



## ICS5530 Series

19-inch 1U Rack Mounting

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

- Support 6 10Gigabit fiber ports (SFP+ slots), 8 Gigabit Combo (SFP slots or RJ45), 16 Gigabit SFP slots
- Adopt SW-Ring patented technology, support single ring, coupling ring, chain ring, Dual-homing ring network function, automatic recovery time of network failure < 20ms
- Support DC or AC dual power (optional), input voltage: 18~72VDC or 100~240VAC/DC
- Support -40~75°C wide operating temperature range



Industrial Grade



Fanless Design



RPS

# Introduction


ICS5530 series is a 30-port Gigabit/10 Gigabit layer 3 managed industrial Ethernet switch. It provides Gigabit SFP slots, Gigabit fiber and copper Combo ports and 10Gigabit SFP+ slots. It adopts 1U rack mounting. Abundant numbers of interfaces and bandwidth of Gigabit/10Gigabit combination to 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, STP/RSTP/MSTP, 802.1Q VLAN, QoS function, IGMP 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, 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 DC or AC dual power supply. The power input 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 and DHCP client could be used for allocating IP address of different strategies
- ⦿ File management is convenient for the device rapid configuration and online upgrade
- ⦿ 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

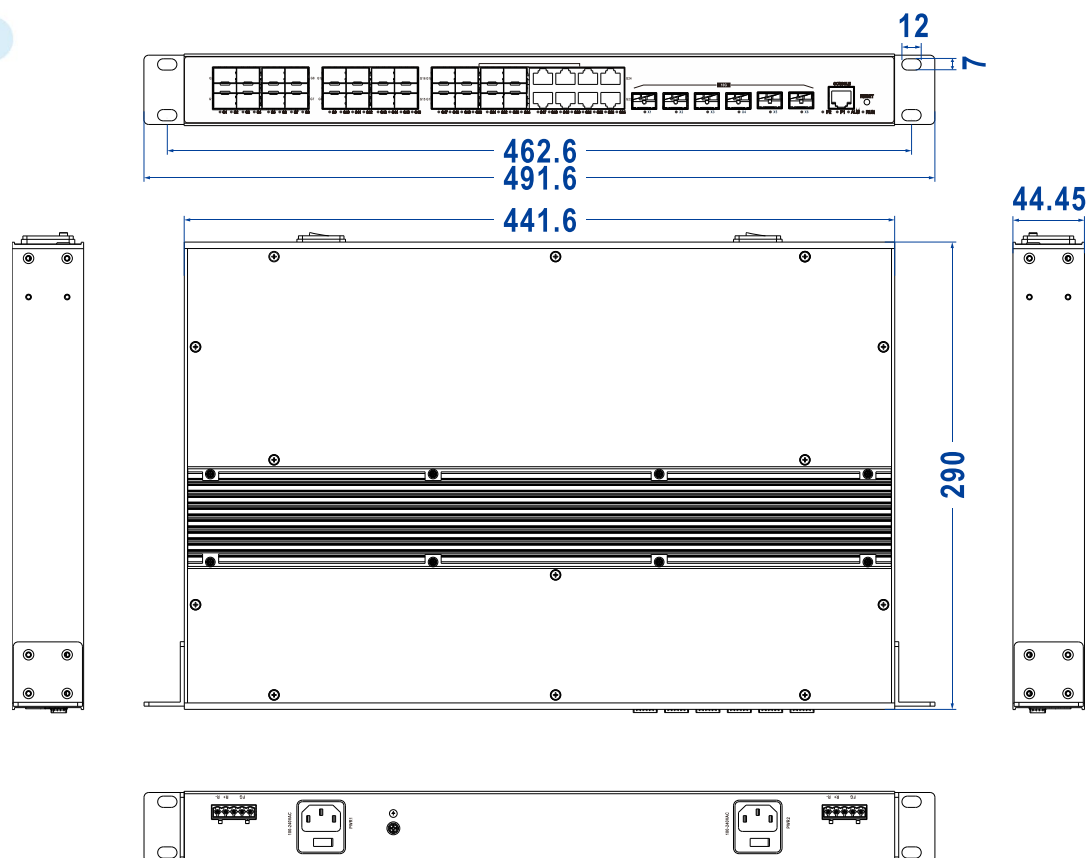
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- ⦿ ARP could be used for MAC address resolution
  - ⦿ User password can conduct user hierarchical management to improve the device management security
  - ⦿ ACL can enhance network flexibility and security
  - ⦿ Relay alarm is convenient for troubleshooting of construction site
  - ⦿ Storm suppression can restrain broadcast, unknown multicast and unicast
  - ⦿ TELNET configuration and HTTPS configuration can guarantee 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
  - ⦿ PIM-DM/PIM-SM/PIM-SSM, 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
  - ⦿ 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

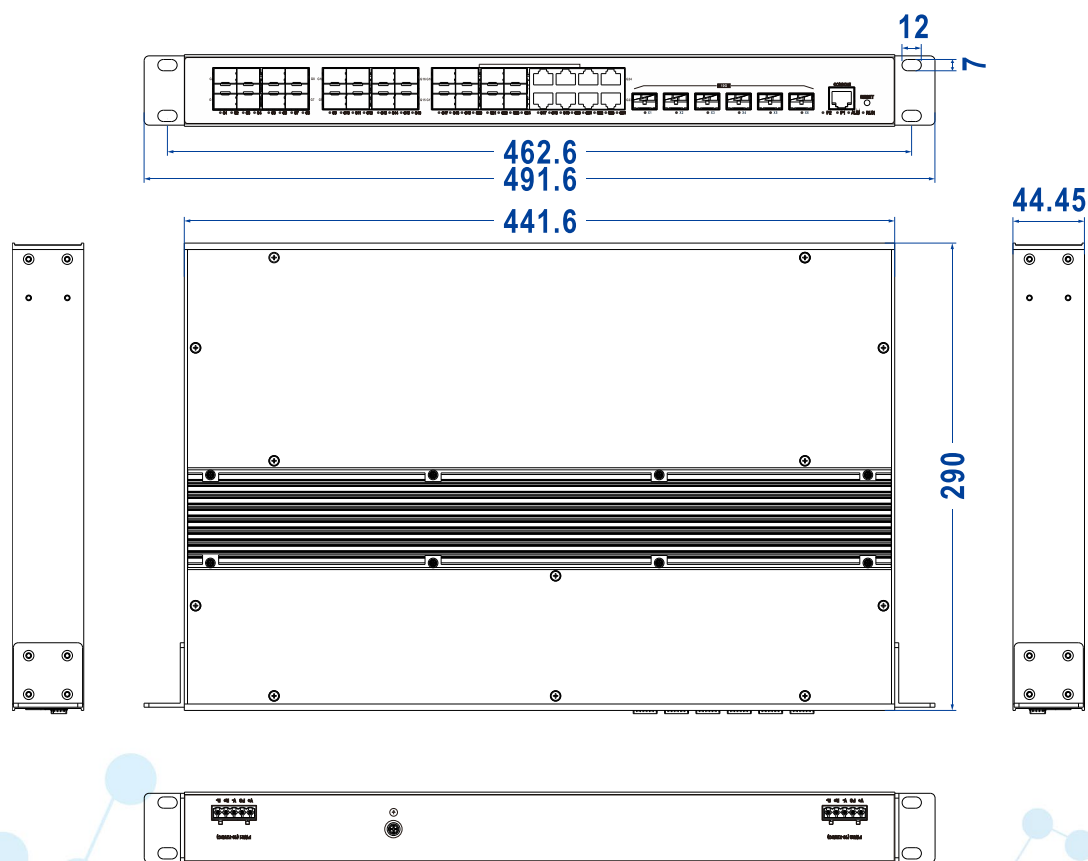
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Unit: mm

- ICS5530-16GS8GC6XS-2P220



● ICS5530-16GS8GC6XS-2P(18-72VDC)




# 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 devices, RMON, port mirroring, QoS, LLDP, DHCP Server, DHCP Client, file management, log management, port statistics, ARP
Security	User permission rating, ACL, 802.1X authentication, port alarm, power alarm, storm suppression, Telnet configuration, HTTPS configuration, SSH configuration
Switch Function	802.1Q VLAN, Static/Dynamic Aggregation, Bandwidth Management, Flow Control, Port Isolation
Unicast / Multicast	Static Multicast, GMRP, IGMP-Snooping
Redundancy Technology	SW-Ring, STP/RSTP/MSTP, ERPS, Loop Detection
Troubleshooting	Ping, Traceroute, Port Loopback
Routing Technique	VRRP, RIP, OSPF, BGP
Time Management	SNTP
Interface	Gigabit SFP slot: 100/1000Base-X SFP 10Gigabit SFP slot: 10GbE SFP+ Combo port: 10/100/1000Base-T(X) or 100/1000Base-X 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

Indicator	Running Indicator, Port Indicator, Power Supply Indicator, Alarm Indicator
Switch Property	Transmission mode: store and forward MAC address: 16K Buffer: 16Mbit Backplane bandwidth: 168G Switch time delay: <10μs
Power Supply	ICS5530-16GS8GC6XS-2P220 <ul style="list-style-type: none"><li>● 100~240VAC/DC</li><li>● Support 2 AC redundant power supply inputs</li><li>● Support 5A overcurrent protection</li><li>● Single-phase socket with rocker switch</li></ul> ICS5530-16GS8GC6XS-2P(18-72VDC) <ul style="list-style-type: none"><li>● 18~72VDC</li><li>● Support 2 DC redundant power supply inputs</li><li>● Adopt 5-pin 5.08mm pitch terminal blocks (power supply occupies 3 pins)</li></ul>
Power Consumption	ICS5530-16GS8GC6XS-2P220 <ul style="list-style-type: none"><li>● No-load: 21.1W@220VAC</li><li>● Full-load: 37.8W@220VAC</li></ul>
Working Environment:	Operating temperature: -40~75℃ Storage temperature: -40~85℃ Relative humidity: 5%~95%(no condensation)
Physical Characteristic	Housing: IP40 protection, metal Installation: 19-inch 1U rack mounting Weight: 5.248kg Dimension (W x H x D): 441.6mm×44.45mm×290mm
Industrial Standard	IEC 61000-4-2 (ESD, electrostatic discharge), Level 3 <ul style="list-style-type: none"><li>● Air discharge: ±8kV</li><li>● Contact discharge: ±6kV</li></ul> IEC 61000-4-4 (EFT, electrical fast transient), Level 3 <ul style="list-style-type: none"><li>● Power supply: ±2kV</li></ul>



	<ul style="list-style-type: none"><li>• Signal: <math>\pm 1\text{kV}</math></li></ul> <p>IEC 61000-4-5 (Surge), Level 3</p> <ul style="list-style-type: none"><li>• Power supply: differential mode <math>\pm 1\text{kV}</math>, common mode <math>\pm 2\text{kV}</math></li><li>• Signal: differential mode <math>\pm 1\text{kV}</math>, common mode <math>\pm 2\text{kV}</math></li></ul> <p>Shock: IEC 60068-2-27 Free fall: IEC 60068-2-32 Vibration: IEC 60068-2-6</p>
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Authentication	CE, FCC, RoHS
Warranty	5 years
MTBF	350000 hours



## Ordering Information

Available Models	10Gigabit SFP+	Gigabit Combo	Gigabit SFP	Power Supply
ICS5530-16GS8GC6XS-2P220	6	8	16	100~240VAC/DC dual power supply
ICS5530-16GS8GC6XS-2P(18-72VDC)	6	8	16	18~72VDC dual power supply



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