

CS-2404GS-8C

16+8+4 Port Industrial Managed Gigabit L3 Switch



- Compliant with IEC61850-3 and IEEE1613
- 16x Gigabit Ethernet ports
- 8x Gigabit combo Ethernet
- 4x 1000F(x) SFP Slot
- Built for harsh environments and wide temperature range application
- RSTP, MSTP, ERPS, LACP for Network Redundancy
- QoS CoS/DSCP to increase determinism
- Supports IGMP Snooping v1/v2/v3, up to 512 groups
- DHCP Relay Option 82 for policies IP address assignment
- SNMP v1/v2c/v3 for network management
- Supports Storm Protection
- USB storage for configuration-free replacement
- Supports industrial automation protocols Ethernet/IP and Modbus TCP



Specifications

Technology

- IEEE 802.3 10BaseT
- IEEE 802.3u 100BaseTX
- IEEE 802.3ab 1000BaseT
- IEEE 802.3z 1000BaseX
- IEEE 802.3x Flow Control
- IEEE 802.3ad/802.1AX LACP
- IEEE 802.1D Spanning Tree Protocol
- IEEE 802.1w Rapid STP
- IEEE 802.1s Multiple STP
- ITU-T G.8032 / Y.1344 ERPS
- IEEE 802.1Q VLAN Tagging
- IEEE 802.1ad Stacked VLANs
- IEEE 802.1p Class of Service
- IEEE 802.1X Network Authentication
- IEEE 802.1AB LLDP
- IEEE 1588 PTP

Standards

Processing Type Store and Forward

Switch Properties

Switch Fabric 56Gbps

Priority Queues 8 Queues

Jumbo Frame 9216bytes

MAC Table Size 16K

Packet Buffer 12Mbits

VLAN Table Size 4094

IGMP Group 512

ACL Group 512

VLAN IP Entries 64

Routing Entries (IPv4/IPv6) 512/256 host, 64/64 LPM

Software Feature

Network Redundancy RSTP, MSTP, G.8032 ERPSv2, Port Trunking with LACP

Security 802.1X, RADIUS, TACACS+, SSL, SSH

Management IPv4, IPv6, Web, Telnet, Serial Console, CLI, SNMP v1/v2c/v3, uPnP

Diagnostics RMON, SNMP Inform/Trap, Syslog, SMTP, Port Mirroring, LLDP

Configuration DHCP Server/Client, Relay Option 82, TFTP, USB

Filter 802.1Q VLAN, Q-in-Q, IGMP Snooping v1/v2/v3, IGMP Querier, Independent Vlan Learning

Time Sync. NTP, IEEE1588v2 OC (Software Timestamp), BC (Software Timestamp), TC (Hardware Timestamp)

QoS CoS, DSCP, WRR/SPQ Queuing, Storm Protection

Industrial Profiles Ethernet/IP, Modbus TCP

L3 Switching Static Routing, RIP v1/v2, OSPF v2, VRRP v2

Interface

| | |
|-----------------------|--|
| RJ45 Port | 16x 10/100/1000T(x), auto negotiation speed duplex mode, auto MDI/MDI-X |
| Combo Port | 8x 10/100/1000T(x) with dual speed SFP combo port, auto media detect |
| Fiber Port | 4x 1000F(x) SFP Slot |
| LED Indicators | Per unit: PWR1, PWR2(AC2/DC2), Fault, Ring Master, Ring State Ports: Link/Active with Green LED on the left, Speed on the right with highest speed(Amber), low speed(OFF) |
| Alarm Contact | 1x relay output with current carrying capacity of 1A @ 24 VDC |
| Digital Inputs | 1x isolated input from the electronics. +13 to +30V for state "1" -30 to +3V for state "0" Max. input current: 8mA |
| Button | Multiple functions reset button |
| Serial Console | 1x RS232 in RJ45 connector with console cable, 115.2Kbps, 8N1 |
| Storage | 1x USB 2.0 storage for firmware update, configuration backup, restore, boot up and syslog |

Power Requirements

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|--------------------------|---|
| Operation Voltage | 90~264VAC, 88~370VDC, 18~36VDC, 36~75VDC, redundant dual inputs |
| Connection | AC socket, DC 4-pin terminal block |
| Power Consumption | 0.3A@110VAC, 0.82A@24VDC |
| Protection | Overload Current Protected, Reverse Polarity Protected |

Mechanical Construction

Features with star(*) implies those are under development.

In a continuing effort of improvement and updated technology, product specifications are subject to change without notice.

| | |
|-------------------------|-----------------------|
| Enclosure | Aluminum / Steel met |
| Protection Class | IP30 |
| Dimensions | 440x44x331 mm (WxHxD) |
| Weight | 4.80 kg |
| Mounting | Rack Mounting |

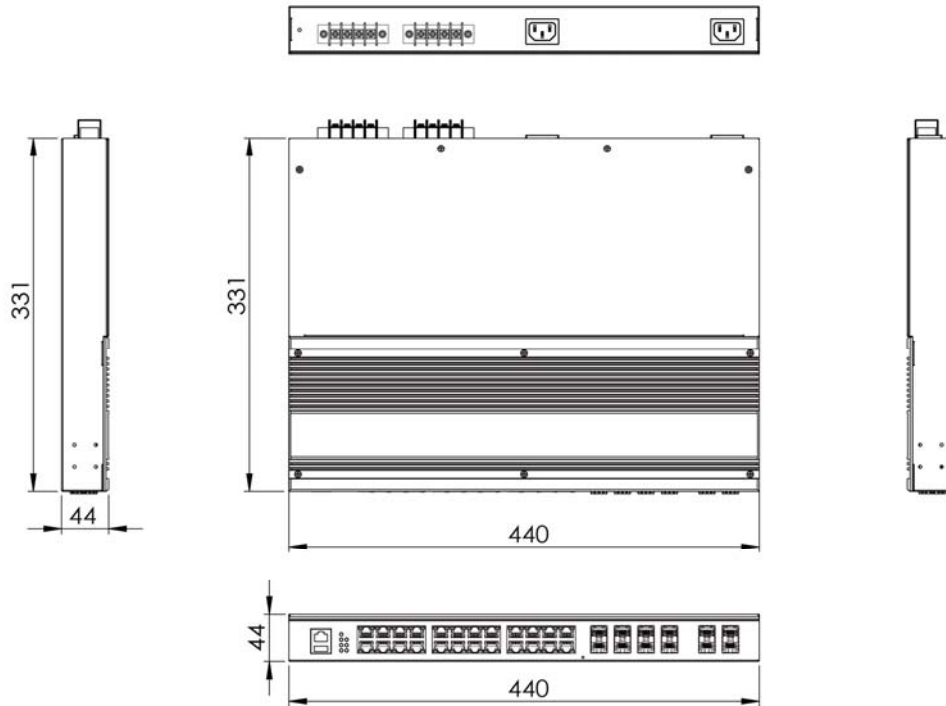
Environmental Limits

| | |
|----------------------------------|--|
| Operating Temperature | Extended: -40°C ~ 85°C (-40°F ~ 185°F) |
| Storage Temperature | -40°C ~ 85°C (-40°F ~ 185°F) |
| Ambient Relative Humidity | 5 to 95%, (Non-Condensing) |

Regulatory Approvals

| | |
|-----------------------|---|
| EMI | FCC Part 15 Subpart B Class A CE EN 55032 Class A |
| EMS | IEC61000-4-2 (ESD) IEC61000-4-3 (RS) IEC61000-4-4 (EFT) IEC61000-4-5 (Surge) IEC61000-4-6 (CS) IEC61000-4-8 (Magnetic Field) |
| Free Fall | IEC60068-2-32 |
| Shock | IEC60068-2-27 |
| Vibration | IEC60068-2-6 |
| Green | RoHS Compliant |
| Certifications | UL 62368 (Optional) IEC 61850-3 IEEE 1613 |
| MTBF | >100,000 hours |
| Warranty | 5 Years |

Dimensions (unit = mm)



Ordering Information

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|--------------------------|--|
| CS-2404GS-8C-AC | 16+8+4 Port Industrial Managed Gigabit L3 Switch - 16x 10/100/1000T(x) + 4x 1000F(x) SFP Slot + 8x Combo Ports - Operating Temperature: -40°C ~ 85°C (-40°F ~ 185°F) - 2x 90~264VAC Power Input |
| CS-2404GS-8C-AD | 16+8+4 Port Industrial Managed Gigabit L3 Switch - 16x 10/100/1000T(x) + 4x 1000F(x) SFP Slot + 8x Combo Ports - Operating Temperature: -40°C ~ 85°C (-40°F ~ 185°F) - 1x 90~264VAC Power and 1x 24VDC Power Input |
| CS-2404GS-8C-DC | 16+8+4 Port Industrial Managed Gigabit L3 Switch - 16x 10/100/1000T(x) + 4x 1000F(x) SFP Slot + 8x Combo Ports - Operating Temperature: -40°C ~ 85°C (-40°F ~ 185°F) - 2x 24VDC Robust Isolation Power Input |
| CS-2404GS-8C-DC48 | 16+8+4 Port Industrial Managed Gigabit L3 Switch - 16x 10/100/1000T(x) + 4x 1000F(x) SFP Slot + 8x Combo Ports - Operating Temperature: -40°C ~ 85°C (-40°F ~ 185°F) - 2x 48VDC Robust Isolation Power Input |
| CS-2404GS-8C-ACU | 16+8+4 Port Industrial Managed Gigabit L3 Switch - 16x 10/100/1000T(x) + 4x 1000F(x) SFP Slot + 8x Combo Ports - Operating Temperature: -40°C ~ 85°C (-40°F ~ 185°F) - 2x 90~264VAC Power Input - UL Certified |
| CS-2404GS-8C-ADU | 16+8+4 Port Industrial Managed Gigabit L3 Switch - 16x 10/100/1000T(x) + 4x 1000F(x) SFP Slot + 8x Combo Ports - Operating Temperature: -40°C ~ 85°C (-40°F ~ 185°F) - 1x 90~264VAC Power and 1x 12-48VDC Power Input - UL Certified |
| CS-2404GS-8C-DCU | 16+8+4 Port Industrial Managed Gigabit L3 Switch - 16x 10/100/1000T(x) + 4x 1000F(x) SFP Slot + 8x Combo Ports - Operating Temperature: -40°C ~ 85°C (-40°F ~ 185°F) - 2x 12-48VDC Robust Isolation Power Input - UL Certified |