

## Optical Fiber Bypass Switch

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

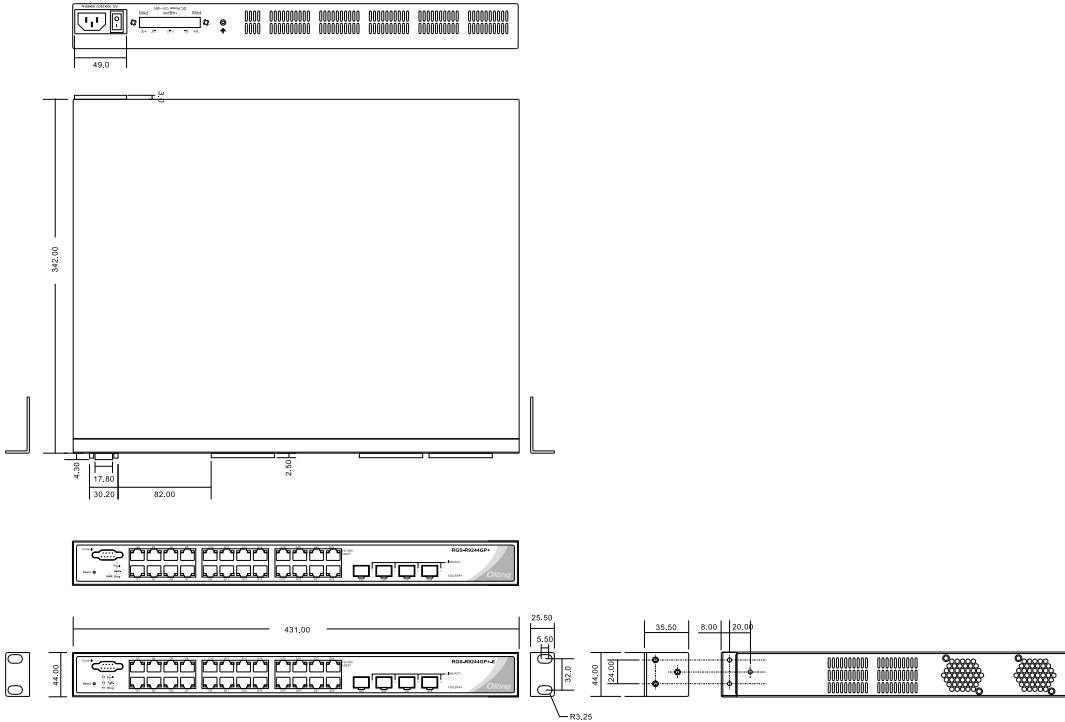
#### Features

- 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\*NOTE** (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 9.6K 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



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### Dimensions



(Unit=mm)

### Specifications

ORing Switch Model	RGS-R9244GP+	RGS-R9244GP+-E
<b>Physical Ports</b>		
10/100/1000Base-T(X) with RJ45 Auto MDI/MDIX		24
1G/10GBase-X with SFP+ port		4
<b>Technology</b>		
Ethernet Standards	IEEE 802.3 for 10Base-T IEEE 802.3u for 100Base-TX IEEE 802.3ab for 1000Base-T IEEE 802.z for 1000Base-X IEEE 802.3ae for 10Gigabit Ethernet IEEE 802.3x for Flow control IEEE 802.3ad for LACP (Link Aggregation Control Protocol) IEEE 802.1p for COS (Class of Service) IEEE 802.1Q for VLAN Tagging IEEE 802.1w for RSTP (Rapid Spanning Tree Protocol) IEEE 802.1s for MSTP (Multiple Spanning Tree Protocol) IEEE 802.1x for Authentication IEEE 802.1AB for LLDP (Link Layer Discovery Protocol)	
MAC Table	8k	
Priority Queues	8	
Processing	Store-and-Forward	
Switch Properties	Switching latency: 7 us Switching bandwidth: 128Gbps Max. Number of Available VLANs: 4095 VLAN ID Range : VID 1 to 4094 IGMP multicast groups: 128 for each VLAN Port rate limiting: User Define	
Jumbo frame	Up to 9.6K Bytes	

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Security Features	Device Binding security feature Enable/disable ports, MAC based port security Port based network access control (802.1x) Single 802.1x and Multiple 802.1x MAC-based authentication QoS assignment Guest VLAN MAC address limit VLAN (802.1Q) to segregate and secure network traffic Radius centralized password management SNMPv3 encrypted authentication and access security Https / SSH enhance network security Web and CLI authentication and authorization IP source guard	
Software Features	Hardware routing, RIP and static routing IEEE 802.1D Bridge, auto MAC address learning/aging and MAC address (static) Multiple Registration Protocol (MRP) MSTP (RSTP/STP compatible) Redundant Ring (O-Ring) with recovery time less than 30ms over 250 units TOS/Diffserv supported Quality of Service (802.1p) for real-time traffic VLAN (802.1Q) with VLAN tagging IGMP v2/v3 Snooping IP-based bandwidth management Application-based QoS management DOS/DDOS auto prevention Port configuration, status, statistics, monitoring, security DHCP Server/Client DHCP Relay Modbus TCP SMTP Client NTP server	
Network Redundancy	O-Ring O-Chain MRP* <b>NOTE</b> MSTP (RSTP/STP compatible) Fast Recovery	
RS-232 Serial Console Port	RS-232 in DB-9 connector with console cable. 115200bps, 8, N, 1	
<b>LED Indicators</b>		
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.	
<b>Fault contact</b>		
Relay	None	Present
<b>Power</b>		
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	
<b>Physical Characteristic</b>		
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)	431 x 342 x 44mm (17 x 13.46 x 1.73 inch)
Weight (g)	4,597g	4,754g
<b>MTBF(mean time between failures)</b>		
Time	462,867hrs	371,822hrs
<b>Environmental</b>		

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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	
<b>Regulatory approvals</b>		
EMI	FCC Part 15, CISPR (EN55022) class A	
EMS	EN61000-4-2 (ESD), EN61000-4-4 (EFT), EN61000-4-6 (CS), EN61000-4-11	EN61000-4-3 (RS), EN61000-4-5 (Surge), EN61000-4-8, EN61000-4-11
Shock	IEC60068-2-27	
Free Fall	IEC60068-2-32	
Vibration	IEC60068-2-6	
Safety	EN60950-1	
Warranty	5 years	

## Ordering Information

RGS-R9 **AA** **B** **CCC** - **DD**

Code Definition	10/100/1000Base-T(X) Port Number	Additional Port Number	Additional Port Type	Mode Type
<b>Option</b>	<b>- 24:</b> 24 ports	<b>- 4:</b> 4 ports	<b>-GC+:</b> 1G / 10GBase-X, SFP+ socket	<b>-E:</b> enhanced model with dual DC inputs and one AC input

	Model Name	Description
Available Model	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
	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
	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
<b>Packing List</b>	<ul style="list-style-type: none"> <li>RGS-R9244GP+/-E x 1</li> <li>Rack-mount Kit x 1</li> <li>ORing Tool CD x 1</li> <li>Power Cable x 1</li> <li>Quick Installation Guide x 1</li> <li>Console Cable x 1</li> </ul>	
	<b>Optional Accessories (Can be purchased separately)</b> <ul style="list-style-type: none"> <li>Open-Vision M500 : Powerful Network Management Windows Utility Suit, 500 IP devices</li> <li>DBU-01 : backup unit device</li> <li>SFP10G series : 1GMbps SFP optical transceiver</li> <li>SFP10G series : 10GMbps SFP optical transceiver</li> </ul>	