

ISM3028U Series Modular Managed Ethernet Switch



Key Features:

- ✓ 19 inches rack, modular design
- ✓ IP40 protection class, fully enclosed metal cabinet
- ✓ Passed industrial class IV electromagnetic compatibility test
- ✓ G.8032v2 (recovery time <20ms), iRing, RSTP/STP for network redundancy
- ✓ RADIUS, TACAS+, IEEE802.1x to enhance network security
- ✓ Support SNMP, RMON protocol
- ✓ InHand NMS for providing a powerful network management tool.
- ✓ DHCP & TFTP for automatic batch configuration

Product Overview

ISM3028U series are standard 19-inch rack managed industrial Ethernet Switch, especially designed for applications in the field of electric power, transportation and industrial control and in other severe industrial environment. This series, which could work normally under the temperature between -40 and 85°C, have integrated convenient security management features, high-speed forwarding performance, strong cabinet, protected industrial circuit and other industrial features. All this series products support ITU-T G.8032v2 protocol (self-recovery time less than 5ms), iRing protocol, STP/RSTP ring network redundancy protocol and enhanced network management protocol, all of which could satisfy reliability requirement under severe industrial environment.

Product Features

- **Strong and reliable industrial quality**
- Fault-free and reliable operation under electric power station, transportation and industrial control environment
- Excellent electromagnetic/radiation/electrostatic protection capacity and zero packet loss under intensive electromagnetic interference
 - ✓ Excellent EMC electromagnetic compatibility and anti-radiation performance
 - ✓ Real industrial-class design, with working temperature at -40~85 °C
 - ✓ Redundant power input and industrial-class surge protection
 - ✓ Industrial grade power output I/O terminal, support high-power
 - ✓ Strong metal cabinet with corrosion-proof coating
 - ✓ Fanless design, effectively reduce the equipment failure rate
 - ✓ Provided with IP40 seal protection, and dust proof, stain proof and debris proof
 - ✓ Strong anti-vibration and impact resistance characteristics to protect fault-free and reliable operation under vibration and impact environment,

➤ **Abundant network redundant features**

- Ensure fast recovery when faults happen
- Provided with linear data forwarding to ensure real time performance
 - ☑ Support international standard ITU-T G.8032v2 redundancy ring protocol, recovery time<5ms, support single ring, double ring, tangent ring, cross ring network, meet the requirement of high reliability, real-time, complex network of the industry network
 - ☑ Support iRing fast self-healing ring network protocol, recovery time<20ms, provide simple, reliable, cost-effective networking scheme with the ISF series switches
 - ☑ Support RSTP/STP, recovery time<200ms, meet the application requirements of different brands of compatibility
 - ☑ Open RSTP by default, networking without any configuration, can help customers quickly deploy
 - ☑ Support LACP (Link aggregation), increasing bandwidth and link redundancy

➤ **Convenient security management features**

- Encryption environment, security configuration management characteristics
- Rich and convenient network management characteristics, operation and maintenance are very suitable for industrial environment.
 - ☑ Rich LED panel indication lamp, visually and clearly display switch working status
 - ☑ Support configuration way of CLI, WEB
 - ☑ Support secure login way base on SSH(128 bit encryption)
 - ☑ Support RADIUS, TACACS+ authentication mechanism
 - ☑ Support IEEE 802.1x, to strengthen the access control function
 - ☑ Support IGMP Snooping and GMRP, the multicast filtering savings bandwidth to meet the application requirements of the terminal dynamically join multicast group
 - ☑ Support VLAN and GVRP protocol, effective suppression of broadcast storms and security isolation of business data, improve bandwidth utilization and data transmission security
 - ☑ Support QoS, preferentially transfer key business data
 - ☑ Support input and output port rate limiting
 - ☑ Support I/O relay terminal alarm output and mail alarm output, automatically report accident
 - ☑ Support network management protocol base on SNMPv1/v2c/v3, provide standard MIB, Compatible with standard network management software
 - ☑ Support RMON, effectively improve the remote network monitoring and fault early warning capability
 - ☑ Support LLDP Layer 2 link detection, real-time detection of the Layer 2 link state information
 - ☑ Support port mirroring, convenient to analyze data of port and rapidly diagnose faults
 - ☑ Support local log and remote log server function, easy to troubleshoot faults
 - ☑ DHCP & TFTP for automatic batch configuration
 - ☑ Automatically synchronization and backup configuration files via USB port
 - ☑ Support import / export configuration backup file and restore factory settings
 - ☑ Support local and remote firmware update function

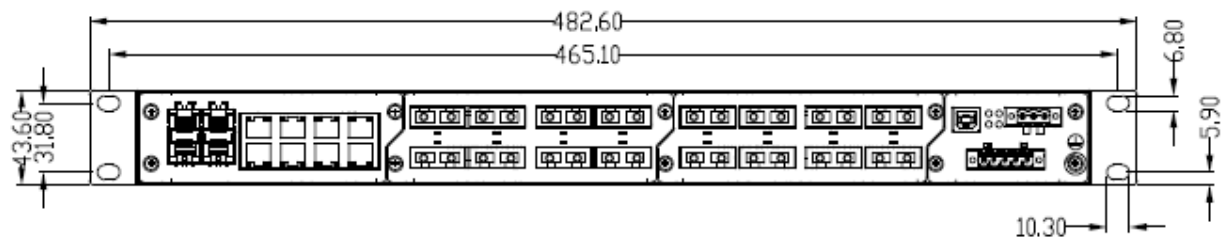
Product Specification

Item		ISM3028U
Interface	Number of ports	10/100Base-T(X) auto-sensing Ethernet port
	10/100Base-TX	Up to 24-10/100Base-TX self-adaptive Ethernet ports
	10/100Base-FX	Up to 16-10/100Base-FX optical port
	Gigabit Ethernet ports	Up to 4-Gigabit Ethernet ports
	Configure port	RS232(B-type USB interface
	LED indication lamp	PWR1, PWR2, STAT, FAULT
Mechanical structure	Housing	IP40 protection class, fully enclosed and seamless metal cabinet, PCB protection coating available
	Dimensions (WxHxD)	440.0mm x 43.6mm x 370.0mm
	Weight	5 kg
	Heat dissipation mode	Fanless heat dissipation
	Installation mode	19-inches rack mount
Power source	AC input voltage	220VAC (85-264VAC)
	DC input voltage	220VDC(120-370VDC)
	Interface terminal	5-pin pluggable screw connection terminal
	Overload protection	Available
	Reverse polarity protection	Available
	Power consumption	<45w
	Redundant power supply	Support power redundancy (for some models, refer to ordering information)
Working environment	Working temperature	-40 ~ +85 °C
	Storage temperature	-40 ~ +85 °C
	Relative humidity	95% (no condensing)
Switching performance	Forwarding inherent time delay	<4us
	Backplane bandwidth	12.8Gbps

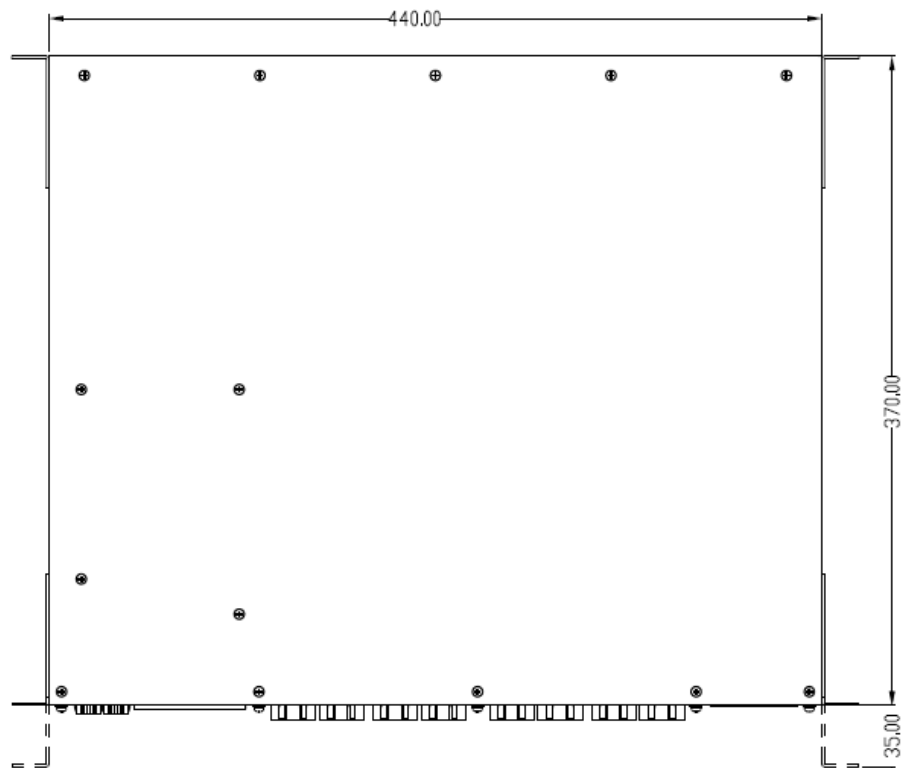
Item		ISM3028U
	MAC address table	16k
	Data package buffer	8Mbit
Function features	Ethernet standard	IEEE 802.3 for 10Base-T
		IEEE 802.3u for 100Base-T(X)and 100Base-FX
		IEEE 802.3ab for1000Base-T
		IEEE 802.3Z for1000Base-X
		IEEE 802.3x, for flow control
		IEEE 802.1D for Spanning Tree Protocol
		IEEE 802.1D for MAC Bridges
		IEEE 802.1D for GMRP
		IEEE 802.1w for Rapid STP
		IEEE 802.1Q for VLAN Tagging
		IEEE 802.1p for Class of Service
		IEEE 802.1X for port based access control and MAC address
		IEEE 802.3ad for Port Trunk with LACP
	Industrial protocol conversion	Support Modbus/TCP, OPC
	Multicast features	The maximum number of IGMP group is 256
		Support GMRP
		IGMP Snooping multicast filtering
	Port mirroring	Support multiple port mirroring function
	Port rate limiting	Support input and output port rate limiting
	Broadcast storm suppression	Support
	QoS priority queue	8
	SNTP	Support SNTP time synchronization
	ACL	Support ACL access control list
	VLAN function	Port Based VLAN
		The max number of VLAN is 255
		VLAN ID range:1~4094
		Support GVRP
	Port isolation	Support port isolation characteristics, limit communications between ports without configuring a VLAN
High reliability	Ring protocol	Support base on international standard ITU-T G.8032v2 ring network protocol (recovery time <5 ms)
		Support iRing protocol
		Support STP,RSTP protocol
		Support single ring, double ring, tangent ring, cross ring
	LLDP	Support layer 2 link status information detection
Device maintenance	Link aggregation	Support multiple link aggregation base on LACP function
		Support command line interface(CLI),WEB configuration way
		Support Telnet, SSH
	Management way	Support RADIUS, TACACS+

Item		ISM3028U
	Network manage protocol	Support SNMPv1/v2c/v3
		Support RMON
	Alarm output	Rated capacity:5A @250V AC,5A@ 30V DC
		Maximum permissible power:1250VA,150W
		Maximum permissible voltage:380V AC,125V DC
		Maximum permissible current:5A AC,5A DC
	Email alarm output	Support email alarm output
		Support email sever address, port, username and password configuration
		Support multiple alarm email destination address
	System status display	Support CPU load statistics
		Support memory usage status display
		Support host online time status display
		Support firmware version information display
		Support the model ,serial number, host name display
	Backup/Restore	Support import/export backup configuration file and restore the factory settings.
	System log	Support local log and remote log server function, convenient to troubleshoot
	System upgrade	Support local/remote firmware upgrade function
	MTBF	35 years
Industrial standard	Electromagnetic compatibility	IEC 61000-4-2(Electrostatic discharge) level 4
		IEC 61000-4-3(Radiated, radio-frequency, electromagnetic field) level 4
		IEC 61000-4-4(Electrical fast transient/burst) level 4
		IEC 61000-4-5(surge) level 4
		IEC 61000-4-6(Immunity to conducted disturbances, induced by radio-frequency fields) level 3
		IEC 61000-4-8(Power frequency magnetic field) level 5
	Impact	IEC60068-2-27
	Free-fall	IEC60068-2-32
	Vibration	IEC60068-2-6
Warranty period	Warranty period	5 years

Dimensions

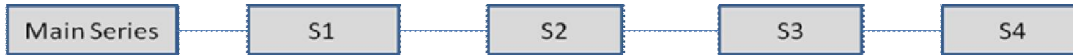


Back View



Top View

Ordering Information



1. Ordering information: master model

Model	Description
ISM3028U-HV	ISM3028U, support for single-supply
ISM3028U-HV-HV	ISM3028U, support for dual redundant power supplies

2. Ordering information:S1(Gigabit Port)

Gigabit Port	Description
XX	no Gigabit port or Gigabit SFP slot
4GSFP slot	4 Gigabit SFP slot

3. Ordering information:S2(Fast fixed Port)

Model	Description
8T	Fixed 8- 10/100Base-TX Ethernet ports

4. Ordering information:S3&S4(Accessory Type)

Accessory Type	Port			
	10/100 Base-T(X)	100BaseFX optical port(SC/ST/FC)		
		Multimode duplex fiber	Single mode duplex fiber	Single mode single fiber
IM3000-8T	8	-	-	-
IM3000-6T-2M	6	2	-	-
IM3000-6T-2S	6	-	2	-
IM3000-6T-2B	6	-	-	2
IM3000-4T-4M	4	4	-	-
IM3000-4T-4S	4	-	4	-
IM3000-4T-4B	4	-	-	4
IM3000-2T-6M	2	6	-	-
IM3000-2T-6S	2	-	6	-
IM3000-2T-6B	2	-	-	6
IM3000-8M	-	8	-	-

Accessory Type	Port			
	10/100 Base-T(X)	100BaseFX optical port(SC/ST/FC)		
		Multimode duplex fiber	Single mode duplex fiber	Single mode single fiber
IM3000-8S	-	-	8	-
IM3000-8B	-	-	-	8

Note:

- ☒ Multimode dual fiber support 2km;Single mode dual fiber20/40/60/80/120KM;Single mode single fiber support20/40/60/80/120KM
- ☒ The default configuration DC24V low-voltage power supply

5. SFP optical module ordering information

Name	Description
SFP-GT-RJ45	Electrical module-SFP-GT-(RJ45)
SFP-GX-SXM8-LC	optical module-SFP-GX-multimode module-(850nm,0.5km,LC)
SFP-GX-SXM3-LC	optical module-SFP-GX-multimode module-(1310nm,0.5km,LC)
SFP-GX-LXS3-LC	optical module-SFP-GX-single mode module-(1310nm,10km,LC)
SFP-GX-LXS5-LC	optical module-SFP-GX-single mode module-(1550nm,10km,LC)
SFP-GX-LH40S3-LC	optical module-SFP-GX-single mode duplex fiber-(1310nm,40km,LC)
SFP-GX-LH40S5-LC	optical module-SFP-GX-single mode duplex fiber-(1550nm,40km,LC)
SFP-GX-LH80S5-LC	optical module-SFP-GX-single mode duplex fiber-(1550nm,80km,LC)
SFP-GX-LH100S5-LC	optical module-SFP-GX-single mode duplex fiber-(1550nm,100km,LC)
SFP-GX-SXB35-LC	optical module-SFP-GX-single mode single fiber-(TX1310/RX1550nm,0.5km,LC)
SFP-GX-SXB53-LC	optical module-SFP-GX-single mode single fiber-(TX1550/RX1310nm,0.5km,LC)
SFP-GX-LXB35-LC	optical module-SFP-GX-single mode single fiber-(TX1310/RX1550nm,10km,LC)
SFP-GX-LXB53-LC	optical module-SFP-GX-single mode single fiber-(TX1550/RX1310nm,10km,LC)
SFP-GX-LH40B35-LC	optical module-SFP-GX-single mode single fiber-(TX1310/RX1550nm,40km,LC)
SFP-GX-LH40B53-LC	optical module-SFP-GX-single mode single fiber-(TX1550/RX1310nm,40km,LC)
SFP-GX-LH80B45-LC	optical module-SFP-GX-single mode single fiber-(TX1490/RX1510nm,80km,LC)
SFP-GX-LH80B54-LC	optical module-SFP-GX-single mode single fiber-(TX1550/RX1490nm,80km,LC)
SFP-GX-LH100B45-LC	optical module-SFP-GX-single mode single fiber-(TX1490/RX1550nm,100km,LC)
SFP-GX-LH100B54-LC	optical module-SFP-GX-single mode single fiber-(TX1550/RX1490nm,100km,LC)

InHand Networks

Connecting devices, enabling services

