

EDS-G308 Series

8G-port full Gigabit unmanaged Ethernet switch



- > 8 Gigabit Ethernet ports
- > Fiber optic options for extending distance and electrical noise immunity
- > Redundant dual 12/24/48 VDC, 18 to 30 VAC power inputs
- > Relay output warning for power failure and port break alarm
- > Broadcast storm protection
- > -40 to 75°C operating temperature range (T models)



Introduction

The EDS-G308 series is equipped with 8 Gigabit Ethernet ports and up to 2 fiber optic ports, making it ideal for applications that demand high bandwidth. The EDS-G308 series provides an economical solution for your industrial Gigabit Ethernet connection, and the built-in relay warning function alerts maintainers when power failures or port breaks occur. The EDS-G308 series includes 2 models: one with an operating temperature range of 0 to 60°C, and the other one with an extended

operating temperature range of -40 to 75°C. These 2 models pass through a 100% burn-in test to ensure that they fulfill the special needs of industrial automation control. The EDS-G308 series can be easily installed with DIN-Rail mounting as well as distribution boxes.

Specifications

Technology

Standards: IEEE 802.3 for 10BaseT,
IEEE 802.3u for 100BaseT(X) and 100Base FX,
IEEE 802.3ab for 1000Base(X),
IEEE 802.3z for 1000BaseSX/LX/LHX/ZX,
IEEE 802.3x for Flow Control

Processing Type: Store and Forward

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

Interface

RJ45 Ports: 10/100/1000BaseT(X) auto negotiation speed, F/H duplex mode, and auto MDI/MDI-X connection

Fiber Ports: 100/1000BaseSFP slot

LED Indicators: PWR1, PWR2, FAULT, 10/100/1000M

DIP Switch: Port break alarm mask

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

Power Requirements

Input Voltage:

12/24/48 VDC (9.6 to 60 VDC), 24 VAC (18 to 30 VAC)(47 to 63 Hz) redundant inputs

Connection: Removable 6-pin terminal block

Reverse Polarity Protection: Present

Physical Characteristics

Casing: IP30 protection, metal case

Dimensions (W x H x D): 53.6 x 135 x 105 mm (2.11 x 5.31 x 4.13 in)

Weight: 630 g

Installation: DIN-Rail mounting, wall mounting (optional kit)

Environmental Limits

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 (Pending)

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

Maritime: DNV (Pending), GL (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

Shock: IEC 60068-2-27

Free Fall: IEC 60068-2-32

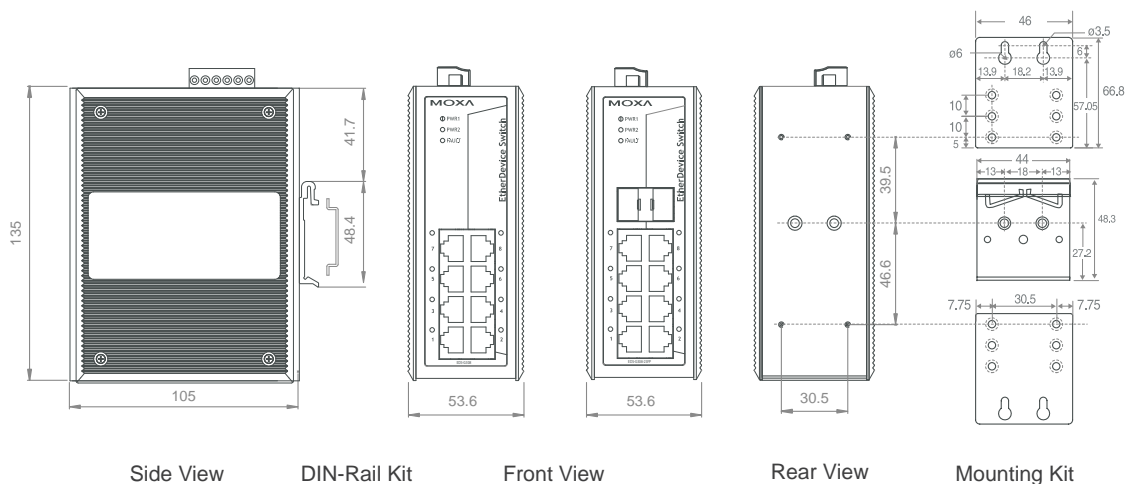
Vibration: IEC 60068-2-6

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

Warranty

5 years (see www.moxa.com/warranty for details)

Dimensions (unit = mm)



Ordering Information

Product Model		Port Interface	
Standard Temperature (0 to 60°C)	Extended Temperature (-40 to 75°C)	Gigabit Ethernet	
		10/100/1000BaseT(X)	Combo port, 10/100/1000BaseT(X) or 100/1000BaseSFP*
EDS-G308	EDS-G308-T	8	
EDS-G308-2SFP	EDS-G308-2SFP-T	6	2

* EDS-G308-2SFP/EDS-G308-2SFP-T support up to 2 100/1000BaseSFP slots. Please see page 2-23 for the product information of SFP-1G series Gigabit Ethernet SFP modules.

Optional Accessories

- **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
- **DR-75-48:** 75W/1.6A DIN-Rail 48 VDC power supply with universal 85 to 264 VAC input
- **DR-120-48:** 120W/2.5A DIN-Rail 48 VDC power supply with 88 to 132 VAC/176 to 264 VAC input by switch
- **WK-46:** Wall mounting kit
- **RK-4U:** 4U-high 19" rack mounting kit

SFP-1G Series

1G-port Gigabit Ethernet SFP modules



- > Compliant with IEEE 802.3z
- > Differential LVPECL inputs and outputs
- > Single power supply 3.3V
- > TTL signal detect indicator
- > Hot Pluggable
- > Class 1 laser product, complies with EN60825-1



Specifications

Interface

Gigabit Port: 1 port

Connector: Duplex LC Connector or

Simplex LC Connector* (WDM-type only)

* WDM-type SFP modules must be used in pairs (e.g., SFP-1GXXALC and SFP-1GXXBLC)

Optical Fiber

	Gigabit Ethernet			
	SFP-SX	SFP-LX	SFP-LHX	SFP-ZX
Wavelength	850 nm	1310 nm	1310 nm	1550 nm
Max. TX	-4 dBm	-3 dBm	1 dBm	5 dBm
Min. TX	-9.5 dBm	-9.5 dBm	-4 dBm	0 dBm
RX Sensitivity	-18 dBm	-20 dBm	-24 dBm	24 dBm
Link Budget	8.5 dB	10.5 dB	20 dB	24 dB
Typical Distance	550 m ^a 275 m ^b	1100 m ^c 550 m ^d 10 km ^e	40 km ^e	80 km ^f
Saturation	0 dBm	-3 dBm	-3 dBm	-3 dBm

	Gigabit Ethernet					
	SFP-10A	SFP-10B	SFP-20A	SFP-20B	SFP-40A	SFP-40B
Wave-length	TX 1310 nm, RX 1550 nm		TX 1550 nm, RX 1310 nm		TX 1310 nm, RX 1550 nm	
Max. TX	-3 dBm		-2 dBm		2 dBm	
Min. TX	-9 dBm		-8 dBm		-3 dBm	
RX Sensitivity	-21 dBm		-23 dBm		-23 dBm	
Link Budget	12 dB		15 dB		20 dB	
Typical Distance	10 km ^{ef}		20 km ^{ef}		40 km ^{ef}	
Saturation	-1 dBm		-1 dBm		-1 dBm	

- a. 50/125 μm, 400 MHz*km fiber optic cable
- b. 62.5/125 μm, 200 MHz*km fiber optic cable
- c. 50/125 μm, 800 MHz*km fiber optic cable
- d. 62.5/125 μm, 500 MHz*km fiber optic cable
- e. 9/125 μm, 3.5 PS/(nm*km) fiber optic cable
- f. 9/125 μm, 19 PS/(nm*km) fiber optic cable

Environmental Limits

Operating Temperature: 0 to 60°C (32 to 140°F)

-40 to 85°C (-40 to 185°F) for T models

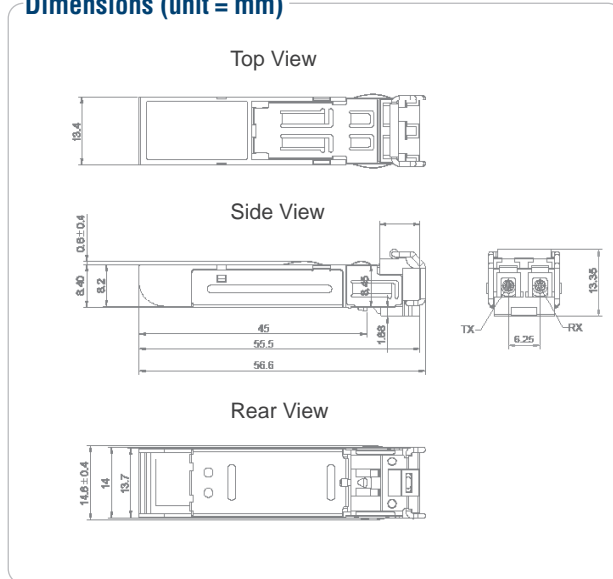
Storage Temperature: -40 to 85°C (-40 to 185°F)

Ambient Relative Humidity: 5 to 95% (non-condensing)

Regulatory Approvals

Safety: UL, TÜV, EN60825-1

Dimensions (unit = mm)



Ordering Information

SFP Modules

Product Model		Port Interface			
Standard Temperature (0 to 60°C)	Extended Temperature (-40 to 85°C)	1000BaseSX, LC Connector, 0.5 km	1000BaseLX, LC Connector, 10 km	1000BaseLHX, LC Connector, 40 km	1000BaseZX, LC Connector, 80 km
SFP-1GSXLC	SFP-1GSXLC-T*	1			
SFP-1GLXLC	SFP-1GLXLC-T		1		
SFP-1GLHXLC	SFP-1GLHXLC-T			1	
SFP-1GZLC	SFP-1GZLC-T				1

* SFP-1GSXLC-T: -20 to 75°C operating temperature

WDM-type (BiDi) SFP Modules

Product Model		Port Interface					
Standard Temperature (0 to 60°C)	Extended Temperature (-40 to 85°C)	1000BaseSFP, LC Connector, 10 km		1000BaseSFP, LC Connector, 20 km		1000BaseSFP, LC Connector, 40 km	
		TX 1310 nm, RX 1550 nm	TX 1550 nm, RX 1310 nm	TX 1310 nm, RX 1550 nm	TX 1550 nm, RX 1310 nm	TX 1310 nm, RX 1550 nm	TX 1550 nm, RX 1310 nm
SFP-1G10ALC	SFP-1G10ALC-T	1					
SFP-1G10BLC	SFP-1G10BLC-T		1				
SFP-1G20ALC	SFP-1G20ALC-T			1			
SFP-1G20BLC	SFP-1G20BLC-T				1		
SFP-1G40ALC	SFP-1G40ALC-T					1	
SFP-1G40BLC	SFP-1G40BLC-T						1

Matched Products

- **EDS-828/728 series:** IM-2GSFP series Gigabit Ethernet interface module
- **EDS-G509 series:** 9G-port full Gigabit managed Ethernet switches
- **EDS-518A series:** 16+2G-port Gigabit managed Ethernet switches
- **EDS-510A series:** 7+3G-port Gigabit managed Ethernet switches
- **PX-1510 series:** 7+3G-port Gigabit PoE managed Ethernet switches
- **PT and IKS series:** PM-7200-2G/4G series Gigabit Ethernet interface modules
- **EDS-G308 series:** 8G-port full Gigabit unmanaged Ethernet switches
- **IMC-101G series:** Industrial Gigabit media converters