default MIB file, or create and edit a standard or private MIB to generate a dedicated Tag file. This powerful function lets operators use an existing HMI software environment to create a

customized and real time view of the integrity of all Ethernet network devices, the overall Ethernet network traffic volume, and overall Ethernet network status.

Monitor the Network from a Central Location

EDS series switches are ideally suited for connecting Ethernet-enabled industrial devices in your mission critical applications. Combined with EDS-SNMP OPC Pro Server software, your HMI (Human Machine Interface) packages and SCADA (Supervisory Control And Data Acquisition) software are turned into a complete remote network traffic

and status monitoring tool. This solution gives control engineers the power to monitor the network from a central location with existing and familiar visualization and control applications.

System Requirements

Windows NT/2000/XP, Administrator Privileges, Ethernet Card

Ordering Information

EDS-SNMP OPC Server Pro: CD with EDS-SNMP OPC Server Pro software and manual