

UGS5224-RMGE

2G+24-Port PoE L2 Gigabit Switch

Intelligent management to improve network efficiency



FEATURES

- 24 x 10/100Mbps IEEE802.3af PoE Ethernet ports
- Provides 2 x Gigabit or 2 x SFP fiber optional ports
- On-line Plug/Unplug SFP fiber transceiver modules
- Supports Port-based VLAN, 802.1q tag-based VLAN
- Supports 256 active VLANs and VLAN ID 1 ~ 4094
- 802.1q Class of Service with 4-level priority queuing
- Provides one RS-232 configuration serial port
- Supports SNMP/Telnet internet delivers complete in-band management and supports SNMP MIB2 & RMON sampling with packet error indication
- Supports 256-entry Multicast Address Table
- Supports IEEE802.3ad LACP Port Trunking with flexible load distribution and failover function
- Supports 8K MAC addresses, 256KB packet buffer and 128KB control memory
- 8.8Gbps max. throughput and 185W of total PoE power (up to 15.4W for 12-port & 7.7w for 24-port)
- Supports maximum packet length up to 1536 bytes
- Supports Head of Line (HOL) blocking prevention

Package Contents

- One 2G+24-port Gigabit L2 Management Switch
- One User's Manual in CD-ROM
- One RS-232 Cable, One AC Power Cord
- One set of Rack-mount Bracket with Screws

OVERVIEW

UGS5224-RMGE, the 24-port 10/100Mbps Fast Ethernet + 2 Gigabit ports or 2 SFP Fiber Ports L2 management switch. The gigabit port also provide the fat pipe to the server or backbone connectivity for boosting the total system performance. Additional 2 optional Mini-GBIC (SFP) ports allows future expanding to alternate transmission media like optical fiber for the long-distance communication to the server, storage or other switches that providing superior performance with exceptional value.

The switch can be managed through RS-232 serial port via directly connection, or through Ethernet port using Telnet or Web-based management utility associated with SNMP agent. With SNMP agent, the network administrator can logon the switch to monitor, configure and control each port from remote site so it improves the network efficiency.

In addition, the switch features comprehensive and useful function such as QoS (Quality of Service), Spanning Tree, VLAN, Port Trunking, Bandwidth Control, Port Security, SNMP/RMON and IGMP Snooping capability via the intelligent management software utility.

UGS5224-RMGE provides 24 PoE PSE switch ports and complies with IEEE802.3af standard. Its advanced auto-sensing algorithm enable providing power devices (PD) discovery, classification, current limit, and other necessary functions. It also supports high safety with short circuit protection and power-out auto-detection to PD. It is also fully rack-mountable unit that is easy to integrate into network rack cabinet.

SPECIFICATIONS

Hardware Specifications	
Host Interface	24 * RJ-45 10/100M PoE PSE Ethernet Ports 2 * 10/100/1000Mbps Gigabit Ports (Port 25, 26 Optional Shared Ports) 2 * SFP Fiber Module Slots (Ports 25 or 26 Optional Shared Ports) 1 * RS-232 DB-9 Serial Port
Standard Compliance	IEEE802.3 10Base-T IEEE802.3u 100Base-TX IEEE802.3ab 1000Base-T IEEE802.3z 1000Base-SX/LX IEEE802.3x Full Duplex Operation and Flow Control IEEE802.3ad Port Trunking IEEE802.3af Power over Ethernet (PoE) IEEE802.1q VLAN Tag IEEE802.1p QoS (Quality of Service) IEEE802.1d Spanning Tree Protocol IEEE802.1x Port-based network access control IEEE802.1w Rapid Spanning Trees ANSI/IEEE 802.3 Auto-Negotiation
Uplink	Auto MDI/MDI-X (Auto-Crossover)
Network Speed	10/100Mbps full/half duplex mode auto detection 10/100/1000Mbps full duplex for all and half duplex for 10/100M auto detection 1000Mbps full duplex, Single-Mode or Multi-Mode STP Fiber Modules
Diagnostic LED	System LEDs : Power, CPURUN, ACT, FDX, SPD 10/100Mbps 1-24 port LEDs: LNK, ACT/FDX/SPD 1000Mbps Gigabit/Fiber port LEDs (port 25,26): LNK FX, ACT/FDX/SPD PoE 1-24 Port LEDs: PoE-PSE ACT
Cable & Maximum Length	Ethernet TP: Cat.5 UTP/STP cable, up to 100m 1000Base-SX SC M-M : up to 220/275/500/550m (depends on STP Modules) 1000Base-LX SC S-M: Single Mode Fiber, up to 10/30/50Km 1000Base-LX WDM SC S-M: Single Mode Single Fiber, Bidi 20Km
Filtering / Forwarding Rate	10Mbps: 14,880pps/14,880pps 100Mbps: 148,800pps/148,800pps 1000Mbps: 1,488,100pps
MAC Address Entry	8K MAC address table entries 256 VLAN table entries 256 IP multicast table entries
Buffer Memory	Embedded 256KB packet buffer and 128KN control memory
Power Requirement	210W
Total Power of PoE	185W
Dimension	45 (H) x 442 (L) x 366 (W) mm, 19" 1U
Weight	3.3kg
Power Supply	100 ~ 240VAC, 50~60Hz Universal Input
Operating Temperature	0°C to 40°C
Operating Humidity	5% to 90% Non-Condensing
Emission Certification	CE, FCC Part 15 Class A

- ◆ Supports concisely the status of port and easily port configuration
- ◆ Supports per port traffic monitoring counters
- ◆ Supports a snapshot of the system information when you login
- ◆ Supports port mirror function
- ◆ Supports the static trunk function
- ◆ Supports 802.1Q VLAN with 256 entries
- ◆ Supports user management and limits three users to login
- ◆ Supports DHCP Broadcasting Suppression to void network suspended or crashed
- ◆ Supports to send the trap event while monitored events happened
- ◆ Supports on-line plug/unplug SFP modules
- ◆ Supports 5 kinds of QoS: MAC Priority, 802.1P Priority, IP TOS Priority, DiffServ DSCP Priority
- ◆ Supports port mirror function with ingress/egress traffic
- ◆ Supports rapid spanning tree (802.1w RSTP)
- ◆ Supports 802.1x port security on a VLAN
- ◆ SNMP access can be disabled and prevent from illegal SNMP access
- ◆ Supports Ingress, Non-unicast and Egress Bandwidth rating management
- ◆ The trap event and alarm message can be transferred via e-mail and mobile phone short message
- ◆ Supports Diagnostics to let administrator knowing the hardware status
- ◆ Supports external loopback test to check if the link is ok
- ◆ TFTP for firmware upgrade, system log upload and config file import/export
- ◆ Supports remote boot the device through user interface and SNMP
- ◆ Supports network time synchronization and daylight saving
- ◆ Supports 120 event log records in the main memory and display on local console
- ◆ Built-in web-based management and CLI management, providing a more convenient UI for the user
- ◆ Supports default configuration which can be restored to overwrite the current configuration which is working on via web browser and CLI
- ◆ Supports user management and only first login administrator can configure the device. The reset of users can only view the switch
- ◆ Non-blocking, store-and-forward and shared-memory L2 managed switch
- ◆ Supports collision-based and carrier-based backpressure for half-duplex ports
- ◆ Per-port ingress/egress rate control with 64k/128K/256K (up to 100Mbps) resolution
- ◆ Supports broadcast storm filtering
- ◆ Any port can be in disable mode, force mode and auto-polling mode
- ◆ Auto-aging with programmable inter-age time
- ◆ Supports port-sniffer function with 3 modes: TX Monitor Mode, RX Monitor Mode, TX-RX pair Monitor Mode

Management Software Specification	
System Configuration	<ul style="list-style-type: none"> ◆ Auto-negotiation supports on 10/100Base-TX Ports, ◆ Web browser or console interface can set transmission speed (10/100Mbps) and Operation modes (Full/Half Duplex) on each port ◆ Enable/Disable any port, ◆ Set VLAN group ◆ Set Trunk Connection
Management Agent	SNMP support; MIB II, Bridge MIB, RMON MIB
Spanning Tree Algorithm	IEEE802.1D
VLAN Function	Port-Base / 802.1Q-Tagged, allowed up to 256 active VLANs in one switch
Trunk Function	Ports trunk connections allowed
IGMP Bandwidth Control	<ul style="list-style-type: none"> ◆ IP Multicast Filtering by passively snooping on the IGMP Query ◆ Supports by-port Egress/Ingress rate control
Quality of Service (QoS)	<ul style="list-style-type: none"> ◆ Referred as Class of Service (CoS) by the IEEE802.1P standard ◆ Four queues per port ◆ Packet transmission schedule using Weighted Round Robin (WRR) ◆ User-defined weight ◆ Classification of packet priority can be based on either a VLAN tag on packet or a user-defined port priority
Port Security	Limit number or MAC addresses learned per port static MAC addresses stay in the filtering table
Internetworking Protocol	<ul style="list-style-type: none"> ◆ Bridging: 802.1D Spanning Tree ◆ IP Multicast: IGMP Snooping, IP Multicast Packet Filtering, Maximum of 256 active VLANs, and IP multicast sessions
Network Management	<ul style="list-style-type: none"> ◆ One RS-232 port as local control console ◆ Telnet remote control console ◆ SNMP agent: MIB-2 (RFC 1213), Bridging MIB (RFC 1493), RMON MIB (RFC1757)-statistics, Ethernet-like MIB (RFC1643) ◆ Web browser support based on HTTP server and CGI parser TFTP software-upgrade capability

APPLICATION DIAGRAM

L2 Gigabit Switch Port-Based VLAN Application Diagram



ORDERING INFORMATION

Model	Description
UGS5224-RMGE	2G+24-port Gigabit L2 PoE Management Switch with 2 SFP Dual Media Shared Port

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