



## **RP-IPG206-2GF**

### **4-P Gigabit PoE + 2-TP/SFP(100/1G) combo Industrial Managed Switch**

RP-IPG206-2GF is an industrial managed PoE Gigabit Ethernet switch, it provides up to 30 watts of power per port, allowing for efficient power distribution. It has a total PoE power budget of 120W.

RP-IPG206-2GF equips with a proprietary redundant network protocol. The protocol enables users to establish an additional Ethernet network with an ultra-high-speed recovery time of less than 20ms.

RP-IPG206-2GF offers powerful Layer 2 (L2) and basic Layer 3 (L3) features with improved functionality and usability. It supports remote management through SNMP and provides management functions such as 802.1Q VLAN, 802.1x access control, IGMP v1/v2/v3, proxy and snooping, and QoS functions.

RP-IPG206-2GF equips the embedded Device Managed System (DMS). This feature simplifies configuration, installation, and troubleshooting in applications such as video surveillance and wireless access. The switch is user-friendly and helps reduce overall costs, making it an ideal choice for management purposes.

## **Features**

- IEEE 802.3af 15.4W / IEEE 802.3at 30W High Power PoE, total PoE power budget: 120W
- IPv4/IPv6 L3 static route Network redundant LACP, Spanning tree STP, RSTP & MSTP, and rapid Ring support network redundancy recovery<20ms
- Port-based /tag-based VLAN, IEEE 802.1ad/ QinQ VLAN, Add/remove VLAN tags,
- Multicasting support IGMP v1/v2/v3 snooping, Proxy & Querier
- Multicast/Broadcast/Flooding Storm Control
- IEEE802.1x access control
- Per VLAN mirroring
- CLI/Web/SNMP management interfaces
- iPush APP for real time alarm notification
- DHCP Server
- PoE PSE power management & PD power consumption
- Dual power input & Reverse power protection
- IEEE 802.3az Energy Efficient Ethernet standard for green Ethernet application

## Specifications

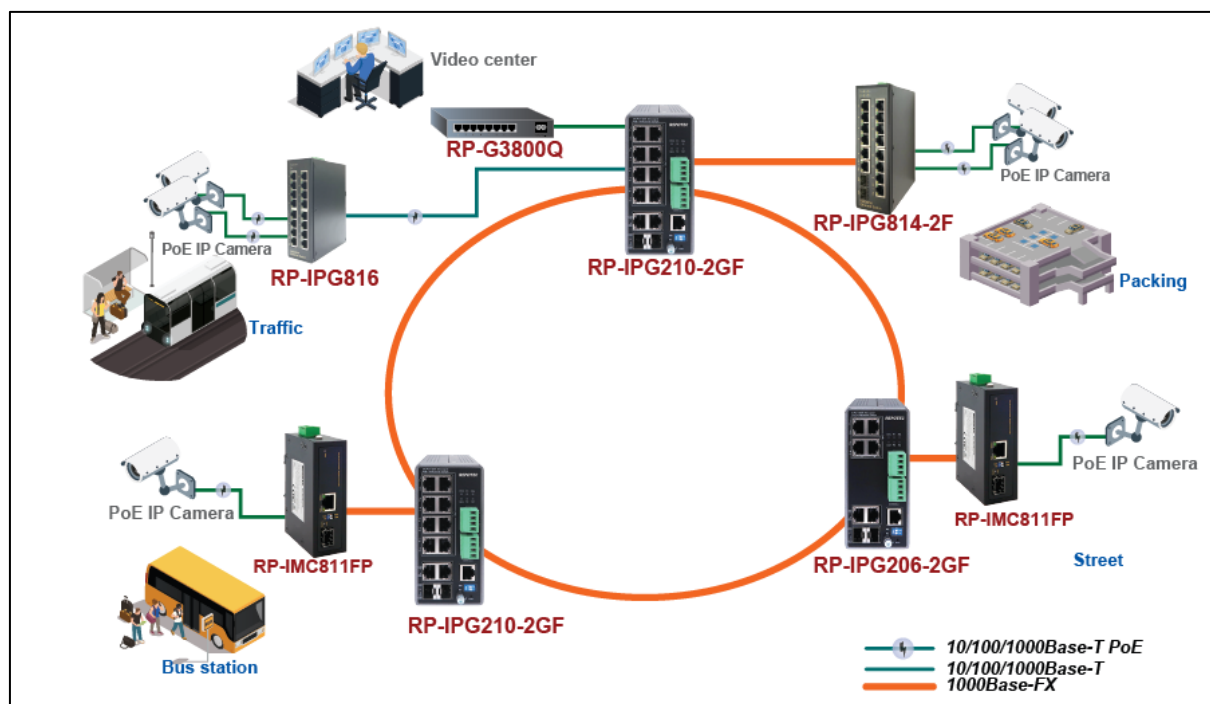
<b>Standards</b>	<ul style="list-style-type: none"> <li>• IEEE 802.3/3u 10Base-T, 100Base-TX Ethernet</li> <li>• IEEE 802.3ab 1000Base-T Ethernet</li> <li>• IEEE 802.3z 1000Base-X Ethernet</li> <li>• IEEE 802.3x Flow Control capability</li> <li>• IEEE802.3at/af PoE standard</li> <li>• IEEE802.3az Energy Efficient Ethernet</li> </ul>
<b>Interface</b>	<ul style="list-style-type: none"> <li>• Port 1 to 4: RJ-45 10/100/1000Mbps with 802.3af/at PoE, auto MDI/X</li> <li>• Port 5 to 6: RJ45/SFP(100/1000Mbps) combo</li> <li>• RJ-45 Console port</li> <li>• Reset button</li> </ul>
<b>Forwarding Capacity</b>	<ul style="list-style-type: none"> <li>• 8.928 Mpps</li> </ul>
<b>Switching Capacity</b>	<ul style="list-style-type: none"> <li>• 12Gbps</li> </ul>
<b>Jumbo frames</b>	<ul style="list-style-type: none"> <li>• 9216Bytes</li> </ul>
<b>MAC Table</b>	<ul style="list-style-type: none"> <li>• 8K MAC addresses</li> </ul>
<b>Ring Management</b>	
<b>Rapid Ring</b>	<ul style="list-style-type: none"> <li>• Enable self-recover time in less than 20ms</li> <li>• DIP switch Ring setting</li> </ul>
<b>Layer 2 Switching</b>	
<b>Spanning Tree Protocol (STP)</b>	<ul style="list-style-type: none"> <li>• Standard Spanning Tree 802.1d</li> <li>• Rapid Spanning Tree (RSTP) 802.1w</li> <li>• Multiple Spanning Tree (MSTP) 802.1s</li> </ul>
<b>VLAN</b>	<ul style="list-style-type: none"> <li>• Port-based VLAN</li> <li>• 802.1Q tag-based VLAN</li> <li>• MAC-based VLAN</li> <li>• Management VLAN</li> <li>• Private VLAN Edge (PVE)</li> <li>• Q-in-Q (double tag) VLAN</li> <li>• Voice VLAN</li> <li>• GARP VLAN Registration Protocol (GVRP)</li> </ul>
<b>Trunking</b>	<ul style="list-style-type: none"> <li>• Link Aggregation Control Protocol (LACP) IEEE 802.3ad</li> <li>• Up to 3 groups and up to 4 ports per group</li> </ul>
<b>DHCP Relay</b>	<ul style="list-style-type: none"> <li>• Relay of DHCP traffic to DHCP server in different VLAN.</li> <li>• Works with DHCP Option 82</li> </ul>
<b>IGMP v1/v2/v3 snooping</b>	<ul style="list-style-type: none"> <li>• IGMP limits bandwidth-intensive multicast traffic to only the requesters</li> <li>• Supports 1024 multicast groups</li> </ul>
<b>IGMP Querier</b>	<ul style="list-style-type: none"> <li>• IGMP querier is used to support a Layer 2 multicast domain of snooping switches in the absence of a multicast router</li> </ul>
<b>IGMP Proxy</b>	<ul style="list-style-type: none"> <li>• IGMP snooping with proxy reporting or report suppression actively filters IGMP packets in order to reduce load on the multicast router</li> </ul>
<b>MLD v1/v2 snooping</b>	<ul style="list-style-type: none"> <li>• Deliver IPv6 multicast packets only to the required receivers</li> </ul>
<b>Multicast VLAN Registration (MVR)</b>	<ul style="list-style-type: none"> <li>• It uses a dedicated manually configured VLAN, called the multicast VLAN, to forward multicast traffic over Layer 2 network in conjunction with IGMP snooping</li> </ul>
<b>Layer 3 Switching</b>	
<b>IPv4 Static Routing</b>	<ul style="list-style-type: none"> <li>• IPv4 Unicast: Static routing</li> </ul>
<b>IPv6 Static Routing</b>	<ul style="list-style-type: none"> <li>• IPv6 Unicast: Static routing</li> </ul>

<b>Security</b>	
<b>Secure Shell (SSH)</b>	<ul style="list-style-type: none"> <li>SSH secures Telnet traffic in or out of the switch, SSH v1 and v2 are supported</li> </ul>
<b>Secure Sockets Layer (SSL)</b>	<ul style="list-style-type: none"> <li>SSL encrypts the http traffic, allowing advanced secure access to the browser-based management GUI in the switch</li> </ul>
<b>IEEE 802.1X</b>	<ul style="list-style-type: none"> <li>IEEE802.1X: RADIUS authentication, authorization and accounting, MD5 hash, guest VLAN, single/multiple host mode and single/multiple sessions</li> <li>Supports IGMP-RADIUS based 802.1X</li> <li>Dynamic VLAN assignment</li> </ul>
<b>Layer 2 Isolation Private VLAN Edge</b>	<ul style="list-style-type: none"> <li>PVE (also known as protected ports) provides L2 isolation between clients in the same VLAN. Supports multiple uplinks</li> </ul>
<b>Port Security</b>	<ul style="list-style-type: none"> <li>Locks MAC addresses to ports, and limits the number of learned MAC address</li> </ul>
<b>IP Source Guard</b>	<ul style="list-style-type: none"> <li>Prevents illegal IP address from accessing to specific port in the switch</li> </ul>
<b>RADIUS/ TACACS+</b>	<ul style="list-style-type: none"> <li>Supports RADIUS and TACACS+ authentication. Switch as a client</li> </ul>
<b>Storm Control</b>	<ul style="list-style-type: none"> <li>Prevents traffic on a LAN from being disrupted by a broadcast, multicast, or unicast storm on a port</li> </ul>
<b>DHCP Snooping</b>	<ul style="list-style-type: none"> <li>A feature acts as a firewall between untrusted hosts and trusted DHCP servers</li> </ul>
<b>ACLs</b>	<ul style="list-style-type: none"> <li>Supports up to 256 entries. Drop or rate limitation based on:</li> <li>Source and destination MAC, VLAN ID or IP address, protocol, port,</li> <li>Differentiated services code point (DSCP) / IP precedence</li> <li>TCP/ UDP source and destination ports</li> <li>802.1p priority</li> <li>Ethernet type</li> <li>Internet Control Message Protocol (ICMP) packets</li> <li>TCP flag</li> </ul>
<b>Loop Protection</b>	<ul style="list-style-type: none"> <li>To prevent unknown unicast, broadcast and multicast loops in Layer 2 switching configurations.</li> </ul>
<b>Quality of Service</b>	
<b>Hardware Queue</b>	<ul style="list-style-type: none"> <li>Supports 8 hardware queues</li> </ul>
<b>Scheduling</b>	<ul style="list-style-type: none"> <li>Strict priority and weighted round-robin (WRR)</li> <li>Queue assignment based on DSCP and class of service</li> </ul>
<b>Classification</b>	<ul style="list-style-type: none"> <li>Port based</li> <li>802.1p VLAN priority based</li> <li>IPv4/IPv6 precedence / DSCP based</li> <li>Differentiated Services (DiffServ)</li> <li>Classification and re-marking ACLs</li> </ul>
<b>Rate Limiting</b>	<ul style="list-style-type: none"> <li>Ingress policer</li> <li>Egress shaping and rate control</li> <li>Per port</li> </ul>
<b>Management</b>	
<b>HW Monitoring</b>	<ul style="list-style-type: none"> <li>Temperature Detection and Alarm</li> </ul>
<b>HW Watchdog</b>	<ul style="list-style-type: none"> <li>Supported to resume operation from CPU hang up</li> </ul>
<b>iPush</b>	<ul style="list-style-type: none"> <li>The real time alarm notification could lower technical support cost</li> <li>Works with iOS and Android devices to make quick work of even the most demanding tasks.</li> </ul>
<b>DHCP Server</b>	<ul style="list-style-type: none"> <li>Support DHCP server to assign IP to DHCP clients</li> </ul>

<b>Remote Monitoring (RMON)</b>	<ul style="list-style-type: none"> <li>Embedded RMON agent supports RMON groups 1,2,3,9 (history, statistics, alarms, and events) for enhanced traffic management, monitoring and analysis</li> </ul>
<b>Port Mirroring</b>	<ul style="list-style-type: none"> <li>Traffic on a port can be mirrored to another port for analysis with a network analyzer or RMON probe. Up to N-1 (N is Switch's Ports) ports can be mirrored to single destination port. A single session is supported.</li> </ul>
<b>UPnP</b>	<ul style="list-style-type: none"> <li>The Universal Plug and Play Forum, an industry group of companies working to enable device-to-device interoperability by promoting Universal Plug and Play</li> </ul>
<b>s-Flow</b>	<ul style="list-style-type: none"> <li>The industry standard for monitoring high speed switched networks. It gives complete visibility into the use of networks enabling performance optimization, accounting/billing for usage, and defense against security threats</li> </ul>
<b>IEEE 802.1ab (LLDP)</b>	<ul style="list-style-type: none"> <li>Used by network devices for advertising their identities, capabilities, and neighbors on an IEEE 802ab local area network</li> <li>Support LLDP-MED extensions</li> </ul>
<b>Web GUI Interface</b>	<ul style="list-style-type: none"> <li>Built-in switch configuration utility for browser-based device configuration</li> </ul>
<b>CLI</b>	<ul style="list-style-type: none"> <li>For users to configure/manage switches in command line modes</li> </ul>
<b>Dual Image</b>	<ul style="list-style-type: none"> <li>Independent primary and secondary images for backup while upgrading</li> </ul>
<b>SNMP</b>	<ul style="list-style-type: none"> <li>SNMP version1, 2c and 3 with support for traps, and SNMP version 3 user-based security model (USM)</li> </ul>
<b>Firmware Upgrade</b>	<ul style="list-style-type: none"> <li>Web browser upgrade (HTTP/ HTTPS) and TFTP</li> <li>Upgrade through console port as well</li> </ul>
<b>NTP</b>	<ul style="list-style-type: none"> <li>Network Time Protocol (NTP) is a networking protocol for clock synchronization between computer systems over packet-switched</li> </ul>
<b>Other Management</b>	<ul style="list-style-type: none"> <li>HTTP/HTTPS; SSH</li> <li>DHCP Client/ DHCPv6 Client</li> <li>Cable Diagnostics</li> <li>Ping</li> <li>Syslog</li> <li>IPv6 Management</li> </ul>
<b>Power over Ethernet (PoE)</b>	
<b>Port Configuration</b>	<ul style="list-style-type: none"> <li>Supports per port PoE configuration function</li> </ul>
<b>PoE Scheduling</b>	<ul style="list-style-type: none"> <li>Supports per port PoE scheduling to turn on/off the PoE devices (PDs)</li> </ul>
<b>Auto-checking</b>	<ul style="list-style-type: none"> <li>Check the link status of PDs. Reboot PDs if there is no responses</li> </ul>
<b>Power Delay</b>	<ul style="list-style-type: none"> <li>The switch provides power to the PDs based on delay time when PoE switch boots up, in order to protect switch from misuse of the PDs</li> </ul>
<b>PoE Power Budget</b>	<ul style="list-style-type: none"> <li>120 Watts</li> </ul>
<b>Power Supply</b>	<ul style="list-style-type: none"> <li>54 VDC dual inputs</li> <li>DC Operating Range 48 to 56 VDC</li> <li>Required &gt;48 VDC for PoE 802.3af (Max. 15.4W) output</li> <li>Required &gt;54 VDC for PoE+ 802.3at (Max. 30W) output</li> </ul>
<b>Environment</b>	<ul style="list-style-type: none"> <li>Operating temperature: -40°C to 75°C</li> <li>Storage Temperature: -40 to 85°C</li> <li>Operating Humidity: 5% to 95% (Non-Condensing)</li> </ul>
<b>Dimension</b>	<ul style="list-style-type: none"> <li>62x 135x 130mm (WxHxD)</li> </ul>
<b>EMS</b>	<ul style="list-style-type: none"> <li>EN61000-4-2 ESD, EN61000-4-3 RS, EN61000-4-4 EFT, EN61000-4-5 (for RJ45 Port, Surge 6KV), EN61000-4-6 CS, EN61000-4-8 PFMF,</li> </ul>

	(EN61000-6-2 by request)
<b>EMI</b>	<ul style="list-style-type: none"> <li>FCC Part 15 Class A</li> <li>(EN61000-3-2, EN61000-3-3, EN61000-6-4, EN55022, EN55011 by request)</li> </ul>
<b>Safety</b>	<ul style="list-style-type: none"> <li>CE, (EN60950 by request)</li> </ul>
<b>Stability Testing</b>	<ul style="list-style-type: none"> <li>EN 60068-2-6 (Vibration), EN 60068-2-27(Shock), EN 60068-2-32(Free Fall)</li> </ul>

## Application



## Ordering information

**RP-IPG206-2GF** 4-P Gigabit PoE + 2-TP/SFP(100/1G) combo Industrial Managed Switch