CTS7212G-M12-12GT

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



- Support 12 x 1G copper ports with M12 connectors
- MW-Ring (recovery time < 20 ms @ 200 switches), EAPS, ERPS, MSTP (compatible with RSTP/STP), MRP for network redundancy
- Support multiple power input options, including DC24, DC48, or DC110, with dual input for power redundancy
- High-strength aluminum alloy shell, IP50-rated housing protection
- -40 to +70°C operating temperature range

Product Description

The CTS7212G-M12-12GT is a 12-port Layer 2 gigabit managed wall-mounted M12 industrial Ethernet switch. It supports 12x gigabit copper ports with M12 connectors, meeting rail transit industry standards to ensure secure and robust connections, making it ideal for environments subject to strong vibration. Adopting a store-and-forward mechanism, it offers powerful bandwidth processing capability, automatically detects packet errors, reduces transmission faults, and easily supports gigabit networking to ensure stable, reliable, and efficient data transmission. Built with industrial-grade components and a high-standard system design and production process, the switch features wall-mounted installation, a rugged high-strength aluminum alloy housing, an operating temperature range of -40℃ to +70℃, and a high-level industrial protection design, enabling stable communication performance in harsh environments.

The CTS7212G-M12-12GT Layer 2 switch complies with major communication standards in the industrial sector, addressing requirements for real-time communication and network security. It offers multiple management options, including CLI access via CONSOLE port or TELNET/SSH protocols, WEB interface access via HTTP/HTTPS, and device MIB access via SNMP. It supports a variety of network protocols and industry standards such as MW-Ring, EAPS, ERPS, STP/RSTP/MSTP, MRP, VLAN, GVRP, QoS, LACP, IGMP Snooping, GMRP, LLDP, RMON, 802.1X, ACL, NTP client/server, port mirroring, Ping, and Tracert, enhancing network performance, reliability, and security to meet complex networking requirements. Undergoing rigorous functional, high/low temperature, safety, and EMC testing, the product is well-suited for a wide range of network scenarios and demanding industrial environments, and is widely applicable in industrial automation, integrated energy, smart cities, rail transit, intelligent transportation, smart mining, and smart manufacturing.

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 such as IGMP Snooping and GMRP to reduce multicast data broadcasting in the network and conserve network resources
- Support the LLDP link-layer discovery protocol to obtain LLDP neighbor device information, monitor link status, and facilitate topology management and fault localization
- Support MSTP (Multi-Spanning Tree Protocol), compatible with RSTP/STP, to eliminate network loops and enhance network reliability
- Support ERPS (Ethernet Ring Protection System) technology for multi-ring networking, providing link backup and achieving rapid convergence to improve network stability
- Support EAPS (Ethernet Auto-Protection System) loop protection protocol and MW-RingV2 private ring network protocol to enhance system communication reliability
- Support the MRP (Media Redundancy Protocol) to enhance network reliability, with reconfiguration time ≤500ms
- Support loopback detection to prevent network loops from triggering network storms
- Support SNMPv1/v2c/v3, enabling information queries, modifications, and fault diagnosis through an MIB-based network management system for centralized management
- Support RMON remote network monitoring, providing statistics and alerts for various types of data frames, enabling remote monitoring and management via a network management system

- Support ACL access control lists, filtering TCP/UDP/ICMP/IGMP packets based on source/destination IP and MAC addresses
- Support 802.1X port authentication, verifying user identities and controlling access permissions
- Support dual power supply redundancy, power failure relay alarms, and upper-level system alarms, as well as port disconnection alarms on the upper-level system

Technical Specifications

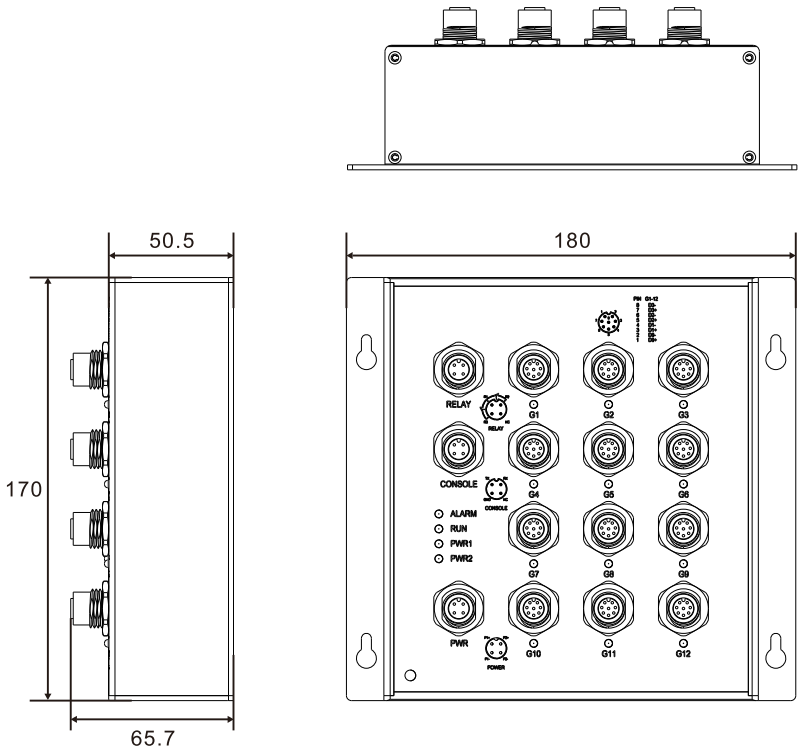
Software	
Switching	Support port configuration, port rate limiting, storm suppression, storm detection, port aggregation, LACP, and port statistics Support 802.1Q VLAN, VLAN based on port/MAC/protocol/subnet, GVRP, and port isolation Support MAC address aging and learning restrictions, static MAC address forwarding and filtering, and MAC address binding
Redundancy	Support MW-Ring proprietary protocol for fast ring networks Support EAPS and ERPS Support MSTP, compatible with RSTP/STP Support MRP
Multicast	Support IGMP Snooping Support static multicasting and GMRP
Security Management	Support HTTP, HTTPS, TELNET, and SSH access methods and login control Support ACL access control lists for L2-L4 layer data filtering Support 802.1X port authentication and MAC address authentication Support loopback detection
Management and Maintenance	Support QoS, SNMPv1/v2c/v3, SNMPv1/v2c TRAP, LLDP, RMON Support port mirroring, Ping, Tracert Support user management with different permissions, system

	logs, local time synchronization, NTP client/server Support online reboot, factory reset, system upgrade, configuration file upload/download Support MW-NMPv2 private network management interface protocol and MixView, MaxView upper-level computer management
Switch Capability	
Processing Type	Store-and-Forward
Backplane Bandwidth	128Gbps
Buffer Size	12Mbit
MAC Table Size	16K
Interface	
1G Copper Port	12x10/100/1000Base-T(X) auto-sensing copper ports, using M12 (A-Code 8-Pin Female) ports, supporting full/half duplex and auto MDI/MDI-X
Relay	1xrelay alarm output, using an M12 (A-Code 4-Pin Female) connector
CONSOLE	1xConsole 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, interface connection/activity indicator
Power Supply	
Input Voltage	DC18V~36V, DC36V~72V or DC50V~160V dual input supports power redundancy
Power Consumption	< 15W@DC110V(full load)
Connection	M12(A-Code 4-Pin Male) connector
Physical Characteristics	
Dimensions (L*W*H)	180 × 170 × 50.5 mm (Mounting brackets included, connector excluded)
Installations	Wall mount
IP Code	IP50

Weight	About 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 ±8kV, air discharge ±15kV IEC 61000-4-5 (Surge): power supply, network port: common mode ±2kV, differential mode ±2kV IEC 61000-4-4 (EFT): power supply: ±2kV; communication port: ±2kV

Dimensions

Unit: mm



Ordering Information

Standard Model	1G Copper Port	Input Voltage
CTS7212G-M12-12GT-DC24	12	DC18V~36V
CTS7212G-M12-12GT-DC48	12	DC36V~72V
CTS7212G-M12-12GT-DC110	12	DC50V~160V

Contact Us

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