RP-G2852X

48-P Gigabit + 4-SFP+ (1G/10G) Slot L2+ Managed Switch

RP-G2852X L2+ managed GbE switch is the next-generation Ethernet Switch offering full suite of L2 features, additional 10GbE uplink connections, including advanced L3 features such as Static Route. In addition to the extensive management features, RP-G2852X also provide carrier Ethernet features such as ERPS/EPS/PTPv2, of which make them suitable for carrier Ethernet applications.

RP-G2852X delivers 48 (10M/100M/1G) RJ45 ports, 4 10GbE SFP+ ports and RJ45 Console port. RP-G2852X provides high hardwar performance and environment flexibility for SMBs and Enterprises.

RP-G2852X is ideal to deliver management simplicity, intuitive user experience, and Lower Total Cost of Ownership with Energy-efficient Design. The embedded Device Managed System is designed to be extremely easy-to-use/manage/install IP Phone, IP Cam, or Wifi-AP for Enterprise Applications

Features

- L2+ Managed features provide easier manageability, robust security and QoS.
- Built in Device Management System (DMS)
- ITU-T G.8031 Ethernet Linear Protection Switching (EPS)
- ITU-T G.8032 Ethernet Ring Protection Switching (ERPS)
- IEEE 1588v2 PTP
- DHCP Server
- IPv4/IPv6 Management
- IEEE 802.3az EEE Energy Efficient Ethernet standard for green Ethernet

Specifications

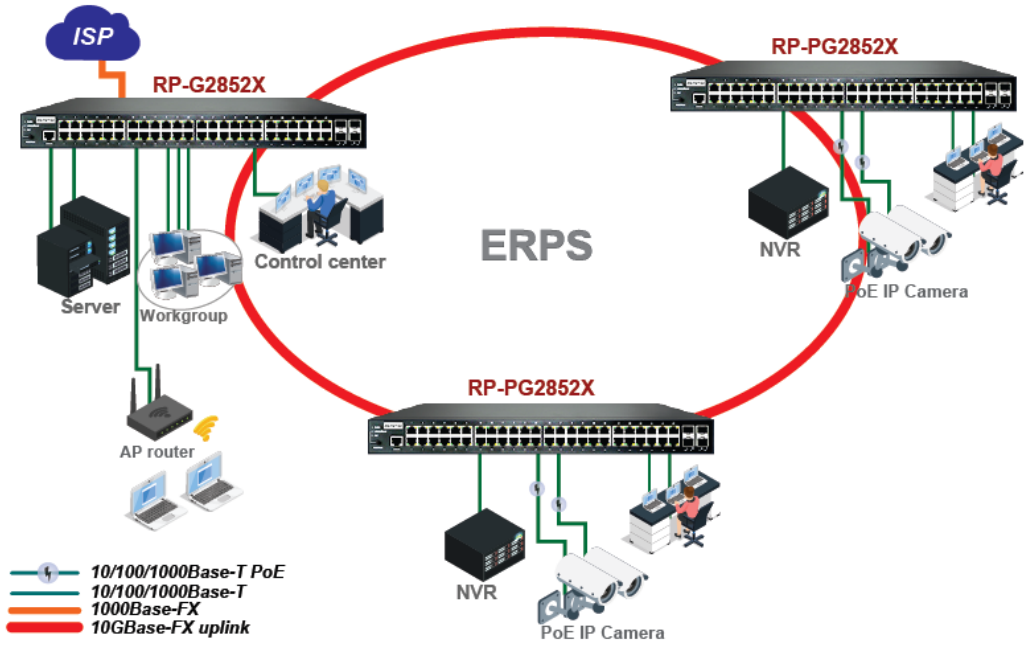
Standards	• IEEE 802.3/3u 10Base-T, 100Base-TX Ethernet • IEEE 802.3ab 1000Base-T Ethernet • IEEE 802.3z 1000Base-X Ethernet • IEEE 802.3x Flow Control capability • IEEE802.3az Energy Efficient Ethernet
Interface	• Port 1 to 48: RJ-45 10/100/1000Mbps, auto MDI/X, • Port 49 to 52: SFP+(1G/10G Mbps) slot • RJ-45 Console port
Forwarding Capacity	• 130.944 Mpps
Switching Capacity	• 176 Gbps
Jumbo frames	• 10240 Bytes
MAC Table	• 32K MAC addresses
Ring Management	
ITU-T G.8031	• Supports ITU-T G.8031 Ethernet Linear Protection Switching
ITU-T G.8032	• Supports ITU-T G.8032 Ethernet Ring Protection Switching
Layer 2 Switching	
Spanning Tree Protocol (STP)	• Standard Spanning Tree 802.1d • Rapid Spanning Tree (RSTP) 802.1w • Multiple Spanning Tree (MSTP) 802.1s
VLAN	• 802.1Q tag-based VLAN: Supports up to 4K VLANs simultaneously (out of 4096 VLAN IDs) • Port-based VLAN: A port member of a VLAN can be isolated to other isolated ports on the same VLAN and Private VLAN • Private VLAN Edge (PVE): Private VLANs are based on the source port mask, and there are no connections to VLANs. This means that VLAN IDs and Private VLAN IDs can be identical • Voice VLAN: The Voice VLAN feature enables voice traffic forwarding on the Voice VLAN • Guest VLAN: The IEEE 802.1X Guest VLAN feature allows a guest VLAN to be configured for each 802.1X port on the device to provide limited services to non-802.1X-compliant clients • Q-in-Q (double tag) VLAN: Business customers of service providers often have specific requirements for VLAN IDs and the number of VLANs to be supported • 802.1v Protocol VLAN: Classifying multiple protocols into a single VLAN often imposes VLAN boundaries that are inappropriate for some of the protocols, requiring the presence of a non-standard entity to relay between VLANs the frames bearing the protocols for which the VLAN boundaries are inappropriate • MAC-based VLAN: The MAC-based VLAN feature allows incoming untagged packets to be assigned to a VLAN and thus classify traffic based on the source MAC address of the packet • IP Subnet-Based VLAN: In an IP subnet–based VLAN, all the end workstations in an IP subnet are assigned to the same VLAN. In this VLAN, users can move their workstations without reconfiguring their network addresses • Management VLAN: Management VLAN is used for managing the

	switch from a remote location by using protocols such as telnet, SSH, SNMP, syslog etc
LACP Trunking	• Link Aggregation Control Protocol (LACP) IEEE 802.3ad: Controls whether LACP is enabled on this switch port. LACP will form an aggregation when 2 or more ports are connected to the same partner ▪ Up to 26 groups ▪ Up to 16 ports per group
GARP VLAN Registration Protocol (GVRP)	• GVRP stands for GARP (Generic Attribute Registration Protocol) VLAN Registration Protocol. It's a Layer 2 network protocol, for automatic configuration of switches in a VLAN network
DHCP Relay	• Relay of DHCP traffic to DHCP server in different VLAN. • Works with DHCP Option 82
IGMP v1/v2/v3 snooping	• IGMP limits bandwidth-intensive multicast traffic to only the requesters • Supports 1024 multicast groups
IGMP Querier	• IGMP querier is used to support a Layer 2 multicast domain of snooping switches in the absence of a multicast router
IGMP Proxy	• 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	• Deliver IPv6 multicast packets only to the required receivers
Multicast VLAN Registration (MVR)	• 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	• IPv4 Unicast: Static routing
IPv6 Static Routing	• IPv6 Unicast: Static routing
Quality of Service	
Hardware Queue	• Supports 8 hardware queues
Classification	• Port based: Traffic QoS by Port • 802.1p: VLAN priority based Layer 2 CoS QoS, Class of service is a parameter used in data and voice protocols to differentiate the types of payloads contained in the packet being transmitted • DSCP based Differentiated Services (DiffServ) Layer 3 DSCP QoS: IP packets can carry either an IP precedence (IPP) value or a Differentiated Services Code Point (DSCP) value. QoS supports the use of either value because DSCP values are backward-compatible with IP precedence values • Classification and re-marking TCP/IP ACLs: QoS by ACL
Rate Limiting	• Ingress policer • Egress shaping and rate control • Per port
Scheduling	• Strict priority and weighted round-robin (WRR): Weighted Round Robin is a scheduling algorithm that uses weights assigned to queues to determine how much data will be emptied from a queue before moving to the next queue
Security	
ACLs	• Supports up to 512 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
Port Security	• Locks MAC addresses to ports, and limits the number of learned MAC address
IP Source Guard	• Prevents illegal IP address from accessing to specific port in the switch
Storm Control	• Prevents traffic on a LAN from being disrupted by a broadcast, multicast, or unicast storm on a port
IEEE 802.1X	• 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
TACACS+	• Supports TACACS+ authentication. Switch as a client
Secure Shell (SSH)	• SSH secures Telnet traffic in or out of the switch, SSH v1 and v2 are supported
Secure Sockets Layer (SSL)	• SSL encrypts the http traffic, allowing advanced secure access to the browser-based management GUI in the switch
HTTPs and SSL (Secured Web)	• Hyper Text Transfer Protocol Secure (HTTPS) is the secure version of HTTP
BPDU Guard	• The BPDU guard, an enhancement to STP, removes a node that reflects BPDUs back in the network. It enforces the STP domain borders and keeps the active topology predictable by not allowing any network devices behind a BPDU guard-enabled port to participate in STP
DHCP Snooping	• A feature acts as a firewall between untrusted hosts and trusted DHCP servers
Loop Protection	• To prevent unknown unicast, broadcast and multicast loops in Layer 2 switching configurations.
Management	
IEEE 1588v2 PTP	• Support IEEE 1588 v2 PTP (Precision Time Protocol)
DHCP	• DHCP Server: Support DHCP server to assign IP to DHCP clients • DHCP client: The Dynamic Host Configuration Protocol (DHCP) is a standardized network protocol used on Internet Protocol (IP) networks for dynamically distributing network configuration parameters, such as IP addresses for interfaces and services
Event/Error Log	• Support SNMP Trap/Syslog/SMTP
SNMP	• SNMP version1, 2c and 3 with support for traps, and SNMP version 3 user-based security model (USM)
Remote Monitoring (RMON)	• Embedded RMON agent supports RMON groups 1,2,3,9 (history, statistics, alarms, and events) for enhanced traffic management, monitoring and analysis
Firmware Upgrade	• Web browser upgrade (HTTP/ HTTPs) and TFTP • Upgrade through console port as well
Configuration Export/Import	• update of the firmware controlling the switch
Port Mirroring	• 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

IEEE 802.1ab (LLDP)	• Used by network devices for advertising their identities, capabilities, and neighbors on an IEEE 802ab local area network • Support LLDP-MED (ANSI/TIA-1057) extensions
UPnP	• The Universal Plug and Play Forum, an industry group of companies working to enable device-to-device interoperability by promoting Universal Plug and Play
CDP Aware	• The CDP operation is restricted to decoding incoming CDP frames (The switch doesn't transmit CDP frames). CDP frames are only decoded if LLDP on the port is enabled
s-Flow	• 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
Web GUI Interface	• Built-in switch configuration utility for browser-based device configuration
CLI	• For users to configure/manage switches in command line modes
Dual Image	• Independent primary and secondary images for backup while upgrading
NTP	• Network Time Protocol (NTP) is a networking protocol for clock synchronization between computer systems over packet-switched
Switch Management	• HTTP/HTTPs • SSH • DHCP Client/ DHCPv6 Client • Telnet Client • IPv6 Management
Diagnostics	• Cable diagnostics • Ping • Syslog
Power Supply	• Internal Power supply 100~240VAC, 50/60 Hz
Environment	• Operating temperature: 0°C to 50°C • Storage Temperature: -20 to 70°C • Operating Humidity: Up to 95% (Non-Condensing)
Dimension	• 442 x 44 x 375mm (WxHxD)
Certification	• CE, FCC

Application



Ordering information

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