

Product Datasheet

36-Port 10G Uplink L3 Managed Industrial Ethernet Switch

ICS1036G-24G-8GS-4TS



OVERVIEW

The ICS1036G-24G-8GS-4TS is a 10G uplink L3 managed industrial Ethernet fiber switch. It has 24*10/100/1000Base-T RJ45 ports and 8*100/1000Base-X SFP fiber slot ports and 4*1/10G SFP+ fiber slot ports. Each port can support wire-speed forwarding.

The ICS1036G-24G-8GS-4TS has L3 full network management function, supports IPV4/IPV6 management, supports static route full line rate forwarding, supports complete security protection mechanism, complete ACL/QoS policy and rich VLAN functions, and is easy to manage and maintain. Supports multiple network redundancy protocols STP/RSTP/MSTP (<50ms) and (ITU-T G.8032) ERPS (<20ms) to improve link backup and network reliability. When one-way network fails, communication can be quickly restored to ensure important Uninterrupted communication for applications. According to the actual application requirements, you can configure multiple application services such as port

traffic control, VLAN division, and SNMP through the Web network management mode. It meets the needs of various industrial Ethernet application environments and is suitable for industrial, intelligent transportation, rail transit, power industry, mining, petroleum, marine, metallurgical and green energy construction to form a cost-effective, stable and reliable communication network.

FEATURE

■ Gigabit access, 10G uplink

- ◇ All series supports “Gigabit Ethernet port and 10G SFP+ uplink port “combination, which enables users to flexibly build networking to meet the needs of various scenarios.
- ◇ Support non-blocking wire-speed forwarding.
- ◇ Support full-duplex based on IEEE802.3x and half-duplex based on backpressure.

■ Security

- ◇ 802.1X authentication.
- ◇ Port isolation, Storm control.
- ◇ IP-MAC-VLAN-Port binding.

■ Strong business processing capability

- ◇ IEEE802.1Q VLAN, flexible VLAN division, Voice VLAN and QinQ configuration.
- ◇ QoS, Priority mode based on 802.1P, Port & DSCP, queue scheduling algorithm including Equ, SP, WRR & SP+WRR.
- ◇ ALC, filter data packet through configuring matching rules, processing operation & time permission, and provide flexible and safe access control.
- ◇ IGMP V1/V2 and IGMP Snooping.

- ◇ ERPS/STP/RSTP/MSTP.
- ◇ Static and dynamic aggregation.
- **Stable and reliable**
 - ◇ CCC,CE, FCC, RoHS.
 - ◇ Low power consumption, galvanized steel casing, The fan active cooling.
 - ◇ The user-friendly panel, it can show the device status through the LED indicator of PWR, Link.
 - ◇ Self-developed power supply, high redundancy design, providing a long term and stable power output.
- **Easy operation and maintenance management**
 - ◇ HTTPS, SSLV3, and SSHV1/V2.
 - ◇ RMON, system log, LLDP, and port traffic statistics.
 - ◇ CPU monitoring, memory monitoring, Ping test, and cable diagnose.
 - ◇ Web management, CLI command line (Console, Telnet), SNMP (V1/V2/V3).

TECHNICAL SPECIFICATION

Model	ICS1036G-24G-8GS-4TS
Interface Characteristics	
Fixed Port	24*10/100/1000Base-T RJ45 ports (Data) 8*100/1000Base-X SFP fiber slot ports 4*1/10G uplink SFP+ fiber slot ports (Data) 1*Console RS232 port (115200,N,8,1) 1 *AC100-240V power input port 2 * DC12-48V power input ports (support anti-reverse protection)

	Alarm switch(FAULT)
Ethernet Port	Port 1-24 support 10/100/1000Base-T,auto-sensing,Full/half duplex MDI/MDI-X self-adaption
Twisted Pair Transmission	10BASE-T: Cat3,4,5 UTP(≤100 meter) 100BASE-TX: Cat5 or later UTP(≤100 meter) 1000BASE-T: Cat5e or later UTP(≤100 meter)
Optical Fiber Port	Gigabit SFP /10G SFP+ optical fiber interface, default matching optical modules (optional order single-mode / multi-mode, single fiber / dual fiber optical module. LC)
SFP Port Expansion	Turbo overclocking 2.5G optical module and ring
Optical Cable/ Distance	Multi mode: 850nm / 0 ~ 500M, 0 ~ 300M (10G); single mode: 1310nm / 0 ~ 40KM, 1550nm /0 ~ 120KM.
Chip Parameter	
Network Management Type	L3
Network Protocol	IEEE802.3 10BASE-T, IEEE802.3i 10Base-T IEEE802.3u 100Base-TX , IEEE802.3ab 1000Base-T IEEE802.3z 1000Base-X IEEE802.3ae 10GBase-LR/SR IEEE802.3x
Forwarding Mode	Store and Forward(Full Wire Speed)
Switching Capacity	598Gbps (non-blocking)
Forwarding Rate@64byte	107.14Mpps
MAC	32K
Buffer Memory	32M
Jumbo Frame	9.6K

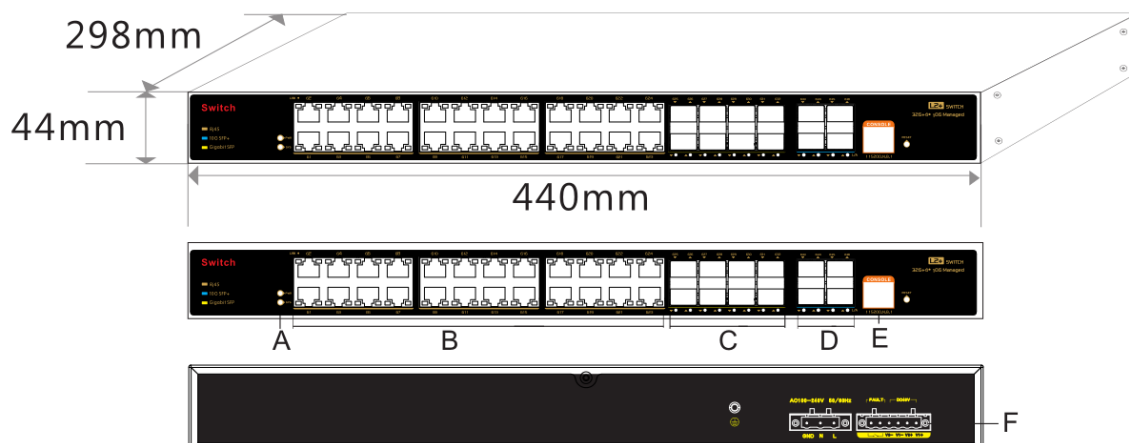
LED Indicator	Power: PWR (yellow), system:SYS (yellow), network: Link /Act(yellow), Fiber port : L/A (green)
Reset Switch	Yes, Press and hold the reset switch for 10s and release it to restore the factory settings
Power	
Total PWR / Input Voltage	60W (AC100-240V)
Power Consumption	Standby<35W, Full Load<60W
Power Input Interface	Built-in power supply, AC 100~240V 50-60Hz 0.65A
Power Supply	Dual input power interface design, AC power supply priority, support anti-reverse protection, power-off automatic switching DC connection; 2*DC12-48V power input ports; Power-off alarm switch; 1*AC power input port
Physical Parameter	
Operation TEMP / Humidity	-40~+80°C;5%~90% RH Non condensing
Storage TEMP / Humidity	-40~+85°C;5%~95% RH Non condensing
Dimension (L*W*H)	440*298*44mm
Net /Gross Weight	<5.0kg / <5.8kg
Installation	Desktop type ,19 inch 1U cabinet installation
Certification & Warranty	
Lightning protection / protection level	Lightning protection: 6KV 8/20us; Protection level: IP40 IEC61000-4-2(ESD):±8kV contact discharge,±15kV air discharge IEC61000-4-3(RS):10V/m(80~1000MHz) IEC61000-4-4(EFT): power cable:±4kV; data cable:±2kV IEC61000-4-5(Surge):power cable:CM±4kV/DM±2kV; data cable:±4kV

	<p>IEC61000-4-6(radio frequency transmission):10V(150kHz~80MHz)</p> <p>IEC61000-4-8(power frequency magnetic field):100A/m;1000A/m ,1s to 3s</p> <p>IEC61000-4-9(pulsed magnet field):1000A/m</p> <p>IEC61000-4-10(damped oscillation):30A/m 1MHz</p> <p>IEC61000-4-12/18(shockwave):CM 2.5kV,DM 1kV</p> <p>IEC61000-4-16(common-mode transmission):30V; 300V,1s</p> <p>FCC Part 15/CISPR22(EN55022):Class A</p> <p>IEC61000-6-2(Common Industrial Standard)</p>
Mechanical Properties	<p>IEC60068-2-6 (anti vibration)</p> <p>IEC60068-2-27 (anti shock)</p> <p>IEC60068-2-32 (free fall)</p>
Certification	<p>CCC;CE mark, commercial; CE/LVD EN60950;FCC Part 15 Class B;</p> <p>RoHS</p>
Warranty	<p>5 years , lifelong maintenance.</p>
Network Management Features	
Interface	<p>IEEE802.3X (Full-duplex)</p> <p>Port temperature protection setting</p> <p>Port green Ethernet Energy-saving setting</p> <p>Broadcast storm control based on port speed</p> <p>The speed limit of the message flow in the access port.</p> <p>The minimum particle size is 64Kbps.</p>
Layer 3 Features	<p>L3 network management ,IPV4/IPV6 management</p> <p>L3 soft routing forwarding,</p> <p>Static route, Default route @ 128 pcs, APR @ 1024 pcs</p>
VLAN	<p>4K VLAN based on port, IEEE802.1q</p> <p>VLAN based on the protocol</p>

	<p>VLAN based on MAC</p> <p>Voice VLAN, QinQ configuration</p> <p>Port configuration of Access, Trunk, Hybrid</p>
Port Aggregation	<p>LACP, Static aggregation</p> <p>Max 18 aggregation groups and 8 ports per group.</p>
Spanning Tree	STP (IEEE802.1d),RSTP (IEEE802.1w),MSTP (IEEE802.1s)
Industrial Ring	G.8032 (ERPS),Recovery time less than 20ms
Network Protocol	250 Ring at most, Max 254 devices per ring.
Multicast	<p>MLD Snooping v1/v2,Multicast VLAN</p> <p>IGMP Snooping v1/v2, Max 250 multicast groups, Fast log out</p>
Port Mirroring	Bidirectional data mirroring based on port
QoS	<p>Flow-based Rate Limiting</p> <p>Flow-based Packet Filtering</p> <p>8*Output queues of each port</p> <p>802.1p/DSCP priority mapping</p> <p>Diff-Serv QoS,Priority Mark/Remark</p> <p>Queue Scheduling Algorithm (SP, WRR, SP+WRR)</p>
ACL	<p>Port-based Issuing ACL,ACL based on port and VLAN</p> <p>L2 to L4 packet filtering, matching first 80 bytes message. Provide ACL based on MAC, Destination MAC address, IP Source, Destination IP, IP Protocol Type, TCP/UDP Port, TCP/UDP Port Range, and VLAN, etc.</p>
Security	<p>IP-MAC-VLAN-Port binding</p> <p>ARP inspection,Anti-DoS attack</p> <p>AAA & RADIUS,MAC learning limit</p> <p>Mac black holes,IP source protection</p> <p>IEEE802.1X & MAC address authentication</p> <p>Broadcast storm control,Backup for host datum</p>

	SSH 2.0,SSL,Port isolation,ARP message speed limit User hierarchical management and password protection
DHCP	DHCP Client,DHCP Snooping, DHCP Server,DHCP Relay
Management	One-key recovery Cable Diagnose,LLDP Web Management (HTTPS) NTP,System work log,Ping Test CPU instant utilization status view Console/AUX Modem/Telnet/SSH2.0 CLI Download & Management on FTP, TFTP, Xmodem, SFTP,SNMP V1/V2C/V3 NMS - smart network management system platform(LLDP+SNMP)
System	Category 5 Ethernet network cable Web browser: Mozilla Firefox 2.5 or higher, Google browser chrome V42 or higher, Microsoft Internet Explorer10 or later; TCP/IP, network adapter, and network operating system (such as Microsoft Windows, Linux, or Mac OS X) installed on each computer in a network

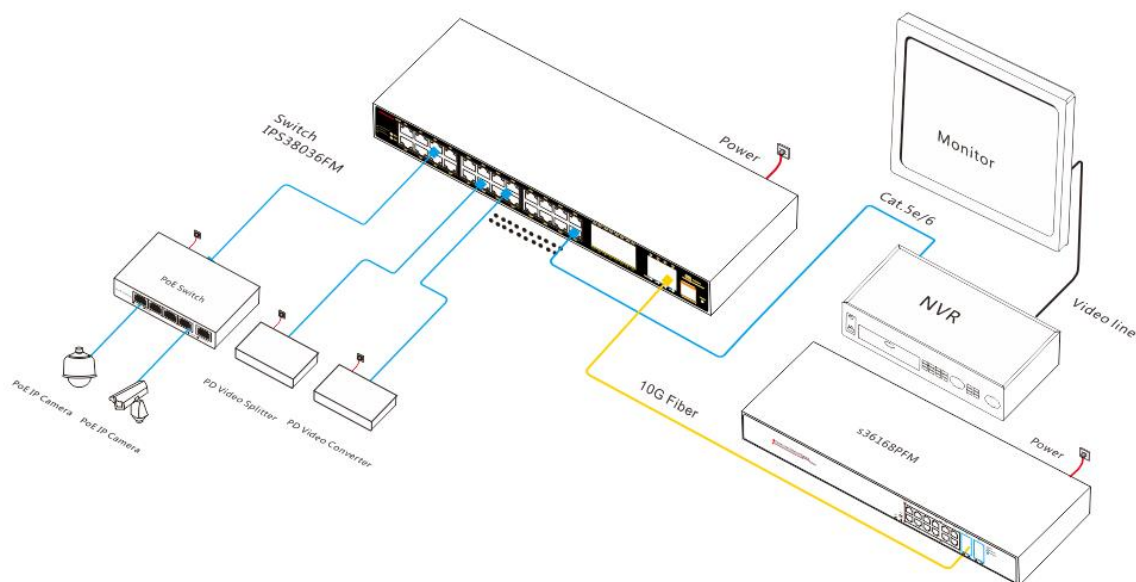
DIMENSION



A. Power indicator
C. 8* Gigabit SFP ports
E. Console port

B. 24* RJ45 Ports
D. 4* 1/10G SFP+ Ports
F. AC/DC dual input port

APPLICATION



ORDERING INFORMATION

Model	Description	Built-in Power Supply
ICS1036G-24G-8GS-4TS	L3 managed industrial Ethernet fiber switch with 24*10/100/1000M RJ45 ports and 8*100/1000M SFP slot ports and 4*1/10G SFP+ slot ports. Support dual AC or DC power supply input and 1U/19 inch rack installation.	60W
Note: Industrial Ethernet switch does not match SFP module by default.		

PACKING LIST

	CONTENT	QTY	UNIT
Packing List	36-port 10G uplink L3 managed industrial Ethernet fiber switch	1	SET
	RJ45-DB9 Line	1	PC
	AC Power Cable	1	PC
	Mounting Kits (Hanging Ear)	1	SET
	User Guide	1	PC
	Warranty Card	1	PC

RELATED PRODUCT

Model	Description
ICS1028G-24G-4TS	L3 managed industrial Ethernet fiber switch with 24*10/100/1000M RJ45 ports and 4*1/10G SFP+ slot ports, built-in 60W power supply. Support dual AC or DC power supply input and 1U/19 inch rack installation.
ICS1052G-48G-4TS	L3 managed industrial Ethernet fiber switch with 48*10/100/1000M RJ45 ports and 4*1/10G SFP+ slot ports, built-in 60W power supply. Support dual AC or DC power supply input and 1U/19 inch rack installation.
ICS1036G-8G-24GS-4TS	L3 managed industrial Ethernet fiber switch with 8*10/100/1000M RJ45 ports and 24*100/1000M SFP slot ports and 4*1/10G SFP+ slot ports, built-in 60W power supply. Support dual AC or DC power supply input and 1U/19 inch rack installation.
ICS1044G-12G-28GS-4TS	L3 managed industrial Ethernet fiber switch with 12*10/100/1000M RJ45 ports and 28*100/1000M SFP slot ports and 4*1/10G SFP+ slot ports, built-in 60W power supply. Support dual AC or DC power supply input and 1U/19 inch rack installation.