ICS5400PTP-12GT12GS4XS

Rack Mounting

28-port Gigabit /10Gigabit Layer 3 PTP Industrial Ethernet Switch

- Support 12 Gigabit Ethernet copper ports + 12 Gigabit Ethernet SFP fiber ports + 4 10Gigabit Ethernet SFP+ fiber ports

- Support Precision Time Protocol (PTP), provide sub-microsecond synchronization accuracy to meet requirements for high-precision time synchronization

- Support multiple network protocols and industrial standards, such as STP/RSTP, DHCP, VLAN, QoS function, IGMP Snooping function, LLDP, etc.

- Support dual power redundancy, input voltage: 12~48VDC, compatible with 90～264VAC

- Support IP40 protection grade

- Support -40~60℃ wide operating temperature range

CE | FCC | Industrial Grade | RPS

Introduction

ICS5400PTP-12GT12GS4XS is a 28-port Gigabit/10Gigabit switch, and a layer 3 industrial Ethernet switch that integrates the characteristics of PTP. Provide a variety of interfaces such as Gigabit copper port, Gigabit SFP slot, 10Gigabit SFP+ slot, which can negotiate the port rate and duplex mode with the device at the opposite end through self-negotiation. Support 12~48VDC power supply scheme (compatible with 90～264VAC), and adopt rack installation mode, which can meet the requirements of different application sites.

Network management system supports various network protocols and industrial standards, such as PTP, MRP, STP/ RSTP, DHCP, VLAN, QoS function, IGMP Snooping, LLDP, etc. It also possesses complete management functions, including Port Configuration, Access Control, Network Diagnosis, Online Upgrading and so on, and supports CLI, WEB, Telnet, SNMP and other access methods. Network management system could bring you great user experience through its friendly interface design and easy and convenient operation.

The input power supply is two independent power supply circuits which can ensure the normal operation of the device when one power supply fails. The design of DIP switch could implement device factory setting recovery. The hardware adopts fanless, low power consumption and wide temperature design, which has passed rigorous industrial standard tests, and suits for the industrial scene environment with harsh requirements for EMC. It can be widely used in AP coverage, railway transportation, smart city, safe city, new energy, smart grid, intelligent manufacturing and other industrial fields.
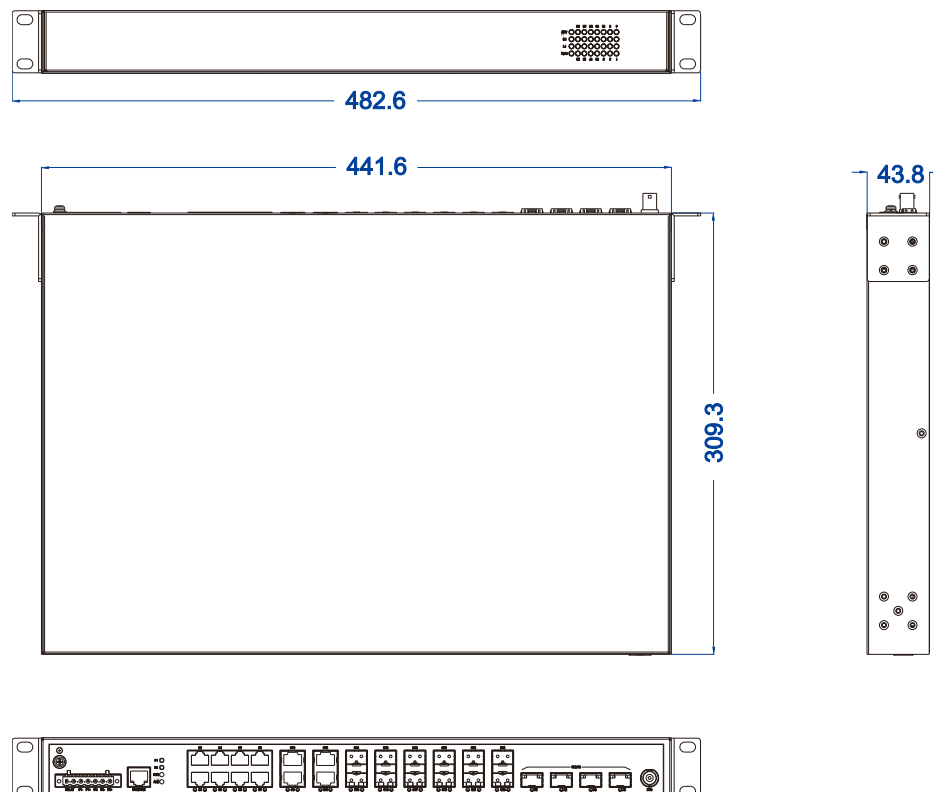
Features and Benefits

- ⊙ SNMPv1/v2c/v3 is used for network management of various levels
- ⊙ RMON can be used for efficient and flexible network monitoring
- ⊙ QoS supports real-time traffic classification and priority setting
- ⊙ LLDP can achieve automatic topology discovery, which is convenient for visual management
- ⊙ DHCP server and DHCP client could be used for allocating IP address of different strategies
- ⊙ DHCP Snooping can ensure DHCP client gets IP address from legal DHCP server
- ⊙ DHCP relay function can realize IP address, gateway, DNS configuration cross network segment
- ⊙ File management is convenient for the device rapid configuration and online upgrading
- ⊙ User privilege classification configuration can set user privilege level
- ⊙ SSH configuration and HTTPS configuration can improve device's management security and guarantee data access security
- ⊙ Support AAA service, which can provide security assurance for various services
- ⊙ IPMC file configuration can deploy access control on IP multicast flow
- ⊙ MVR configuration supports multicast communication forwarding on multicast VLAN

- EPS configuration can realize network status monitor
- CFM function can determine the scope and boundary of maintenance domain
- EPRS function can realize link backup and improve the reliability of network
- Storm suppression can restrain broadcast, unknown multicast and unicast
- VLAN is used for simplifying network planning
- Private VLAN function could achieve port isolation in the same VLAN and save Vlan resources
- GVRP configuration could be used for registering and unregistering VLAN properties
- Port trunking and LACP can increase network bandwidth and enhance the reliability of network connection to achieve optimum bandwidth utilization
- IGMP Snooping can be used for filtering multicast traffic to save the network bandwidth
- MLD Snooping could be used for managing and controlling IPv6 multicast group
- Link OAM function can monitor the health of the network and locate faulted link and fault conditions
- VCL function can divide VLAN based on MAC address, protocol, and IP subnet.
- PTP provides sub-microsecond synchronization accuracy to meet requirements for high-precision time synchronization
- Support MRP. When a single device fails, it does not affect the entire network communication

Dimension

Unit: mm

Specification

Standard & Protocol	IEEE 802.3 for 10Base-T IEEE 802.3u for 100Base-TX IEEE 802.3ab for 1000Base-T IEEE 802.3z for 1000Base-X IEEE1588 for PTP IEEE 802.3x for Flow Control IEEE 802.1D for Spanning Tree Protocol IEEE 802.1w for Rapid Spanning Tree Protocol IEC 62439--2 for MRP ITU-T G.8032 for ERPS IEEE 802.1Q for VLAN IEEE 802.1p for CoS IEEE 802.1AB for LLDP IEEE 802.3ad for LACP
Management	PTP Time Synchronization, SNMP v1/v2c/v3 Centralized Management of Equipment, RMON, Port Mirroring, QoS, LLDP, DHCP Server, DHCP Snooping, DHCP relay, user password, login method, link OAM, Loop Protection, File Management, Log Management, Port Statistics
Security	User Privilege Classification, Authentication Method Configuration, SSH Configuration, HTTPS Configuration, Access Control, SNMP, RMON, NAS, ARP, IP Source Guard, ARP Inspection, AAA, Radius Server Authentication, TACACS + Server Authentication, ACL, Port Alarm, Power Supply Alarm
Switch Function	802.1Q Vlan, Private VLAN, VCL, Port Static/Dynamic Aggregation, LACP, sFlow, UPnP
Unicast / Multicast	GVRP, IGMP-Snooping, IPMC, MVR, MLD Snooping
Redundancy Technology	MRP(Master/Client), STP/RSTP, ERPS
Troubleshooting	Ping(IP v4), Ping(IP v6), Traceroute, Retrieve OAM MIB, VeriPHY Cable Diagnostics
Time Management	NTP Client Configuration, Time Zone Configuration
Interface	Gigabit copper port: 10/100/1000Base-T(X), RJ45, Automatic Flow Control, Full/Half Duplex Mode, MDI/MDI-X Autotunning Gigabit SFP: 100/1000Base-X self-adaptive SFP slot

	10Gigabit SFP+: 1000/10GBase-X self-adaptive SFP+ slot Console port: CLI command line management port (RS-232), RJ45 PPS port: support 1 PPS signal input; adopt BNC interface for connecting an external time source
Indicator	Running Indicator, Alarm Indicator, Power Supply Indicator, Interface Indicator
Switch Property	Transmission mode: store and forward Packet forwarding rate: 130.944Mpps MAC address: 32K Buffer: 32Mbit Backplane bandwidth: 128G Switch time delay: <10µs
Power Supply	12~48VDC (compatible with 90～264VAC), dual power supply redundancy, 7-Pin 5.08mm, power supply occupies 5 pins
Power Consumption	No-load: 28.2W@48VDC (normal temperature), 34.0W@48VDC (high temperature) Full-load: 33.1W@48VDC (normal temperature), 38.5W@48VDC(high temperature)
Working Environment	Operating temperature: -40~60℃ Storage temperature:-40~85℃ Relative humidity: 5%～95%（no condensation）
Physical Characteristic	Housing: IP40 protection, metal Installation: rack mounting Weight: About 4000g Dimension (W x H x D): 441.6 (exclude lugs) mm×43.8mm×309.3mm
Industrial Standard	IEC 61000-4-2 (ESD, electrostatic discharge), Level 3 ● Air discharge:± 8kV ● Contact discharge: ±6kV IEC 61000-4-4 (EFT, electrical fast transient pulses), Level 3 ● Power supply: ±2kV ● Ethernet port: ±1kV IEC 61000-4-5 (Surge), Level 3 ● Power supply: common mode±2kV, differential mode±1kV ● Ethernet port: common mode±2kV, differential mode±1kV

Shock: IEC 60068-2-27

Free fall: IEC 60068-2-32

Vibration: IEC 60068-2-6

Authentication	CE, FCC
MTBF	382,614 hours

Ordering Information

Available Models	Gigabit Copper Port	Gigabit SFP	10Gigabit SFP+	Power Supply
ICS5400PTP-12GT12GS4XS	12	12	4	Dual power supply 12~48VDC Compatible with 90~264VAC

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