3onedata

Make network communication more reliable



ICS5028G-4XGS-8GC

19-inch 1U Rack Mounting

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

- Support 4 10 Gigabit fiber ports (SFP slots), 8 gigabit Combo (SFP slots or RJ45), 16 gigabit copper ports
- Adopt SW-Ring patent technology, support single ring, coupling ring, chain ring, Dual-homing ring network function, automatic recovery time of network failure < 20ms
- Support dual power supply, input voltage: 100~240VAC/DC
- Support -40~75℃ wide operating temperature range

Industrial Grade

Fanless Desig

RPS

Introduction

ICS5028G-4XGS-8GC is 28-port gigabit/10 gigabit layer 3 managed industrial Ethernet switch. It provides gigabit copper ports, gigabit fiber and copper Combo ports and 10 Gigabit SFP slots. It adopts 1U rack mounting, abundant numbers of interfaces and bandwidth of gigabit/10 gigabit combination to meet the application requirements of large-scale industrial network.

Network management system supports various network protocols and industrial standards, such as ARP, Static ND, VRRP, RIP, OSPF, BGP, STP/RSTP/MSTP, 802.1Q VLAN, QoS, IGMP Static Multicast, LLDP, Port Trunking, Port Mirroring, etc. It also possesses complete management functions, including Port Configuration, Port Statistics, Access Control, 802.1X Authentication, Network Diagnosis, Rapid Configuration, Online Upgrading and so on, and supports CLI, WEB, Telnet, SNMP and other access methods. It can provide users with good experience with friendly design of network management system interface, simple 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. When power supply or port has link failure, ALARM indicator will be bright and send out alarm, meanwhile, alarm device connected to the relay will send out alarm for rapid scene troubleshooting. Hardware adopts fanless, low power consumption, wide temperature and voltage design and has passed rigorous industrial standard tests, which can suit for the industrial scene environment with harsh requirements for EMC. It can be widely used in smart grid, rail transit, smart city, safety city, new energy, aerospace, intelligent manufacturing, military project and other industrial fields.

Features and Benefits

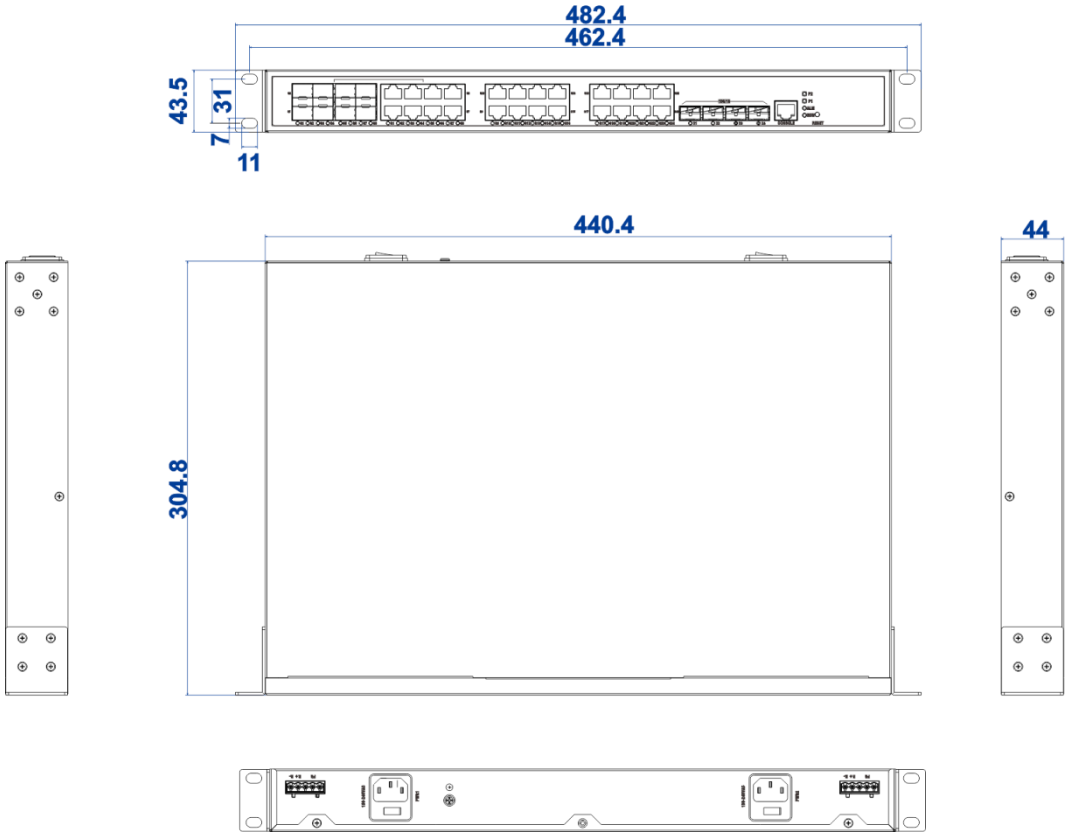
- SNMPv1/v2c/v3 is used for network management of various levels
- RMON can be used for efficient and flexible network monitoring
- Port mirroring can conduct data analysis and monitoring, which is convenient for online debugging
- QoS supports real-time traffic classification and priority setting
- 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
- File management is convenient for rapid configuration and online upgrade of the device
- Log management records boot information, operation information and connection information
- Bandwidth management and flow control can reasonably distribute network bandwidth,

preventing unpredictable network status

- Port statistics can be used for the port real time traffic statistics
- ARP and Static ND could be used for Mac address resolution
- User password can conduct user hierarchical management to improve the device management security
- Anti-attack control and ACL could strength the flexibility and security of network
- Relay alarm is convenient for troubleshooting of construction site
- Storm suppression can restrain the broadcast, unknown multicast and unknown unicast
- SSHD configuration could encrypt transmitted data, prevent DNS and IP spoofing
- TELNET configuration and HTTPS configuration could ensure the access security of data
- VLAN is used for simplifying network planning
- Port Trunking and LACP can increase network bandwidth and enhance the reliability of network connection to achieve optimum bandwidth utilization
- IGMP Snooping, GMRP and static multicast can be used for filtering multicast traffic to save the network bandwidth
- Bandwidth management and flow control can reasonably distribute network bandwidth, preventing unpredictable network status
- Port isolation could achieve port isolation in the same VLAN and save Vlan resources
- SW-Ring and STP/RSTP/MSTP can achieve network redundancy, preventing network storm
- Ping, Traceroute, Port Loopback and DDM could achieve network diagnosis and troubleshooting
- VRRP, RIP, OSPF, BGP could achieve dynamic routing configuration
- QinQ VLAN space expanding technology could mitigate the problem of increasingly scarce public VLAN ID resource
- With high reliability and stability, ERPS could avoid broadcast storm caused by data loopback
- Loop detection could efficiently eliminate the influence caused by port loopback by detecting the existence of loopback

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 IEEE 802.3ae for 10GbE SFP+ IEEE 802.3x for Flow Control IEEE 802.1D for Spanning Tree Protocol IEEE 802.1w for Rapid Spanning Tree Protocol IEEE 802.1s for Multiple Spanning Tree Protocol IEEE 802.1Q for VLAN IEEE 802.1p for CoS IEEE 802.1X for 802.1X Authentication IEEE 802.1AB for LLDP IEEE 802.3ad for LACP
Management	SNMP v1/v2c/v3 Centralized Management of Equipment, RMON,

	Port Mirroring, QoS, LLDP, DHCP Server, DHCP Client, File Management, Log Management, Port Statistics, ARP and Static ND
Security	Classification of User Permissions, Radius Server Authentication, Anti-attack Control, ACL, 802.1X Authentication, Port Alarm, Power Supply Alarm, Storm Suppression, SSHD Configuration, Telnet Configuration, HTTPS Configuration
Switch Function	802.1Q Vlan, QinQ, Static/Dynamic Port Aggregation, Bandwidth Management, Flow Control, Port Isolation
Unicast / Multicast	Static Multicast, GMRP, IGMP-Snooping
Redundancy Protocol	SW-Ring, STP/RSTP/MSTP, ERPS, Loop Detection
Troubleshooting	Ping, Traceroute, Port Loopback, DDM
Routing Technique	VRRP, RIP, OSPF, BGP
Time Management	SNTP
Interface	Copper port: 10/100/1000Base-T(X), RJ45, Automatic Flow Control, Full/Half Duplex Mode, MDI/MDI-X Autotunning SFP slot: 10GbE SFP+ Combo port: 10/100/1000Base-T(X) or 1000Base-SFP Console port: CLI command line management port (RS-232), RJ45 Alarm port: 2-pin 5.08mm pitch terminal blocks, support 2 relay alarm outputs, current carrying capacity 5A@30VDC or 10A@125VAC
LED Indicator	Running Indicator, Port Indicator, Power Supply Indicator, Alarm Indicator
Switch Property	Transmission mode: store and forward MAC address: 16K Packet buffer size: 12Mbit Backplane bandwidth: 128G Switch time delay: < 10μs
Power Requirement	100~240VAC/DC Support 2 AC power supply inputs support 5A overcurrent protection Terminal block of AC power supply input: single-phase socket with rocker switch
Power Consumption	No-load: 10.5W@220VAC Full-load: 25.3W@220VAC

Environmental Limit	Operating temperature range: -40~75℃ Storage temperature range: -40~85℃ Relative humidity: 5%～95% (no condensation)
Physical Characteristic	Housing: IP30 protection, metal Installation: 19-inch 1U rack mounting Weight: 3940g Dimension (W x H x D): 440.4mm×44mm×304.8mm
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), Level 3 ● Power supply: ±2kV ● Signal: ±1kV IEC 61000-4-5 (Surge), Level 3 ● Power supply: differential mode±1kV, common mode±2kV ● Signal: differential mode±1kV, common mode±2kV Shock: IEC 60068-2-27 Free fall: IEC 60068-2-32 Vibration: IEC 60068-2-6
Certification	CE, FCC, RoHS
Warranty	5 years

Ordering Information

Available Models	10 Gigabit SFP Slot	Gigabit Combo	Gigabit Copper Port	Power Supply Range
ICS5028G-4XGS-8GC	4	8	16	100~240VAC/DC dual power supply

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