

RP-IPG63168I-4FR

**16-P Gigabit + 8-TP/SFP(1G) Combo +
4-SFP (1G/2.5G) slot
L2+ Managed Industrial PoE Switch**



RP-IPG63168I-4FR is the highly reliable Layer 2+ managed industrial PoE switch with 16-port 10/100/1000Base-T PoE, 8-port 1000Base Combo and 4-port 1G/2.5GBase-X SFP. It delivers 30watts power per PoE port and generates a total of 370Watts power to PD devices. With full gigabit capability, it delivers high-performance data transfer across industrial networks.

RP-IPG63168I-4FR supports G.8032 ERPS, MSTP/RSTP/STP redundancy technologies, Layer 3 static routing, and robust management features. With wide range voltage input 44-57VDC and redundant power design, it is ideal for large-scale industrial networks.

Robust IP40-rated rugged case protection with rack-mount installation, Its wide operating temperature ranges from -40°C to 75°C, RP-IPG63168I-4FR is the best choice for heavy industrial factory, transportation, oil & gas, chemical, IP Surveillance and processing automation area where environmental conditions are harsh and critical.

Features

- DC/DC redundant power supply with polarity reverse/over-voltage/over-current protection
- Complies with IEEE802.3af PoE and IEEE802.3at PoE+ standard
- Support USB one key configuration and upgrading
- Layer 3 feature: Support IPv4/IPv6 static routing
- 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, PoE 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 $\leq 20\text{ms}$
- Support 6KV surge protection and ESD: Air-15kV, Contact-8kV Protection
- IP40 fan-less and rack-mount hardware design
- Operation temperature: -40°C ~+ 75°C

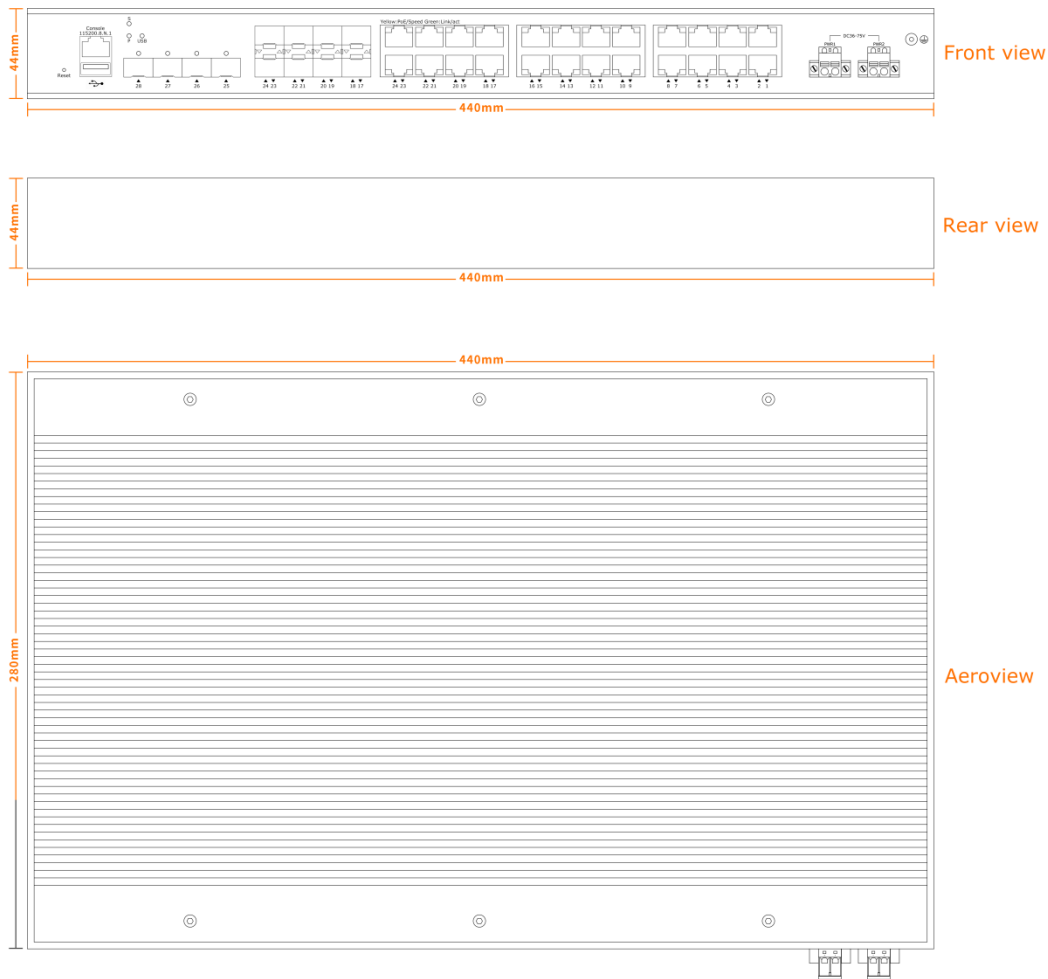
Specifications

Standards	<ul style="list-style-type: none">• IEEE 802.3 10Base-T Ethernet• IEEE 802.3u 100Base-TX Ethernet• IEEE 802.3ab 1000Base-T Ethernet• IEEE 802.3z 1000Base-X Ethernet• IEEE802.3x Flow Control and Back Pressure• IEEE 802.1D Spanning Tree Protocol• IEEE 802.1w Rapid Spanning Tree Protocol• IEEE 802.1Q VLAN• ITU-T G.8032 ERPS• IEEE 802.1X Port Authentication Network Control• IEEE 802.1ab LLDP• IEEE 802.3ad LACP• IEEE 802.3af Power-Over-Ethernet• IEEE 802.3at Power Over Ethernet plus PSE
Interface	<ul style="list-style-type: none">• 16 x 10/100/1000Base-T RJ45• 8 x 1G COMBO SFP/RJ45• 4 x 1000/2500Base-X SFP
Management port	<ul style="list-style-type: none">• 1 x RJ45 Console port• 1 x USB 2.0 for configuration and firmware update
Switching capacity	<ul style="list-style-type: none">• 68Gbps
Packet forwarding rate	<ul style="list-style-type: none">• 101Mpps
MAC address table	<ul style="list-style-type: none">• 16K
VLAN	<ul style="list-style-type: none">• 4K
Buffer	<ul style="list-style-type: none">• 12M bit
Forwarding delay	<ul style="list-style-type: none">• <5us
Jumbo Frame	<ul style="list-style-type: none">• Support 10Kbytes
MDX/MIDX	<ul style="list-style-type: none">• Support
Watchdog	<ul style="list-style-type: none">• Support
Layer 2 function	
Port aggregation	<ul style="list-style-type: none">• Support GE port aggregation• Support 2.5GE aggregation• Support static aggregation• Support dynamic aggregation
Port features	<ul style="list-style-type: none">• Support IEEE802.3x flow control,• Support port traffic statistics,• Support port isolation• Support network storm suppression based on port bandwidth percentage
VLAN	<ul style="list-style-type: none">• Support access mode• Support trunk mode• Support hybrid mode
VLAN Classification	<ul style="list-style-type: none">• Mac Based VLAN• IP Based VLAN• Protocol Based VLAN

QinQ	<ul style="list-style-type: none"> • Port-based QinQ • VLAN-based QinQ • Flow-based QinQ
Port mirroring	<ul style="list-style-type: none"> • Many to one port mirroring
Ring network protocol	<ul style="list-style-type: none"> • Support STP 、RSTP 、MSTP • Support G.8032 ERPS protocol , single ring, sub Ring and associated sub ring • Recovery time $\leq 20\text{ms}$
DHCP	<ul style="list-style-type: none"> • Support DHCP Client • Support DHCP Snooping
Multicast	<ul style="list-style-type: none"> • IGMP snooping
ACL	<ul style="list-style-type: none"> • IP Standard ACL • MAC extend ACL • IP extend ACL
QoS	<ul style="list-style-type: none"> • Support QoS Class, Remarking • Support SP, WRR queue scheduling • Ingress Port-based Rate-limit • Egress Port-based Rate-limit • Support Policy-based QoS
Security	<ul style="list-style-type: none"> • Support Dot1x , port authentication , MAC authentication , RADIUS service • Support port-security • Support IP Source Guard , IP/Port/MAC binding • Support ARP-check and ARP packet filtering for illegal users • Support port isolation
Management & maintenance	<ul style="list-style-type: none"> • Support LLDP • Support user management and login authentication • Support SNMPV1/V2C/V3 • Support web management, HTTP1.1, HTTPS • Support Syslog and alarm grading • Support RMON(Remote Monitoring) alarm • Support NTP • Support temperature monitoring • Support Ping , TRACERT • Support optical transceiver DDM function • Support TFTP Client • Support Telnet Server • Support SSH Server • Support IPv6 Management • Support PoE management • Support TFTP, web upgrading • Support USB upgrading • Support USB importing configuration
Layer 3 function	
ARP	<ul style="list-style-type: none"> • ARP table aging

IPv4 / IPv6	<ul style="list-style-type: none"> • Static routing
Power parameter	
Input voltage	<ul style="list-style-type: none"> • 44-57VDC • redundant power input
Input current	<ul style="list-style-type: none"> • 9A DC input Max
PoE power	<ul style="list-style-type: none"> • Full loading without PoE≤32W • PoE power budget ≤ 370W
Connector	<ul style="list-style-type: none"> • Removable 2-pin terminal block
Reverse polarity protection	<ul style="list-style-type: none"> • Support
Over-voltage protection	<ul style="list-style-type: none"> • Support
Over-current protection	<ul style="list-style-type: none"> • Support
Mechanical structure	
LED Indicators	<ul style="list-style-type: none"> • P (Power indicator) • S (System status indicator) • USB (USB status indicator) • 1-16 (Copper ports indicators) Green / PoE Yellow • 17-28 (Fiber ports indicators) Green
Case protection	<ul style="list-style-type: none"> • IP40
Installation method	<ul style="list-style-type: none"> • Rack mountable
Dimension	<ul style="list-style-type: none"> • 440 x 280 x 44mm (W*D*H)
Environment	<ul style="list-style-type: none"> • Operating temperature: -40°C~+75°C • Storage temperature -40°C~+85°C • Operating Humidity: 10 to 90% (Non-Condensing)
EMS	<ul style="list-style-type: none"> • Surge protection of power: IEC 61000-4-5 DC:6KV/6KV (8/20us) • Surge protection of Ethernet ports: IEC 61000-4-5 6KV/2KV (10/700us) • RS: IEC 61000-4-3 80MHz-1 GHz: 10 V/m • EFT: IEC 61000-4-4 power 4K, signal 2K • CS: IEC 61000-4-6 10V • ESD: IEC 61000-4-2 Contact: 8K; Air: 15K
EMI	<ul style="list-style-type: none"> • FCC Part 15B Class A
Shock	<ul style="list-style-type: none"> • IEC 60068-2-27
Free fall	<ul style="list-style-type: none"> • IEC 60068-2-32
Vibration	<ul style="list-style-type: none"> • IEC 60068-2-6
Certification	<ul style="list-style-type: none"> • CCC/CE/FCC/RoHS

Dimension



Ordering information

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