#### 8 Gigabit Combo ports + 20-port Gigabit SFP

### > Features

- Support 8 Gigabit Combo ports + 20-port Gigabit SFP;
- Comply with IEC61850-3 standard;
- Support RIP, OSPF, PIM Layer 3 Routing protocol;
- Support MW-Ring, MSTP, VRRP, EAPS redundancy network;
- Support Front and rear indicator lights design;
- Support firmware upgrade online;
- Support relay alarm output;
- Support indicator status display;
- Support Broadcast storm suppression;
- Support multiple management methods and network centralized management;
- Support dual AC/DC 220V power supply;
- Power supply input support anti-reverse protection and non-polarity;
- Support over Voltage, over current, EMC protection;
- Support wide operating temperature range from -40-85°C;
- 1U, 19-inch Rack-mount Installation;
- Warranty:5years;

### Introduction

ICS1028G-8GC-20GS is an industrial grade, Rack-mount, layer3, Managed Ethernet switch which supports 8 Gigabit Combo ports + 20-port Gigabit SFP. providing sufficient data for aggregation and core data exchange of the bandwidth; to provide high-capacity switching capabilities to support based on the three layers of ACL function. Perfect security control strategy and CPU protection policy to improve fault tolerance and ensure stable operation of the network and link load balancing.

ICS1028G-8GC-20GS not only supports rich Layer 2 software features such as ports, VLANs, multicast, QoS, and fast redundant rings, but also supports static and dynamic routing, multicast routing, and supports multiple management methods of Console, Web, and host computer network management software, can satisfied the requirement of various industrial applications such as Intelligent Transportation System, Security Surveillance, Industrial Automation, Smart Grid, Rail Transportation Industry, Safely City, and New Energy, etc.

### > Application

- Intelligent Transportation System
- Industrial Automation
- Security Surveillance
- New Energy and Utilities
- Data Center Network
- Electric Power Industry
- Smart City



# Specification

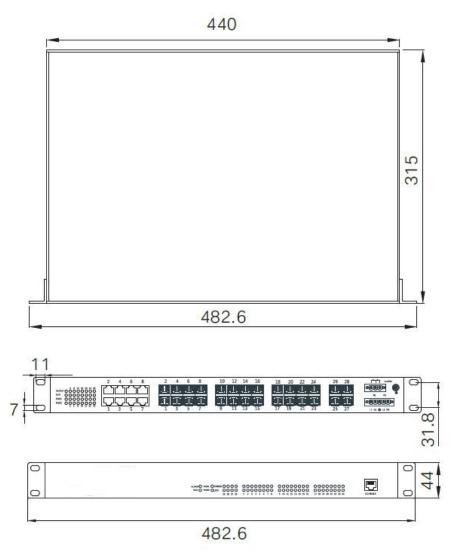
Specification		
Product Name	28-port Full Gigabit Rack-mount Managed layer3 Industrial Ethernet switch	
Product Model	ICS1028G-8GC-20GS	
Port Definition	8 Gigabit Combo ports +20-port Gigabit SFP	
Software performance		
	Support VLAN, GVRP	
	Support port speed limit	
Switch Function	Support storm suppression	
	Support port aggregation	
	Support port flow control	
	Support VRRP/EAPS	
Redundancy protocol	Support MW-Ring and the recovery time<20ms	
	Support RSTP/MSTP and compatible with STP	
	Support IGMP snooping/ IGMP v1/v2/v3	
Multicast Routing	Support GMRP	
	Support static multicast	
	Support RIPv1 / v2, RIPng, OSPFv1/v2	
Routing technology	Support static routing protocol	
	Support PIM-SM, PIM-DM	
Sorvice quality management	Support ACL and L2-L7 data Filter	
Service quality management	Support SP/ WRR queuing	
	Support Console, Telnet, WEB management mode, RMON	
	Support SNMPv1 / v2c	
Management and maintenance	Support FTP, TFTP file transfer and software upgrade	
	Support power failure alarm, power alarm, port alarm, ring alarm	
	Support port mirroring, Syslog, LLDP, RTC, SNTPv4	
	IP supports DHCP server/relay /client	
Technical specifications		
	IEEE802.3-10BaseT	
Ethernet Standard	IEEE802.3u-100BaseTX/100Base-FX	
	IEEE802.3x-Flow Control	
	IEEE802.3z-1000BaseLX	
	IEEE802.3ab-1000BaseTX	
	IEEE802.1ab	

	IEEE802.1D-Spanning Tree Protocol	
Ethernet Standard	IEEE802.1w-Rapid Spanning Tree Protocol	
	IEEE802.1Q -VLAN Tagging	
	IEEE802.1s Multiple Spanning Tree Protocol	
	IEEE802.1p -Class of Service	
	IEEE802.1X-Port Based Network Access Control	
	GVRP/RIPv1/v2&OSPFv1/v2/v3/VRRP/DHCP/CLI/EAPS/Qos/LACP/LLDP/IGMP/ PIM/SNMP/SNTP/SSH	
Switch properties		
Priority queue	8	
VLAN ID	4096	
IGMP Groups	512	
MAC table	16k	
Switch Bandwidth	56Gbps	
Route Table	8k	
Switch Delay	<5µs	
Interface		
	Port numbers: 28	
Gigabit ports	Connector: SFP for fiber port(LC, single or multi-mode), RJ45 for copper port	
	Baud rate: 1000Base-LX(fiber port), 10/100/1000M for copper port	
Console port	RS232/RJ45	
Terminal block for power input	5.08mm terminal block	
Terminal block for relay alarm	5.08mm terminal block,1A@24VDC	
Communication distance		
Twisted-pair	100m(CAT5/CAT5e cable)	
Multimode fiber	Gigabit multi-mode: 850nm, 550m	
Single mode fiber	Gigabit single mode: 1310nm, 20km	
LED indicator lights		
Front panel LED	Port light: LINK/ACT; SPEED	
	Running light: RUN	
	Power LED: PWR1, PWR2	
	Alarm LED: Alarm	
Rear panel LED	RJ45 LED: LINK/ACT; SPEED	
	Fiber LED: LINK/ACT	
Power Requirements		
Power input	AC/DC220V(85-264VAC/110-370VDC)	
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Overload protectionSupportReverse protectionSupportRedundancy protectionSupportWorking Environment-40°C~85°COperating Temperature-40°C~85°CAmbient HumidityS%~95%( non-condensing)Physical CharacteristicsShellIP40 protection, aluminum alloy shellInstallation19" 1U rack mounted for front and rear outlet installationDimension482.6 mm*44mm*315mmIndustry standardEN61000-4-2(ESD), Level 4 EN61000-4-3(RS), Level 4 EN61000-4-3(SS), Level 4 EN61000-4-5(Surge), Level 4 EN61000-4-5(Surge), Level 4 EN61000-4-5(Surge), Level 4 EN61000-4-5(Surge), Level 4 EN61000-4-8(EX), Level 4 EN61000-4-8(EX), Level 4 EN61000-4-8(EX), Level 4 EN61000-4-8(SN), Level 4 EN6100-4-8(SN), Level 4 EN610			
Reverse protectionSupportRedundancy protectionSupportWorking Environment-40°C~85°COperating Temperature-40°C~85°CStorage temperature5%°95%( non-condensing)Physical CharacteristicsShellIP40 protection, aluminum alloy shellInstallation19° 1U rack mounted for front and rear outlet installationDimension482.6 mm*44mm*315mmIndustry standardEN61000-4-2(ESD), Level 4 EN61000-4-3(RS), Level 4 EN61000-4-3(SS), Level 4 EN61000-4-3(SS), Level 4 EN61000-4-8, Level 4 EN61000-4-8, Level 5ImpactIEC60068-2-27FalingIEC60068-2-6 EC6008-2-6Warranty5 Years	Full-load consumption	<32W	
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Falling     IEC60068-2-32       Shock     IEC60068-2-6       Warranty     S Years		EN61000-4-8, Level 5	
Shock IEC60068-2-6 Warranty Warranty 5 Years	Impact	IEC60068–2-27	
Warranty Warranty 5 Years	Falling	IEC60068-2-32	
Warranty 5 Years	Shock	IEC60068-2-6	
	Warranty		
Certification CE, FCC, RoHS	Warranty	5 Years	
	Certification	CE, FCC, RoHS	

## Dimension



# Order Information

Model NO.	Description
ICS1020G-16G-4GS	16-port 10/100/1000M RJ45 + 4-port Gigabit SFP, Layer 3, Dual AC/DC220V
ICS1028-4GS	24-port 10/100M Base-T (x) +4-port Gigabit SFP, Layer 3, Dual AC/DC220V
ICS1028G-16G-8GC-4GS	16-port 10/100/1000M Base-T (x) +8 Gigabit Combo port +4-port Gigabit SFP, Layer 3
ICS1028G-8GC-20GS	8 Gigabit Combo port +20-port Gigabit SFP, Layer 3, Dual AC/DC220V
ICS1028G-16G-8GC-4TS	16-port 10/100/1000M Base-T (x) +8 Gigabit Combo port +4-port 10G SFP, Layer 3

### Packing List

- Layer 3 Industrial Ethernet Switch \*1
- User manual \* 1
- Certificate of quality \* 1
- Warranty card \* 1

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