SimgeNet Mühendislik

SMG-5428 Series

19-inch 1U Rack Mounting
28-port Gigabit /10Gigabit Layer 3 Industrial Ethernet Switch

- Support 4 10Gigabit fiber ports (SFP+ slots) or 4 Gigabit fiber ports (SFP slots), 8 Gigabit combo ports (SFP slots or RJ45) and 16 Gigabit copper ports (optional PoE)
- Adopt Ring patented technology, support single ring, coupling ring, chain, Dual-homing function
- Support ERPS and loop detection, which can eliminate loop effectively and prevent broadcast storm caused by data loop
- 10 Gigabit bandwidth can transmit large amounts of video, voice and data with high performance and high speed
- Support optional dual AC/DC power supply, input voltage: 100~240VAC/ DC or 48VDC or 24VDC
- Support -40~75℃ wide operating temperature range

Industrial Grade Fanless Desig RPS

Introduction

SMG-5428 series is 28-port Gigabit/10 Gigabit layer 3 industrial Ethernet switch. It provides 10 Gigabit SFP slots, Gigabit SFP slots, Gigabit PoE port, Gigabit copper ports and Gigabit fiber and copper multiplexing port. It adopts 1U rack mounting. PoE power supply conforms to IEEE802.3af/at protocol standard, and it can power device over Ethernet, thus decreasing the cable connection of powered devices. Abundant numbers of interfaces, bandwidth of Gigabit/10Gigabit combination and ability to transmit large amounts of video, voice and data with high performance and high speed meet the application requirements of large-scale industrial network.

Network management system supports a variety of network protocols and industry standards, such as ARP, VRRP, RIP, OSPF, NAT, ERPS, STP/ RSTP/MSTP, 802.1Q VLAN, QoS function, IGMP Snooping static multicast function, LLDP, port trunking, port mirror, etc. It has perfect management functions, supporting port configuration, port statistics, 802.1X authentication, network diagnosis, rapid configuration, online upgrade, loop detection, etc. CLI, WEB, Telnet, SSH, SNMP and other access methods can be supported. Network management system could bring you great user experience through its friendly interface design and easy and convenient operation.

This product supports optional dual AC/DC power supply. 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 city, rail transit, smart city, safety city, new energy, intelligent manufacturing and other industrial fields.

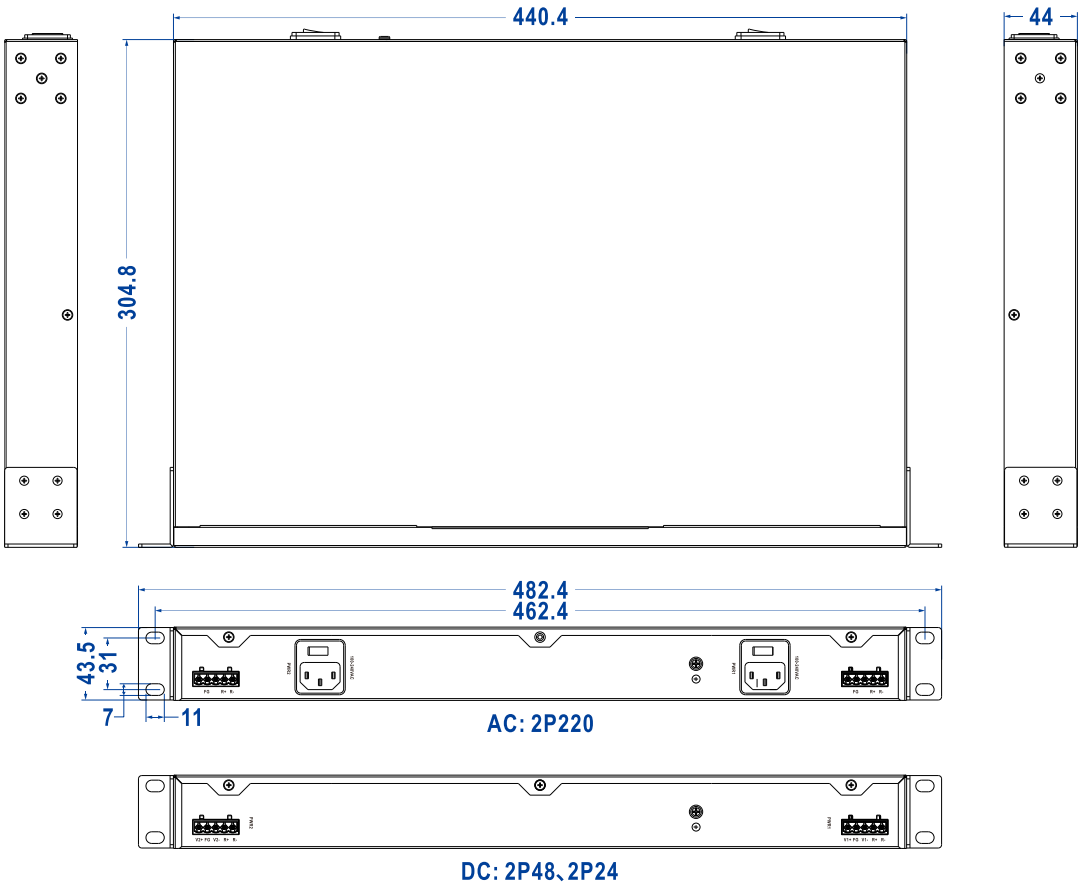
Features and Benefits

- SNMPv1/v2c/v3 is used for network management of various levels
- RMON can be used for efficient and flexible network monitoring
- 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 can be used for distributing IP address with 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
- Log management records the information of booting, operation and connection
- Bandwidth management can reasonably distribute network bandwidth, preventing unpredictable network status
- Port statistics can be used for the port real time traffic statistics
- ARP could be used for MAC address resolution
- User password can conduct user hierarchical management to improve the device management security
- ACL can enhance network flexibility and security
- Relay alarm is convenient for troubleshooting of construction site
- Storm suppression can restrain broadcast, unknown multicast and unicast
- TELNET configuration and SSH configuration guarantee secure access to data
- VLAN is used for simplifying network planning
- Port Trunking can increase network bandwidth and enhance the reliability of network connection to achieve optimum bandwidth utilization
- PIM-DM/PIM-SM, IGMP Snooping, GMRP and static multicast can be used to filter multicast data to save 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
- Ring and STP/RSTP/MSTP can achieve network redundancy, preventing network storm
- Ping, Traceroute, Port Loopback and SFP Digital Diagnosis could achieve network diagnosis and troubleshooting
- VRRP, RIP, OSPF, BGP could achieve dynamic routing configuration
- NAT maps private IP address to the legal IP address of external network, which can slow the consumption of IP address space
- With high reliability and stability, ERPS could avoid broadcast storm caused by data loopback
- PoE could power device via Ethernet, which has greatly saved the cost of device power supply
- Loop detection could efficiently eliminate the influence caused by port loopback by detecting the existence of loopback
- IPDT can track IP device status and realize interaction with other applications

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 10GBase-X 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 IEEE802.1p for CoS IEEE 802.1X for 802.1X Authentication IEEE 802.1AB for LLDP IEEE 802.3af for PoE

	IEEE 802.3at for PoE+
Management	SNMP v1/v2c/v3 Centralized Management Devices, RMON, Port Mirroring, QoS, LLDP, DHCP Server, File Management, Log Management, Port Statistics, ARP, PoE management
Security	User permission rating, ACL, 802.1X authentication, port alarm, power alarm, storm suppression, Telnet configuration, SSH configuration, link flapping protection, NAT, DHCP snooping, loop detection
Switch Function	802.1Q VLAN, Port Trunking, Bandwidth Management, Flow Control, Port Isolation
Unicast / Multicast	Static Multicast, Multicast Passthrough, GMRP, IGMP-Snooping, PIM-SM, PIM-DM
Redundancy Technology	Ring, STP/RSTP/MSTP, ERPS
Troubleshooting	Ping, Traceroute, Port Loopback, SFP Digital Diagnosis
Routing Technique	VRRP, RIP, OSPF,
Time Management	NTP Client, RTC
Interface	Gigabit copper port: 10/100/1000Base-T(X) self-adaptive RJ45, automatic flow control, support full/half duplex mode, MDI/MDI-X self-adaption Gigabit PoE:10/100/1000Base-T (X) self-adaptive RJ45, automatic flow control, support full/half duplex mode, MDI/MDI-X self-adaption; The maximum capacity of a single port is 30W PoE power supply output. Pin 1 and 2 of PoE power supply are positive, while Pin 3 and 6 are negative Gigabit SFP: 100/1000Base-X self-adaptive SFP slot 10Gigabit SFP+: 1000/10GBase-X self-adaptive SFP+ slot Combo port: 10/100/1000Base-T(X) RJ45 or 100/1000Base-X SFP slot Console port: CLI command line management port(RS-232), RJ45 Alarm port: 2 5-pin 5.08mm pitch terminal blocks(relay occupies 2 pins), support 2 relay alarm outputs,

	current loading capacity is 5A/30VDC or 10A/125VAC
Indicator	Run indicator, interface indicator power indicator, alarm indicator, PoE indicator
Switch Property	Transmission mode: store and forward MAC address: 16K Packet buffer size: 12Mbit Backplane bandwidth: 128G
Power Supply	SMG-5428-16GT8GC4XS-2P220, SMG-5428-16GT4GS8GC-2P220 ● Input voltage: 220VAC (100~240VAC/DC) ● Redundant power supply: support dual power supply redundancy ● Overcurrent protection: 5A ● Access terminal: single-phase socket with rocker switch SMG-5428-16GT8GC4XS-2P48, SMG-5428-16GT4GS8GC-2P48 ● Input voltage: 48VDC (36~72VDC) ● Redundant power supply: support dual power supply redundancy ● Overcurrent protection: 3A ● Connection protection: anti-reverse connection ● Access terminal: 5-pin 5.08mm pitch terminal blocks (power supply occupies 2 pins) SMG-5428-16GT8GC4XS-2P24, SMG-5428-16GT4GS8GC-2P24 ● Input voltage: 24VDC (18~72VDC) ● Redundant power supply: support dual power supply redundancy ● Overcurrent protection: 3A ● Connection protection: anti-reverse connection ● Access terminal: 5-pin 5.08mm pitch terminal blocks (power supply occupies 2 pins) SMG-5428-16GP8GC4XS-2P48, I SMG-5428-16GP4GS8GC-2P48 ● Input voltage: 48VDC

	• Redundant power supply: support dual power supply redundancy • Overcurrent protection: 3A • Connection protection: anti-reverse connection • Access terminal: 5-pin 5.08mm pitch terminal blocks (power supply occupies 2 pins)

Power Consumption	Available Models	No-load	Full-load
	SMG-5428-16GT8GC4XS-2P220	10.5W@220V AC	25.3W@220V AC
	SMG-5428-16GP4GS8GC-2P48	21.7W@48VDC	242.6W@48V DC

Working Environment	Operating temperature: -40~75℃ Storage temperature:-40~85℃ Relative humidity: 5%～95%(no condensation)
Physical Characteristic	Housing: IP30 protection, metal Installation: 19-inch 1U rack mounting Weight: 3.94kg (ICS5428-16GT8GC4XS-2P220), 3.95kg (ICS5428-16GP4GS8GC-2P48) Dimension (W x H x D): 440.4mm×44mm×304.8mm (lugs are not included)
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
Authentication	CE, FCC, RoHS

Warranty	5 years

Ordering Information

Available Models	Gigabit				10 Gigabit	Power Supply
	Copper Port	PoE Port	Combo Port	SFP	SFP+	
SMG-5428-16GT8GC4XS-2P220	16	—	8	—	4	220VAC/DC（100~240VAC/DC）Redundant power supply
SMG-5428-16GT4GS8GC-2P220	16	—	8	4	—	
SMG-5428-16GT8GC4XS-2P48	16	—	8	—	4	48VDC（36~72VDC）Redundant power supply
SMG-5428-16GT4GS8GC-2P48	16	—	8	4	—	
SMG-5428-16GT8GC4XS-2P24	16	—	8	—	4	24VDC（18~72VDC）Redundant power supply
SMG-5428-16GT4GS8GC-2P24	16	—	8	4	—	
SMG-5428-16GP8GC4XS-2P48	—	16	8	—	4	48VDC Redundant power supply
SMG-5428-16GP4GS8GC-2P48	—	16	8	4	—	