

## CES8112GX-4XGF-8GC

### 12-Port Layer 3 10G Managed Embedded Industrial Ethernet Switch



- Support 4\*10G SFP+ ports, 8\*Gigabit Combo ports
- Support the ring network redundancy protocols such as CS-Ring, EAPS, ERPS and STP/RSTP/MSTP to improve the network reliability
- Support static routing, RIPv1/v2, OSPF dynamic routing protocols, enabling route selection and message forwarding
- Support DC9~24V dual power input
- Working temperature from -40 °C to +70 °C

### Product Description

CES8112GX-4XGF-8GC is a layer 3 10G managed embedded industrial ethernet switch with 4 10G SFP+ ports and 8 Gigabit Combo ports. This switch adopts a storage and forward mechanism, with powerful bandwidth processing capabilities, automatically troubleshooting data packet errors, reducing transmission failures, and easily supporting 10G networking to ensure stable, reliable, and efficient data transmission. It uses industrial grade components, combined with high standard system design and production control, embedded installation method, operating at a wide temperature range of -40 °C to +70 °C to adapt to various harsh working environments.

CES8112GX-4XGF-8GC follows the main communication standards in the industrial field, meeting technical requests of real-time communication and network security. It provides multiple ways to manage switches, such as accessing the switch command line (CLI) through the CONSOLE port or TELNET/SSH protocol, accessing the switch web interface through HTTP/HTTPS, and accessing the device MIB through the SNMP protocol. It supports multiple network protocols and industry standards, such as RIP, OSPF, VRRP, PIM, EAPS, ERPS, STP/RSTP/MSTP, VLAN, QoS, LACP, IGMP Snooping, GMRP, LLDP, 802.1X, ACL, DHCP, SNTP, port mirroring, Ping, Tracert etc. It supports system management such as uploading and downloading configuration files, and upgrading image files online. The product is widely applicable in fields such as comprehensive energy, smart cities, rail transit, intelligent transportation, smart factories, and industrial automation.

## Product Features

- Support storm suppression for broadcast, multicast, and unknown unicast messages, detect broadcast and multicast packet storms, and prevent broadcast storms
- Support link static aggregation and dynamic aggregation LACP, which can increase transmission bandwidth, improve link reliability and realize network load balance
- Support 802.1Q VLAN, provide Access, Trunk, Hybrid interface easy to divide multiple broadcast domain, enhance the security of the network
- Support VLAN division based on port, MAC, protocol, IP subnetwork, etc., which can be applied to networks in different environments
- Support GVRP protocol, realize dynamic distribution, registration and propagation of VLAN attributes, and maintain dynamic VLAN
- Support the MAC address table and the aging time limit, and the static unicast / multicast MAC address is bound with the interface, to ensure the use of legitimate users
- Support PIM, IGMP, GMRP, IGMP Snooping multicast protocols to reduce the broadcast of multicast data in the network and save network resources
- Support LLDP link layer discovery protocol, obtains LLDP neighbor device information, monitors link status, facilitates topology management and fault localization
- Support ERPS Ethernet multi ring protection technology, provide multi ring networking, perform link backup, achieve fast convergence, and improve network stability
- Support EAPS loop protection protocol and CS-RingV2 private loop network protocol, enhance the reliability of system communication
- Support STP, RSTP, MSTP generating tree protocol, which can eliminate network loop and improve network reliability
- Support VRRP virtual routing redundancy protocol, forming multiple routing devices into a virtual router to realize redundant backup and load sharing
- Support IPv4 static routing configuration, RIPv1/v2, OSPF dynamic routing protocol, realize routing and message forwarding
- Support HTTP, HTTPS, TELNET, SSH network access mode, SSH can provide a secure remote login
- Support SNMPv1/v2c/v3, information query, information modification and troubleshooting through the MIB network management system, to achieve centralized management
- Support QoS service quality, give priority to voice, video and important data in network devices, and solve network congestion
- Support ACL access control list, filtering TCP/UDP/ICMP/IGMP messages based on source/destination IP and MAC address
- Support 802.1X port authentication, authentication and access control for access users
- Support DHCPv4 server, centralized dynamic management and configuration of user IP addresses

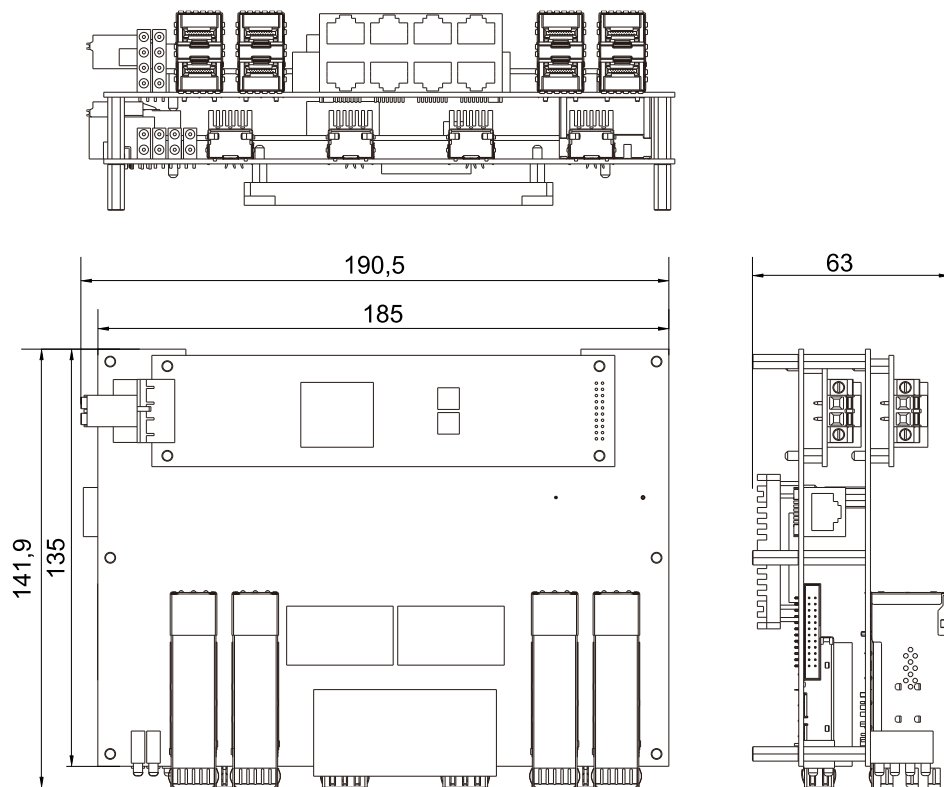
## Technical Specifications

Software	
Switching	<p>Support port configuration, port speed limit, storm suppression, storm detection, static port trunk, LACP</p> <p>Support 802.1Q VLAN, port / MAC / subnet / protocol based VLAN division, GVRP, port isolation</p> <p>Support MAC address aging, static MAC address forwarding and filtering, MAC address binding and learning restrictions</p>
Redundancy	<p>Support CS-RingV2 private ring network technology</p> <p>Support EAPS, ERPS</p> <p>Support STP/RSTP/MSTP</p>
Multicast	<p>Support IGMP Snooping</p> <p>Support static multicast GMRP</p> <p>Support PIM-DM, PIM-SM</p>
Routing	<p>Support static routing</p> <p>Support RIPv1/ v2, OSPF dynamic routing</p> <p>Support VRRP</p>
Security Management	<p>Support HTTP, HTTPS, TELNET, and SSH access mode</p> <p>Support ACL and filtering data on the L2-L4 layer</p> <p>Support 802.1X port authentication and MAC address authentication</p> <p>Support lookback detection and alarm</p>
Management and Maintenance	<p>Support DHCP Client/Server/Relay/Snooping</p> <p>Support QoS, SNMP v1/v2c/v3, SNMP v1/v2c TRAP, LLDP</p> <p>Support port mirror, Ping, Tracert</p> <p>Support user rights management, system logs, local time setting synchronization, and SNTP network time synchronization</p> <p>Support online restart, factory reset, system upgrade, configuration file upload/download</p> <p>Support one master software management</p>
Switch Capability	
Processing Type	Store-and-Forward
Backplane Bandwidth	128Gbps
Buffer Size	12Mbit

MAC Table Size	16K
<b>Interface</b>	
10G Fiber Port	4*10GBase-R SFP+ ports
Gigabit Combo Port	8 Gigabit Combo ports, support 10/100/1000Base-T(X) auto-sensing Gigabit RJ45 copper port or 1000Base-X Gigabit SFP port optional, the copper port supports full/half duplex, auto MDI/MDI-X
CONSOLE	1 CONSOLE port, RS232 signal RJ45 port, used for device debugging
Status LED	Power LED, operation LED, alarm LED, port LED. Support external output of indicator signals
<b>Power Supply</b>	
Input Voltage	DC12~24V dual power input
Full load power consumption	<20W@DC12V
Connection	5.08mm pitch 2-pin terminal block
<b>Physical Characteristics</b>	
Dimensions	185×135×63(mm)
Installations	Embedded
Weight	About 0.65kg
<b>Working Environment</b>	
Operating Temp	-40℃~+70℃
Storage Temp	-40℃~+85℃
Relative Humidity	5%~95% (non-condensing)

## Dimensions

Unit: mm



## Ordering Information

Standard Model	10G SFP port	Gigabit Combo port	Input Voltage
CES8112GX-4XGF-8GC	4	8	Dual DC12~24V



## Contact Us

### COME-STAR COMMUNICATION(WUHAN) CO., LTD.

Address: Puneng Industrial Park, Fenghuang Garden 1st Road, East Lake High-Tech Development Zone, Wuhan, China.

Tel: +86-027-59257958

Mail: [info@come-star.com](mailto:info@come-star.com)

Official site: [www.come-star.com](http://www.come-star.com)

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