Overview

The RS-IS-300 Series Industrial Gigabit Managed Switches are designed specifically to withstand wide temperature range, vibrations and shock.

These rugged yet easy to deploy,switches have superior environmental specifications compared to those of commercial network switches. With its hardened design combined with high availability network features, these switches form vital parts of any network infrastructure facilitating the increasing demand for smart cities, city-wide surveillance and wireless connectivity.

The RS-IS-300 Series managed switches are easy to configure, partition and organise user's network and provide reliable and quality of service. And compliant with both IEEE 802.3af and IEEE 802.3at PoE standards and delivering up to 30 watts power per port along with data on standard Ethernet cabling. These switches can be used to power any IEEE 802.3af/at compliant PoE PD devices, which eliminates the need for additional wiring. They also provide additional PoE power management features which can greatly reduce the deployment effort of planning PoE power budget.

The RS-IS-300 Series has L2+ full network management function, support IPV4/IPV6 management, static route full line rate forwarding, security protection mechanism, ACL/QoS policy and VLAN, and is easy to manage and maintain. Support 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 PoE power management, port traffic control, VLAN division, and SNMP through the Web network management mode.

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Models	RS-IS-300-10GP	RS-IS-300-12GP
Interface Characteristics		
Fixed Port	1*Console RS232 port 2*100/1000Base-X uplink SFP slot ports 8*10/100/1000Base-T PoE+ ports 2 set of V+, V- redundant DC power interface (5 Pin Phoenix terminal)	1*Console RS232 port 4*100/1000Base-X uplink SFP slot ports 2*10/100/1000Base-T uplink ports 8*10/100/1000Base-T PoE+ ports 2 set of V+, V- redundant DC power interface (6 Pin Phoenix terminal) Power-off alarm switch (FAULT)
Ethernet Port	10/100/1000Base-T(X) ports supports auto-sensing, full/ half duplex MDI/ MDI-X self-adaption	
Twisted Pair Transmission	10BASE-T: Cat3,4,5 UTP(≤100 meters) 100BASE-TX: Cat5 or later UTP(≤100 meters) 1000BASE-T: Cat5e or later UTP(≤100 meters)	
Optical Fiber Port	Gigabit SFP optical fiber port and 10G SFP+ optical fiber port, default no include optical modules (optional single-mode / multi-mode, single fiber / dual fiber optical module. LC)	
Optical Cable / Distance	Multi-mode: 850nm/ 0-500m(1G) Single-mode:1310nm/ 0-40km, 1550nm/ 0-120km.	
Chipset Parameters		
Network Management Type	L2+	
Network Protocol	IEEE802.3 10BASE-T, IEEE802.3i 10Base-T, IEEE802.3u 100Base-TX, IEEE802.3ab 1000Base-TX, IEEE802.3z 1000Base-X, IEEE802.3x	
Forwarding Mode	Store and Forward (Full Wire Speed)	
Switching Capacity	20Gbps (Non-blocking)	28Gbps (Non-blocking)
Forwarding Rate@64byte	14.88Mpps	20.83Mpps
CPU	416MHz	
DRAM	1G	
FLASH	128M	
MAC	8K	8K
Buffer Memory	4M	6M

Jumbo Frame	9.6K	9.6K
LED Indicators	Fiber port: L/A (Green), PoE: PoE (Green) Power/ System: SYS (Green), Network: Link (Yellow)	
Reset Switch	Yes, press and hold the switch for 10 seconds and release it to restore the factory settings	

PoE & Power Supply

PoE Port	1 to 8, IEEE 802.3 af/at	
PoE Management	Port PoE working status display Port PoE output priority configuration PoE power supply total power limit configuration Power delay start, PoE work and time scheduling Port PoE output power distribution, PoE on/off, af/at power distribution	
Power Supply Pin	1/2(+) 3/6(-)	
Max Power Per Port	30W, IEEE 802.3 af/at	
Total PWR / Input Voltage	120W (48VDC) or 240W (48VDC)	
Power Consumption	Standby<10W, Full load af<120W, at<240W	Standby:<12W, Full load:<240W
Input Voltage / Interface	DC48-57V, 5 Pin industrial Phoenix terminal, support anti-reverse protection.	
Power Supply	No, optional 48V/120W or 48V/240W industrial power supply	

Physical Parameters

Operation TEMP / Humidity	-40°C~+80°C, 5%~95% RH Non condensing
Storage TEMP / Humidity	-40°C~+85°C, 5%~95% RH Non condensing
Ingress Protection	IP40
Lighting Protection	4KV 8/20us IEC61000-6-2 (Common Industrial Standard) 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

Mechanical Properties	IEC60068-2-6 (anti vibration), IEC60068-2-27 (anti shock), IEC60068-2-32 (free fall)	
Dimension (L*W*H)	165*148*54mm	165*148*54mm
Net / Gross Weight	＜0.8kg /＜1.2kg	<1.1kg / <1.5kg
Installation	Desktop, 35mm DIN rail	

Certification	**CCC, CE mark, commercial, CE/LVD EN62368-1, FCC Part 15 Class B, RoHS**

Software Features		
Interface	Port green Ethernet Energy-saving setting Broadcast storm control based on port speed IEEE802.3X (Full-duplex Port temperature protection setting Speed limit of message flow in the access port. The min particle size is 64Kbps.	
Layer 3 Features	L2+ network management, IPV4/IPV6 dual-stack management, L3 soft routing forwarding, Static route, Default route @ 128 pcs, ARP @ 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	802.3ad LACP dynamic aggregation, Static aggregation, 8 ports per group	
Max Agg. Group	5	7
Spanning Tree	STP (IEEE802.1d), RSTP (IEEE802.1w), MSTP (IEEE802.1s)	
Industrial Ring Network Protocol	Support ERPS ring network, ring network self-healing time is less than 20ms, ITU-T G.8032	
Multi-Ring	Max. 250 Rings; Max. 250 devices per ring	Max. 250 Rings; 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 traffic mirroring for basic ports	

QoS	Flow-based Rate Limiting Flow-based Packet Filtering 8*Output queues of each port 802.1p/DSCP priority mapping ToS, 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	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 Anti-DoS attack, AAA& RADIUS &TACACS+ certification IP-MAC-VLAN-Port binding, ARP inspection, MAC learning limit
DHCP	DHCP Client, DHCP Snooping, DHCP Server, DHCP relay
Management	Rubisec NMS platform cluster management (LLDP+SNMP) CPU real-time utilization status view, SNMP V1/V2/V3 Console/ AUX Modem/ Telnet/ SSH2.0, CLI configuration Cable length status detection, NTP clock, One-key recovery, LLDP FTP, TFTP, Xmodem, SFTP file upload and download management Ping detection, System work log, Web network management (HTTPS)
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

Packing List	Content	Qty	Unit
Packing List	L2+ managed industrial PoE+ switch	1	SET
	RJ45-DB9 Line	1	PC
	User Guide	1	PC
	Warranty Card	1	PC

Ordering Information

Model	Description
RS-IS-300-10GP	L2+ managed industrial PoE+ switch with 8*10/100/1000Base-T PoE+ ports and 2*100/1000Base-X SFP ports. Port 1-8 can support IEEE 802.3 af/at PoE standard. It can support dual DC power input and DIN rail mounting.
RS-IS-300-12GP	L2+ managed industrial PoE+ switch with 8*10/100/1000Base-T PoE+ ports and 2*10/100/1000Base-T ports and 2*100/1000Base-X SFP ports. Port 1-8 can support IEEE 802.3 af/at PoE standard. It can support dual DC power input and DIN rail mounting.