

CTS7212G-M12-12GT

12-Port Layer 2 Gigabit Managed Wall Mount M12 Industrial Ethernet Switch



- Support 12 Gigabit copper ports with M12 connectors
- Support ring network redundancy protocols such as CS-Ring, EAPS, ERPS, STP/RSTP/MSTP, enhancing network reliability
- Support multiple power input options, including DC24, DC48, DC110
- High-strength aluminum alloy enclosure with an IP50 protection, fanless design for heat dissipation, the operating temperature from -40°C to +70°C

Product Description

CTS7212G-M12-12GT is a layer 2 full Gigabit managed wall-mount industrial Ethernet switch. It supports 12 Gigabit copper ports with M12 connectors, meeting the requirements of the rail transportation industry standards to ensure tight and robust connections, suitable for scenarios with strong vibrations. The product uses a store-and-forward mechanism, offering powerful bandwidth processing capabilities, automatically detecting packet errors to reduce transmission failures, easily supporting Gigabit networking, and ensuring stable, reliable, and efficient data transmission.

This product uses industrial-grade components, high-standard system design, and production control, featuring wall-mount installation, a high-strength aluminum alloy enclosure for durability, efficient fanless cooling, and it can operate in a wide temperature range from -40°C to +70°C. It also follows high-standard industrial protection design, making it suitable for various challenging working environments, ensuring stable communication performance.

CTS7212G-M12-12GT layer 2 switch complies with major communication standards in the industrial field, addressing issues like communication real-time performance and network security. The product provides various management methods for the switch, such as accessing the switch command line (CLI) through the CONSOLE port or TELNET/SSH protocol, accessing the switch's web interface through HTTP/HTTPS, and accessing device MIB via SNMP protocol. It also supports various network protocols and industry standards such as MW-Ring, EAPS, ERPS, STP/RSTP/MSTP, VLAN, QoS, LACP, IGMP Snooping, GMRP, LLDP, 802.1X, ACL, SNTP, port mirroring, Ping, Tracert, etc..

Product Features

- Support broadcast, multicast, and unknown unicast storm suppression, as well as broadcast and multicast packet storm detection to prevent broadcast storms.
- Support both static and dynamic link aggregation (LACP) to increase transmission bandwidth, enhance link reliability, and achieve network load balancing.
- Support 802.1Q VLAN, providing Access, Trunk, and Hybrid interfaces for easy segmentation of multiple broadcast domains, enhancing network security.
- Support VLAN segmentation based on port, MAC, protocol, IP subnet, and other methods to adapt to different network environments.
- Support GVRP protocol for dynamic distribution, registration, and propagation of VLAN attributes, maintaining dynamic VLANs.
- Support MAC address table with aging time limits, static unicast/multicast MAC address binding to interfaces to ensure legitimate user usage.
- Support multicast protocols like IGMP Snooping and GMRP to reduce multicast data broadcast in the network, saving network resources.
- Support LLDP (Link Layer Discovery Protocol) for obtaining information about LLDP neighboring devices, monitoring link status, facilitating topology management, and fault localization.
- Support ERPS (Ethernet Ring Protection Switching), EAPS (Ethernet Automatic Protection Switching), and CS-RingV2 private ring network protocol to enhance system communication reliability.
- Support STP (Spanning Tree Protocol), RSTP (Rapid Spanning Tree Protocol), and MSTP (Multiple Spanning Tree Protocol) to eliminate network loops and improve network reliability.
- Support network access through HTTP, HTTPS, TELNET, and SSH, with SSH providing secure remote login.
- Support SNMPv1/v2c/v3 for information querying, modification, and troubleshooting through MIB-based network management systems, enabling centralized management.
- Support Quality of Service (QoS) to prioritize voice, video, and critical data transmission in network devices, addressing network congestion.
- Support Access Control Lists (ACL) for filtering packets based on source/destination IP and MAC addresses, covering TCP/UDP/ICMP/IGMP packets, among others.
- Support 802.1X port authentication for verifying the identity and access rights of connecting users

Technical Specifications

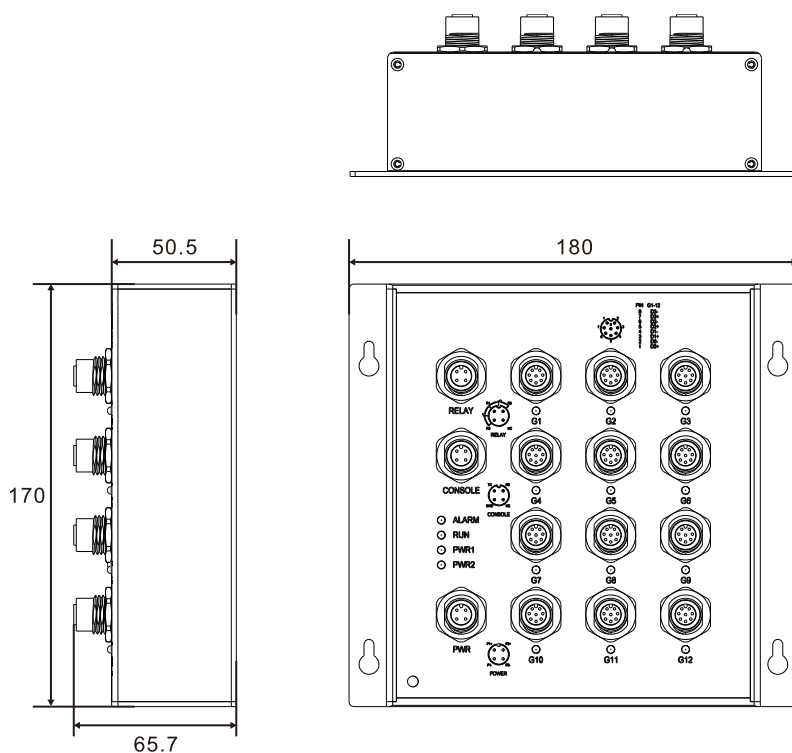
Software	
Switching	Support port configuration, port rate limiting, storm suppression, storm detection, static port aggregation, and LACP Support 802.1Q VLAN, VLAN segmentation based on port, MAC, subnet, and protocol, GVRP (GARP VLAN Registration Protocol), and port isolation. Support MAC address aging, static MAC address forwarding and filtering, MAC address binding, and learning restrictions
Redundancy	Support CS-RingV2 private ring network technology Support EAPS, ERPS Support STP, RSTP, and MSTP
Multicast	Support IGMP Snooping Support static multicast group registration using GMRP
Security Management	Support HTTP, HTTPS, TELNET, and SSH access methods Support ACL for filtering data at the L2-L4 layers Support 802.1X port authentication and MAC address authentication Support loopback detection and alarm functions
Management and Maintenance	Support QoS Support SNMPv1/v2c/v3 and SNMPv1/v2c Traps Support LLDP Support port mirroring, Ping, and Tracert Support user privilege management, system logs, local time settings synchronization, and SNTP (Simple Network Time Protocol) network time synchronization Support online reboot, factory reset, system upgrade, and configuration file upload/download Support unified upper computer software management
Switch Capability	
Processing Type	Store-and-Forward
Backplane Bandwidth	24Gbps
Buffer Size	3Mbit

MAC Table Size	16K
Interface	
1G Copper Port	12*10/100/1000Base-T(X) auto-sensing copper ports, using M12 (A-Code 8-Pin Female) ports, supporting full/half duplex and auto MDI/MDI-X
Relay	1 relay alarm output, using an M12 (A-Code 4-Pin Female) connector
CONSOLE	1 Console port with RS232 signals, using a M12 (A-Code 4-Pin Female) connector, used for device debugging and command-line configuration
Status LED	Power indicator, Operation indicator, Alarm indicator, Port indicator
Power Supply	
Input Voltage	DC18~36V, DC36~72V or DC50~160V is optional
Power Consumption	<15W(full load)
Connection	M12(A-Code 4-Pin Male) connector
Physical Characteristics	
Dimensions	180×170×50.5 mm
Installations	Wall mount
IP Code	IP50
Weight	1.4kg
Working Environment	
Operating Temp	-40℃~+70℃
Storage Temp	-40℃~+85℃
Relative Humidity	5%~95% (non-condensing)
Industry Standard	

EMC	IEC 61000-4-2 (ESD): contact discharge $\pm 8\text{kV}$, air discharge $\pm 15\text{kV}$ IEC 61000-4-5 (Surge): power supply, network port: common mode $\pm 2\text{kV}$, differential mode $\pm 2\text{kV}$ IEC 61000-4-4 (EFT): power supply: $\pm 2\text{kV}$; communication port: $\pm 2\text{kV}$
Certification	CE, FCC, RoHS

Dimensions

Unit: mm



Ordering Information

Standard Model	1G Copper Port	Input Voltage
CTS7212G-M12-12GT-DC24	12	DC18~36V
CTS7212G-M12-12GT-DC48	12	DC36~72V
CTS7212G-M12-12GT-DC110	12	DC50~160V



Contact Us

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