

# RGPS-7244GP / RGPS-7244GP-P



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## Industrial 28-port rack-mount managed Gigabit PoE Ethernet switch with 24x10/100/1000Base-T(X) P.S.E. and 4x1000Base-X, SFP socket

### Features

- Support O-Ring (recovery time < 30ms over 250 units of connection), MSTP/RSTP/STP (IEEE 802.1s/w/D) for Ethernet Redundancy
- Support Jumbo frame up to 9K Bytes
- 24 ports of 10/100/1000Base-T(X) P.S.E. fully compliant with IEEE802.3at standard, provide up to 30 Watts per port
- Power supply included (RGPS-7244GP-P model only)
- Supports IPV6 new internet protocol version
- Provided HTTPS/SSH protocol to enhance network security
- Supports SMTP client
- Support IP-based bandwidth management
- Support application-based QoS management
- Support Device Binding security function
- Support DOS/DDOS auto prevention
- Supports PoE scheduled configuration and PoE auto-ping check function
- IGMP v2/v3 (IGMP snooping support) for filtering multicast traffic
- Support SNMP v1/v2c/v3, RMON and 802.1Q VLAN Network Management
- Support ACL, 802.1x User Authentication for security
- Multiple notification for warning of unexpected event
- Windows utility (Open-Vision v3.0) support centralized management and configurable by Web-based interface, Telnet and Console (CLI)
- Support LLDP Protocol
- 19 inches rack-mountable design

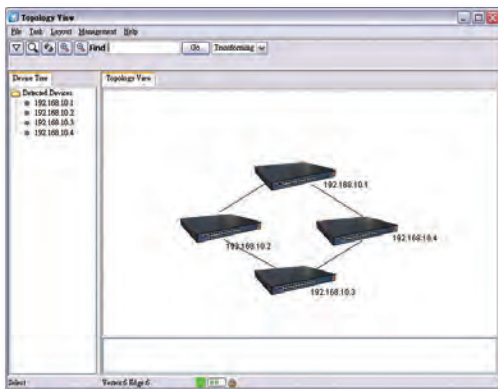
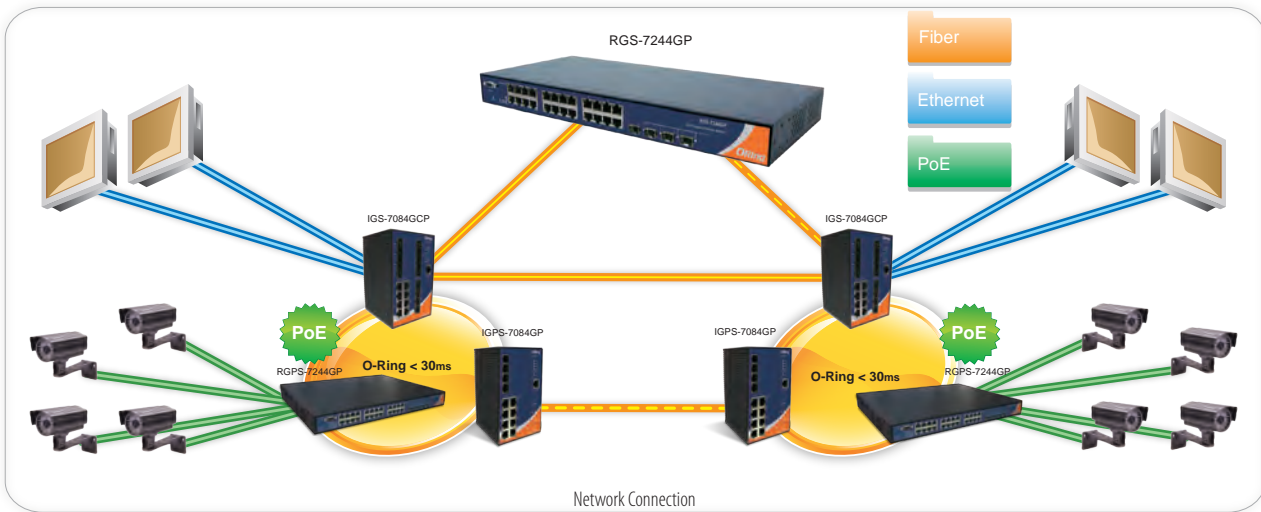
## Thunder POE



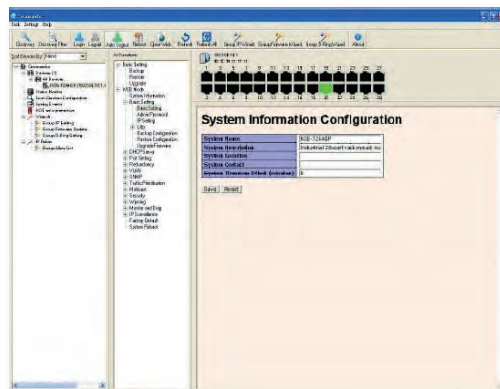
### Introduction

RGPS-7244GP series is managed Redundant Ring Ethernet switch with 24x10/100/1000Base-T(X) ports with PoE (P.S.E.) function and 4x1000Base-X SFP ports. With complete support of Ethernet Redundancy protocol, O-Ring (recovery time < 30ms over 250 units of connection) and MSTP/RSTP/STP (IEEE 802.1s/w/D) can protect your mission-critical applications from network interruptions or temporary malfunctions with its fast recovery technology. O-Ring's thunder switch series 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. O-Ring's thunder switch series also support application-based QoS. Application-based QoS can set highest priority for data stream according to TCP/UDP port number. O-Ring's special Device Binding function can only permit allowed IP address with MAC address to access the networking. 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. O-Ring's thunder series switch also provided advanced DOS/DDOS auto prevention. If there is any IP flow become big in short time, O-Ring's thunder 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. RGPS-7244GP series also support Power over Ethernet, a system to transmit electrical power up to 30 watts, along with data, to remote devices over standard twisted-pair cable in an Ethernet network. Each RGPS-7244GP series switch has 24x10/100/1000Base-T(X) P.S.E. (Power Sourcing Equipment) ports. P.S.E. is a device (switch or hub for instance) that will provide power in a PoE connection. All function of RGPS-7244GP series can be managed centralized and convenient by a powerful windows utility — Open-Vision v3.0 or above. Therefore, these switches are one of the most reliable choice for highly-managed and Gigabit Fiber Ethernet application with PoE function.

## Application

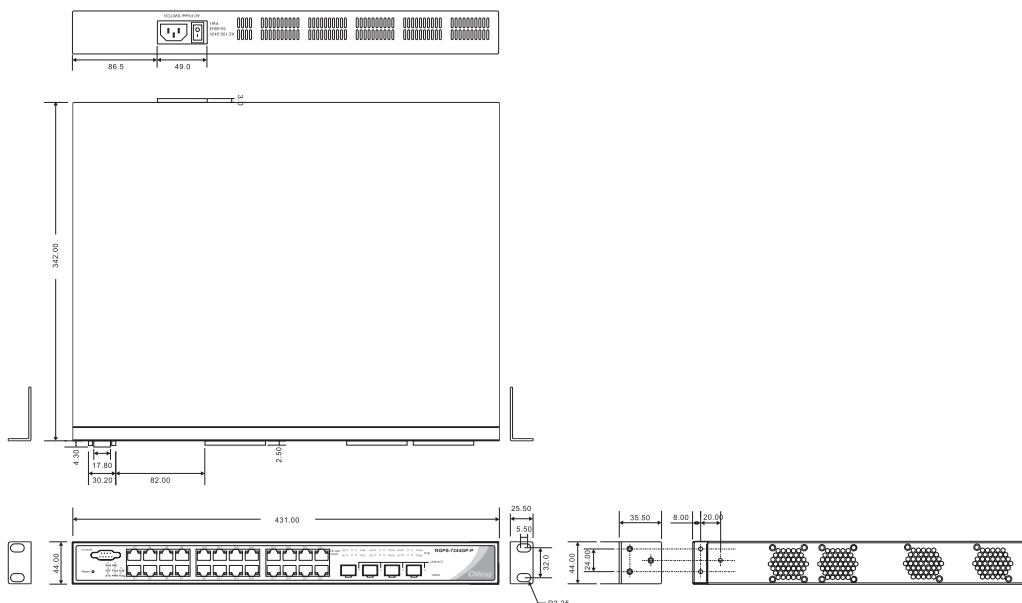


Topology View



Monitoring and Configuration interface

## Dimensions



(Unit=mm)

## PoE Pin Definition

| 10/100Base-T(X) P.S.E. RJ-45 Port |                            |
|-----------------------------------|----------------------------|
| RJ-45 Pin Definition              |                            |
| Pin No.                           | Description                |
| #1                                | TD+ with PoE Power input + |
| #2                                | TD- with PoE Power input + |
| #3                                | RD+ with PoE Power input - |
| #6                                | RD- with PoE Power input - |

| 1000Base-T P.S.E. RJ-45 Port |                               |
|------------------------------|-------------------------------|
| RJ-45 Pin Definition         |                               |
| Pin No.                      | Description                   |
| #1                           | BI_DA+ with PoE Power input + |
| #2                           | BI_DA- with PoE Power input + |
| #3                           | BI_DB+ with PoE Power input - |
| #4                           | BI_DC+                        |
| #5                           | BI_DC-                        |
| #6                           | BI_DB- with PoE Power input - |
| #7                           | BI_DD+                        |
| #8                           | BI_DD-                        |

## Specifications

| ORing Switch Model   | RGPS-7244GP  | RGPS-7244GP-P |
|--|--|---------------|
| <b>Physical Ports</b>  |  |               |
| 10/100/1000 Base-T(X) Ports in RJ45<br>Auto MDI/MDIX with P.S.E. |  | 24            |
| 1000Base-X SFP Port  |  | 4             |
| <b>Technology</b>  |  |               |
| Ethernet standards   | IEEE 802.3 for 10Base-T<br>IEEE 802.3u for 100Base-TX<br>IEEE 802.3ab for 1000Base-T<br>IEEE 802.z for 1000Base-X<br>IEEE 802.3x for Flow control<br>IEEE 802.3ad for LACP (Link Aggregation Control Protocol )<br>IEEE 802.1p for COS (Class of Service)<br>IEEE 802.1Q for VLAN Tagging<br>IEEE 802.1D for STP (Spanning Tree Protocol)<br>IEEE 802.1w for RSTP (Rapid Spanning Tree Protocol)<br>IEEE 802.1s for MSTP (Multiple Spanning tree Protocol)<br>IEEE 802.1x for Authentication<br>IEEE 802.1AB for LLDP (Link Layer Discovery Protocol)<br>IEEE 802.3at PoE specification (up to 30 Watts per port for P.S.E.) |               |
| MAC table  | 8K   |               |
| Priority queues  | 4  |               |
| Processing   | Store-and-Forward  |               |
| Switch properties  | Switching latency : 7 $\mu$ s<br>Switching bandwidth : 56Gbps<br>Max. Number of Available VLANs : 256<br>IGMP multicast groups : 128 for each VLAN<br>Port rate limiting : User Define   |               |

|   |   |                                |
|---|---|--------------------------------|
| Jumbo frame                                 | Up to 9K Bytes  |                                |
| Security features                           | Device Binding security feature<br>Enable/disable ports, MAC based port security<br>Port based network access control (802.1x)<br>VLAN (802.1Q) to segregate and secure network traffic<br>Radius centralized password management<br>SNMPv3 encrypted authentication and access security<br>Https / SSH enhance network security  |                                |
| Software features                           | STP/RSTP/MSTP (IEEE 802.1D/w/s)<br>Redundant Ring (O-Ring) with recovery time less than 30ms over 250 units<br>TOS/Diffserv supported<br>Quality of Service (802.1p) for real-time traffic<br>VLAN (802.1Q) with VLAN tagging and GVRP supported<br>IGMP Snooping<br>IP-based bandwidth management<br>Application-based QoS management<br>DOS/DDOS auto prevention<br>Port configuration, status, statistics, monitoring, security<br>DHCP Client/Server<br>SMTP Client |                                |
| Network redundancy                          | O-Ring<br>Fast Recovery Mode<br>STP<br>RSTP<br>MSTP   |                                |
| RS-232 Serial Console Port                  | RS-232 in DB9 connector with console cable. 115200bps, 8, N, 1  |                                |
| <b>LED Indicators</b>                       |   |                                |
| Power indicator (PWR)                       | Green : For DC power indicator  | Green : For AC power indicator |
| System ready indicator (STA)                | Green : Indicates system ready. Blinking for system is upgrading firmware.  |                                |
| Ring master indicator (R.M.)                | Green : Indicates system operating in O-Ring Master mode  |                                |
| O-Ring indicator (Ring)                     | Green : Indicates system operating in O-Ring mode. Blinking to indicate Ring is broken.   |                                |
| System running indicator (RUN)              | Green : System operated continuously  |                                |
| Supervisor login indicator (RMT)            | Green : System is accessed remotely   |                                |
| Reset to Default running indicator (DEF)    | Green : System reset to default configuration   |                                |
| Ping command to the switch indicator (Ping) | Green : System is processing "PING" request   |                                |
| PoE indicator                               | Green for P.S.E. power output indicator   |                                |
| 10/100/1000Base-T(X) RJ45 port indicator    | Two color LED : Green for 1000Mbps Link/Act indicator. Amber for 10/100Mbps Link/Act indicator  |                                |
| 1000Base-X SFP Fiber port indicator         | Green for port Link/Act.  |                                |
| <b>Power</b>                                |   |                                |
| Input power                                 | One 50VDC power input at terminal block   | One 100~240VAC with power cord |
| Power supply                                | NOT included  | Included                       |
| Power consumption (Typ.)                    | 36Watts (Typ.), 756W(24 ports P.S.E. full loaded)   |                                |
| Overload current protection                 | Present   |                                |
| <b>Physical Characteristics</b>             |   |                                |
| Enclosure                                   | 19 inches rack-mountable  |                                |
| Dimensions (W x D x H)                      | 431 (W) x 342 (D) x 44 (H) mm   |                                |
| Weight (g)                                  | 3790 g  | 5740 g                         |
| <b>Environmental</b>                        |   |                                |
| Storage temperature                         | -40 to 85°C (-40 to 185°F)  |                                |
| Operating temperature                       | -40 to 70°C (-40 to 158°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   |         |
| MTBF (Hours) (MIL-HDBK-217F2, GB, GC, 25°C) | 245,478  | 120,713 |
| Warranty                                    | 5 years  |         |

### Ordering Information

**RGPS-7 AA B CC - D**

| Code Definition | 10/100/1000Base-T(X) P.S.E. Port Number | Additional Port Number | Additional Port Type               | Built-In Power Supply              |
|-----------------|---|------------------------|------------------------------------|------------------------------------|
| <b>Option</b>   | - <b>24</b> : 24 ports                  | - <b>4</b> : 4 port    | - <b>GP</b> : 1000Base-X SFP ports | - <b>P</b> : power supply included |

|                 | Model Name       | Description  | Operating Temperature |
|-----------------|------------------|--|-----------------------|
| Available Model | RGPS-7244GP      | Industrial 28-port rack-mount managed Gigabit PoE Ethernet switch with 24x10/100/1000Base-T(X) P.S.E. and 4x1000Base-X, SFP socket                                       |                       |
|                 | RGPS-7244GP-P_US | Industrial 28-port rack-mount managed Gigabit PoE Ethernet switch with 24x10/100/1000Base-T(X) P.S.E. and 4x1000Base-X, SFP socket, power supply included, US power cord |                       |
|                 | RGPS-7244GP-P_EU | Industrial 28-port rack-mount managed Gigabit PoE Ethernet switch with 24x10/100/1000Base-T(X) P.S.E. and 4x1000Base-X, SFP socket, power supply included, EU power cord |                       |

**Packing List**

- RGPS-7244GP/7244GP-P
- Rack-Mount Kit
- Console Cable
- Power Cable (Only for -P)
- ORing Tool CD
- Quick Installation Guide

**Optional Accessories (Can be purchased separately)**

- Open-Vision M500, Powerful Network Management Windows Utility Suite, 500 IP devices
- SFP1G series, 1Gbps SFP optical transceiver