

EDS-G205A-4PoE Series

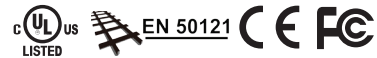
▶ Award-winning Product



**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: 128 KB

Jumbo Frame Size: 10 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: 5.65 A @ 24 VDC

Overload Current Protection: Present

Connection: 2 removable 2-contact terminal blocks

Reverse Polarity Protection: Present

Power Consumption: Max. 11.73 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 55032/24

EMI: CISPR 32, 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: 2 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)

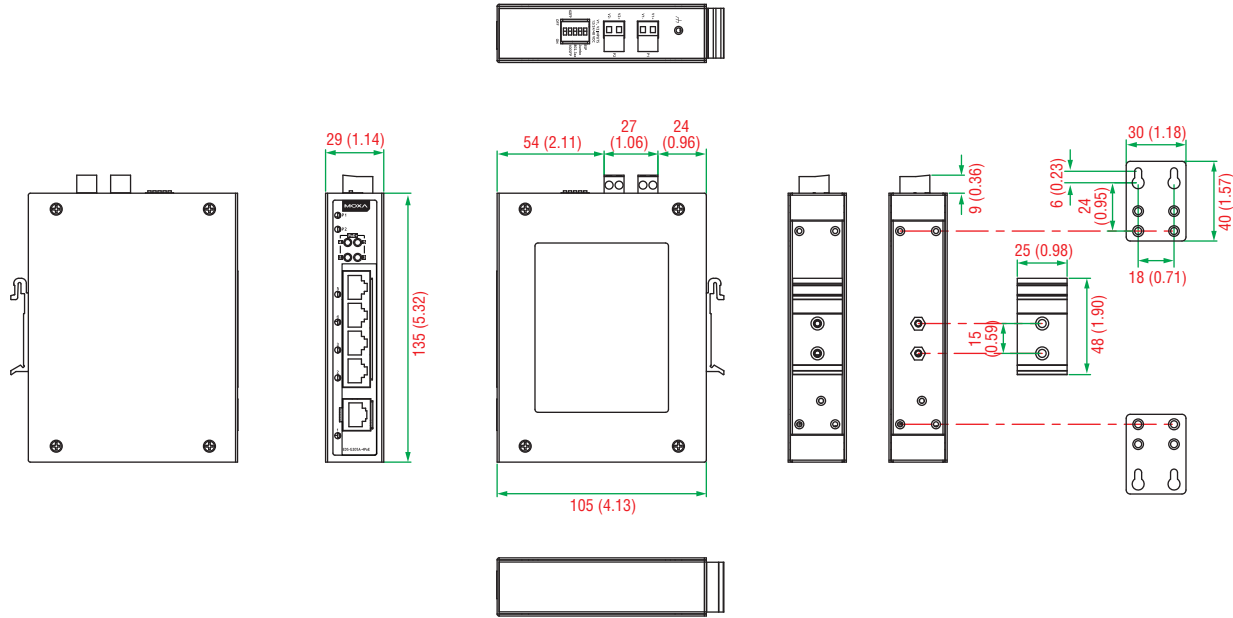
Time: 1,257,910 hrs
Standard: Telcordia (Bellcore), GB

Warranty

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

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-20A | SFP-20B | SFP-40A |
| Transceiver Type | | Single-Mode | | Single-Mode | | Single-Mode | |
| Fiber Cable Type | | G.652 | | G.652 | | G.652 | |
| Typical Distance | | 10 km | | 20 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 Range (nm) | 1270 to 1355 | | 1530 to 1570 | | 1290 to 1330 | |
| | RX Range (nm) | 1480 to 1580 | | 1260 to 1360 | | 1480 to 1580 | |
| Optical Power | TX Range (dBm) | -3 to -9 | | -2 to -8 | | +2 to -3 | |
| | RX Range (dBm) | -3 to -21 | | -2 to -23 | | -1 to -23 | |
| | Link Budget (dB) | 12 | | 15 | | 20 | |
| | Dispersion Penalty (dB) | 2 | | 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

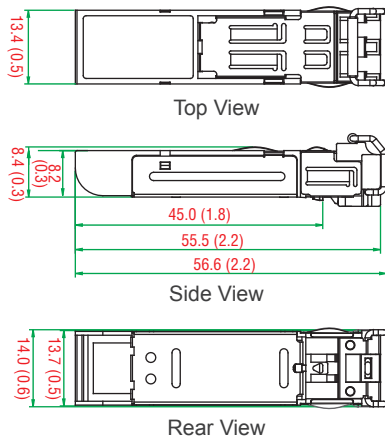
Warranty Period: 5 years

Details: See www.moxa.com/warranty

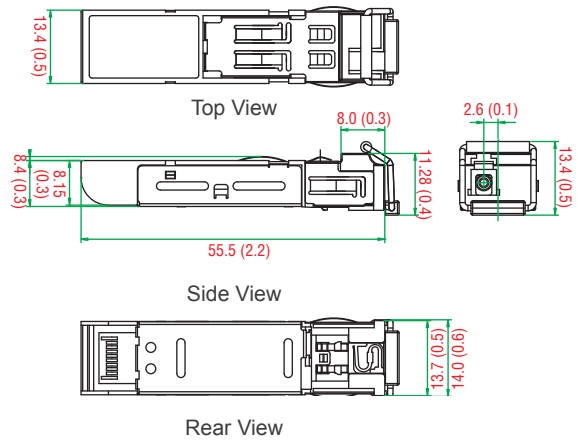
Dimensions

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-1GLHXLC | SFP-1GLHXLC-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