

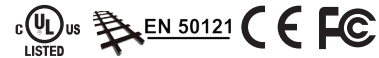
# EDS-G205A-4PoE Series



**5-port full Gigabit unmanaged Ethernet switches with 4 IEEE 802.3af/at PoE+ ports**



- > Full Gigabit Ethernet ports
- > IEEE 802.3af/at, PoE+ standards
- > Up to 36 watts output per PoE port
- > 12/24/48 VDC flexible redundant power inputs
- > Supports 9.6 KB jumbo frames
- > Intelligent power consumption detection and classification
- > Smart PoE over current and short circuit protection
- > -40 to 75°C operating temperature range (T models)



## Introduction

The EDS-G205A-4PoE switches are smart, 5-port, unmanaged full Gigabit Ethernet switches supporting Power-over-Ethernet on ports 2 to 5. The switches are classified as power source equipment (PSE), and when used in this way, the EDS-G205A-4PoE switches enable centralization of the power supply, providing up to 36 watts of power per port and reducing the effort needed for installing power. The

switches can be used to power IEEE 802.3af/at standard devices (PD), eliminating the need for additional wiring, and they support IEEE 802.3/802.3u/802.3x with 10/100/1000M, full/half-duplex, MDI/MDI-X auto-sensing to provide an economical high-bandwidth solution for your industrial Ethernet network.

## Specifications

### Technology

#### Standards:

IEEE 802.3af/at for Power-over-Ethernet  
 IEEE 802.3 for 10BaseT  
 IEEE 802.3u for 100BaseT(X)  
 IEEE 802.3ab for 1000BaseT  
 IEEE 802.3z for 1000BaseX  
 IEEE 802.3x for Flow Control

**Processing Type:** Store and Forward

#### Switch Properties

**MAC Table Size:** 8 K

**Packet Buffer Size:** 136 KB

**Jumbo Frame Size:** 9.6 KB

#### Interface

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

**Fiber Ports:** 100/1000BaseSFP slot

**PoE Pinout:** V+, V+, V-, V- for Pin 1,2,3,6 (Endspan, MDI Alternative A)

#### Power Requirements

**Input Voltage:** 12/24/48 VDC, redundant dual inputs

**Operating Voltage:** 12 to 57 VDC

**Input Current:** 5.42 A @ 24 VDC

**Overload Current Protection:** Present

**Connection:** 2 removable 2-contact terminal blocks

**Reverse Polarity Protection:** Present

**Power Consumption:** Max. 10.08 W full loading without PDs' consumption

**Power Budget:** Max. 62 W at 12 VDC, 120 W at 24 VDC, and 144 W at 48 VDC for total PDs' consumption, Max. 36 W for each PoE port

### Physical Characteristics

**Housing:** Metal

**IP Rating:** IP30 protection

**Dimensions:** 29 x 135 x 105 mm (1.14 x 5.31 x 4.13 in)

**Weight:** 300 g (0.66 lb)

**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

**EMC:** EN 55022/24

**EMI:** CISPR 22, FCC Part 15B Class A

**EMS:**

IEC 61000-4-2 ESD: Contact: 4 kV; Air: 8 kV

IEC 61000-4-3 RS: 80 MHz to 1 GHz: 20 V/m

IEC 61000-4-4 EFT: Power: 2 kV; Signal: 1 kV

IEC 61000-4-5 Surge: Power: 2 kV; Signal: 2 kV

IEC 61000-4-6 CS: 10 V

IEC 61000-4-8

**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)

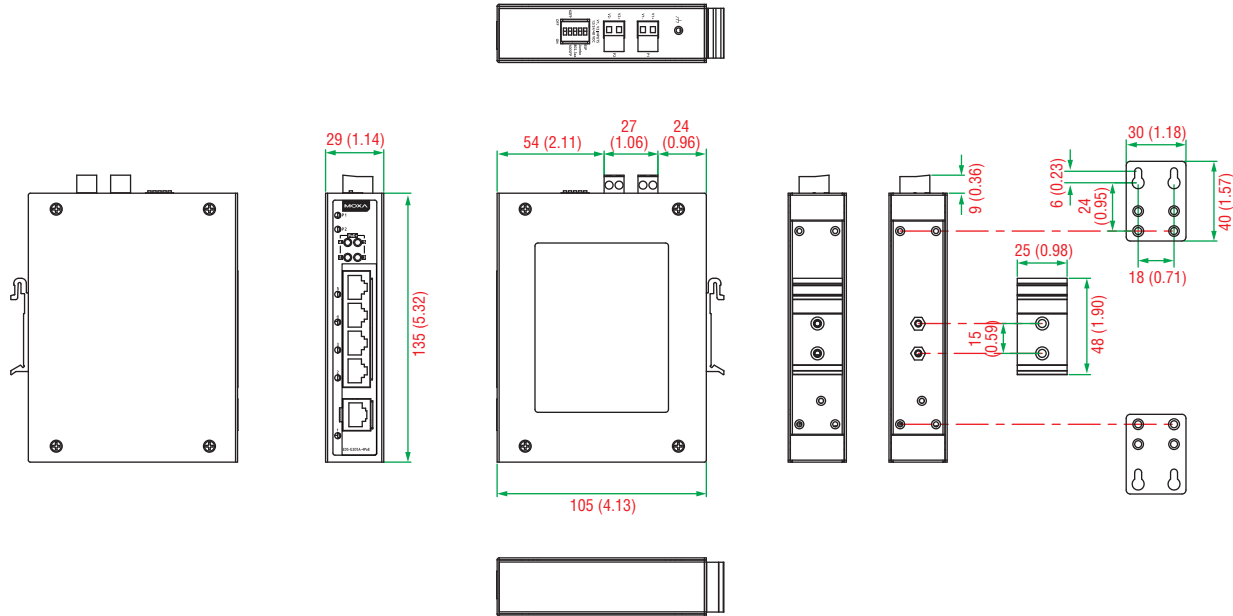
**Time:** 1,257,910 hrs  
**Standard:** Telcordia (Bellcore), GB

**Warranty**

**Warranty Period:** 5 years  
**Details:** See [www.moxa.com/warranty](http://www.moxa.com/warranty)

**Dimensions**

Unit: mm (inch)



**Ordering Information**

Available Models		Port Interface		
Standard Temperature (0 to 60°C)	Wide Temperature (-40 to 75°C)	10/100/1000BaseT(X)	100/1000BaseSFP*	PoE/PoE+, 10/100/1000BaseT(X)
EDS-G205A-4PoE	EDS-G205A-4PoE-T	5	–	4
EDS-G205A-4PoE-1GSFP	EDS-G205A-4PoE-1GSFP-T	4	1	4

\*See the SFP-1G datasheet for SFP module product information.

**Optional Accessories** (can be purchased separately)

- DR-75-24/120-24:** 75/120 W DIN-rail 24 VDC power supplies
- DR-75-48/120-48:** 75/120 W DIN-rail 48 VDC power supplies
- DRP-240-48:** 240 W DIN-rail 48 VDC power supplies
- RK-4U:** 4U-high 19-inch rack-mounting kit
- WK-30:** Wall-mounting kit, 2 plates with 4 screws

**Package Checklist**

- EDS-G205A-4PoE switch
- Hardware installation guide (printed)
- Warranty card

# SFP-1G Series

## 1-port Gigabit Ethernet SFP modules



- > Digital Diagnostic Monitor Function
- > -40 to 85°C operating temperature range (T models)
- > IEEE 802.3z compliant
- > Differential LVPECL inputs and outputs
- > TTL signal detect indicator
- > Hot pluggable LC duplex connector
- > Class 1 laser product, complies with EN 60825-1



### Specifications

#### Interface

Ethernet Ports: 1

Connectors: Duplex LC Connector or Simplex LC Connector (WDM-type only)

#### Optical Fiber

		Gigabit Ethernet SFP									
		SFP-SX		SFP-LSX		SFP-LX	SFP-LH	SFP-LHX	SFP-ZX	SFP-EZX	SFP-EZX-120
Transceiver Type		Multi-Mode		Multi-Mode		Single-Mode	Single-Mode	Single-Mode	Single-Mode	Single-Mode	Single-Mode
Fiber Cable Type		OM1	OM2	OM2	OM1	G.652	G.652	G.652	G.652	G.652	G.652
Typical Distance		300 m	550 m	1 km	2 km	10 km	30 km	40 km	80 km	110 km	120 km
Wave-length	Typical (nm)	850		1310		1310	1310	1310	1550	1550	1550
	TX Range (nm)	830 to 860		1270 to 1355		1280 to 1355	1280 to 1355	1280 to 1340	1530 to 1570	1530 to 1570	1530 to 1570
	RX Range (nm)	770 to 860		1260 to 1610		1260 to 1610	1260 to 1610	1260 to 1610	1260 to 1610	1260 to 1610	1100 to 1600
Optical Power	TX Range (dBm)	-4 to -9.5		-1 to -9		-3 to -9	-3 to -8	+3 to -4	+5 to 0	+5 to 0	+3 to -2
	RX Range (dBm)	0 to -18		-1 to -19		-3 to -21	-3 to -23	-1 to -24	-1 to -24	-9 to -30	-8 to -33
	Link Budget (dB)	8.5		10		12	15	20	24	30	31
	Dispersion Penalty (dB)	4.3	3.6	5	5	1	1	1	1	1	2

Note: When connecting the SFP-LHX, ZX, EZX, or EZX-120, we recommended using an attenuator to prevent the transceiver from being damaged by excessive optical power.

		WDM Gigabit Ethernet SFP							
		SFP-10A		SFP-10B		SFP-20B		SFP-40B	
Transceiver Type		Single-Mode		Single-Mode		Single-Mode		Single-Mode	
Fiber Cable Type		G.652		G.652		G.652		G.652	
Typical Distance		10 km		20 km		40 km		40 km	
Wave-length	Typical (nm)	TX 1310, RX 1550	TX 1550, RX 1310	TX 1310, RX 1550	TX 1550, RX 1310	TX 1310, RX 1550	TX 1550, RX 1310	TX 1310, RX 1550	TX 1550, RX 1310
	TX Range (nm)	1270 to 1355		1530 to 1570		1270 to 1355		1530 to 1570	
	RX Range (nm)	1480 to 1580		1260 to 1360		1480 to 1580		1260 to 1360	
Optical Power	TX Range (dBm)	-3 to -9		-2 to -8		-2 to -8		+2 to -3	
	RX Range (dBm)	-3 to -21		-2 to -23		-2 to -23		-1 to -23	
	Link Budget (dB)	12		15		15		20	
	Dispersion Penalty (dB)	2		3		3		1	

Note: WDM-type SFP modules must be used in pairs (e.g., SFP-1G10ALC and SFP-1G10BLC)

Note: When connecting the SFP-40A and 40B, we recommend using an attenuator to prevent damage caused by excessive optical power.

**Typical Distance:** To reach the typical distance of specified fiber transceiver, please refer to formula: Link budget(dB) > dispersion penalty(dB) + total link loss(dB).

### Power Requirements

Power Consumption: Max. 1 W

### Environmental Limits

#### Operating Temperature:

Standard Models: 0 to 60°C (32 to 140°F)

Wide Temp. Models: -40 to 85°C (-40 to 185°F)

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

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

### Standards and Certifications

Safety: CE, FCC, TÜV (EN 60825), UL 60950-1

Marine: DNV, GL

### Warranty

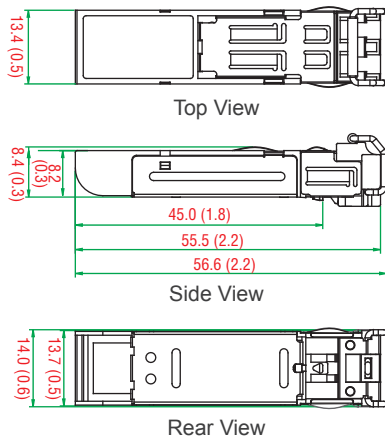
Warranty Period: 5 years

Details: See [www.moxa.com/warranty](http://www.moxa.com/warranty)

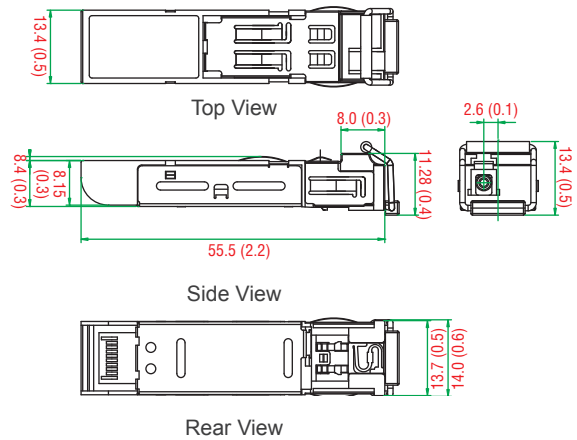
### Dimensions

Unit: mm (inch)

#### SFP-1G Series



#### SFP-1G Series (WDM Type)



### Ordering Information

Gigabit Ethernet SFP Models				WDM Gigabit Ethernet SFP Models			
Standard Temperature Models (0 to 60°C)	Wide Temperature Models (-40 to 85°C)	Transceiver Type	Typical Distance	Standard Temperature (0 to 60°C)	Wide Temperature (-40 to 85°C)	Transceiver Type	Typical Distance
SFP-1GSXLC	SFP-1GSXLC-T*	Multi-Mode	300/550 m	SFP-1G10ALC	SFP-1G10ALC-T	Single-Mode	10 km
SFP-1GLSXLC	SFP-1GLSXLC-T	Multi-Mode	1/2 km	SFP-1G10BLC	SFP-1G10BLC-T	Single-Mode	10 km
SFP-1GLXLC	SFP-1GLXLC-T	Single-Mode	10 km	SFP-1G20ALC	SFP-1G20ALC-T	Single-Mode	20 km
SFP-1GLHLC	SFP-1GLHLC-T	Single-Mode	30 km	SFP-1G20BLC	SFP-1G20BLC-T	Single-Mode	20 km
SFP-1GLHXL	SFP-1GLHXL-T	Single-Mode	40 km	SFP-1G40ALC	SFP-1G40ALC-T	Single-Mode	40 km
SFP-1GZXLC	SFP-1GZXLC-T	Single-Mode	80 km	SFP-1G40BLC	SFP-1G40BLC-T	Single-Mode	40 km
SFP-1GEZXLC	-	Single-Mode	110 km	-	-	-	-
SFP-1GEZXLC-120	-	Single-Mode	120 km	-	-	-	-

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

#### Package Checklist

- SFP-1G module
- Warranty card