

44-Port 10G Uplink L3 Managed Industrial Ethernet Fiber Switch

(IS830-12E8F4F)

Product Description

The IS830-12E28F4F-60W is a 10G uplink L3 managed industrial Ethernet fiber switch. It has 12*10/100/1000Base-T RJ45 ports and 28*100/1000Base-X SFP fiber slot ports and 4*1/10G SFP+ fiber slot ports. Each port can support wire-speed forwarding.

The IS830-12E28F4F-60W 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.



Product Features

● Gigabit multi fiber port access, 10G uplink

- ✧ A combination of Gigabit Ethernet port and Gigabit SFP port and 10G uplink SFP+ port to meet the networking requirements 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

- ✧ Low power consumption, the fan active cooling , galvanized steel casing.
- ✧ Self-developed power supply, high redundancy design, providing a long term and stable power output.
- ✧ CCC,CE, FCC, RoHS.
- ✧ 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

- ✧ Web management, CLI command line (Console, Telnet), SNMP (V1/V2/V3).
- ✧ HTTPS, SSLV3, and SSHV1/V2.
- ✧ RMON, system log, LLDP, and port traffic statistics.
- ✧ CPU monitoring, memory monitoring, Ping test, and cable diagnose.

Product Parameters

Model	IS830-12E28F4F-60W
Interface Characteristics	
Fixed Port	12*10/100/1000Base-T RJ45 ports(Data)
	28*100/1000Base-X uplink SFP fiber slot ports (Data)
	4*1/10G uplink SFP+ fiber slot ports (Data)
	1*Console RS232 port (115200,N,8,1)
	Alarm switch(FAULT)
	1 *AC100-240V power input port
	2 * DC12V power input ports (support anti-reverse protection)
Ethernet Port	Port 1-12 support 10/100/1000Base-T(X) 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(1.25G), 850nm / 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	119.04Mpps

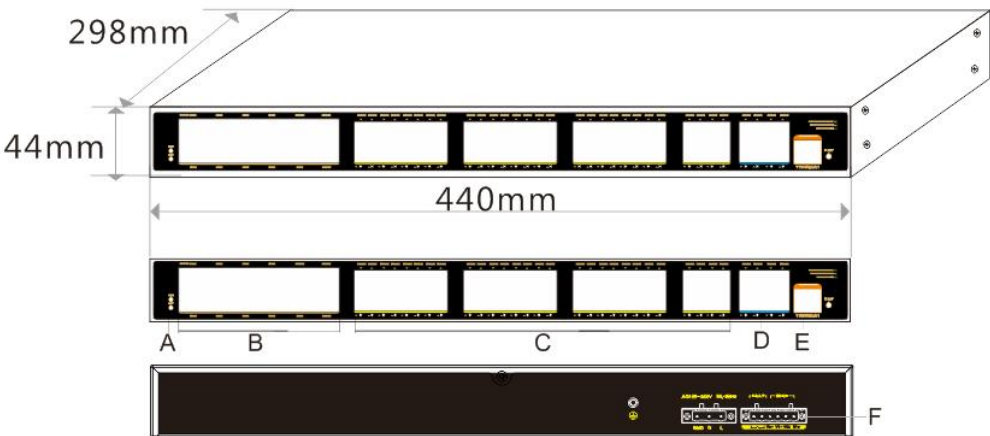
Rate@64byte	
MAC	32K
Buffer Memory	32M
Jumbo Frame	9.6K
LED Indicator	Power: PWR (yellow), system:SYS (yellow), network:Link/Act (yellow), Fiber port : L/A (green)
Reset Switch	Yes, support one key to restore factory settings
Power	
Total PWR / Input Voltage	60W (AC100-240V)
Power Consumption	Standby<35W; Full Load<55W
Power Supply	Built-in power supply, AC100~240V 50-60Hz 0.65A
Power Input Interface	Dual input power port design, AC power supply priority,
	support anti-reverse protection, power-off automatic switching DC connection; 2*DC12V power input ports;
	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	<5.3kg / <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
	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 Properties	IEC60068-2-6 (anti vibration)
	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	L3 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 22 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 254 devices per ring.

Multicast	MLD Snooping v1/v2,Multicast VLAN
	IGMP Snooping v1/v2, Max 250 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



- A. Working indicator

B. 12* RJ45 ports

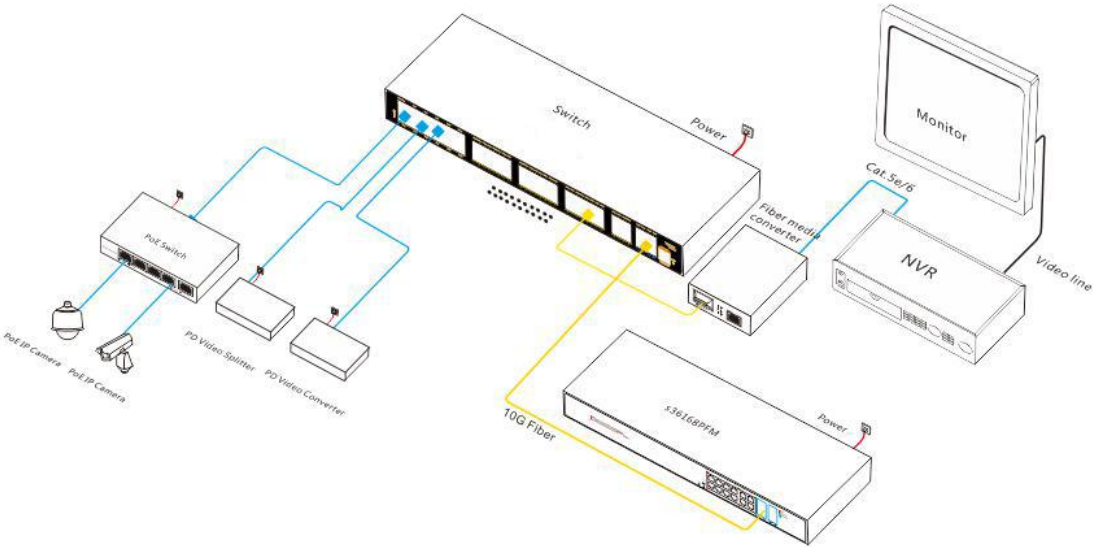
C. 28*Gigabit SFP ports

D. 4*1/10G SFP+ ports

E. Console port

F. Dual AC/DC input port

Application



Order Information

Model	Description	Recommended Power Supply
IS830-12E28F4F-60W	L3 managed industrial Ethernet fiber switch with 12* 10/100/1000M RJ45 ports and 28*100/1000M SFP fiber slot ports and 4*1/10G SFP+ fiber slot ports, built-in 60W power supply. Support dual AC or DC power supply input and 1U/19 inch rack installation.	60W
Note:Industrial Ethernet switch does not match SFP module .		

PACKING LIST

	CONTENT	QTY	UNIT
PACKING LIST	44-Port 10G uplink L3 managed industrial Ethernet fiber switch	1	SET
	AC Power Cable	1	PC
	RJ45-DB9 Line	1	PC
	Mounting Kits(Hanging Ear)	1	SET
	User Guide	1	PC
	Warranty Card	1	PC