



PSGS-2326K: 20-Port 10/100/1000Base-T + 4 TP / (100/1G) SFP Combo + 2 (100/1G) SFP PoE+ L2 Plus Managed Switch

Key Features

- L2+ features provide better manageability, security, QoS, and performance.
- High port count design with all Gigabit Ethernet ports
- Support guest VLAN, voice VLAN, Port based, tag-based and Protocol based VLANs
- Support 802.3az Energy Efficient Ethernet standard
- Support 802.3at High power PoE Plus standard
- Support IPv6 / IPv4 Dual stack
- Support s-Flow
- Support Easy-Configuration-Port for easy implement the IP Phone, IP Camera or Wireless environment.

Overview

The PSGS-2326K, the next generation L2+ managed switch from Rubytech, is a portfolio of affordable managed switch that provides a reliable infrastructure for your business network. This switch deliver more intelligent features you need to improve the availability of your critical business applications, protect your sensitive information, and optimize your network bandwidth to deliver information and applications more effectively. It provides the ideal combination of affordability and capabilities for entry level networking includes small business or enterprise application and helps you create a more efficient, better-connected workforce.

Applications

Whether you want to create a high-performance network to connect all clients' computers or an application to deliver data, voice, and video services, the PSGS-2326K provides a solution to fit your requirements. Possible implement scenarios include:

• Secure and High Performance PC or laptop connectivity:

The PSGS-2326K can easily and securely connect clients' PC or laptop in offices with each other and with all of the servers, printers, and other networking devices they use. High performance and reliable connectivity will help to speed file transfers and data processing, improves network performance and security, and keeps the clients connected and productive.

• Secure and Quality wireless connectivity:

The PSGS-2326K connected with WiFi APs allow WiFi clients to work from conference rooms and public areas, collaborate in any place, and access networking from wherever they are. Gigabit ethernet connectivity provides these clients have the suitable bandwidth and quality performance they need to make mobility connected. Through embedded security (includes IEEE 802.1x, AAA...etc.), the clients can work with confidence and authorized users can access networking and network devices.

• Unified communications with open standards:

To be a managed network solution, it provides the high performance and advanced networking quality to deliver all networking communications and data (such as IP telephony, IP surveillance, and Video Streaming) over a single network.

• Static routing between VLANs:

The PSGS-2326K allows you to segment network into separate groups and communicate across VLANs without degrading network performance. As a result, you can manage internal routing with the switches and security, helping the network runs more efficiently.

• Advance secure guest connectivity.

The PSGS-2326K provides extend advance secure network connectivity to guests in public or private area, such as a hotel, an office lobby, or any area open to guests. Using powerful but simple to install security and traffic separating abilities. Through guest VLAN or guest access control technology. It will help you to isolate vital networking traffic from guest services and keep guests' network sessions private from each other.

Benefits

The PSGS-2326K provides security, performance, quality of services, central managed and other network control capabilities optimized and customized, and at the reasonable price for SMB or entry-level enterprise solution. It provides:

• Excellent performance and reliability:

PSGS-2326K passed the rigorously testing to deliver excellent performance. As a managed switching solution, it also provide the

flexibility to manage and prioritize suitable-bandwidth traffic such as voice.

• **Easy, simply deploy and configuration:**

The device managersoftware provides an intuitive, web-based interface to simplify deployment, advanced security (ACLs, IP Source guard, VLAN...etc), and quality of service (QoS) traffic prioritization. It also provides a standard protocol that works through a simple network managed system software (RubyView) to discover RubyTech devices in the network and display basic information. For more information, please visit

[http:// www. Rubytech. com. tw.](http://www.Rubytech.com.tw) This switch use IEEE802.1AB LLDP to automatically discovery all the devices (what supports LLDP) connected to network. For more advanced capabilities and Easy-to-use graphical tools such as RubyTech (Easy-Configuration-Ports) ECP provide preset options for configuring each port on a switch, based on pretested configurations. Although the Series switch is designed to be deployed with using a friendly command-line interface (CLI), Rubytech tree CLI architecture will reduce the time your staff must devote to network deployment, management, and troubleshooting.

• **Strong security:** PSGS-2326K provides an advance security and gives you tight control to safeguard the network from unauthorized users. Advanced security features include:

- Embedded security to protect data traveling to and from the switch and via SSL/ SSH encrypt network communications.
- Extensive access controllists (ACLs) to restrict sensitive portions of the network from unauthorized users or guests.
- Guest virtual LANs (VLANs) provide internet connectivity to guests while isolating critical traffic from guest traffic.
- Support IP Source Guard to anti-fake DHCP server or illegal IP address to access the network.
- Support for advanced network security such as IEEE802.1X port security to tightly limit access to specific segments of network.

• **Power over Ethernet (Compliant with IEEE802.3at):**

PSGS-2326K compliant with IEEE802.3at and provide up to 30W per port of Gigabit Ethernet connectivity. This capability simplifies advanced technology deployments such as IP telephony, wireless, and IP surveillance to connect and power network endpoints over a single Ethernet cable. Without installing separate power supplies for IP phones, IP Camera or wireless APs, you can take advantage of advanced communications technologies more quickly, and at a lower cost.

• **Voice support:**

The Switch includes embedded QoS intelligence to prioritize services such as voice and video, easily unified deployments, and help ensure consistent network performance for all services. For example, the voice VLAN capabilities help you to plug any IP phone (including third-party phones) into the IP telephony network and receive an immediate dial tone. The switch will configure the device with the specific VLAN and QoS parameters to prioritize voice traffic easily.

• **Advanced network management capabilities:** As managed switch, It helps you to use a variety of advanced managing features to manage traffic over your network. Features include:

- Support IPv6:** As the IP network addressing scheme evolves to accommodate more devices. It supports for IPv6, the newest version of the Internet Protocol, as well as the previous IPv4 standard. As the result, you have the ability to move up to the next generation of networking applications without an extensive equipment upgrade.
- Static routing between VLANs:** The PSGS-2326K allows you to segment network into separate groups and communicate across VLANs without degrading network performance. As a result, you can manage internal routing with the switches and security, helping the network runs more efficiently.
- Remote management:** Using Simple Network Management Protocol (SNMP) and IEEE802.1AB LLDP/LLDP-MED, you can configure and manage all switches and other Rubytech switches in the network remotely, instead of having to directly connect to them.

• **Energy efficiency:** PSGS-2326K is designed with a standard (IEEE802.3az) of power-saving features across all models, providing the industry's broadest portfolio of "green" switches. This switch supports EEE (IEEE802.3az) technology to protect the environment and reduce energy costs, without compromising performance. Power-saving features include:

- The latest application-specific integrated circuits (ASICs), using low-power technology (these chipsets allow for lower power consumption and thinner, more efficient designs)
- Automatic power shutoff on PoE ports when a link is down or through PoE Scheduling function
- Embedded intelligence to adjust signal strength based on cable length

• **Expansion ports:**

The PSGS-2326K provides more ports per Gigabit Ethernet switch than traditional switch models, providing more flexibility to connect. Gigabit Ethernet models feature 26-port switches. The PSGS-2326K also offers SFP expansion slots that give you the option to add fiber-optic or Gigabit Ethernet uplink connectivity to the switch. It provides more flexibility to design the network around business environment, and to easily connect switches on different floors or across the long connect distance.

Product Specifications

Feature	Description		
Performance			
	Model Name	Capacity in Millions of Packets per Second (mpps) (64-byte packets)	Switching Capacity in Gigabits per Second (Gbps)
Switching capacity and forwarding rate	PSGS-2326K	38.69	52
Layer 2 Switching			
Spanning Tree Protocol (STP)	Standard 802.1d Spanning Tree support Fast convergence using 802.1w (Rapid Spanning Tree [RSTP]), enabled by default Multiple Spanning Tree instances using 802.1s (MSTP)		
Trunking	Support for IEEE 802.3ad Link Aggregation Control Protocol (LACP) <ul style="list-style-type: none"> • Up to 13 groups • Up to 12 ports per group 		
VLAN	Support for up to 4K VLANs simultaneously (out of 4096 VLAN IDs) <ul style="list-style-type: none"> • Port-based VLAN • 802.1Q tag-based VLAN • MAC-based VLAN • Management VLAN • IEEE 802.1v Protocol-based VLAN • Private VLAN Edge (PVE) 		
Voice VLAN	Voice traffic is automatically assigned to a voice-specific VLAN and treated with appropriate levels of QoS		
Generic VLAN Registration (GVRP)	Protocols for automatically propagating and configuring VLANs in a bridged domain		
DHCP Relay (Layer 2)	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 256 multicast groups (source-specific multicasting is also supported)		
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	Support IGMP Proxy		
MLD v1/v2 snooping	Deliver IPv6 multicast packets only to the required receivers		
Security			
Secure Shell (SSH) Protocol	SSH secures Telnet traffic in or out the switch, SSH v1 and v2 are supported		
Secure Sockets Layer (SSL)	SSL Support: Encrypts the http traffic, allowing advance secure access to the browser-based management GUI in the switch		
IEEE 802.1X	IEEE 802.1X: 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 (PVE)	PVE (also known as protected ports) provides L2 isolation between clients in the same VLAN, supports multiple uplinks		
Port Security	Locks MAC Addresses to ports, and limits the number of learned MAC addresses		
IP Source Guard	Supports illegal IP address to access to specific port in the switch		
RADIUS/ TACACS+	Supports RADIUS and TACACS+ authentication. Switch as a client		
Storm control	Broadcast, multicast, and unknown unicast		
ACLs	Support for up to 4096 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, IGMP packets, TCP flag		
Quality of Service			
Hardware Priority Queue	Support 8 hardware queues		

Feature	Description
Scheduling	Strict priority and weighted round-robin (WRR) Queue assignment based on DSCP and class of service (802.1p/ CoS)
Classification	Port based; 802.1p VLAN priority based; IPv4/IPv6 precedence/ type of service (ToS) / DSCP based; Differentiated Services (DiffServ); classification and re-marking ACLs, trusted QoS
Rate Limiting	Ingress policer; egress shaping and rate control; per VLAN, per port and flow based
IPv6 applications	Web/ SSL, Telnet/ SSH, ping, Simple Network Time Protocol (SNTP), Trivial File Transfer Protocol (TFTP), SNMP, RADIUS, Syslog, DNS Client, protocol-based VLANs
Management	
Web GUI interface	Built-in switch configuration utility for browser-based device configuration (HTTP/ HTTPS). Supports configuration, system dashboard, maintenance, and monitoring
Dual Image	Dual image provides independent primary and secondary OS files for backup while upgrading (The function will be released at FW v1.00, the available schedule is August 2011)
SNMP	SNMP version 1, 2c and 3 with support for traps, and SNMP version 3 user-based security model (USM)
Remote Monitoring (RMON)	Embedded RMON software agent supports RMON groups 1, 2, 3, 9 (history, statistics, alarms, and events) for enhanced traffic management, monitoring and analysis
IPv4 and IPv6 dual stack	Coexistence of both protocol stacks to migration
Firmware upgrade	---Web browser upgrade (HTTP/ HTTPS) and TFTP ---Upgrade through console port as well ---Rubyview to deploy the switch firmware
Port mirroring	Traffic on a port can be mirrored to another port for analysis with a network analyzer or RMON probe. Up to 8 source ports can be mirrored to single destination port. A single session is supported.
Easy-Configuration -Ports	Easily to configure of clients' QoS and Security capabilities.
Other management	Single IP management (VSM, The function will be released at FW v1.20, the available schedule is November 2011); HTTP/HTTPS; SSH; RADIUS; DHCP Client/ DHCPv6 Client (function will be released at FW v1.30, the available schedule is January 2012); SNTP; cable diagnostics; ping; syslog; Telnet client (SSH secure support)
s-Flow	The industry standard technology 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 (The function will be released at FW v1.10 and the available schedule is August 2011)
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 (The function will be released at FW v1.10 and the available schedule is September 2011)
Green Ethernet	
Energy Detect	Compliant IEEE 802.3az Energy Efficient Ethernet Task Force. Automatically turns off power on Gigabit Ethernet RJ-45 port when detecting link down or Idle of client. Active mode is resumed without loss of any packets when the switch detects the link up
Cable length detection	Adjusts the signal strength based on the cable length. Reduces the power consumption for cables shorter.
General	
Jumbo frames	Frame sizes up to 9KB supported on Gigabit interfaces
MAC Table	Up to 8K MAC addresses.
Discovery	
Link Layer Discovery Protocol (LLDP) (IEEE 802.1AB) with LLDP-MED extensions	Traffic on a port can be mirrored to another port for analysis with a network analyzer or RMON probe. Up to 8 source ports can be mirrored to single destination port. A single session is supported.

Feature	Description					
Power over Ethernet (PoE)						
IEEE 802.3at PoE delivered over each of the RJ-45 ports within the listed power budgets	Model Name	IEEE 802.3at	IEEE 802.3af	Power Dedicated to PoE		
	PSGS-2326K	Port 1-24	Port 1-24	200W (Option 400W)		
Interface						
Ports	Model Name	Total System Ports	RJ-45 Ports	UTP/SFP Combo	(100/1G) SFP	(1G/10G) SFP+
	PSGS-2326K	26GbE	20GbE	4	2	--
Environmental (preliminary)						
Power	100-240 VAC 50~60 Hz, internal, universal					
Certification	CE Mark, FCC Part 15 (CFR47) Class A					
Operating temperature	0 to 40°C					
Storage temperature	-20°C to 70°C					
Operating humidity	10% to 90%, relative, noncondensing					
Package Contents						
<ul style="list-style-type: none"> • Switch • Power Cord • Mounting Kit • Console Cable • CD-ROM with user manual documentation (PDF) included • QIG (Quick Install Guide) 						
Minimum Requirements						
<ul style="list-style-type: none"> • Web browser: Mozilla Firefox version 2.5 or later, Microsoft Internet Explorer version 6 or later • Category 5 Ethernet network cable • TCP/IP, network adapter, and network operating system (such as Microsoft Windows, Linux, or Mac OS X) installed on each computer in network 						

Ordering Information

Model Name	Description
PSGS-2326K	20-Port 10/100/1000Base-T + 4 TP / (100/1G) SFP Combo + 2(100/1G) SFP PoE+ L2 Plus Managed Switch

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