

16-Port Full Gigabit Managed Industrial Ethernet Switch

(IS700-12E4F)

Product Description

The IS700-12E4F is a full gigabit managed industrial Ethernet switch. It has 12*10/100/1000M RJ45 ports and 4*100/1000M SFP port slots. It can support L2+ full network management function, IPV4/IPV6 management, rich network management features, and complete network security policy configuration, it is suitable for intelligent transportation, rail transit, electric power, mining, metallurgy, and green energy construction.

The IS700-12E4F can support multiple network redundancy protocols STP/RSTP/MSTP (<50ms) and (ITU-T G.8032) ERPS (<20ms) industrial fast ring network protocol. When the one-way network fails, communication can be quickly restored to ensure important Uninterrupted communication for applications. It has high reliability, high security, high manageability, ensuring reliable transmission of critical data, support for remote management, and can be used for cluster management with NMS network management platform. No blind spot network management. IS700-12E4F industrial grade series products fully comply with industrial product design and materials. The shell is made of aluminum alloy to enhance heat dissipation performance and has excellent industrial field environment adaptability (including mechanical stability, climatic environment adaptability, electromagnetic environment adaptation). Sexuality, protection level up to IP40, support for dual redundant power supply, low power consumption fanless cooling technology, MTBF mean time between failures of up to 35 years, long 5 years warranty.



Product Features

● Gigabit access, SFP port uplink

- ✧ All series supports Ethernet port and SFP 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.

● 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.

● Security

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

● Stable and reliable

- ✧ CCC, CE, FCC, RoHS.
- ✧ Low power consumption, no fan, aluminum casing.
- ✧ The user-friendly panel, it can show the device status through the LED indicator of PWR, SYS, Link, L/A.

● 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).

Product Parameters

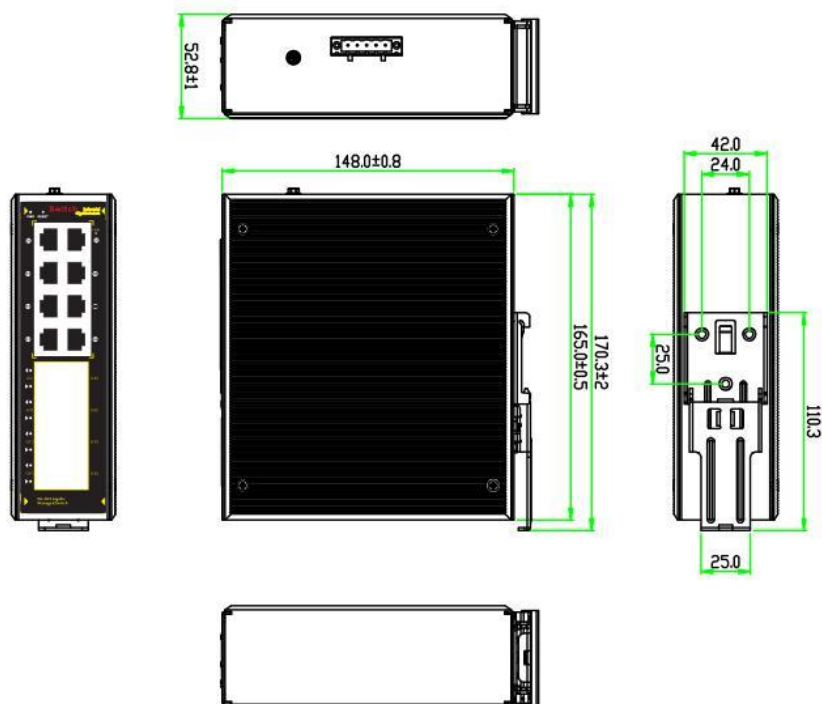
Model	IS700-12E4F		
Interface Characteristics			
Fixed Port		12*10/100/1000Base-T uplink RJ45 ports (Data)	
		4*100/1000Base-X uplink SFP slot ports (Data)	
		1 * RS232 console port(115200,N,8,1)	
		2 set of V+, V- redundant DC power interface (6 Pin Phoenix terminal)	
		Alarm switch (FAULT)	
Ethernet Port		Port 1-12 support 10/100/1000Base-T,auto-sensing,Full/half duplex MDI/MDI-X self-adaption	
Twisted Transmission Pair		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 optical fiber interface, default matching optical modules (optional order single-mode / multi-mode, single fiber / dual fiber optical module. LC)	
Optical Distance Cable/		Multi mode: 850nm / 0 ~ 500M,	
		single mode: 1310nm / 0 ~ 40KM, 1550nm / 0 ~ 120KM.	
Chip Parameter			
Network Management Type		L2+	
Network Protocol		IEEE802.3 10BASE-T, IEEE802.3i 10Base-T	
		IEEE802.3u 100Base-TX , IEEE802.3ab 1000Base-T	
		IEEE802.3z 1000Base-X	
		IEEE802.3x	
Forwarding Mode		Store and Forward(Full Wire Speed)	
Switching Capacity		256Gbps	
Forwarding		23.81Mpps	
Rate@64byte			
MAC		8K	
Buffer Memory		6M	
Jumbo Frame		9.6K	

LED Indicator	Power: PWR (green), System: SYS (green), Network: Link/Act (yellow), Fiber Port : L/A (green)
Reset Switch	Yes, One-button factory reset
Power	
Total PWR / Input Voltage	<24W /(48VDC)
Power Consumption	Standby<10W, Full load<22W
Working Voltage	12-48VDC, 6 Pin industrial Phoenix terminal, support anti-reverse protection.
Power Supply	No, optional 24V/24W or 24V/36W industrial power supply
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)	166*148*54mm
Net /Gross Weight	<1.2kg / <1.5kg
Installation	Desktop, DIN rail
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
	IEC61000-4-6(radio frequency transmission):10V(150kHz~80MHz)
	IEC61000-4-8(power frequency magnetic field):100A/m;1000A/m ,1s to 3s
	IEC61000-4-9(pulsed magnet field):1000A/m
	IEC61000-4-10(damped oscillation):30A/m 1MHz
	IEC61000-4-12/18(shockwave):CM 2.5kV,DM 1kV
	IEC61000-4-16(common-mode transmission):30V; 300V,1s
	FCC Part 15/CISPR22(EN55022):Class A
	IEC61000-6-2(Common Industrial Standard)
Mechanical	IEC60068-2-6 (anti vibration)

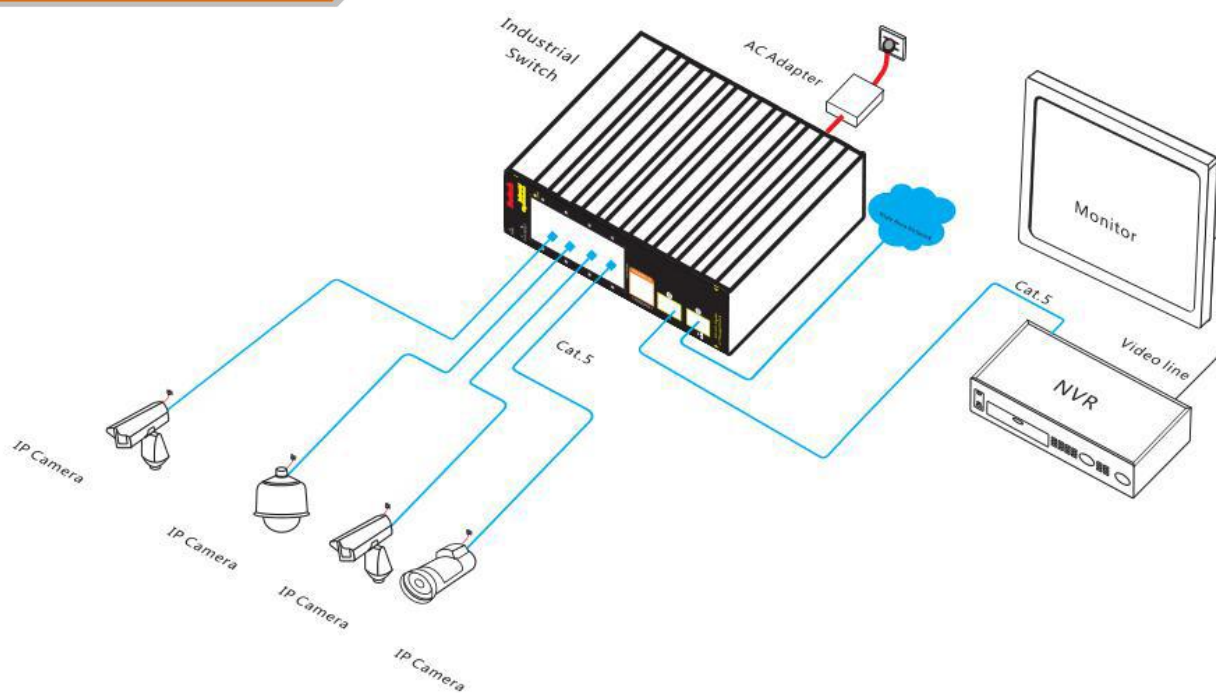
Properties	IEC60068-2-27 (anti shock)
	IEC60068-2-32 (free fall)
Certification	CCC;CE mark, commercial; CE/LVD EN60950;FCC Part 15 Class B; RoHS;
Warranty	5 years, lifelong maintenance.
Network Management Features	
Interface	IEEE802.3X (Full-duplex)
	Port temperature protection setting
	Port green Ethernet Energy-saving setting
	Broadcast storm control based on port speed
	The speed limit of the message flow in the access port.
	The minimum particle size is 64Kbps.
Layer 3 Features	L2+ network management ,IPV4/IPV6 management
	L3 soft routing forwarding,
	Static route, Default route @ 128 pcs, APR @ 1024 pcs
VLAN	4K VLAN based on port, IEEE802.1q
	VLAN based on the protocol
	VLAN based on MAC
	Voice VLAN, QinQ configuration
	Port configuration of Access, Trunk, Hybrid
Port Aggregation	LACP, Static aggregation
	Max 8 aggregation groups and 8 ports per group.
Spanning Tree	STP (IEEE802.1d),RSTP (IEEE802.1w),MSTP (IEEE802.1s)
Industrial Ring Network Protocol	G.8032 (ERPS),Recovery time less than 20ms
	250 Ring at most, Max 1024 devices per ring.
Multicast	MLD Snooping v1/v2,Multicast VLAN
	IGMP Snooping v1/v2, Max 1024 multicast groups, Fast log out
Port Mirroring	Bidirectional data mirroring based on port
QoS	Flow-based Rate Limiting
	Flow-based Packet Filtering
	8*Output queues of each port
	802.1p/DSCP priority mapping

	Diff-Serv QoS,Priority Mark/Remark
	Queue Scheduling Algorithm (SP, WRR, SP+WRR)
ACL	Port-based Issuing ACL,ACL based on port and VLAN
	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.
Security	IP-MAC-VLAN-Port binding
	ARP inspection,Anti-DoS attack
	AAA & RADIUS,MAC learning limit
	Mac black holes,IP source protection
	IEEE802.1X & MAC address authentication
	Broadcast storm control,Backup for host datum
	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

Product size



Application



Order Information

Model	Description	Recommended Power Supply
IS700-12E4F	L2+ managed industrial Ethernet fiber switch with 12*10/100/1000M RJ45 ports and 4*100/1000M SFP slot ports. It can support dual DC power supply input and DIN rail mounting.	24W/36W
Note: Industrial Ethernet switch does not match the SFP optical module and power supply.		

PACKING LIST

PACKING LIST	CONTENT	QTY	UNIT
	16-port full gigabit managed industrial Ethernet switch	1	SET
	RJ45-DB9 Line	1	PC
	User Guide	1	PC
	Warranty Card	1	PC