

## 28-Port GE Managed Industrial Ethernet Switch



- Max to 24\*10/100/1000BASE-T(X) RJ45 ports;
- Max to 8\*100/1000BASE-F(X) speed Auto-negotiation SFP fiber ports (SC/ST/FC support 1000BASE-X only);
- 4\*Gigabits SFP slots, any support 1000M SFP fiber module(support SM/MM) or electrical module;
- Support Web, CLI and SNMP;
- Support QoS, IGMP, 802.1Q VLAN;
- Support CK-Ring for Ethernet redundancy;
- Support relay alarm output, used in power supply, ports, ring network power supply for the alarm;
- High strength IP40 shell and industrial-grade EMC design;
- Support redundant dual voltage 110/220VAC power input, or 220VDC or 48VDC power input;
- Support the standard 19" rack-mountable installation, optional wall-mounted installation;
- Operating temperature range: -40~75°C, suitable for industrial environment applications

### Product Overview

CRS7200 series are rack-mount switches designed for industrial applications, such as traffic control system, electric power network system, various kinds of wind power photovoltaic system. CRS7200 series support gigabit and fast Ethernet backbone network, double redundant ring-network and the isolation of dual power input (220VDC or 48VDC or 110/220VAC), enhance the communication stability, save the customer network cabling costs. CRS7200 have different ports combination to meet the diverse needs for all kinds of industrial environment.

### Features

#### Basic Switching Features

- IEEE802.3/802.3u /802.3ab/802.3z protocol, store and forward switching
- Max 24\*10/100/1000BASE-T(X) RJ45 ports, or 16\* 10/100/1000BASE-T(X) RJ45 and 8\*100/1000BASE-X Auto-Negotiation speed fiber ports(for SFP port, SC/ST/FC support 1000BASE-X only)
- RJ45 ports support Auto-Negotiation speed, and auto-duplex (half duplex/full duplex), MDI/MDI-X mode.
- 4\*1000BASE-X SFP interfaces
- Metal housing with IP40 protection and EMC industrial level 4
- Support redundant dual voltage 100~240VAC power input(220VDC or 48VDC optional)
- Operating temperature range: -40~75°C
- Rate-limit to optimize the bandwidth of network
- Port trunking to expand the bandwidth and improve the efficiency of the network
- QoS setting to improve the quality of the service
- Port MAC-address learning and statistics
- 802.1Q VLAN to control multicast domain
- Unicast/multicast MAC-address management
- IGMP multicast filtering, static filters in the multicast flow in the industrial Ethernet protocol.
- Broadcast storm control
- SNMP V1/V2C/V3 make security for different levels of network management.
- RSTP avoid hyperplasia and infinite of message in the loop network.

#### Advanced Industrial Ethernet Network Features

- Web, CLI and SNMP management, CLI can login with Telnet and CONSOLE
- Store and forward switching
- Port setting, e.g., Enable/disable the port, speed or mode setting, flow control
- Port Mirroring to debug online or monitor the data status
- CK-Ring provide redundancy self-healing for network, support single ring, tangent and intersection of three ring network model
- Support relay alarm output.
- Rich network system management

## Specification

### Technology

- Standard: IEEE802.3 、 IEEE802.3u 、 IEEE 802.3z 、 IEEE802.3x、 IEEE802.1Q、 IEEE802.1p 、 IEEE802.1d、 IEEE802.1w

### Interfaces

- RJ45 port: 10/100/1000BASE-T(X) Auto-Negotiation speed, auto duplex mode and MDI/MDI-X connection.
- SFP port: 1000BASE-X SFP fiber port, fiber module (single-mode and multimode) and SFP electrical module
- Fiber port: 1000Base-X full Duplex (default SC port, FC/ST optional), max to 120 km
- Console: RS-232 (RJ45 connector).
- Alarm output: 1 relay output

### Exchange Property

- Ten trillion forwarding speed: 14881pps
- Fast forwarding speed: 148810pps
- Gigabit forwarding speed: 1488096pps
- Transmission way: Store-and-forward.
- Switching bandwidth: 56Gbps
- Buffer memory size: 1.5Mbits
- MAC address table: 16K

### Power Supply

- Wide range of redundancy dual 100~240V AC(50~60Hz

1.2A) voltage power input, Using three-wire single-phase power cord

- Wide range of redundancy dual 220VDC (48VDC optional) voltage power input, adopt 2 cores 7.62mm industrial terminal port, Built-in over-current protection

### Relay

- Relay: Port failure, power failure, and ring failure error alarm output
- Contact rating: 1A@24VDC

### Mechanical Properties

- Dimension(W×H×D): 482.6mm×44mm×275mm
- Net weight: 3.15 Kg
- Shell: IP40 protection grade, metal casing
- Installation: racks installed (optional wall-mounted)

### Operating Environment

- Working temperature: -40℃~75℃
- Storage temperature: -40℃~85℃
- Relative humidity: 5% ~ 95% (no condensing)

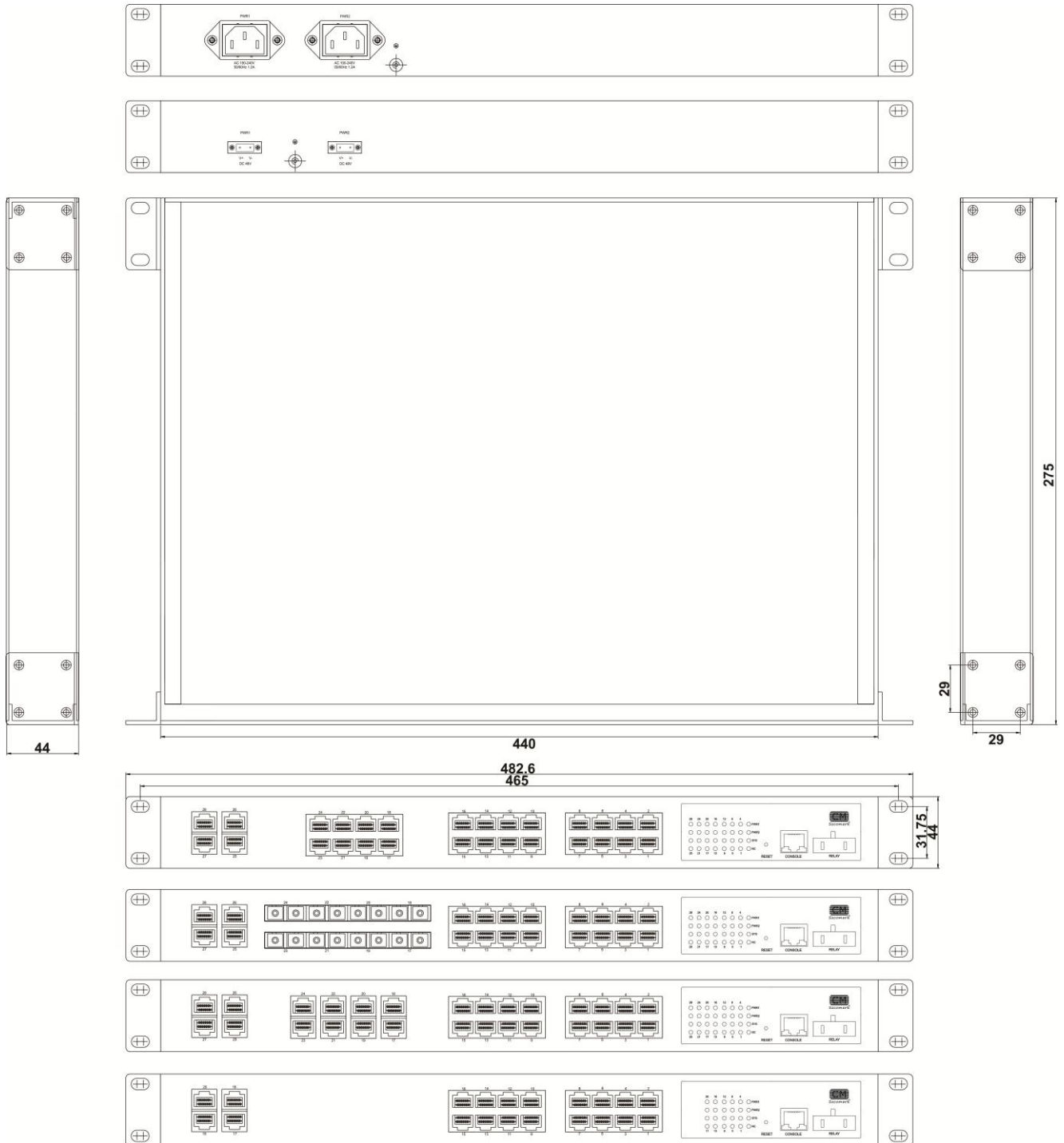
### Warranty

- Warranty: 5 years

## Standard

- IEC61000-4-2(ESD): ±6KV touch, ±15KV air
- IEC61000-4-3(RS): 10V/M (80-1000MHZ)
- IEC61000-4-4(EFT): Power cable ±4KV, data cable ±2KV
- IEC61000-4-5(Surge): Power cable ±4KV CM/±2KV DM, data cable ±4KV
- IEC61000-4-6(CS): 3V(10KHZ-150KHZ), 10V(150KHZ-80MHZ)
- IEC61000-4-16: 30V(cont.), 300V(1s)
- IEC60068-2-6
- IEC60068-2-27
- IEC60068-2-32
- IEC61000-6-2, IEC61750-3, IEEE1613
- EN50121-4

# Dimension(mm)



## Product Models

Product Models	Specification & Descriptions
CRS7228-8TX	28*GE Managed Industrial Ethernet, 24*10/100/1000BASE-T(X) RJ45 ports, 4*1000M SFP ports (Optional fiber or electrical module), rack installation
CRS7228-8FX	28*GE Managed Industrial Ethernet, 16*10/100/1000BASE-T(X) RJ45, 8*1000BASE-FX optical ports (SC/ST/FC optional), 4*1000M SFP ports (Optional fiber or electrical module), rack installation
CRS7228-8SFP	28* GE Managed Industrial Ethernet, 16*10/100/1000BASE-T(X) RJ45, 8*1000BASE-FX SFP ports (Fiber or electrical module), 4*1000M SFP ports(Optional fiber or electrical module), rack installation
CRS7220	20*GE Managed Industrial Ethernet, 16*10/100/1000BASE-T(X) RJ45 ports, 4*1000M SFP ports (Optional fiber or electrical module), rack installation

## Package List

- 28-Port GE Managed Industrial Ethernet Switch 1 pcs
- Product Manual 1pcs
- Product Warranty 1pcs