ICS5556 Series

19-inch 2U Rack Mounting
56-Port Gigabit /10Gigabit Modular Layer 3 Industrial Ethernet Switch

- Support 8 10Gigabit SFP+ slots and 4 board card slots which can match 12 Gigabit SFP slot board cards or 12 Gigabit copper port board cards (optional)
- 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 AC redundant power supply, input voltage: 100~240VAC
- Support -40~60℃ wide operating temperature range

RPS

Introduction

ICS5556 series are 56-port Gigabit/10Gigabit layer 3 Ethernet switches, which adopts modular structure design and supports multiple combinations of frame and board card. The frame supports 8 10Gigabit SFP + slots, the board cards support 12 Gigabit SFP slots or RJ45(optional), and the whole machine adopts 2U rack installation. 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, BGP, NAT, ERPS, STP/ RSTP/MSTP, 802.1Q VLAN, QoS function, IGMP Snooping static multicast function, PIM, LLDP, port trunking, port mirror, etc. It has perfect management functions, supporting port configuration, port statistics, 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.

RESET button can be used to reboot the device and restore factory defaults. This product supports redundant AC power supply. The input power supply is two independent power supply modules which can ensure the normal operation of the device when one power supply fails. When power supply or link has link failure, ALM 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 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, intelligent manufacturing and other industrial fields.

Features and Benefits

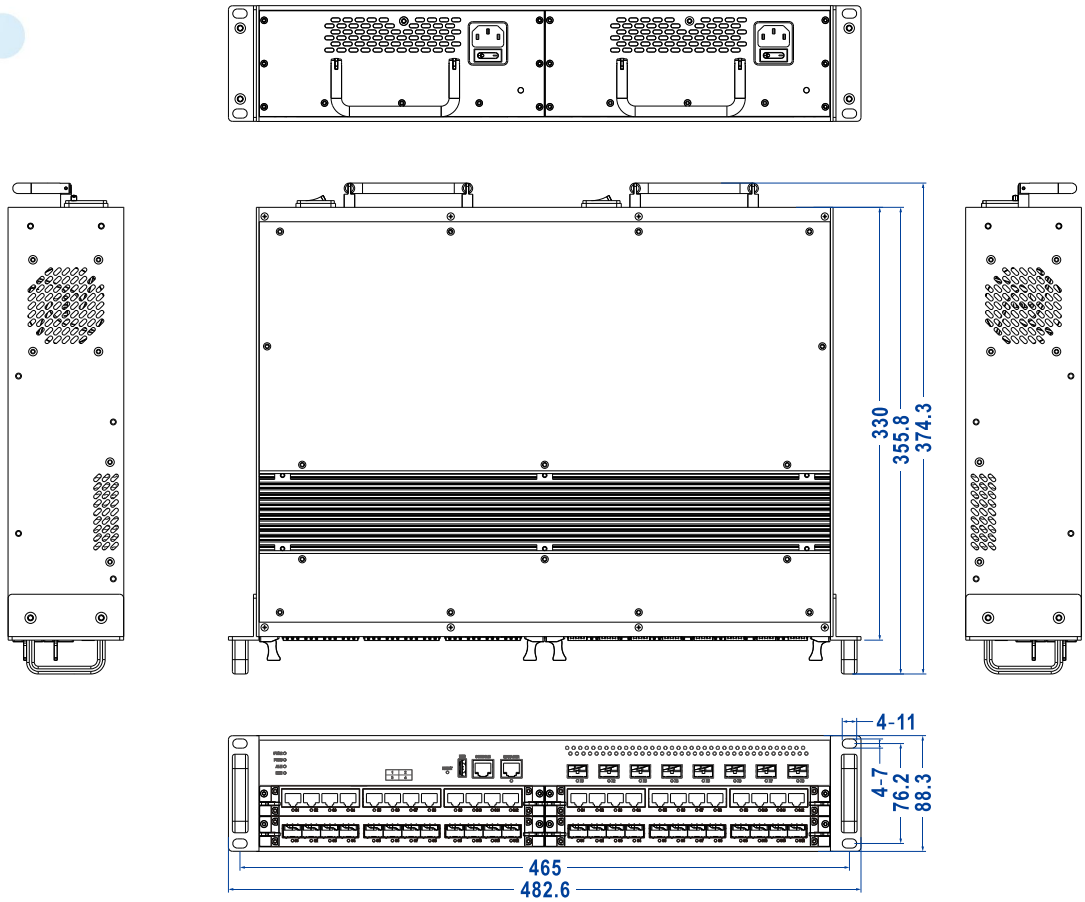
- SNMPv1/v2c/v3 is used for network management of various levels
- RMON can be used for efficient and flexible network monitoring
- Port mirroring can conduct data analysis and monitoring, which is convenient for online debugging
- QoS supports real-time traffic classification and priority setting
- 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
- 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 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
- SW-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
- Loop detection could efficiently eliminate the influence caused by port loopback by detecting the existence of loopback

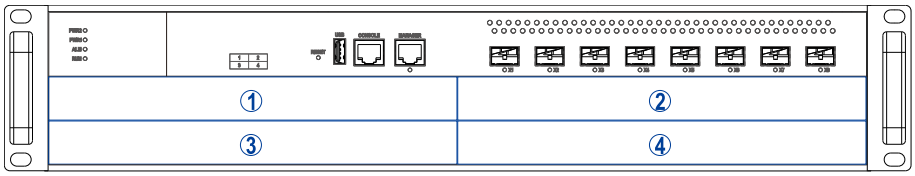
Dimension

Unit: mm

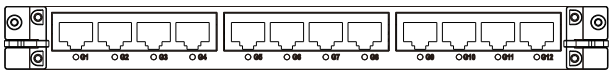
- ICS5556-24GT24GS8XS-2P220 (complete machine)



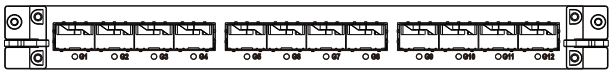
- ICS5556-MAIN-2P220 (frame)



- ICS5556-IM-12GT (board card)



- ICS5556-IM-12GS (board card)



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 IEEE802.3ae 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 IEEE 802.1p for CoS IEEE 802.1AB for LLDP ITU-T G.8032 for ERPS
Management	SNMP v1/v2c/v3 Centralized Management Devices, RMON, Port Mirroring, QoS, LLDP, DHCP Server/Relay, File Management, Log Management, Port Statistics, ARP
Security	User permission rating, ACL, NAT, port alarm, power alarm, storm suppression, Telnet/SSH configuration, DHCP Snooping, link flapping protection, aggregation protection, loop detection
Switch Function	802.1Q VLAN, Port Trunking, Bandwidth Management, Flow Control, Port Isolation
Unicast / Multicast	Static Multicast, Multicast Routing, 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, BGP
Time Management	NTP
Interface	10Gigabit SFP+: 1000/10GBase-X self-adaptive SFP+ slot Gigabit SFP: 100/1000Base-X self-adaptive SFP slot Gigabit copper port: 10/100/1000Base-T(X) self-adaptive RJ45, automatic flow control, support full/half duplex mode, MDI/MDI-X self-adaption USB interface: Type-A USB 2.0 Female (Reserved) CONSOLE port: CLI command line management port(RS-232), RJ45 MANAGER port: 10/100/1000Base-T(X) self-adaptive RJ45, automatic flow control, support full/half duplex mode, MDI/MDI-X

	self-adaption for device network management
Indicator	Power indicator, alarm indicator, running indicator, interface indicator
Switch Property	Transmission mode: store and forward MAC address: 96K Packet buffer size: 32Mbit Backplane bandwidth: 256G
Power Supply	100~240VAC redundant power supply, single-phase socket with rocker switch
Power Consumption	Full-load: ≤ 60W@220VAC (all board cards and the complete machine are copper ports, under high temperature environment), ≤ 90W@220VAC (all board cards and the complete machine are fiber ports, under high temperature environment)
Working Environment	Operating temperature: -40~60℃ Storage temperature:-40~60℃ Relative humidity: 5%～95% (no condensation)
Physical Characteristic	Housing: IP30 protection, metal Installation: 19-inch 2U rack mounting Dimension (W x H x D): 482.6mm×88.3mm×374.3mm (lugs are included) Weight: ≤ 9.5kg (complete machine)
Industrial Standard	IEC61000-4-2 (ESD, electrostatic discharge), Level 3 ● Air discharge:± 8kV ● Contact discharge: ±6kV IEC61000-4-4 (EFT, electrical fast transient), Level 3 ● Power supply: ±2kV ● Signal: ±1kV IEC61000-4-5 (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	Type	Gigabit		10 Gigabit	Power Supply
		RJ45	SFP	SFP+	
ICS5556-24GT24GS8XS-2P220-N	Complete machine	24	24	8	100~240VAC Redundant power supply
ICS5556-MAIN-2P220-N	Frame	—	—	8	
ICS5556-IM-12GT-N	Board card	12	—	—	—
ICS5556-IM-12GS-N	Board card	—	12	—	

Note:

1. The complete machine includes frame and 4 board cards.
2. The board card can match 12-port full Gigabit RJ45 or SFP as required.
3. The number of RJ45 and SFP interfaces in the above table will vary according to different matching schemes of board cards.