



RP-IPG210A-2GF

8-P Gigabit PoE + 2-TP/SFP(100/1G) slot Industrial Managed Switch

RP-IPG210A-2GF industrial L2+ managed GbE PoE+ switch is the next generation industrial grade Ethernet switch offering powerful L2 and basic L3 features with better functionality and usability. In addition to the extensive management features, RP-IPG210A-2GF also provides carrier Ethernet features such as OAM/CFM/ERPS/EPs/PTPv2, of which make them suitable for industrial and carrier Ethernet applications.

RP-IPG210A-2GF delivers 8 (10M/100M/1G) RJ45 with 8 PoE+ (Support 802.3 at/af, and total up to 240W) ports, 2 combo GbE RJ45/SFP ports and RJ45 console port. RP-IPG210A-2GF provides high HW performance and environment flexibility for industrial and carrier Ethernet applications.

The embedded Device Managed System (DMS) features provides users with the benefits of easy-to-use/configure/install/troubleshoot in the video surveillance, wireless access, and other industrial applications. RP-IPG210A-2GF is ideal to deliver management simplicity, better user experience, and lowest total cost of ownership.

Features

- Rapid Ring (R-Ring)
- Built in Device Management System (DMS)
- iPush APP for real time alarm notification
- ITU-T G.8031 Ethernet Linear Protection Switching (EPS)
- ITU-T G.8032 Ethernet Ring Protection Switching (ERPS)
- IEEE 1588v2 PTP
- IEEE 802.3ah OAM
- IEEE 802.1ag CFM (ITU-T Y.1731 Performance monitoring)
- DHCP Server
- IEEE 802.3az Energy Efficient Ethernet standard for green Ethernet application
- IEEE 802.3af/at Power over Ethernet
- IPv4/IPv6 L3 static route
- EtherNet/IP (by request)
- PROFINET (by request)

Specifications

Standards	<ul style="list-style-type: none"> • IEEE 802.3/3u 10Base-T, 100Base-TX Ethernet • IEEE 802.3ab 1000Base-T Ethernet • IEEE 802.3z 1000Base-X Ethernet • IEEE 802.3x Flow Control capability • IEEE802.3at/af PoE standard • IEEE802.3az Energy Efficient Ethernet
Interface	<ul style="list-style-type: none"> • Port 1 to 8: RJ-45 10/100/1000Mbps with 802.3af/at PoE, auto MDI/X • Port 9 to 10: RJ45/SFP(100/1000Mbps) combo • RJ-45 Console port • Reset button • 1 DI / 1 DO
Forwarding Capacity	<ul style="list-style-type: none"> • 14.88 Mpps
Switching Capacity	<ul style="list-style-type: none"> • 20Gbps
Jumbo frames	<ul style="list-style-type: none"> • 9216Bytes
MAC Table	<ul style="list-style-type: none"> • 8K MAC addresses
Ring Management	
ITU-T G.8031	<ul style="list-style-type: none"> • Supports ITU-T G.8031 Ethernet Linear Protection Switching
ITU-T G.8032	<ul style="list-style-type: none"> • Supports ITU-T G.8032 Ethernet Ring Protection Switching
Rapid Ring	<ul style="list-style-type: none"> • Enable self-recover time in less than 20ms • DIP switch Ring setting
Ethernet OAM	
IEEE 802.3ah OAM	<ul style="list-style-type: none"> • Supports Operations, Administration & Management
IEEE 802.1ag & ITU-T Y.1731 Flow OAM	<ul style="list-style-type: none"> • Supports IEEE 802.1ag Ethernet CFM (Connectivity Fault Management) • Supports ITU-T Y.1731 Performance Monitoring
Layer 2 Switching	
Spanning Tree Protocol (STP)	<ul style="list-style-type: none"> • Standard Spanning Tree 802.1d • Rapid Spanning Tree (RSTP) 802.1w • Multiple Spanning Tree (MSTP) 802.1s
VLAN	<ul style="list-style-type: none"> • Port-based VLAN • 802.1Q tag-based VLAN • MAC-based VLAN • Management VLAN • Private VLAN Edge (PVE) • Q-in-Q (double tag) VLAN • Voice VLAN • GARP VLAN Registration Protocol (GVRP)
Trunking	<ul style="list-style-type: none"> • Link Aggregation Control Protocol (LACP) IEEE 802.3ad • Up to 5 groups and up to 4 ports per group
DHCP Relay	<ul style="list-style-type: none"> • Relay of DHCP traffic to DHCP server in different VLAN. • Works with DHCP Option 82
IGMP v1/v2/v3 snooping	<ul style="list-style-type: none"> • IGMP limits bandwidth-intensive multicast traffic to only the requesters • Supports 1024 multicast groups
IGMP Querier	<ul style="list-style-type: none"> • IGMP querier is used to support a Layer 2 multicast domain of snooping switches in the absence of a multicast router
IGMP Proxy	<ul style="list-style-type: none"> • IGMP snooping with proxy reporting or report suppression actively

	filters IGMP packets in order to reduce load on the multicast router
MLD v1/v2 snooping	<ul style="list-style-type: none"> Deliver IPv6 multicast packets only to the required receivers
Multicast VLAN Registration (MVR)	<ul style="list-style-type: none"> It uses a dedicated manually configured VLAN, called the multicast VLAN, to forward multicast traffic over Layer 2 network in conjunction with IGMP snooping
Layer 3 Switching	
IPv4 Static Routing	<ul style="list-style-type: none"> IPv4 Unicast: Static routing
IPv6 Static Routing	<ul style="list-style-type: none"> IPv6 Unicast: Static routing
Security	
Secure Shell (SSH)	<ul style="list-style-type: none"> SSH secures Telnet traffic in or out of the switch, SSH v1 and v2 are supported
Secure Sockets Layer (SSL)	<ul style="list-style-type: none"> SSL encrypts the http traffic, allowing advanced secure access to the browser-based management GUI in the switch
IEEE 802.1X	<ul style="list-style-type: none"> IEEE802.1X: RADIUS authentication, authorization and accounting, MD5 hash, guest VLAN, single/multiple host mode and single/multiple sessions Supports IGMP-RADIUS based 802.1X Dynamic VLAN assignment
Layer 2 Isolation Private VLAN Edge	<ul style="list-style-type: none"> PVE (also known as protected ports) provides L2 isolation between clients in the same VLAN. Supports multiple uplinks
Port Security	<ul style="list-style-type: none"> Locks MAC addresses to ports, and limits the number of learned MAC address
IP Source Guard	<ul style="list-style-type: none"> Prevents illegal IP address from accessing to specific port in the switch
RADIUS/ TACACS+	<ul style="list-style-type: none"> Supports RADIUS and TACACS+ authentication. Switch as a client
Storm Control	<ul style="list-style-type: none"> Prevents traffic on a LAN from being disrupted by a broadcast, multicast, or unicast storm on a port
DHCP Snooping	<ul style="list-style-type: none"> A feature acts as a firewall between untrusted hosts and trusted DHCP servers
ACLs	<ul style="list-style-type: none"> Supports up to 256 entries. Drop or rate limitation based on: Source and destination MAC, VLAN ID or IP address, protocol, port, Differentiated services code point (DSCP) / IP precedence TCP/ UDP source and destination ports 802.1p priority Ethernet type Internet Control Message Protocol (ICMP) packets TCP flag
Loop Protection	<ul style="list-style-type: none"> To prevent unknown unicast, broadcast and multicast loops in Layer 2 switching configurations.
Quality of Service	
Hardware Queue	<ul style="list-style-type: none"> Supports 8 hardware queues
Scheduling	<ul style="list-style-type: none"> Strict priority and weighted round-robin (WRR) Queue assignment based on DSCP and class of service
Classification	<ul style="list-style-type: none"> Port based 802.1p VLAN priority based IPv4/IPv6 precedence / DSCP based Differentiated Services (DiffServ) Classification and re-marking ACLs
Rate Limiting	<ul style="list-style-type: none"> Ingress policer Egress shaping and rate control

	<ul style="list-style-type: none"> ● Per port
Management	
HW Monitoring	<ul style="list-style-type: none"> ● Temperature Detection and Alarm
HW Watchdog	<ul style="list-style-type: none"> ● Supported to resume operation from CPU hang up
iPush	<ul style="list-style-type: none"> ● The real time alarm notification could lower technical support cost ● Works with iOS and Android devices to make quick work of even the most demanding tasks.
DHCP Server	<ul style="list-style-type: none"> ● Support DHCP server to assign IP to DHCP clients
Remote Monitoring (RMON)	<ul style="list-style-type: none"> ● Embedded RMON agent supports RMON groups 1,2,3,9 (history, statistics, alarms, and events) for enhanced traffic management, monitoring and analysis
Port Mirroring	<ul style="list-style-type: none"> ● 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.
UPnP	<ul style="list-style-type: none"> ● The Universal Plug and Play Forum, an industry group of companies working to enable device-to-device interoperability by promoting Universal Plug and Play
s-Flow	<ul style="list-style-type: none"> ● 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
IEEE 802.1ab (LLDP)	<ul style="list-style-type: none"> ● Used by network devices for advertising their identities, capabilities, and neighbors on an IEEE 802ab local area network ● Support LLDP-MED extensions
Web GUI Interface	<ul style="list-style-type: none"> ● Built-in switch configuration utility for browser-based device configuration
CLI	<ul style="list-style-type: none"> ● For users to configure/manage switches in command line modes
Dual Image	<ul style="list-style-type: none"> ● Independent primary and secondary images for backup while upgrading
SNMP	<ul style="list-style-type: none"> ● SNMP version1, 2c and 3 with support for traps, and SNMP version 3 user-based security model (USM)
Firmware Upgrade	<ul style="list-style-type: none"> ● Web browser upgrade (HTTP/ HTTPS) and TFTP ● Upgrade through console port as well
NTP	<ul style="list-style-type: none"> ● Network Time Protocol (NTP) is a networking protocol for clock synchronization between computer systems over packet-switched
Other Management	<ul style="list-style-type: none"> ● HTTP/HTTPS; SSH ● DHCP Client/ DHCPv6 Client ● Cable Diagnostics ● Ping ● Syslog ● IPv6 Management
Power over Ethernet (PoE)	
Port Configuration	<ul style="list-style-type: none"> ● Supports per port PoE configuration function
PoE Scheduling	<ul style="list-style-type: none"> ● Supports per port PoE scheduling to turn on/off the PoE devices (PDs)
Auto-checking	<ul style="list-style-type: none"> ● Check the link status of PDs. Reboot PDs if there is no responses
Power Delay	<ul style="list-style-type: none"> ● 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
PoE Power Budget	<ul style="list-style-type: none"> ● 240 Watts
Power Supply	<ul style="list-style-type: none"> ● 54 VDC dual inputs ● DC Operating Range 48 to 56 VDC

	<ul style="list-style-type: none"> • Required >48 VDC for PoE 802.3af (Max. 15.4W) output • Required >54 VDC for PoE+ 802.3at (Max. 30W) output
Environment	<ul style="list-style-type: none"> • Operating temperature: -40°C to 75°C • Storage Temperature: -40 to 85°C • Operating Humidity: 5% to 95% (Non-Condensing)
Dimension	<ul style="list-style-type: none"> • 62x 135x 130mm (WxHxD)
EMS	<ul style="list-style-type: none"> • 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, (EN61000-6-2 by request)
EMI	<ul style="list-style-type: none"> • FCC Part 15 Class A • (EN61000-3-2, EN61000-3-3, EN61000-6-4, EN55022, EN55011 by request)
Safety	<ul style="list-style-type: none"> • CE, (EN60950 by request)
Stability Testing	<ul style="list-style-type: none"> • EN 60068-2-6 (Vibration), EN 60068-2-27(Shock), EN 60068-2-32(Free Fall)

Ordering information

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