

**RP-ISG6316I-4F****16-P Gigabit + 4-SFP(1G/2.5G) slot****L2+ Managed Industrial Ethernet Switch**

The RP-ISG6316I-4F is a highly reliable Layer 2+ managed industrial Ethernet switch, equipped with 16×10/100/1000Base-T RJ45 ports and 4×1G/2.5GBase-X SFP slots. With full gigabit capability, it delivers high performance and rapid transmission of large volumes of video, voice, and data, making it well-suited for high-bandwidth industrial applications.

This model supports rich Layer 2 management features, including optional DI/DO/RS485 interfaces, G.8032 ERPS ring protection, MSTP/RSTP/STP redundancy, IPv4/IPv6 static routing, and a built-in DHCP server. With advanced network security and traffic control, it ensures stable and resilient connectivity for mission-critical networks.

Engineered for tough environments, it features a fan-less IP40-rated metal housing, DIN-rail installation, dual 12–75V DC power inputs, and a wide -40°C to 80°C operating range. With strong EMI/EMC resistance, it is ideal for deployment in industrial automation, transportation systems, energy sectors, and surveillance networks.

**Features**

- 12-75V redundant DC power supply with polarity reverse/over-voltage/over-current protection
- Support USB one key configuration & upgrading
- Layer 3 features: Support IPv4/IPv6 static routing, DHCP server
- Layer 2 features: VLAN; ERPS, STP/RSTP/MSTP; Link aggregation, IGMP snooping, port mirroring, QinQ, 802.1X, port isolation, RMON, NTP client, DHCP snooping/client, Ping/Tracert test, ACL, QoS and SFP DDM function
- Management and maintenance: IPv4 and IPv6 management; Support Web, SNMP, CLI, Telnet/SSH management method; Support user management, system log, configuration upload/download through web interface, firmware upgrade via HTTP/TFTP/USB
- Support G.8032 ERPS protocol, recovery time ≤20ms
- Support 6KV surge protection and ESD: Air-15kV, Contact-8kV Protection

## Specifications

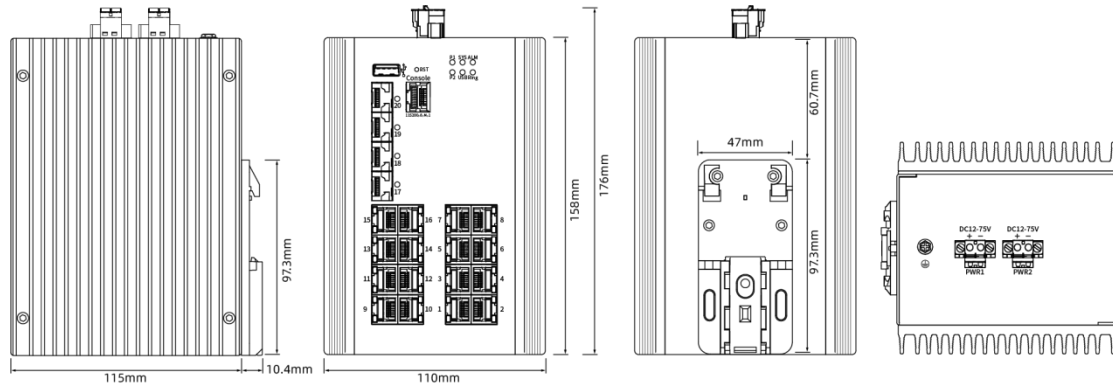
<b>Standards</b>	<ul style="list-style-type: none"><li>• IEEE 802.3 10Base-T Ethernet</li><li>• IEEE 802.3u 100Base-TX Ethernet</li><li>• IEEE 802.3ab 1000Base-T Ethernet</li><li>• IEEE 802.3z 1000Base-X Ethernet</li><li>• IEEE802.3x Flow Control and Back Pressure</li><li>• IEEE 802.1D Spanning Tree Protocol</li><li>• IEEE 802.1w Rapid Spanning Tree Protocol</li><li>• IEEE 802.1Q VLAN</li><li>• ITU-T G.8032 ERPS</li><li>• IEEE 802.1X Port Authentication Network Control</li><li>• IEEE 802.1ab LLDP</li><li>• IEEE 802.3ad LACP</li></ul>
<b>Interface</b>	<ul style="list-style-type: none"><li>• 16 x 10/100/1000Base-T RJ45</li><li>• 4 x 1G/2.5GBase-X SFP</li></ul>
<b>Management port</b>	<ul style="list-style-type: none"><li>• 1 x RJ45 Console port</li><li>• 1 x USB 2.0 for configuration and firmware update</li></ul>
<b>Switching capacity</b>	<ul style="list-style-type: none"><li>• 52Gbps</li></ul>
<b>Packet forwarding rate</b>	<ul style="list-style-type: none"><li>• 77.3Mpps</li></ul>
<b>MAC address table</b>	<ul style="list-style-type: none"><li>• 16K</li></ul>
<b>VLAN</b>	<ul style="list-style-type: none"><li>• 4K</li></ul>
<b>Buffer</b>	<ul style="list-style-type: none"><li>• 12Mbit</li></ul>
<b>Forwarding delay</b>	<ul style="list-style-type: none"><li>• &lt;5us</li></ul>
<b>Jumbo Frame</b>	<ul style="list-style-type: none"><li>• Support 10Kbytes</li></ul>
<b>MDX/MIDX</b>	<ul style="list-style-type: none"><li>• Support</li></ul>
<b>Watchdog</b>	<ul style="list-style-type: none"><li>• Support</li></ul>
<b>Layer 2 function</b>	
<b>Port aggregation</b>	<ul style="list-style-type: none"><li>• Support GE port aggregation</li><li>• Support 2.5GE aggregation</li><li>• Support static aggregation</li><li>• Support LACP dynamic aggregation</li><li>• Up to 64 aggregation groups and up to 8 ports per group</li></ul>
<b>Port features</b>	<ul style="list-style-type: none"><li>• Support IEEE802.3x flow control</li><li>• Support interface counters</li><li>• Support port isolation</li><li>• Port mirroring (One-to-One, Many-to-One)</li><li>• Support loop detection(Port-based; VLAN-based)</li><li>• Support broadcast storm suppression(broadcast; unknown multicast; unknown unicast)</li></ul>
<b>Mac-address table</b>	<ul style="list-style-type: none"><li>• Support static Mac-address management</li></ul>

<b>management</b>	<ul style="list-style-type: none"> <li>• Support dynamic Mac-address Management</li> <li>• Support filtering Mac-address</li> <li>• Support MAC limit based on port and VLAN</li> <li>• Support MAC flapping based on port and VLAN</li> </ul>
<b>VLAN</b>	<ul style="list-style-type: none"> <li>• Support access mode</li> <li>• Support trunk mode</li> <li>• Support hybrid mode</li> </ul>
<b>VLAN classification</b>	<ul style="list-style-type: none"> <li>• Mac Based VLAN</li> <li>• IP Based VLAN</li> <li>• Protocol Based VLAN</li> </ul>
<b>GVRP</b>	<ul style="list-style-type: none"> <li>• Normal mode</li> <li>• Fixed mode</li> <li>• Forbidden mode</li> </ul>
<b>QinQ</b>	<ul style="list-style-type: none"> <li>• Port-based QinQ</li> <li>• VLAN-based QinQ(VLAN-stacking; VLAN-mapping)</li> <li>• Flow-based QinQ</li> </ul>
<b>LLDP</b>	<ul style="list-style-type: none"> <li>• LLDP (Link Layer Discovery Protocol)</li> </ul>
<b>Ring network protocol</b>	<ul style="list-style-type: none"> <li>• Support IEEE802.1D-STP, IEEE802.1W-RSTP, IEEE802.1S-MSTP</li> <li>• Support G.8032 ERPS protocol , single ring, sub Ring and associated sub ring</li> <li>• Recovery time ≤20ms</li> </ul>
<b>L2 Multicast</b>	
<b>IGMP snooping</b>	<ul style="list-style-type: none"> <li>• Support IGMP snooping</li> </ul>
<b>Group address</b>	<ul style="list-style-type: none"> <li>• Support group address</li> </ul>
<b>Security functions</b>	
<b>ACL</b>	<ul style="list-style-type: none"> <li>• IP Standard ACL</li> <li>• MAC extend ACL</li> <li>• IP extend ACL</li> <li>• IPv6 ACL</li> </ul>
<b>QoS</b>	<ul style="list-style-type: none"> <li>• Support QoS Class, remarking</li> <li>• Support SP, WRR queue scheduling</li> <li>• Ingress port-based rate-limit</li> <li>• Egress port-based rate-limit</li> <li>• Support policy-based QoS</li> </ul>
<b>802.1x</b>	<ul style="list-style-type: none"> <li>• Port access control</li> <li>• Mac-address access control</li> <li>• RADIUS server</li> </ul>
<b>Port-security</b>	<ul style="list-style-type: none"> <li>• Port-security</li> </ul>
<b>IP source guard</b>	<ul style="list-style-type: none"> <li>• IP Port/MAC binding</li> </ul>
<b>ARP-check</b>	<ul style="list-style-type: none"> <li>• Support ARP-check and ARP packet filtering for illegal</li> </ul>

	users
<b>Access control</b>	<ul style="list-style-type: none"> <li>• Support Telnet/SSH/HTTP/HTTPS user access control</li> </ul>
<b>Management &amp; Maintenance functions</b>	
<b>User Management</b>	<ul style="list-style-type: none"> <li>• Support password protection</li> <li>• Support user authorization management</li> </ul>
<b>SNMP</b>	<ul style="list-style-type: none"> <li>• Supporting SNMP V1/V2C/V3 version</li> </ul>
<b>Web Management</b>	<ul style="list-style-type: none"> <li>• Web Management</li> <li>• Support HTTP V1.1</li> <li>• Support HTTPS</li> </ul>
<b>CLI management</b>	<ul style="list-style-type: none"> <li>• Console/Telnet command line management</li> </ul>
<b>RMON</b>	<ul style="list-style-type: none"> <li>• Support RMON(Remote Monitoring) alarm</li> </ul>
<b>Firmware upgrade</b>	<ul style="list-style-type: none"> <li>• Firmware upgrade</li> </ul>
<b>Fault Detection</b>	<ul style="list-style-type: none"> <li>• Ping/Tracer out</li> <li>• Dying gasp</li> <li>• Support optical transceiver DDM function</li> </ul>
<b>Cable detection</b>	<ul style="list-style-type: none"> <li>• Support copper port cable detection</li> </ul>
<b>NTP</b>	<ul style="list-style-type: none"> <li>• Network Time Protocol</li> </ul>
<b>Syslog/Debug</b>	<ul style="list-style-type: none"> <li>• Syslog/Debug</li> <li>• Syslog send to three servers</li> </ul>
<b>Configuration import/export</b>	<ul style="list-style-type: none"> <li>• Support FTP/TFTP remote import/export</li> <li>• Support USB import/export</li> </ul>
<b>Dual partition management</b>	<ul style="list-style-type: none"> <li>• Support dual partition switching</li> </ul>
<b>Application Protocol Functions</b>	
<b>DHCP Snooping</b>	<ul style="list-style-type: none"> <li>• DHCP snooping trust port</li> <li>• Support remote-id/circuit-id configuration</li> <li>• DHCP option-82</li> </ul>
<b>DHCP client</b>	<ul style="list-style-type: none"> <li>• Support DHCP client</li> </ul>
<b>Telnet server</b>	<ul style="list-style-type: none"> <li>• Support telnet server</li> </ul>
<b>Telnet client</b>	<ul style="list-style-type: none"> <li>• Support telnet client</li> </ul>
<b>SSH server</b>	<ul style="list-style-type: none"> <li>• Support SSH server</li> </ul>
<b>TACACS</b>	<ul style="list-style-type: none"> <li>• Support TACACS(the terminal access controller accesses the control system)</li> </ul>
<b>sflow</b>	<ul style="list-style-type: none"> <li>• Support network traffic analysis</li> </ul>
<b>TFTP</b>	<ul style="list-style-type: none"> <li>• Support TFTP Client</li> </ul>
<b>Layer 3 functions</b>	
<b>ARP</b>	<ul style="list-style-type: none"> <li>• ARP table aging</li> </ul>
<b>DHCP server</b>	<ul style="list-style-type: none"> <li>• DHCP server</li> </ul>
<b>IPv4 / IPv6</b>	<ul style="list-style-type: none"> <li>• static routing</li> </ul>
<b>Power parameter</b>	
<b>Input voltage</b>	<ul style="list-style-type: none"> <li>• 12-75VDC, redundant power input</li> </ul>
<b>Input current</b>	<ul style="list-style-type: none"> <li>• 2A DC/DC input Max</li> </ul>

<b>Total consumption</b>	<ul style="list-style-type: none"> <li>• Full loading ≤ 22W</li> </ul>
<b>Connector</b>	<ul style="list-style-type: none"> <li>• Removable 2x2-pin terminal block</li> </ul>
<b>Reverse polarity protection</b>	<ul style="list-style-type: none"> <li>• Support</li> </ul>
<b>Over-voltage protection</b>	<ul style="list-style-type: none"> <li>• Support</li> </ul>
<b>Over-current protection</b>	<ul style="list-style-type: none"> <li>• Support</li> </ul>
<b>Mechanical structure</b>	
<b>LED Indicators</b>	<ul style="list-style-type: none"> <li>• P1/P2 (Power indicator)</li> <li>• SYS (System status indicator)</li> <li>• USB (USB status indicator) Green</li> <li>• ALM(Fault status indicator) Red</li> <li>• Ring(Ring network indicator)</li> <li>• 1-16 (Copper ports indicators) Green: ports link / Yellow: Off: ports on 10/100M; On: ports on 1000M</li> <li>• 17-20 (Fiber ports indicators) Green</li> </ul>
<b>Case protection</b>	<ul style="list-style-type: none"> <li>• IP40</li> </ul>
<b>Installation method</b>	<ul style="list-style-type: none"> <li>• Din-rail</li> </ul>
<b>Dimension</b>	<ul style="list-style-type: none"> <li>• 110 x 115 x 158mm (WxDxH)</li> </ul>
<b>Environment</b>	<ul style="list-style-type: none"> <li>• Operating temperature: -40°C~+80°C</li> <li>• Storage temperature -40°C~+85°C</li> <li>• Operating Humidity: 10 to 90% (Non-Condensing)</li> </ul>
<b>EMS</b>	<ul style="list-style-type: none"> <li>• Surge protection of power: IEC 61000-4-5 6KV/4KV (8/20us)</li> <li>• Surge protection of Ethernet ports: IEC 61000-4-5 6KV/2KV (10/700us)</li> <li>• RS : IEC 61000-4-3 80 MHz-1 GHz: 10 V/m</li> <li>• EFT : IEC 61000-4-4 4K/2K</li> <li>• CS : IEC 61000-4-6 10V</li> <li>• ESD : IEC 61000-4-2 Contact: 8K ; Air: 15K</li> </ul>
<b>EMI</b>	<ul style="list-style-type: none"> <li>• FCC Part 15B Class A</li> </ul>
<b>Shock</b>	<ul style="list-style-type: none"> <li>• IEC 60068-2-27</li> </ul>
<b>Free fall</b>	<ul style="list-style-type: none"> <li>• IEC 60068-2-32</li> </ul>
<b>Vibration</b>	<ul style="list-style-type: none"> <li>• IEC 60068-2-6</li> </ul>
<b>Certification</b>	<ul style="list-style-type: none"> <li>• CE/FCC</li> </ul>

## Dimension



## Ordering information

**RP-ISG6316I-4F**      16 x Gigabit + 4-SFP(1G/2.5G) L2+ Managed Industrial Ethernet Switch