EDS-G509 Series

9G-port full Gigabit managed Ethernet switch

- 4 10/100/1000BaseT(X) ports plus 5 combo (10/100/1000BaseT(X) or 100/1000BaseSFP slot) Gigabit ports
- Fiber optic options for extending distance and improving electrical noise immunity
- Turbo Ring, RSTP/STP (IEEE 802.1w/D) for Ethernet redundancy
- QoS, IGMP snooping/GMRP, VLAN, LACP, SNMPv1/v2c/v3, RMON supported
- IEEE 802.1X, HTTPS, and SSH enhance network security

The certification logos shown here apply to some or all of the products in this section. For details, see "Regulatory Approvals" under "Specifications" below.

Introduction

The EDS-G509 is equipped with 9 Gigabit Ethernet ports and up to 5 fiber optic ports, making it ideal for upgrading an existing network to Gigabit speed or building a new full Gigabit backbone. Gigabit transmission increases bandwidth for higher performance and transfers large amounts of video, voice, and data across a network quickly. Redundant Ethernet Turbo Ring and RSTP/STP (IEEE 802.1w/D) increase system reliability and the availability of your network backbone. The EDS-G509 series is designed especially for communication demanding applications, such as video and process monitoring, shipbuilding, ITS, and DCS systems, all of which can benefit from a scalable backbone construction.

Features and Benefits

- Turbo Ring and RSTP/STP (IEEE 802.1w/D)
- 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
- IEEE 802.1X, HTTPS, and SSH to enhance network security
- SNMPv1/v2c/v3 for different levels of network management
- RMON for efficient network monitoring and proactive capability
- Bandwidth management prevents unpredictable network status
- Lock port function for blocking unauthorized access based on MAC address
- Port mirroring for online debugging
- Automatic warning by exception through e-mail, relay output
- Digital inputs to integrate sensors and alarms with IP networks
- ABC-01 (Automatic Backup Configurator) for system configuration backup

Specifications

Technology

Standards:
IEEE 802.3 for 10BaseT
IEEE 802.3u for 100BaseT(X) and 100Base FX
IEEE 802.3ab for 1000BaseT(X)
IEEE 802.3z for 1000BaseSX/LX/LHX/ZX/EZX
IEEE 802.3x for Flow Control
IEEE 802.1D for Spanning Tree Protocol
IEEE 802.1w for Rapid STP
IEEE 802.1Q for VLAN Tagging
IEEE 802.1p for Class of Service
IEEE 802.1X for Authentication
IEEE 802.3ad for Port Trunk with LACP

Protocols: IGMPv1/v2 device, GMRP, GVRP, SNMPv1/v2c/v3, DHCP Server/Client, DHCP Option 82, BootP, TFTP, SNTP, SMTP, RARP, RMON, HTTP, HTTPS, Telnet, SSH, Syslog, SNMP Inform, Modbus/TCP

MIB: MIB-II, Ethernet-Like MIB, P-BRIDGE MIB, Q-BRIDGE MIB, Bridge MIB, RSTP MIB, RMON MIB Group 1, 2, 3, 9

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

Switch Properties

Priority Queues: 4

Max. Number of Available VLANs: 64

VLAN ID Range: VID 1 to 4094

IGMP Groups: 256

Interface

RJ45 Ports: 10/100/1000BaseT(X) auto negotiation speed

Fiber Ports: 100/1000BaseSFP slot

Console Port: RS-232 (RJ45 connector)

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

DIP Switches: Turbo Ring, Master, Coupler, Reserve

Alarm Contact: 2 relay outputs with current carrying capacity of 1A @ 24 VDC

Digital Inputs: 2 inputs with the same ground, but electrically isolated from the electronics.
• +13 to +30V for state "1"
• -30 to +3V for state "0"
• Max. input current: 8 mA

Power Requirements

Input Voltage: 12/24/48 VDC, 24 VAC (18 to 30 VAC), redundant dual inputs

Connection: 2 removable 6-pin terminal blocks

Overload Current Protection: Present

Reverse Polarity Protection: Present

Physical Characteristics

Housing: Metal, IP30 protection

Dimensions: 87.1 x 135 x 107 mm (4.34 x 5.31 x 4.21 in)

Weight: 1800 g

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) 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), EN60950-1 (Pending)

Hazardous Location: UL/cUL Class I, Division 2, Groups A, B, C, and D (Pending); ATEX Class I, 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 2
EN61000-4-5 (Surge), level 3
EN61000-4-6 (CS), level 3
EN61000-4-8
EN61000-4-11

Shock: IEC 60068-2-27

Freefall: IEC 60068-2-32

Vibration: IEC 60068-2-6

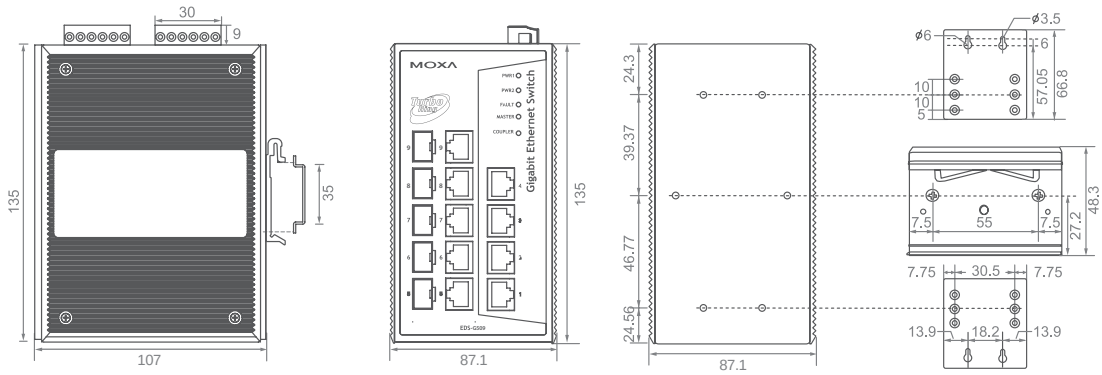
Note: Please check Moxa's website for the most up-to-date certification status.

Warranty

Warranty Period: 5 years

Details: See www.moxa.com/warranty

Dimensions (unit = mm)



Side View | Front View | Rear View | Mounting Kit

Ordering Information

Available Models

EDS-G509: Industrial full Gigabit managed Ethernet switch with 4 10/100/1000BaseT(X) ports, and 5 10/100/1000BaseT(X) or 100/1000BaseSFP slot combo ports, 0 to 60°C

EDS-G509-T: Industrial full Gigabit managed Ethernet switch with 4 10/100/1000BaseT(X) ports, and 5 10/100/1000BaseT(X) or 100/1000BaseSFP slot combo ports, -40 to 75°C

Note: The EDS-G509 series switches support up to 5 100/1000BaseSFP slots.

Optional Accessories (can be purchased separately)

ABC-01: Industrial RS-232, RJ45-based, automatic backup configurator

EDS-SNMP OPC Server Pro: CD with EDS-SNMP OPC server software and manual

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 or 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 or 176 to 264 VAC input by switch

WK-46: Wall mounting kit for the EDS-728/828 series

RK-4U: 4U-high 19" rack mounting kit