

# EDS-G4008 Series

## 8G-port full Gigabit managed Ethernet switches



### Features and Benefits

- Developed according to the IEC 62443-4-1 and compliant with the IEC 62443-4-2 industrial cybersecurity standards
- Turbo Ring and Turbo Chain (recovery time < 50 ms @ 250 switches), and RSTP/STP for network redundancy
- Wide range of power input options for flexible deployment
- Compact and flexible housing design to fit into confined spaces
- Supports MXstudio for easy, visualized industrial network management

### Certifications



## Introduction

The EDS-G4008 Series is equipped with 8 Gigabit Ethernet ports, making it ideal for upgrading an existing network to Gigabit speed or building a new full Gigabit backbone. Gigabit transmission speed increases bandwidth for higher performance and transfers large amounts of triple-play services across a network quickly.

Redundant Ethernet technologies such as Turbo Ring, Turbo Chain, and RSTP/STP increase the reliability of your system and improve the availability of your network backbone. The EDS-G4008 Series is designed specifically for demanding applications such as video and process monitoring, ITS, and DCS systems, all of which can benefit from a scalable backbone construction.

The EDS-G4008 Series is compliant with the IEC 62443-4-2 and IEC 62443-4-1 Industrial Cybersecurity certifications, which cover both product security and secure development life-cycle requirements, helping our customers meet the compliance requirements of secure industrial network design.

## Specifications

### Ethernet Interface

10/100/1000BaseT(X) Ports (RJ45 connector)	8 Auto MDI/MDI-X connection Auto negotiation speed Full/Half duplex mode
Standards	IEEE 802.3 for 10BaseT IEEE 802.3u for 100BaseT(X) IEEE 802.3ab for 1000BaseT(X) IEEE 802.3x for flow control IEEE 802.3ad for Port Trunk with LACP IEEE 802.1Q for VLAN Tagging IEEE 802.1D-2004 for Spanning Tree Protocol IEEE 802.1w for Rapid Spanning Tree Protocol IEEE 802.1p for Class of Service IEEE 802.1X for authentication

### Ethernet Software Features

Industrial Protocols	EtherNet/IP Modbus TCP PROFINET IO Device
Management	IPv4/IPv6 Flow control Back Pressure Flow Control DHCP Server/Client ARP

	<ul style="list-style-type: none"> <li>RARP</li> <li>LLDP</li> <li>Port Mirroring (SPAN, RSPAN)</li> <li>Linkup Delay</li> <li>SMTP</li> <li>SNMP Trap</li> <li>SNMP Inform</li> <li>SNMPv1/v2c/v3</li> <li>RMON</li> <li>TFTP</li> <li>SFTP</li> <li>HTTP</li> <li>HTTPS</li> <li>Telnet</li> <li>Syslog</li> <li>Private MIB</li> <li>Fiber check</li> </ul>
Filter	<ul style="list-style-type: none"> <li>GMRP</li> <li>GVRP</li> <li>GARP</li> <li>802.1Q VLAN</li> <li>IGMP Snooping v1/v2/v3</li> <li>IGMP Querier</li> </ul>
Redundancy Protocols	<ul style="list-style-type: none"> <li>STP</li> <li>RSTP</li> <li>Turbo Ring v2</li> <li>Turbo Chain</li> <li>Ring Coupling</li> <li>Dual-Homing</li> <li>Link Aggregation</li> <li>MRP</li> <li>MSTP</li> </ul>
Security	<ul style="list-style-type: none"> <li>Broadcast storm protection</li> <li>Rate Limit</li> <li>Trust access control</li> <li>Static Port Lock</li> <li>MAC Sticky</li> <li>HTTPS/SSL</li> <li>SSH</li> <li>RADIUS</li> <li>TACACS+</li> <li>Access control list</li> <li>Login and Password Policy</li> <li>DHCP Snooping</li> </ul>
Time Management	<ul style="list-style-type: none"> <li>SNTP</li> <li>NTP Server/Client</li> <li>NTP Authentication</li> <li>IEEE 1588v2 PTP (hardware-based)</li> <li>Supported power profiles: IEEE 1588 Default 2008, IEC 61850-9-3-2016, IEEE C37.238-2017</li> </ul>

Protocols	IPv4/IPv6 TCP/IP UDP ICMP ARP RARP TFTP DNS NTP Client DHCP Server DHCP Client 802.1X QoS HTTPS HTTP Telnet SMTP SNMPv1/v2c/v3 RMON Syslog
MIB	P-BRIDGE MIB Q-BRIDGE MIB IEEE8021-SPANNING-TREE-MIB IEEE8021-PAE-MIB IEEE8023-LAG-MIB LLDP-EXT-DOT1-MIB LLDP-EXT-DOT3-MIB SNMPv2-MIB RMON MIB Groups 1, 2, 3, 9

#### Switch Properties

MAC Table Size	16 K
Jumbo Frame Size	9.216 KB
Max. No. of VLANs	256
VLAN ID Range	VID 1 to 4094
IGMP Groups	512
Priority Queues	4
Packet Buffer Size	1 MB

#### LED Interface

LED Indicators	PWR1, PWR2, STATE, FAULT, MSTR/HEAD, CPLR/TAIL, SYNC
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#### Serial Interface

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

USB Connector	USB Type A (Reserved)
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#### Input/Output Interface

Alarm Contact Channels	1, Relay output with current carrying capacity of 1 A @ 24 VDC
Digital Input Channels	1
Digital Inputs	+13 to +30 V for state 1 -30 to +3 V for state 0 Max. input current: 8 mA
Buttons	Reset button

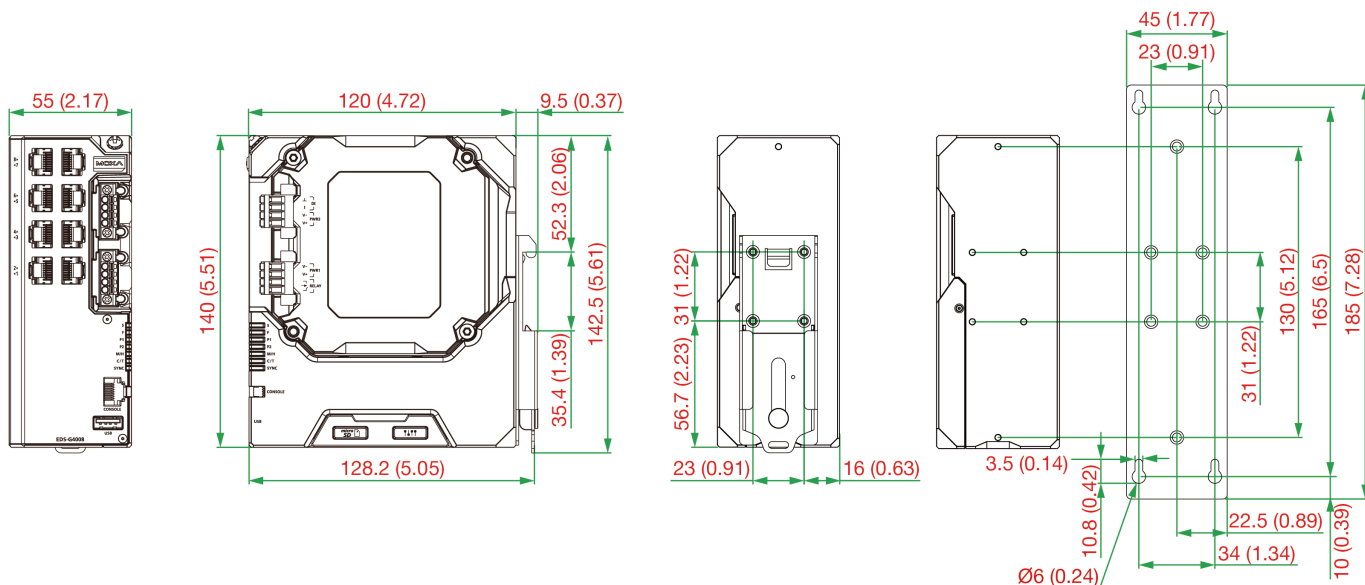
## DIP Switch Configuration

DIP Switches	Turbo Ring, Master, Coupler, Reserve
<b>Power Parameters</b>	
Connection	2 removable 4-contact terminal block(s)
Pre-installed Power Module	-LV/-LV-T models: PWR-100-LV -HV/-HV-T models: PWR-105-HV-I
Note	<p>The EDS-G4008 Series supports modular power supplies. The model names and power parameters are determined by the installed power module.</p> <p>For example: EDS-G4008-T + PWR-100-LV = EDS-G4008-LV-T EDS-G4008-T + PWR-105-HV-I = EDS-G4008-HV-T</p> <p>If you install a different power module, refer to the specifications of the corresponding model. For example, if you replace the power module of the EDS-G4008-LV-T with the PWR-105-HV-I, refer to the specifications of the EDS-G4008-HV-T.</p>
Input Voltage	-LV/-LV-T models: 12/24/48 VDC, Redundant dual inputs -HV/-HV-T models: 110/220 VDC/VAC, Single input
Operating Voltage	-LV/-LV-T models: 9.6 to 60 VDC -HV/-HV-T models: 88 to 300 VDC, 85 to 264 VAC
Input Current	-LV/-LV-T models: 12-48 VDC, 1.50-0.40 A or 24 VDC, 0.70 A -HV/-HV-T models: 110-220 VAC, 50-60 Hz, 0.30-0.20 A or 110-220 VDC, 0.30-0.20 A
Overload Current Protection	Supported
Reverse Polarity Protection	Supported
Power Consumption (Max.)	EDS-G4008-LV(-T) models: 8.84 W EDS-G4008-HV(-T) models: 10.73 W
<b>Physical Characteristics</b>	
IP Rating	IP40
Dimensions	55 x 140 x 120 mm (2.17 x 5.51 x 4.72 in)
Weight	859.5 g (1.89 lb)
Installation	DIN-rail mounting Wall mounting (with optional kit)
Housing	Metal
<b>Environmental Limits</b>	
Operating Temperature	Standard models: -10 to 60°C (14 to 140°F) Wide temp. models: -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)
<b>Standards and Certifications</b>	
Industrial Cybersecurity	IEC 62443-4-1 IEC 62443-4-2
Safety	UL 61010-2-201 EN 62368-1 (LVD)
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: 8 kV; Air: 15 kV IEC 61000-4-3 RS: 80 MHz to 1 GHz: 20 V/m IEC 61000-4-4 EFT: Power: 4 kV; Signal: 4 kV IEC 61000-4-5 Surge: Power: 4 kV; Signal: 4 kV IEC 61000-4-6 CS: 10 V IEC 61000-4-8 PFMF
Maritime	-LV/-LV-T models: DNV, ABS, NK, LR
Vibration	IEC 60068-2-6
Shock	IEC 60068-2-27
Freefall	IEC 60068-2-32
Railway	EN 50121-4
Traffic Control	NEMA TS2
Power Substation	IEC 61850-3 IEEE 1613 Class 1
Hazardous Locations	-LV/-LV-T models: ATEX IECEX Class I Division 2
<b>MTBF</b>	
Time	EDS-G4008-LV/-LV-T models: 1,098,085 hrs EDS-G4008-HV/-HV-T models: 511,204 hrs
Standards	Telcordia SR332
<b>Warranty</b>	
Warranty Period	5 years
Details	See <a href="http://www.moxa.com/warranty">www.moxa.com/warranty</a>
<b>Package Contents</b>	
Device	1 x EDS-G4008 Series switch
Documentation	1 x quick installation guide 1 x product notice, Simplified Chinese 1 x product certificates of quality inspection, Simplified Chinese 1 x warranty card

## Dimensions

Unit: mm (inch)



## Ordering Information

Model Name	10/100/1000BaseT(X) Ports, RJ45 Connector	Operating Voltage	Pre-installed Power Module	Operating Temp.
EDS-G4008-LV	8	9.6 to 60 VDC	PWR-100-LV	-10 to 60°C
EDS-G4008-LV-T	8	9.6 to 60 VDC	PWR-100-LV	-40 to 75°C
EDS-G4008-HV	8	88 to 300 VDC, 85 to 264 VAC	PWR-105-HV-I	-10 to 60°C
EDS-G4008-HV-T	8	88 to 300 VDC, 85 to 264 VAC	PWR-105-HV-I	-40 to 75°C

## Accessories (sold separately)

### Storage Kits

ABC-02-USB	Configuration backup and restoration tool, firmware upgrade, and log file storage tool for managed Ethernet switches and routers, 0 to 60°C operating temperature
ABC-02-USB-T	Configuration backup and restoration tool, firmware upgrade, and log file storage tool for managed Ethernet switches and routers, -40 to 75°C operating temperature
ABC-03-microSD-T	MicroSD-based configuration backup and restoration tool, firmware upgrades, and log file storage tool for managed Ethernet switches and WLAN products, -40 to 85°C operating temperature

### Power Supplies

HDR-60-24	60 W/2.5 A DIN-rail 24 VDC power supply, universal 85 to 264 VAC or 120 to 370 VDC input voltage, -30 to 70°C operating temperature
NDR-120-24	120 W/5.0 A DIN-rail 24 VDC power supply, universal 90 to 264 VAC or 127 to 370 VDC input voltage, -20 to 70°C operating temperature
NDR-120-48	120 W/2.5 A DIN-rail 48 VDC power supply, universal 90 to 264 VAC or 127 to 370 VDC input voltage, -20 to 70°C operating temperature
NDR-240-48	240 W/5.0 A DIN-rail 48 VDC power supply, universal 90 to 264 VAC or 127 to 370 VDC input voltage, -20 to 70°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

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