

RGS-R9244GP+ Series

Industrial Layer-3 28-port managed Gigabit Ethernet switch with 24x10/100/1000Base-T(X) and 4x1G/10GBase-X, SFP+ socket

Features

- > Supports Layer 3 routing, RIP and static routing function
- Support O-Ring (recovery time < 30ms over 250 units of connection) and MSTP(RSTP/STP compatible) for Ethernet Redundancy
- > O-Chain allow multiple redundant network rings
- > Support standard IEC 62439-2 MRP (Media Redundancy Protocol) function
- Support IPv6 new internet protocol version
- Support Modbus TCP protocol
- > Support IEEE 802.3az Energy-Efficient Ethernet technology
- Provided HTTPS/SSH protocol to enhance network security
- > Support SMTP client and NTP server protocol
- Support IP-based bandwidth management
- Support application-based QoS management
- > Support Device Binding security function
- Support DOS/DDOS auto prevention
- > IGMP v2/v3 (IGMP snooping support) for filtering multicast traffic
- Support SNMP v1/v2c/v3 & RMON & 802.1Q VLAN Network Management
- Support ACL and 802.1x User Authentication for security
- Supports 10K Bytes Jumbo Frame
- SFP socket support DDM function
- > Multiple notification for warning of unexpected event
- > Support **DBU-01** backup unit device to quickly backup/restore configuration
- > Web-based ,Telnet, Console (CLI), and Windows utility (**Open-Vision**) configuration
- Support LLDP Protocol
- > 19 inches rack mountable design

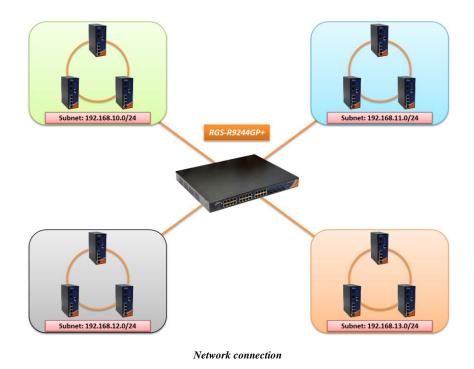


ROHS C E FC C E FC Full Gigabit Or Bing Competence

Introduction

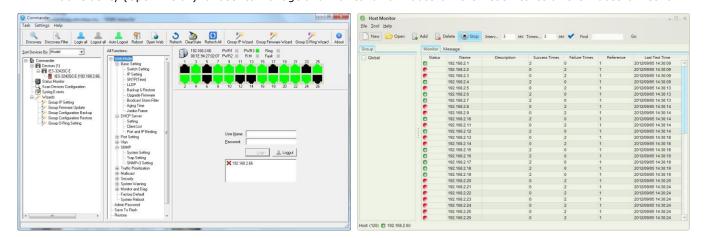
RGS-R9244GP+ series are Layer-3 Gigabit managed redundant ring Ethernet switch with 24x10/100/1000Base-T(X) ports and 4x1G/10GBase-X SFP+ ports. These switches support Layer-3 function like RIP and static routing. Also RGS-R9244GP+ series support Ethernet Redundancy protocol, **O-Ring** (recovery time < 30ms over 250 units of connection) /Open-Ring/O-Chain/MRP/Fast Recovery and MSTP (RSTP/STP compatible) can protect your mission-critical applications from network interruptions or temporary malfunctions with its fast recovery technology. RGS-R9244GP+ series support wide operating temperature from -20 °C to 60 °C. RGS-R9244GP+ series can also be managed centralized and convenient by Open-Vision as well as the Web-based interface, Telnet and console (CLI) configuration. Therefore, the switch is one of the most reliable choice for highly-managed and Fiber Ethernet application.

- **O-Ring :** O-Ring is ORing's proprietary redundant ring technology, with recovery time of less 30 milliseconds and up to 250 nodes. The O-Ring redundant ring technology can protect mission-critical application from network interruptions or temporary malfunction with its fast recover technology.
- **O-Chain :** O-Chain is the revolutionary network redundancy technology that provides the add-on network redundancy topology for any backbone network, O-Chain allows multiple redundant network rings of different redundancy protocols to join and function together as a larger and more robust compound network topology. O-Chain providing ease-of-use while maximizing fault-recovery swiftness, flexibility, compatibility, and cost-effectiveness in one set of network redundancy topology.
- MRP : Media Redundancy Protocol (MRP) is a data network protocol standardized by the IEC 62439-2. It allows rings of Ethernet switches to overcome any single failure with recovery time much faster than achievable with Spanning Tree Protocol.
- **IP-based Bandwidth Management :** The switch provide advanced IP-based bandwidth management which can limit the maximum bandwidth for each IP device. User can configure IP camera and NVR with more bandwidth and limit other device bandwidth.
- **Application-Based QoS :** The switch also support application-based QoS. Application-based QoS can set highest priority for data stream according to TCP/UDP port number.
- **Device Binding Function :** ORing special Device Binding function can only permit allowed IP address with MAC address to access the network. Hacker cannot access the IP surveillance network without permission. It can avoid hacker from stealing video privacy data and attacking IP camera, NVR and controllers.
- Advanced DOS/DDOS Auto Prevention : The switch also provided advanced DOS/DDOS auto prevention. If there is any IP flow become big in short time, the switch will lock the source IP address for certain time to prevent the attack. It's hardware-based prevention so it can prevent DOS/DDOS attack immediately and completely.
- **Modbus TCP :** This is a Modbus variant used for communications over TCP/IP networks.
- **IEEE 802.3az Energy-Efficient Ethernet :** This is a set of enhancements to the twisted-pair and backplane Ethernet family of networking standards that will allow for less power consumption during periods of low data activity. The intention was to reduce power consumption by 50% or more.



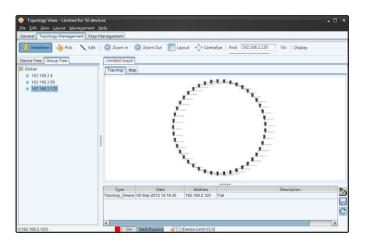
Open-Vision

ORing's switches are intelligent switches. Different from other traditional redundant switches, ORing provides a set of Windows utility (Open-Vision) for user to manage and monitor all of industrial Ethernet switches on the industrial network.



Commander

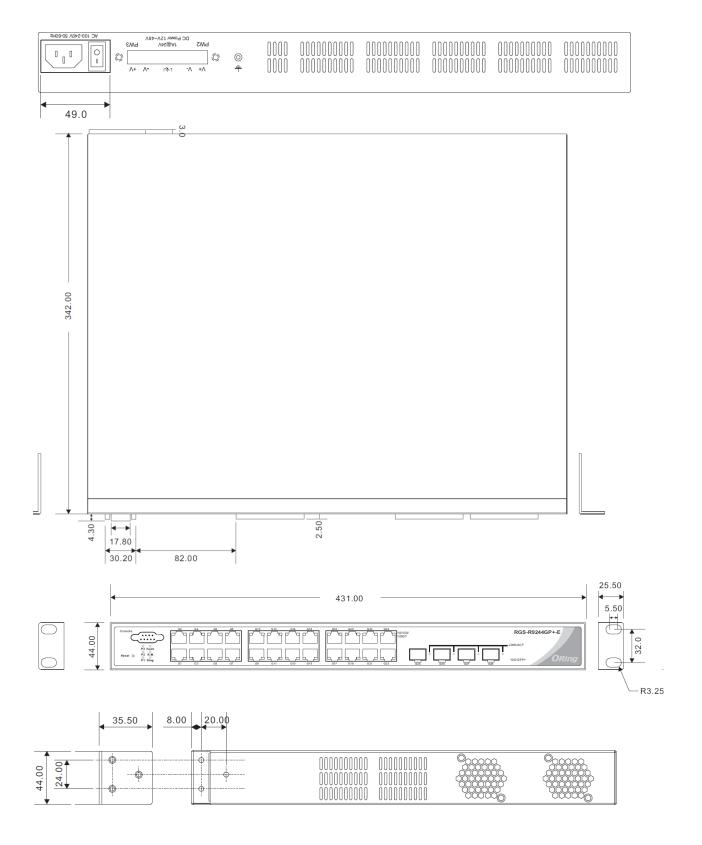
Host Monitor





Dimension

Unit = mm



Specifications

Physical Ports 24 10/10/10/0028000000000000000000000000000	ORing Switch Model	RGS-R9244GP+	RGS-R9244GP+-E
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NTP server O-Ring O-Chain MRP			
Network Redundancy O-Ring O-Chain MRP			
Network Redundancy O-Chain MRP			
Network Redundancy MRP			
	Network Redundancy		
MSTP (RSTP/STP compatible)			

	Fast Recovery			
RS-232 Serial Console Port	RS-232 in DB-9 connector with console cable. 11520	00bps, 8, N, 1		
LED indicators				
Power Indicator (PWR)	Green : Power indicator			
Ring Master Indicator (R.M.)	Green : Indicates that the system is operating in O-Ring Master mode			
O-Ring Indicator (Ring)	Green : Indicates that the system operating in O-Ring mode			
	Green Blinking: Indicates that the Ring is broken.			
Fault Indicator (Fault)	Amber : Indicate unexpected event occurred			
10/100/1000Base-T(X) RJ45 Port Indicator	Green for Link/Act indicator. Dual color LED for speed indicator ~ Green for 1000Mbps / Amber for 100Mbps / Off-light for 10Mbps			
1G/10GBase-X SFP+ Port Indicator	Green for port Link/Act.			
Fault contact				
Relay	None	Present		
Power				
Power Input	100 ~ 240VAC with power cord	100 ~ 240VAC with power cord, dual 36 ~ 72VDC power input		
Power consumption (Typ.)	37.4W	37.4W		
Overload current protection	Present			
Physical Characteristic				
Enclosure	19 inches rack mountable			
Dimension (W x D x H)	431 (W) x 342 (D) x 44 (H)mm (16.97 x 13.46 x 1.73 inch)			
Weight (g)	4,597g	4,754g		
MTBF(mean time between failures)				
Time	462,867hrs	371,822hrs		
Environmental				
Storage Temperature	-40 to 85°C (-40 to 185°F)			
Operating Temperature	-20 to 60°C (-4 to 140°F)			
Operating Humidity	5% to 95% Non-condensing			
Regulatory approvals				
EMI	FCC Part 15, CISPR (EN55022) class A			
EMS	EN61000-4-2 (ESD) EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-8, EN61000-4-11			
Shock	IEC60068-2-27			
Free Fall	IEC60068-2-32			
Vibration	IEC60068-2-6			
Warranty	5 years			

Ordering Information

RGS-R	RGS-R9 <mark>AABCCC</mark> -DD						
Code Definition	10/100/1000Base-T(X) Port Number	Additional Port Number	Additional Port Type	Mode Type			
Option	- 24: 24 ports	- 4: 4 ports	-GP+: 1G / 10GBase-X, SFP+ socket	-E : enhanced model with dual DC inputs and one AC input			
	Model Name	Description					
	RGS-R9244GP+_US		Industrial Layer-3 28-port managed Gigabit Ethernet switch with 24x10/100/1000Base-T(X) and 4x1G/10GBase-X, SFP+ socket, US power cord				
	RGS-R9244GP+_EU		Industrial Layer-3 28-port managed Gigabit Ethernet switch with 24x10/100/1000Base-T(X) and 4x1G/10GBase-X, SFP+ socket, EU power cord				
Available	RGS-R9244GP+_UK		Industrial Layer-3 28-port managed Gigabit Ethernet switch with 24x10/100/1000Base-T(X) and 4x1G/10GBase-X, SFP+ socket, UK power cord				
Model	RGS-R9244GP+_JP		Industrial Layer-3 28-port managed Gigabit Ethernet switch with 24x10/100/1000Base-T(X) and 4x1G/10GBase-X, SFP+ socket, JP power cord				
	RGS-R9244GP+-E_US		Industrial Layer-3 28-port managed Gigabit Ethernet switch with 24x10/100/1000Base-T(X) and 4x1G/10GBase-X, SFP+ socket, US power cord				
	RGS-R9244GP+-E_EU		Industrial Layer-3 28-port managed Gigabit Ethernet switch with 24x10/100/1000Base-T(X) and 4x1G/10GBase-X, SFP+ socket, EU power cord				
	RGS-R9244GP+-E_UK		Industrial Layer-3 28-port managed Gigabit Ethernet switch with 24x10/100/1000Base-T(X) and 4x1G/10GBase-X, SFP+ socket, UK power cord				
	RGS-R9244GP+-E_JP		Industrial Layer-3 28-port managed Gigabit Ethernet switch with 24x10/100/1000Base-T(X) and 4x1G/10GBase-X, SFP+ socket, JP power cord				

Packing List

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- RGS-R9244GP+/-E x 1
- ORing Tool CD x 1

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- Power Cable x 1
- Quick Installation Guide x 1
- Console Cable x 1

Optional Accessories

Rack-mount Kit x 1

- Open-Vision M500 : Powerful Network
 Management Windows Utility Suit, 500 IP devices
- DBU-01 : backup unit device

- SFP10G series : 1GMbps SFP optical transceiver
- SFP10G series : 10GMbps SFP optical transceiver