EDS-205A/208A Series

5 and 8-port unmanaged Ethernet switches

> 10/100BaseT(X) (RJ45 connector), 100BaseFX (multi/single-mode, SC or ST connector)
> Redundant dual 12/24/48 VDC, 18 to 30 VAC power inputs
> IP30 aluminum housing
> Rugged hardware design well suited for hazardous locations (Class I Div. 2/ATEX Zone 2), Transportation (NEMA TS2/ EN 50121-4/e-Mark), and maritime environments (DNV/GL/LR/ABS/NK)
> -40 to 75°C operating temperature range (T models)

IndustrialIT enabled ⟨Ex⟩ c(UL)us LISTED DNV (G L) Lloyd's Register LIFE MATTERS ABS APPROVED PRODUCT ClassNK APPROVED EN 50121 NEMA TS2 CE FC

Introduction

The EDS-205A/208A series are 5 and 8-port industrial Ethernet switches that support IEEE 802.3 and IEEE 802.3u/x with 10/100M full/half-duplex, MDI/MDI-X auto-sensing. The EDS-205A/208A switches provide 12/24/48 VDC (9.6 to 60 VDC), 18 to 30 VAC redundant power inputs that can be connected simultaneously to live AC/DC power sources. These switches have been designed for harsh industrial environments, such as in maritime (DNV/GL/LR/ABS/NK), rail wayside, highway, or mobile applications(EN 50121-4/NEMA TS2/e-Mark), or hazardous locations (Class I Div. 2, ATEX Zone 2) that comply with FCC, UL, and CE standards.

The EDS-205A/208A switches are available with a standard operating temperature range from -10 to 60°C, or with a wide operating temperature range from -40 to 75°C. All models are subjected to a 100% burn-in test to ensure that they fulfill the special needs of industrial automation control applications. In addition, the EDS-205A/208A switches have DIP switches for enabling or disabling broadcast storm protection, providing another level of flexibility for industrial applications.

Specifications

Technology
Standards:
IEEE 802.3 for 10BaseT
IEEE 802.3u for 100BaseT(X) and 100BaseFX
IEEE 802.3x for Flow Control
Processing Type: Store and Forward
Flow Control: IEEE 802.3x flow control, back pressure flow control

Switch Properties
MAC Table Size: 1 K
Packet Buffer Size: 512 Kbit

Interface
Fiber Ports: 100BaseFX ports (SC/ST connector, multi-mode, single-mode)
RJ45 Ports: 10/100BaseT(X) auto negotiation speed, Full/Half duplex mode, and auto MDI/MDI-X connection
DIP Switches: Enable/Disable broadcast storm protection
LED Indicators: Power, 10/100M (TP port), 100M (fiber port)

Optical Fiber

	100BaseFX	
	Multi-mode	**Single-mode**
Wavelength	1300 nm	1310 nm
Max. TX	-10 dBm	0 dBm
Min. TX	-20 dBm	-5 dBm
RX Sensitivity	-32 dBm	-34 dBm
Link Budget	12 dB	29 dB
Typical Distance	5 km[a] 4 km[b]	40 km[c]
Saturation	-6 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

Power Requirements
Input Voltage: 12/24/48 VDC (9.6 to 60 VDC), 18 to 30 VAC (47 to 63 Hz), redundant dual inputs
Input Current:
EDS-205A: 0.1 A @ 24 V
EDS-205A-M/S: 0.11 A @ 24 V
EDS-208A: 0.13 A @ 24 V
EDS-208A-M: 0.17 A @ 24 V
EDS-208A-MM/SS: 0.22 A @ 24 V
Overload Current Protection: 1.1 A
Connection: 1 removable 4-contact terminal block
Reverse Polarity Protection: Present

MOXA®

Physical Characteristics
Housing: Aluminum, IP30 protection
Dimensions:
EDS-205A: 30 x 115 x 70 mm (1.18 x 4.52 x 2.76 in)
EDS-208A: 50 x 115 x 70 mm (1.96 x 4.52 x 2.76 in)
Weight:
EDS-205A: 175 g
EDS-208A: 275 g
Installation: DIN-Rail mounting, wall mounting (with optional kit)

Environmental Limits
Operating Temperature:
Standard Models: -10 to 60°C (14 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
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) Level 3, EN 61000-4-3 (RS) Level 3,
EN 61000-4-4 (EFT) Level 3, EN 61000-4-5 (Surge) Level 3,
EN 61000-4-6 (CS) Level 3, EN 61000-4-8, EN 61000-4-11
Marine: DNV, GL, LR, ABS, NK
Wheeled Vehicles: e-Mark (E1) (EDS-208A only)
Traffic Control: NEMA TS2
Rail Traffic: EN 50121-4
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)
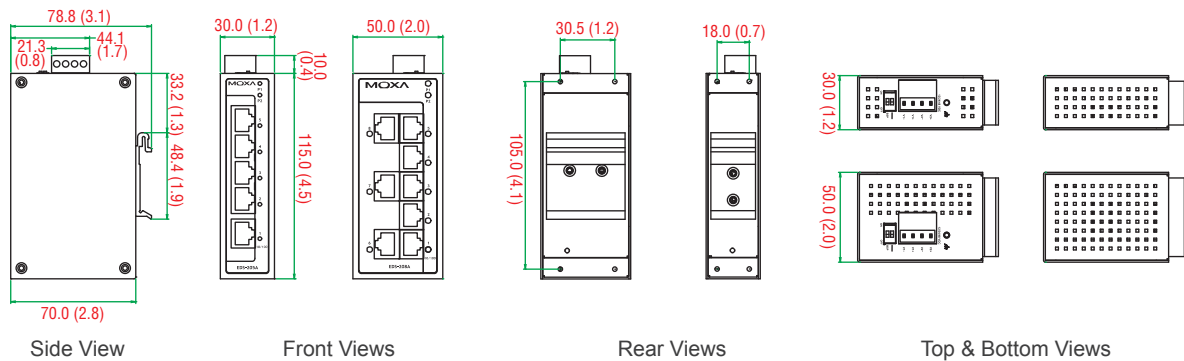**Time:** 425,000 hrs
Database: Telcordia (Bellcore), GB

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

Dimensions

Unit: mm (inch)

Side View   Front Views   Rear Views   Top & Bottom Views

: Ordering Information

| Available Models | | | Port Interface | | | |
| Standard Temperature (-10 to 60˚C) | Wide Temperature (-40 to 75˚C) | 10/100BaseT(X) | 100BaseFX | | | |
			Multi-mode, SC Connector	Multi-mode, ST Connector	Single-mode, SC Connector
EDS-205A	EDS-205A-T	5	–	–	–
EDS-205A-M-SC	EDS-205A-M-SC-T	4	1	–	–
EDS-205A-M-ST	EDS-205A-M-ST-T	4	–	1	–
EDS-205A-S-SC	EDS-205A-S-SC-T	4	–	–	1
EDS-208A	EDS-208A-T	8	–	–	–
EDS-208A-M-SC	EDS-208A-M-SC-T	7	1	–	–
EDS-208A-M-ST	EDS-208A-M-ST-T	7	–	1	–
EDS-208A-MM-SC	EDS-208A-MM-SC-T	6	2	–	–
EDS-208A-MM-ST	EDS-208A-MM-ST-T	6	–	2	–
EDS-208A-S-SC	EDS-208A-S-SC-T	7	–	–	1
EDS-208A-SS-SC	EDS-208A-SS-SC-T	6	–	–	2

Optional Accessories (can be purchased separately)
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
WK-30: Wall mounting kit (EDS-205A series only)
WK-46: Wall mounting kit (EDS-208A series only)
RK-4U: 4U-high 19" rack mounting kit

Package Checklist
- EDS-205A or EDS-208A switch
- Hardware installation guide (printed)
- Warranty card