Product Datasheet

Ricon Managed Industrial Gigabit PoE Switch Family

24 Port Full Gigabit Managed Industrial PoE Switch

RSIN-2422GEP-M I **RSIN-1644GEP-M** I **RSIN-822GEP-M**

OVERVIEW

The RSIN-2422GEP-M is a full gigabit L2+ managed industrial PoE fiber switch. 24*10/100/1000Base-T RJ45 ports and 2*100/1000Base-X uplink SFP fiber slot ports. Ports 1-24 can support IEEE802.3af/at PoE standard. Single-port PoE power up to 30W. As a PoE power supply device, it can automatically detect and recognize the power receiving equipment that meets the standard and supply power through the network cable. It can supply power to POE terminal equipment such as wireless AP, web camera, VoIP phone, industrial sensor, visual intelligent building intercom through the network cable, and meet the network environment that needs high-density PoE power supply. It is suitable for hotels, campuses, parks, shopping malls, scenic spots, hospitals, banks, and small and medium-sized enterprises.

The RSIN-2422GEP-M has the L2+ full network management function, supports IPV4/IPV6 management, supports static route full line-rate forwarding, complete security protection mechanism, perfect ACL/QoS policy, and rich VLAN functions, easy to manage and maintain. With industry-leading ring network technology. It supports a variety of industrial-grade redundant ring network protocols, and each port can form a ring network, supporting chain ring network, starring network, double starring network, ring network, tangent network ring network, intersecting ring network, coupled ring network, self-healing within 20ms of the ring network. The switches series has high reliability, high security, and high manageability, ensures reliable transmission of key data, supports remote management, and cooperates with the NMS network management platform for cluster management to achieve no blind spot network management throughout the process.

The Industrial grade products series completely follow the industrial product design and materials. The shell is made of metal to enhance heat dissipation. It has an excellent adaptability to the industrial site environment (mechanical stability, climate environment adaptability, electromagnetic environment adaptability, etc.). Protection level reaches IP30 and support 2AC+DC dual redundant power supply, and the mean time between failures of MTBF can up to 35 years, and 5 years warranty.

FEATURE

Gigabit access, Gigabit SFP uplink

- Support non-blocking wire-speed forwarding.
- Support full-duplex based on IEEE802.3x and half-duplex based on Backpressure.
- Support Gigabit Ethernet port and Gigabit SFP uplink port combination, which enables users to flexibly build networking to meet the needs of various scenarios.

Intelligent PoE power supply

- IEEE802.3af/at PoE standard, without damaging non-PoE devices.
- PoE network management, realize PoE port power allocation, priority setting, port power status viewing, time scheduling, etc.
- Priority system for PoE port, it will supply power to the high priority level port first when the power budget is insufficient and avoid overwork of the device.
- 24*10/100/1000Base-T RJ45 ports, meeting the needs of security monitoring, teleconferencing system, wireless coverage, and other scenarios.

Security

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

Strong business processing capability

- ERPS/STP/RSTP/MSTP.
- Static and dynamic aggregation.
- IGMP V1/V2 and IGMP Snooping.
- 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.

Stable and reliable

- CCC, CE, FCC, RoHS.
- Low power consumption, galvanized steel casing. The fan active cooling.
- The user-friendly panel can show the device status through the LED indicator of PWR, Link, L/A, PoE.
- Self-developed power supply, high redundancy design, providing a long term and stable PoE 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	RSIN-2422GEP-M 400W	RSIN-2422GEP-M 600W
Interface Characteristics		
Fixed Port	2*AC100-240V input ports Alarm switch port (FAULT) 1*Console port (115200, N, 8,1) 2*100/1000M uplink SFP ports (Data) 24*10/100/1000Base-T PoE ports (Data/Power) 1 group of DC48-57V input ports (Support reverse polarity protection function)	
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 optical fiber interface, default no include optical modules (optional order single-mode / multi-mode, single fiber / dual fiber optical module. LC)	
Optical Cable/ Distance	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 (Non-blocking)	
Forwarding Rate@64byte	38.69Mpps	
CPU	500MHz	
DRAM	1G	
FLASH	128M	
MAC	8K	
Buffer Memory	8M	
Jumbo Frame	9.6K	
LED Indicator	Power: PWR(Yellow), System: SYS(Yellow), Network: Link (Yellow), POE: PoE (Green), Fiber port: L/A(Green)	
Reset Switch	Yes, press and hold the switch for 10 seconds and release it to restore the factory settings	

PoE & Power Supply		
PoE Port	Port 1 to 24, IEEE802.3af/at	
PoE Management	PoE working status, Delay start of power supply PoE output priority configuration Scheduling of PoE operation and time Total power limit of PoE power supply PoE output power allocation, off/on&af/at	
Power Supply Pin	Default: 1/2 (+), 3/6 (-)	
Max Power Per Port	30W, IEEE802.3af/at	
Total PWR / Input Voltage	400W (AC100-240V)	600W (AC100-240V)
Power Consumption	Standby:<18W, Full load:<380W	Standby:<22W, Full load:<600W
Power Supply	Built-in power supply, AC 100~240V 50-60Hz 5.0A	Built-in power supply, AC 100~240V 50-60Hz 6.6A
Power Input Port	1 group of DC48-57V input port, Alarm switch port, 2 group of AC power input ports Dual input power port design: AC power supply priority, support anti-reverse protection, power-off automatic switching DC connection.	
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*378*44.5mm	
Net /Gross Weight	<5.4kg / <5.8kg	<5.6kg / <6.3kg
Installation	Desktop,19-inch 1U cabinet installation	
Certification & Warranty		
Lightning Protection	Lightning protection: 6KV 8/20us, Protection level: IP30 IEC61000-4-2(ESD): ±8kV contact discharge, ±15kV air discharge IEC61000-4-3(-4-4 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 IEC61000-4-6-8 (radio frequency transmission):10V(150kHz~80MHz) 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 B and IEC61000-6-2	
Mechanical Properties	IEC60068-2-6 (anti vibration) IEC60068-2-27 (anti shock) IEC60068-2-32 (free fall)	
Certification	CCC, CE mark, CE/LVD EN62368-1, FCC Part 15 Class B, RoHS	

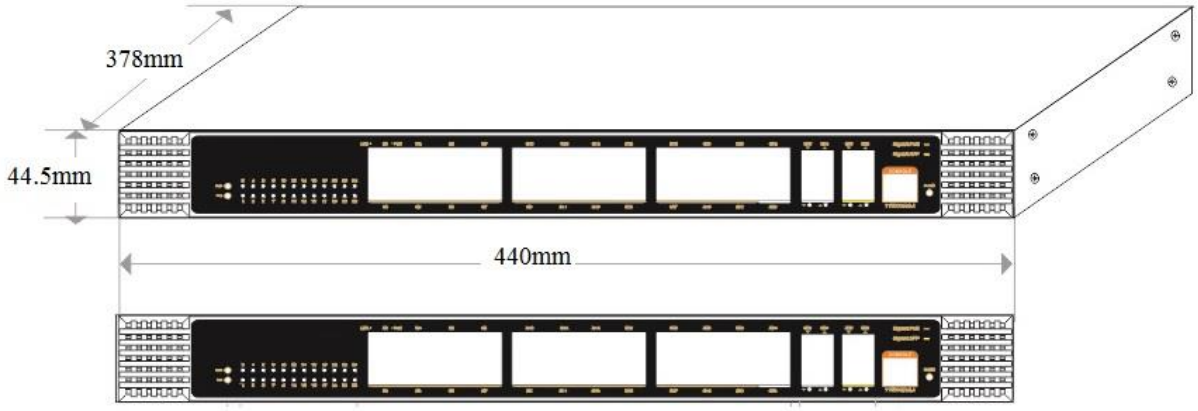
Network Management Features	
Interface	IEEE802.3X (Full-duplex) Port temperature protection setting Port green Ethernet Energy-saving setting Broadcast storm control based on port speed The speed limit of the message flow in the access port. The minimum particle size is 64Kbps.
Layer 3 Features	IPV4/IPV6 static route/default route supports up to 128 entries L2+ network management, ARP protocol, maximum 1024 entries Layer 3 routing and forwarding, support communication between different network segments and different VLANs
VLAN	Voice VLAN, QinQ configuration, IEEE802.1q VLAN based on MAC, VLAN based on the protocol 4K VLAN based on port, Port configuration of Access, Trunk, Hybrid.
Port Aggregation	LACP, Static aggregation Max 13 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 250 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	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 IP-MAC-VLAN-Port binding, ARP inspection, Anti-DoS attack, AAA & RADIUS, MAC learning limit, Mac black holes, IP source protection
DHCP	DHCP Client, DHCP Snooping, DHCP Server, DHCP Relay
Management	CPU instant utilization status view One-key recovery, Cable Diagnose, LLDP Console /AUX Modem /Telnet /SSH2.0 CLI Web Management (HTTPS), NTP, System work log, Ping Test Download & Management on FTP, TFTP, Xmodem, SFTP, SNMP V1/V2C/V3 NMS-Smart Network Management System Platform (LLDP+SNMP)

System Information	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

ORDERING INFORMATION

RSIN-2422GEP-M 400W	L2+ managed industrial PoE fiber switch with 24*10/100/1000M PoE ports and 2*100/1000M SFP ports. Port 1-24 can support IEEE802.3af/at PoE standard. Built-in redundant dual power supply. Support 1U/19-inch cabinet installation and 2AC+DC power terminal input (Phoenix terminal connection). Recommended Power Supply 2x400W.
RSIN-2422GEP-M 600W	L2+ managed industrial PoE fiber switch with 24*10/100/1000M PoE ports and 2*100/1000M SFP ports. Port 1-24 can support IEEE802.3af/at PoE standard. Built-in redundant dual power supply. support 1U/19-inch cabinet installation and 2AC+DC power terminal input (Phoenix terminal connection). Recommended Power Supply 2x600W

DIMENSIONS



Ricon Managed Industrial Gigabit PoE Switch Family

RSIN-822GEP-M I RSIN-1644GEP-M I RSIN-2422GEP-M

24 Port Full Gigabit Managed Industrial PoE Switch

RSIN-1644GEP-M

OVERVIEW

The RSIN1644GEP-M switch is a full gigabit L2+ managed industrial PoE fiber switch. it has 16*10/100/1000Base-T RJ45 ports and 8*100/1000Base-X SFP fiber slot ports. Port 1-16 can support IEEE802.3af/at standard POE, single port POE power up to 30W. As a PoE power supply device, it can automatically detect and recognize the power receiving equipment that meets the standard and supply power through the network cable. It can supply power to POE terminal equipment such as wireless AP, web camera, VoIP phone, industrial sensor through network cable, and meet the network environment that needs high-density PoE power supply. It is suitable for intelligent transportation, rail transit, electric power, mining, metallurgy and green energy. Industrial scenes such as construction set up a cost-effective and stable communication network.

The RSIN1644GEP-M switch has L2+ 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. It 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, multiple application services such as PoE power management, port traffic control, VLAN division, and SNMP through the web network management mode can be configured.

FEATURE

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.

Intelligent PoE power supply

- ◇ 16*10/100/1000Base-T RJ45 ports, meeting the needs of security monitoring, teleconferencing system, wireless coverage, and other scenarios.
- ◇ IEEE 802.3af/at PoE standard, without damaging non-PoE devices.
- ◇ Priority system for PoE port, it will supply power to the high priority level port first when the power budget is insufficient and avoid overwork of the device.
- ◇ PoE network management, realize PoE port power allocation, priority setting, port power status viewing, time scheduling, etc.

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 shell.
- ◇ The user-friendly panel, it can show the device status through the LED indicator of PWR, SYS, Link, L/A, PoE.
- ◇ The DIN rail industrial switch series products do not have a power supply by default and need to be purchased.

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	RSIN-1644GEP-M 240W	RSIN-1644GEP-M 400W
Interface Characteristics		
Fixed Port	16*10/100/1000Base-T PoE ports (Data/Power) 8*100/1000Base-X uplink SFP slot ports (Data) 1 * RS232 console port (115200,N,8,1) Power-off alarm switch (FAULT) 2 set of V+, V- redundant DC power interface (6 Pin Phoenix terminal)	
Ethernet Port	Port 1-16 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 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, 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 Rate	@64byte 35.71Mpps	
MAC	8K	
Buffer Memory	8M	
Jumbo Frame	9.6K	
LED Indicator	Power: PWR (green), System: SYS (green), Network: Link (yellow), Fiber Port: L/A (green), PoE: PoE (green)	
Reset Switch	Yes. press and hold for 10 seconds and then release to restore factory settings	

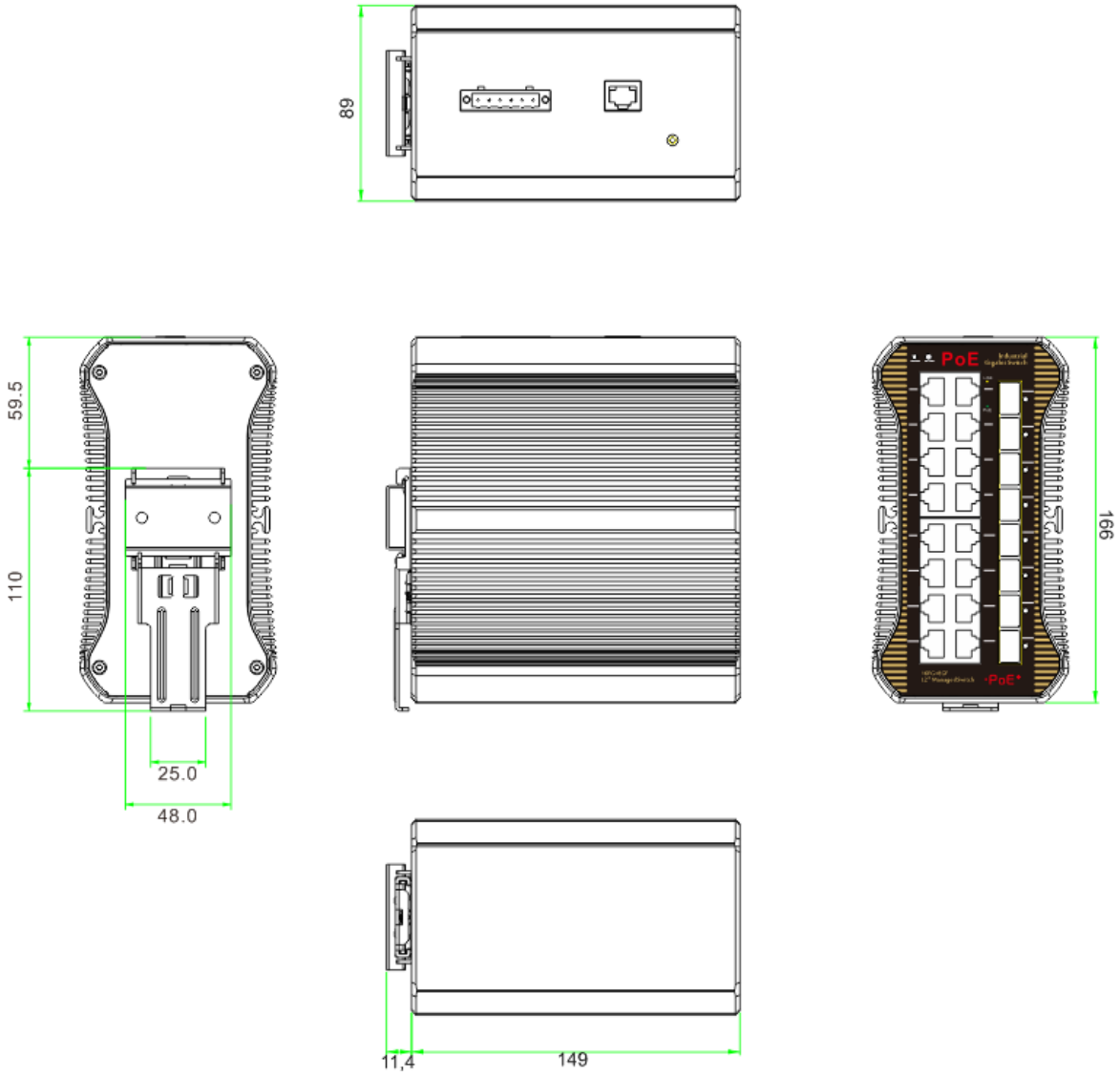
PoE & Power		
PoE Port	Port 1 to 16	
PoE Management	PoE working status Delay starts of power supply PoE output priority configuration Scheduling of PoE operation and time Total power limit of PoE power supply PoE output power allocation, off& af &at	
Power Supply Pin	Default: 1/2 (+), 3/6 (-)	
Max Power Per Port	30W, IEEE802.3af/at	
Total PWR / Input Voltage	240W /(48VDC)	400W /(48VDC)
Power Consumption	Standby<15W, Full load<240W	Standby<20W, Full load<400W
Working Voltage	48-57VDC, 6 Pin industrial Phoenix terminal, Support anti-reverse protection.	
Power Supply	No, optional 48V/240W or 48V/400W 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*149*89mm	
Net /Gross Weight	<2.2kg / <2.8kg	
Installation	Desktop, DIN rail	
Certification		
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, CE/LVD EN60950; FCC Part 15 Class B; RoHS;	

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 12 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)

ORDERING INFORMATION

RSIN-1644GEP-M 240W	16-Port Gigabit Power Over Ethernet (802.3af/at) Industrial Managed Layer2 Switch with 4 10/100/1000Base-X Uplink 240W
RSIN-1644GEP-M 400W	16-Port Gigabit Power Over Ethernet (802.3af/at) Industrial Managed Layer2 Switch with 4 10/100/1000Base-X Uplink 400W

DIMENSIONS



Ricon Managed Industrial Gigabit PoE Switch Family

RSIN-2422GEP-M I RSIN-1644GEP-M I RSIN-822GEP-M

8 Port Full Gigabit Managed Industrial PoE Switch

RSIN-822GEP-M

OVERVIEW

RSIN-822GEP-M is a full Gigabit managed industrial PoE switch. It has 8*10/100/1000Base-T RJ45 ports and 2*100/1000Base-X SFP fiber slot ports, ports 1-8 can supports IEEE 802.3af/at standard POE power supply, single port POE power up to 30W, and the maximum POE output power is 120W (at-240W). As a POE power supply device, it can automatically detect and identify the electrical equipment that meets the standard and supply power through the cable. It can supply the POE terminal equipment, such as wireless AP, network camera, network telephone, industrial sensor and so on, to meet the demand for high density PoE power supply network environment. It is suitable for intelligent transportation, rail transportation, electric power industry, mining, metallurgy and green energy construction and so on.

The RSIN-822GEP-M 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. It 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 PoE power management, port traffic control, VLAN division, and SNMP through the Web network management mode.

FEATURE

Powerful port lightning protection, ultra-wide voltage input

- Contact discharge 8KV, air discharge 15KV; port lightning protection common-mode 4KV, differential mode 2KV;
- Industrial dual power input
- Non-PoE DC INPUT: 12-48V.

Gigabit access, SFP fiber port uplink

- All series support “Gigabit Ethernet port and Gigabit 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.

Intelligent PoE power supply

- 8*10/100/1000Base-T RJ45 ports, meeting the needs of security monitoring, teleconferencing system, wireless coverage, and other scenarios.
- IEEE 802.3af/at PoE standard, without damaging non-PoE devices.
- Priority system for PoE port, it will supply power to the high priority level port first when the power budget is insufficient and avoid overwork of the device.
- PoE network management, realize PoE port power allocation, priority setting, port power status viewing, time scheduling, etc.

PoE network management and fast Ring function

- IEEE802.1Q VLAN, flexible VLAN division 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

- Low power consumption, fan-less design, aluminum shell.
- CCC, CE, FCC, RoHS.
- The user-friendly panel, it can show the device status through the LED indicator of PWR,SYS, Link, L/A, PoE.

One-stop remote control and 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.

TECHNICAL SPECIFICATION

Model	RSIN-822GEP-M 120W	RSIN-822GEP-M 240W
Interface Characteristics		
Fixed Port	8*10/100/1000Base-T PoE ports (Data/Power) 2*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 (5 Pin Phoenix terminal)	
Ethernet Port	Port 1-8 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)	
SFP Slot Port	Gigabit SFP optical fiber interface default matching optical modules optional order single-mode / multi-mode, single fiber / dual fiber optical module. LC	
Optical Cable	Multi-mode: 850nm 0 ~ 500M, Single mode: 1310nm 0 ~ 40KM, 1550nm 0 ~ 120KM.	
Chip Parameter		
Type	L2+ Network Management Type	
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	192Gbps	
Forwarding Rate	@64byte 14.88Mpps	
MAC	8K	
Buffer Memory	4M	
Jumbo Frame	9.6K	
LED Indicator	Power: PWR (yellow), System: SYS (yellow) , Network: Link (yellow), Fiber port: L/A (green), PoE: PoE (green)	
Reset Switch	Yes, Press and hold the reset switch for 10s and release it to restore the factory settings	

PoE & Power		
PoE Port	Port 1 to port 8	
PoE Management	PoE working status Delay start of power supply PoE output priority configuration Scheduling of PoE operation and time Total power limit of PoE power supply PoE output power allocation, off& af&at	
Power Supply Pin	Default: 1/2 (+), 3/6 (-)	
Max Power Per Port	30W; IEEE802.3af/at	
Total PWR / Input	120W/48VDC	240W/48VDC
Power Consumption	Standby<8W, Full load<120W	Standby<10W, Full load<240W
Working Voltage	48-57VDC; 5 Pin industrial Phoenix terminal, support anti-reverse protection.	
Power Supply	No, optional 48V/120W or 48V/240W 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)	165*148*54mm	
Net /Gross Weight	<0.8kg / <1.2kg	
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 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	

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 12 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 and Packet Limiting 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)
Warranty	5 Years

ORDERING INFORMATION

RSIN822GEP-M 120W	L2+ managed industrial PoE fiber switch with 8*10/100/1000M RJ45 ports and 2*100/1000M SFP slot ports, Port 1-8 can support IEEE802.3af/at PoE. Support DC dual power supply input and DIN rail mounting. 120W Recommended.
RSIN822GEP-M 240W	L2+ managed industrial PoE fiber switch with 8*10/100/1000M RJ45 ports and 2*100/1000M SFP slot ports, Port 1-8 can support IEEE802.3af/at PoE. Support DC dual power supply input and DIN rail mounting. 240W recommended.

DIMENSIONS