

# EDS-619 Series

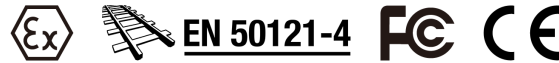
## 16+3G-port compact modular managed Ethernet switches



### Features and Benefits

- Up to 19 optical fiber connections in a compact switch
- Modular design with 4-port copper/fiber combinations
- Hot-swappable media modules for continuous operation
- Turbo Ring and Turbo Chain (recovery time < 20 ms @ 250 switches),<sup>1</sup> RSTP/STP, and MSTP for network redundancy
- TACACS+, SNMPv3, IEEE 802.1X, HTTPS, and SSH to enhance network security
- Easy network management by web browser, CLI, Telnet/serial console, Windows utility, and ABC-01
- Supports MXstudio for easy, visualized industrial network management

### Certifications



## Introduction

The versatile modular design of the compact EDS-619 Series allows users to combine fiber and copper modules to create switch solutions suitable for any automation network. The EDS-619's modular design lets you install up to 3 Gigabit Ethernet ports and 16 Fast Ethernet ports, and the advanced Turbo Ring and Turbo Chain (recovery time < 20 ms) technology, RSTP/STP, and MSTP help increase the reliability and availability of your industrial Ethernet network.

Models with an extended operating temperature range of -40 to 75°C are also available. The EDS-619 Series supports several reliable and intelligent functions, including EtherNet/IP, Modbus TCP, LLDP, DHCP Option 82, SNMP Inform, QoS, IGMP snooping, VLAN, TACACS+, IEEE 802.1X, HTTPS, SSH, SNMPv3, and more, making the Ethernet switches suitable for any harsh industrial environment.

### Additional Features and Benefits

- Command line interface (CLI) for quickly configuring major managed functions
- SNMP Inform for ensuring reliable event management
- LLDP for automated topology discovery
- DHCP Option 82 for IP address assignment with different policies
- Supports EtherNet/IP and Modbus TCP protocols for device management and monitoring
- Compatible with PROFINET protocol for transparent data transmission
- Port mirroring for online debugging
- IGMP snooping and GMRP for filtering multicast traffic
- Port-based VLAN, IEEE 802.1Q VLAN, and GVRP to ease network planning
- QoS (IEEE 802.1p/1Q and ToS/DiffServ) to increase determinism
- Port Trunking for optimum bandwidth utilization
- SNMPv1/v2c/v3 for different levels of network management
- RMON for proactive and efficient network monitoring
- Bandwidth management to prevent unpredictable network status
- Lock port function for blocking unauthorized access based on MAC address
- Automatic warning by exception through email and relay output

## Specifications

### Input/Output Interface

|                        |   |
|------------------------|---|
| Digital Inputs         | +13 to +30 V for state 1<br>-30 to +3 V for state 0<br>Max. input current: 8 mA |
| Alarm Contact Channels | Relay output with current carrying capacity of 1 A @ 24 VDC                     |

1. Gigabit Ethernet recovery time < 50 ms

## Ethernet Interface

|           |   |
|-----------|---|
| Module    | 4 slots for any combination of 4-port interface modules, 10/100BaseT(X) or 100BaseFX  |
| Standards | IEEE 802.1D-2004 for Spanning Tree Protocol<br>IEEE 802.1p for Class of Service<br>IEEE 802.1Q for VLAN Tagging<br>IEEE 802.1s for Multiple Spanning Tree Protocol<br>IEEE 802.1w for Rapid Spanning Tree Protocol<br>IEEE 802.1X for authentication<br>IEEE 802.3 for 10BaseT<br>IEEE 802.3ab for 1000BaseT(X)<br>IEEE 802.3ad for Port Trunk with LACP<br>IEEE 802.3u for 100BaseT(X) and 100BaseFX<br>IEEE 802.3x for flow control |

## Ethernet Software Features

|                      |  |
|----------------------|--|
| Filter               | GMRP, GVRP, IGMP v1/v2, Port-based VLAN  |
| Industrial Protocols | EtherNet/IP, Modbus TCP  |
| Management           | Back Pressure Flow Control, BOOTP, DDM, DHCP Option 66/67/82, DHCP Server/Client, Flow control, IPv4/IPv6, LLDP, Port Mirror, RARP, RMON, SMTP, SNMP Inform, SNMPv1/v2c/v3, Syslog, Telnet, TFTP |
| MIB                  | Bridge MIB, Ethernet-like MIB, MIB-II, P-BRIDGE MIB, Q-BRIDGE MIB, RMON MIB Groups 1, 2, 3, 9, RSTP MIB  |
| Redundancy Protocols | Link Aggregation, MSTP, RSTP, STP, Turbo Chain, Turbo Ring v1/v2   |
| Security             | Broadcast storm protection, HTTPS/SSL, Port Lock, RADIUS, SSH, TACACS+   |
| Time Management      | NTP Server/Client, SNTP  |

## Switch Properties

|                    |               |
|--------------------|---------------|
| IGMP Groups        | 256           |
| MAC Table Size     | 8 K           |
| Max. No. of VLANs  | 64            |
| Packet Buffer Size | 1 Mbits       |
| Priority Queues    | 4             |
| VLAN ID Range      | VID 1 to 4094 |

## LED Interface

|                |   |
|----------------|---|
| LED Indicators | PWR1, PWR2, FAULT, MSTR/HEAD, CPLR/TAIL, G1/G2/G3 |
|----------------|---|

## Serial Interface

|              |  |
|--------------|--|
| Console Port | RS-232 (TxD, RxD, GND), 8-pin RJ45 (115200, n, 8, 1) |
|--------------|--|

## DIP Switch Configuration

|                    |                                      |
|--------------------|--------------------------------------|
| Ethernet Interface | Turbo Ring, Master, Coupler, Reserve |
|--------------------|--------------------------------------|

## Power Parameters

|                             |   |
|-----------------------------|---|
| Connection                  | 1 removable 6-contact terminal block(s) |
| Input Voltage               | 12/24/48 VDC, Redundant dual inputs     |
| Overload Current Protection | Supported                               |
| Reverse Polarity Protection | Supported                               |

## Physical Characteristics

|              |  |
|--------------|--|
| IP Rating    | IP30   |
| Dimensions   | 185 x 151 x 157.4 mm (7.28 x 5.95 x 6.20 in)         |
| Weight       | 2,509 g (5.53 lb)                                    |
| Installation | DIN-rail mounting, Wall mounting (with optional kit) |

## Environmental Limits

|  |   |
|--|---|
| Operating Temperature                  | EDS-619: 0 to 60°C (32 to 140°F)<br>EDS-619-T: -40 to 75°C (-40 to 167°F) |
| Storage Temperature (package included) | -40 to 85°C (-40 to 185°F)  |
| Ambient Relative Humidity              | 5 to 95% (non-condensing)   |

## Standards and Certifications

|                     |  |
|---------------------|--|
| Freefall            | IEC 60068-2-32   |
| EMC                 | EN 55032/35, EN 61000-6-2/-6-4   |
| EMI                 | CISPR 32, FCC Part 15B Class A   |
| EMS                 | IEC 61000-4-2 ESD: Contact: 6 kV; Air: 8 kV<br>IEC 61000-4-3 RS: 80 MHz to 1 GHz: 10 V/m<br>IEC 61000-4-4 EFT: Power: 4 kV; Signal: 4 kV<br>IEC 61000-4-5 Surge: Power: 2 kV; Signal: 2 kV<br>IEC 61000-4-6 CS: 10 V<br>IEC 61000-4-8 PFMF |
| Hazardous Locations | ATEX, Class I Division 2   |
| Maritime            | ABS, DNV-GL, LR, NK  |
| Railway             | EN 50121-4   |
| Safety              | UL 508, EN 62368-1   |
| Shock               | IEC 60068-2-27   |
| Traffic Control     | NEMA TS2   |
| Vibration           | IEC 60068-2-6  |

## MTBF

|           |                          |
|-----------|--------------------------|
| Time      | 475,816 hrs              |
| Standards | Telcordia (Bellcore), GB |

## Warranty

|                 |  |
|-----------------|--|
| Warranty Period | 5 years  |
| Details         | See <a href="http://www.moxa.com/warranty">www.moxa.com/warranty</a> |

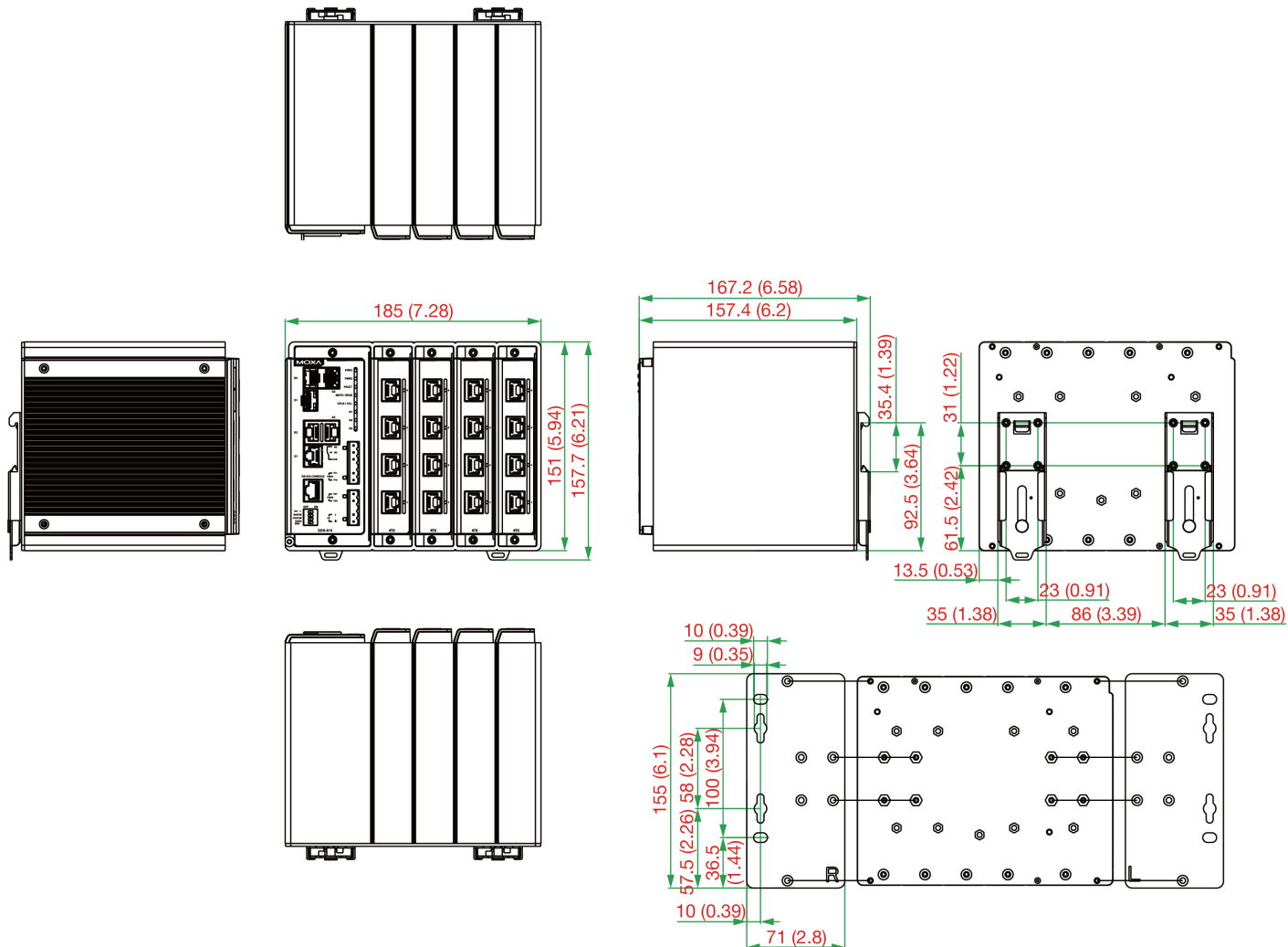
## Package Contents

|        |                               |
|--------|-------------------------------|
| Device | 1 x EDS-619 Series switch     |
| Cable  | 1 x RJ45-to-DB9 console cable |

|               |   |
|---------------|---|
| Documentation | 1 x product certificates of quality inspection, Simplified Chinese<br>1 x product notice, Simplified Chinese<br>1 x quick installation guide<br>1 x warranty card |
| Note          | SFP modules and/or modules from the CM-600 Module Series need to be purchased separately for use with this product.   |

## Dimensions

Unit: mm (inch)



## Ordering Information

| Model Name | Layer | Total No. of Ports | Module 10/100BaseT(X) and/or 100BaseFX                     | Combo Ports 10/100/1000BaseT(X) or 100/1000BaseSFP | Operating Temp. |
|------------|-------|--------------------|--|--|-----------------|
| EDS-619    | 2     | 19                 | 4 slots for up to 16 10/100BaseT(X) and/or 100BaseFX ports | 3  | 0 to 60°C       |
| EDS-619-T  | 2     | 19                 | 4 slots for up to 16 10/100BaseT(X) and/or 100BaseFX ports | 3  | -40 to 75°C     |

## Accessories (sold separately)

### CM-600 Module Series

|            |  |
|------------|--|
| CM-600-4TX | Fast Ethernet interface module with 4 10/100BaseT(X) ports, RJ45 connectors, -40 to 75°C operating temperature |
|------------|--|

|                 |  |
|-----------------|--|
| CM-600-4MSC     | Fast Ethernet interface module with 4 100BaseFX multi-mode ports, SC connectors, -40 to 75°C operating temperature   |
| CM-600-4MST     | Fast Ethernet interface module with 4 100BaseFX multi-mode ports, ST connectors, -40 to 75°C operating temperature   |
| CM-600-4SSC     | Fast Ethernet interface module with 4 100BaseFX single-mode ports, SC connectors, -40 to 75°C operating temperature  |
| CM-600-3MSC/1TX | Fast Ethernet interface module with 1 10/100BaseT(X) port, RJ45 connector, and 3 100BaseFX multi-mode ports, SC connectors, -40 to 75°C operating temperature    |
| CM-600-3SSC/1TX | Fast Ethernet interface module with 1 10/100BaseT(X) port, RJ45 connector, and 3 100BaseFX single-mode ports, SC connectors, -40 to 75°C operating temperature   |
| CM-600-2MSC/2TX | Fast Ethernet interface module with 2 10/100BaseT(X) ports, RJ45 connectors, and 2 100BaseFX multi-mode ports, SC connectors, -40 to 75°C operating temperature  |
| CM-600-2SSC/2TX | Fast Ethernet interface module with 2 10/100BaseT(X) ports, RJ45 connectors, and 2 100BaseFX single-mode ports, SC connectors, -40 to 75°C operating temperature |

### Storage Kits

|        |  |
|--------|--|
| ABC-01 | Configuration backup and restoration tool for managed Ethernet switches and AWK Series wireless APs/bridges/clients, 0 to 60°C operating temperature |
|--------|--|

### SFP Modules

|                 |  |
|-----------------|--|
| SFP-1FELLC-T    | SFP module with 1 100Base single-mode with LC connector for 80 km transmission, -40 to 85°C operating temperature                                      |
| SFP-1FEMLC-T    | SFP module with 1 100Base multi-mode, LC connector for 2/4 km transmission, -40 to 85°C operating temperature  |
| SFP-1FESLC-T    | SFP module with 1 100Base single-mode with LC connector for 40 km transmission, -40 to 85°C operating temperature                                      |
| SFP-1G10ALC     | WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 10 km transmission; TX 1310 nm, RX 1550 nm, 0 to 60°C operating temperature   |
| SFP-1G10ALC-T   | WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 10 km transmission; TX 1310 nm, RX 1550 nm, -40 to 85°C operating temperature |
| SFP-1G10BLC     | WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 10 km transmission; TX 1550 nm, RX 1310 nm, 0 to 60°C operating temperature   |
| SFP-1G10BLC-T   | WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 10 km transmission; TX 1550 nm, RX 1310 nm, -40 to 85°C operating temperature |
| SFP-1G20ALC     | WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 20 km transmission; TX 1310 nm, RX 1550 nm, 0 to 60°C operating temperature   |
| SFP-1G20ALC-T   | WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 20 km transmission; TX 1310 nm, RX 1550 nm, -40 to 85°C operating temperature |
| SFP-1G20BLC     | WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 20 km transmission; TX 1550 nm, RX 1310 nm, 0 to 60°C operating temperature   |
| SFP-1G20BLC-T   | WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 20 km transmission; TX 1550 nm, RX 1310 nm, -40 to 85°C operating temperature |
| SFP-1G40ALC     | WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 40 km transmission; TX 1310 nm, RX 1550 nm, 0 to 60°C operating temperature   |
| SFP-1G40ALC-T   | WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 40 km transmission; TX 1310 nm, RX 1550 nm, -40 to 85°C operating temperature |
| SFP-1G40BLC     | WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 40 km transmission; TX 1550 nm, RX 1310 nm, 0 to 60°C operating temperature   |
| SFP-1G40BLC-T   | WDM-type (BiDi) SFP module with 1 1000BaseSFP port with LC connector for 40 km transmission; TX 1550 nm, RX 1310 nm, -40 to 85°C operating temperature |
| SFP-1GEZXLC     | SFP module with 1 1000BaseEZXC port with LC connector for 110 km transmission, 0 to 60°C operating temperature   |
| SFP-1GEZXLC-120 | SFP module with 1 1000BaseEZXC port with LC connector for 120 km transmission, 0 to 60°C operating temperature   |
| SFP-1GLHLC      | SFP module with 1 1000BaseLH port with LC connector for 30 km transmission, 0 to 60°C operating temperature  |

|                |   |
|----------------|---|
| SFP-1GLHLC-T   | SFP module with 1 1000BaseLH port with LC connector for 30 km transmission, -40 to 85°C operating temperature     |
| SFP-1GLHXLC    | SFP module with 1 1000BaseLHX port with LC connector for 40 km transmission, 0 to 60°C operating temperature      |
| SFP-1GLHXLC-T  | SFP module with 1 1000BaseLHX port with LC connector for 40 km transmission, -40 to 85°C operating temperature    |
| SFP-1GLSXLC    | SFP module with 1 1000BaseLSX port with LC connector for 1km/2km transmission, 0 to 60°C operating temperature    |
| SFP-1GLSXLC-T  | SFP module with 1 1000BaseLSX port with LC connector for 1km/2km transmission, -40 to 85°C operating temperature  |
| SFP-1GLXLC     | SFP module with 1 1000BaseLX port with LC connector for 10 km transmission, 0 to 60°C operating temperature       |
| SFP-1GLXLC-T   | SFP module with 1 1000BaseLX port with LC connector for 10 km transmission, -40 to 85°C operating temperature     |
| SFP-1GSXLC     | SFP module with 1 1000BaseSX port with LC connector for 300m/550m transmission, 0 to 60°C operating temperature   |
| SFP-1GSXLC-T   | SFP module with 1 1000BaseSX port with LC connector for 300m/550m transmission, -40 to 85°C operating temperature |
| SFP-1GZXLC     | SFP module with 1 1000BaseZX port with LC connector for 80 km transmission, 0 to 60°C operating temperature       |
| SFP-1GZXLC-T   | SFP module with 1 1000BaseZX port with LC connector for 80 km transmission, -40 to 85°C operating temperature     |
| SFP-1GTXRJ45-T | SFP module with 1 1000BaseT port with RJ45 connector for 100 m transmission, -40 to 75°C operating temperature    |

#### Power Supplies

|           |   |
|-----------|---|
| DR-120-24 | 120W/2.5A DIN-rail 24 VDC power supply with universal 88 to 132 VAC or 176 to 264 VAC input by switch, or 248 to 370 VDC input, -10 to 60°C operating temperature |
| DR-4524   | 45W/2A DIN-rail 24 VDC power supply with universal 85 to 264 VAC or 120 to 370 VDC input, -10 to 50°C operating temperature                                       |
| DR-75-24  | 75W/3.2A DIN-rail 24 VDC power supply with universal 85 to 264 VAC or 120 to 370 VDC input, -10 to 60°C operating temperature                                     |
| MDR-40-24 | DIN-rail 24 VDC power supply with 40W/1.7A, 85 to 264 VAC, or 120 to 370 VDC input, -20 to 70°C operating temperature   |
| MDR-60-24 | DIN-rail 24 VDC power supply with 60W/2.5A, 85 to 264 VAC, or 120 to 370 VDC input, -20 to 70°C operating temperature   |

#### Software

|                   |  |
|-------------------|--|
| MXview-50         | Industrial network management software with a license for 50 nodes (by IP address)             |
| MXview-100        | Industrial network management software with a license for 100 nodes (by IP address)            |
| MXview-250        | Industrial network management software with a license for 250 nodes (by IP address)            |
| MXview-500        | Industrial network management software with a license for 500 nodes (by IP address)            |
| MXview-1000       | Industrial network management software with a license for 1000 nodes (by IP address)           |
| MXview-2000       | Industrial network management software with a license for 2000 nodes (by IP address)           |
| MXview Upgrade-50 | License expansion of MXview industrial network management software by 50 nodes (by IP address) |

#### Wall-Mounting Kits

|       |   |
|-------|---|
| WK-75 | Wall-mounting kit, 2 plates, 8 screws, 75 x 90 x 2.5 mm |
|-------|---|

© Moxa Inc. All rights reserved. Updated Jan 08, 2021.

This document and any portion thereof may not be reproduced or used in any manner whatsoever without the express written permission of Moxa Inc. Product specifications subject to change without notice. Visit our website for the most up-to-date product information.