## RP-IPG514-4F

### 8-P Gigabit PoE + 2-P Gigabit + 4-SFP(100/1G) slot Industrial Managed Switch w/ 2-Ultra 60W PoE

RP-IPG514-4F is a Managed Gigabit Ethernet switch, providing 8 10/100/1000BaseT PoE PSE ports, 2 10/100/1000BaseT ports and 4 100/1000BaseSFP ports. It complies to IEEE 802.3at standard and able to deliver up to 30/60 watts power per port along with data on standard Ethernet cabling.

The switch can be used to power any IEEE 802.3af/at compliant PoE PD devices with PoE power management feature, which eases the deployment effort of planning PoE power budget and eliminates the need for additional wiring to reach power source.

RP-IPG514-4F supports many advanced network standards to optimize network performance, ease maintenance issues, and secure network safety . RP-IPG514-4F features remote management by SNMP, and supports management functions, e.g. 802.1Q VLAN, 802.1x access control , IGMP v1/v2, proxy & snooping , QoS functions ... etc. Auto-MDIX function is supported for every TX port of the switch for easy cable connection.

The switch with IP-30 standard metal case allows for either DIN rail or wall mounting for efficient use of cabinet space.
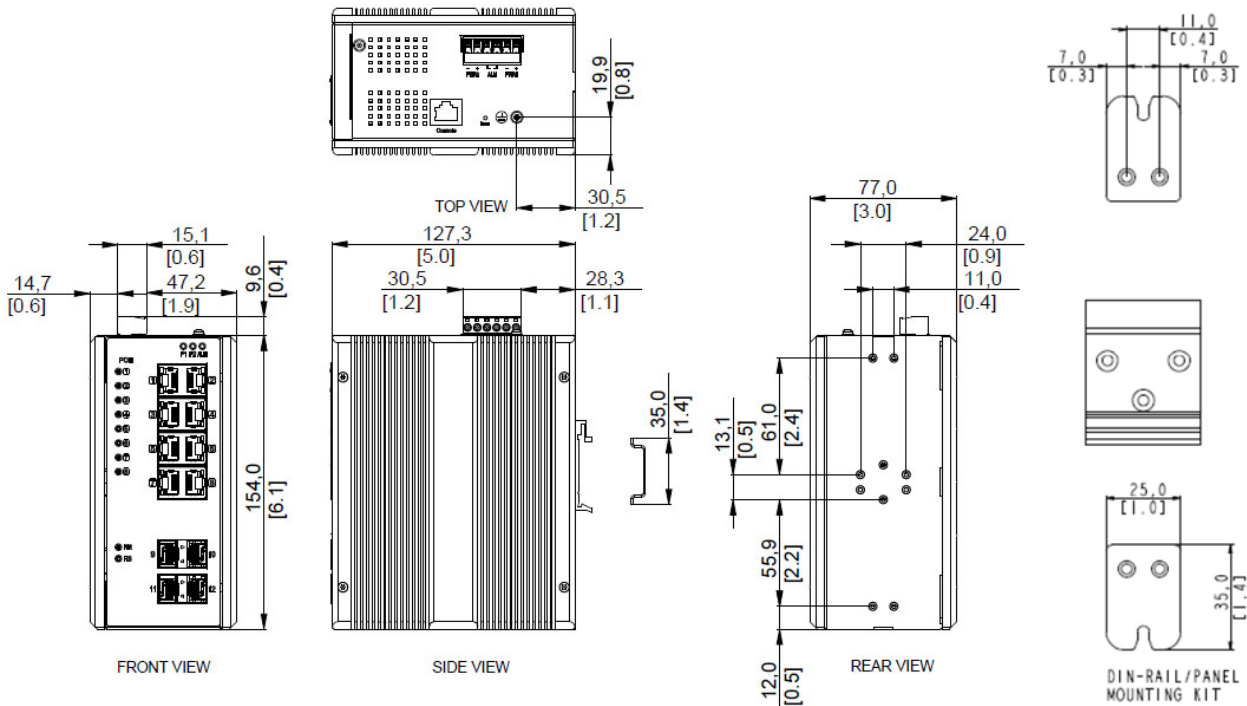
## Features

- Provide 8 10/100/1000 BaseTX PoE ports, 2 10/100/1000 BaseTX, plus 4 100FX/1000BaseF SFP slots
- IEEE 802.3af 15.4W / IEEE 802.3at 30W (2-pairs) & 60W (4-pairs) High Power PoE
- Total PoE power budget: Max. 240W PSE power delivered
- 9K Jumbo frames
- L2 wire-speed switching engine
- 8K MAC forwarding addresses
- Network redundant LACP, Spanning tree STP, RSTP & MSTP, and quick Ring fail-over protection (< 20 ms)
- Port-based /tag-based VLAN, IEEE 802.1ad/QinQ VLAN, Add/remove VLAN tags
- Multicasting support IGMP v1/v2, proxy & snooping
- Multicast/Broadcast/Flooding Storm Control
- IEEE802.1x access control
- Per VLAN mirroring
- CLI/Web/SNMP management interfaces
- PoE PSE power management & PD power consumption monitoring
- Dual power input & Reverse power protection
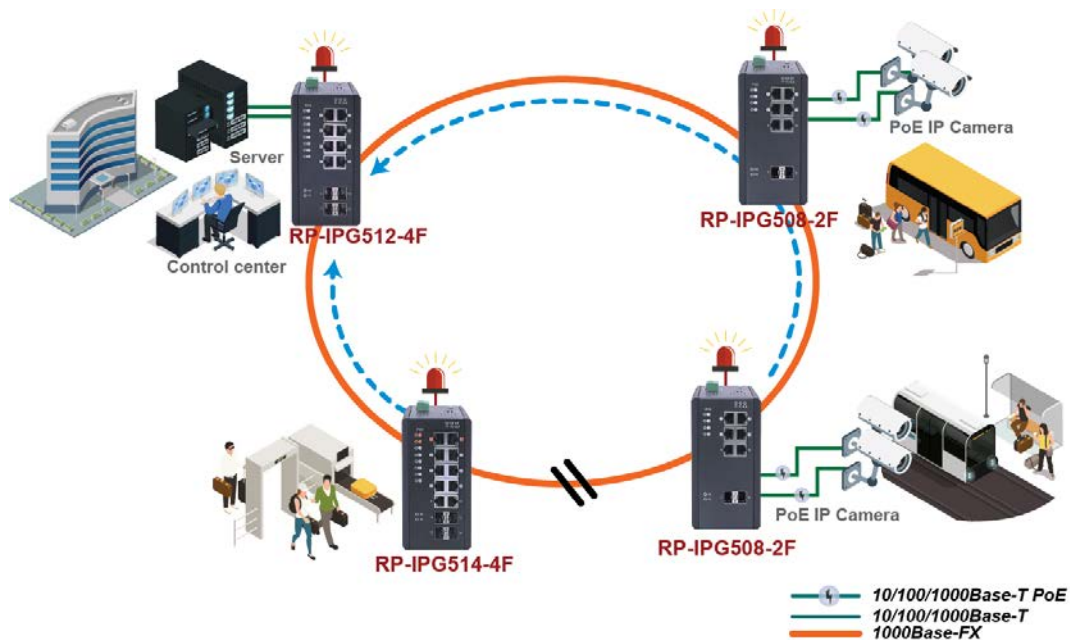- DIN-Rail and Wall mounting option

# Specifications

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|---|---|
| **Standards** | ● IEEE 802.3 10Base-T Ethernet<br>● IEEE 802.3u 100Base-TX Fast Ethernet<br>● IEEE 802.3ab 1000Base-T Gigabit Ethernet<br>● IEEE 802.3z 1000Base-X Gigabit Ethernet<br>● IEEE802.3x Flow Control and Back Pressure |
| **Interface** | ● 8 x 10/100/1000Mbps RJ45 Ports, 802.3at PoE<br>● 2 x 10/100/1000Mbps RJ45 Ports<br>● 4 x 100/1000Base SFP slots |
| **Operating mode** | ● Store and forward, L2 wire-speed/non-blocking switching engine |
| **MAC addresses** | ● 8K |
| **Jumbo frames** | ● 9K Bytes |
| **RJ45 Ports** | ● Support straight or cross wired cables<br>● 10/100/1000 Mbps speed auto-negotiation; Full and half duplex<br>● 1500 VRMS 1 minute Ethernet isolation |
| **SFP (pluggable) Ports** | ● Support 100FX SFP transceiver<br>● Support 100/1000BaseT SFP transceiver<br>● Fiber port connector: LC typically for fiber (depends on module)<br>● Optimal fiber cable: Typical 50 or 62.5/125 μm for multimode (mm); Typical 8 or 9/125 μm for single mode (sm) |
| **Fast failover protection rings** | ● Link loss recovery < 20ms<br>● Support Single & Multiple rings; Ring coupling; Dual-homing; Chain |
| **Spanning Tree Protocol** | ● IEEE 802.1D STP, IEEE 802.1w RSTP, IEEE 802.1s MSTP |
| **Port Trunk with LACP** | ● Static trunk or Dynamic via LACP (Link Aggregation Control Protocol) |
| **Flow control** | ● IEEE 802.3x (Full Duplex) and Back-Pressure(Half Duplex) |
| **Max VLANs** | ● 1024 |
| **VLAN Types** | ● Port-based VLANs; MAC-based VLANs; IP Subnet-based VLANs Protocol-based VLANs<br>● IEEE 802.1Q tag-based VLANs<br>● RADIUS-assigned VLAN<br>● IEEE 802.1ad Double Tagging (Q in Q) |
| **Multicast protocols** | ● IGMP v1, v2 with up to 255 multicast groups<br>● IGMP snooping and querying<br>● Immediate leave and leave proxy<br>● Throttling and filtering |
| **LLDP** | ● IEEE 802.1ab Link layer Discovery Protocol (LLDP) |
| **Priority** | ● IEEE 802.1p QoS |
| **Number of queues per port** | ● 8 |
| **Scheduling schemes** | ● SPQ, WRR |
| **Traffic Shaper** | ● port-based shaping |
| **RADIUS QoS** | ● RADIUS-assigned QoS Class |
| **Port security** | ● IP and MAC-based access control<br>● IEEE 802.1X authentication Network Access Control<br>● authentication via local database, RADIUS or TACACS+ AAA (Authentication, Accounting and Authorization) |
| **Storm Control** | ● Multicast/Broadcast/Flooding Storm Control |

| | |
|---|---|
| **User Management interfaces** | ● Cisco-like CLI (command line interface)<br>● WEB-based Management<br>● SNMP v1, v2c & v3<br>● Telnet (5 sessions) |
| **Management Security** | ● HTTPs, SSH<br>● Radius Client for Management |
| **Upgrade & Restore** | ● FTP for Configuration Import/Export,<br>FTP for Firmware Upgrade |
| **Diagnostic** | ● Syslog<br>● Per VLAN mirroring<br>● Ethernet Copper connection diagnostic tool<br>● SFP with DDM (Digital Diagnostic Monitoring) |
| **MIBs** | ● RFC 1757 RMON 1,2,3,9; RFC 2674 Q-Bridge MIB<br>RFC-1213 MIB-II; RFC-1493 Bridge MIB; RFC 2233 IF MIB |
| **DHCP** | ● Client, Server, Relay, Snooping, Option 82 |
| **NTP/SNTP** | ● Yes |
| **System status** | ● Device info/status; Ethernet port status; PoE status |
| **PoE management** | ● Scheduling; power control; PoE PD power consumption monitoring |
| **Power input** | ● Redundant Input Terminals |
| **Power Supply** | ● 48-56 VDC (50~58V VDC for better PoE performance) |
| **PoE output power budget** | ● Total power budget: 240W<br>● Max PoE per port: 30W (Max. 60W for port 1 & port 2) |
| **Reverse power protection** | ● Yes |
| **Transient protection** | ● > 15,000 watts peak |
| **Power consumption** | ● Max. 14W @48 VDC full load, without PoE<br>● Max. 265W with 240W PSE power delivered |
| **LED Indicators** | ● Power input status<br>● Link & Speed<br>● PoE Power applying<br>● System Alarm |
| **Alarm relay output** | ● Alarm relay output with current carrying capacity of 0.5A @ 24 VDC<br>● Configurable alarm profile to enable Alarm LED, Alarm relay & SNMP traps |
| **Housing** | ● IP30 Protection |
| **Installation mounting** | ● DIN Rail mounting and Wall Mounting |
| **Environment** | ● Operating temperature: -40 to +75°C (cold startup at -40°C)<br>● Storage temperature: -40 to +85 °C<br>● Humidity: 5 to 95% RH (non-condensing) |
| **Dimension** | ● W77 x H154 x D128 mm |
| **Vibration, shock & freefall** | ● IEC68-2-6, -27, -32 |
| **Certification compliance** | ● CE/FCC |
| **Electrical safety** | ● CSA C22, EN61010-1, CE |
| **EMC** | ● FCC Part 15, CISPR 22 (EN55022) Class A<br>IEC61000-4-2, -3, -4, -5, -6 |

# Dimensions



TOP VIEW

FRONT VIEW

SIDE VIEW

REAR VIEW

DIN-RAIL/PANEL MOUNTING KIT

# Application



RP-IPG512-4F

Server

Control center

RP-IPG508-2F

PoE IP Camera

RP-IPG514-4F

RP-IPG508-2F

PoE IP Camera

— 10/100/1000Base-T PoE
— 10/100/1000Base-T
— 1000Base-FX

# Ordering information

**RP-IPG514-4F**   8-P Gigabit PoE + 2-P Gigabit + 4-SFP(100/1G) slot Industrial Managed Switch, w/ 2-Ultra 60W PoE (240W)