

## RGS200-12P

### 12-port GbE Managed PoE Switch

Along with the complete commercial product portfolio that offers customers with total network solutions, Zyxel introduces the new RGS Series of PoE switches with ruggedized design concepts to meet stringent outdoor or harsh network deployment scenarios. The special mechanism enables RGS200-12P to operate in outdoor, factory or other harsh environments for surveillance. In addition, it is also easy to manage RGS200-12P through a user-friendly Web-based GUI.

### Benefits

#### Rugged and reliable design for harsh environments

Equipped with fanless and IP30 standard metal mechanism, the Zyxel RGS200-12P is able to deliver great thermal control and tolerate the dustiest deployments with ease, whether installed on a DIN rail or wall mounted for the most efficient use of cabinet space. Designed to handle temperatures ranging from -40°C to 75°C, the RGS200-12P can be placed in a variety of challenging environments and be adapted to broad range of field applications. When switching is applied normally in outdoor settings, ESD (electrostatic discharge), DC and Ethernet surge protection prevent the loss of business revenue and productivity due to damage or fatigue caused by power disturbances.

#### Quick failover for stable connectivity

When deployed in harsher conditions, such as factory or outdoor settings, the Zyxel RGS200-12P creates fault-tolerant networks with redundant ring technology and rapid self-recovery capability to prevent interruptions. In the event of downtime caused by a network error, the rapid failover will restore normal operation in less than 20 ms. The switch's dual DC power inputs and reverse power protection feature ensure continuous uptime and reliable operation.

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Wide-ranging operating temperature design from -40°C to 75°C



Fanless design and compact mechanism with IP30 standard



Redundant ring technology with quick failover in less than 20 ms



Dual power inputs for high network resilience



Full PoE+ support and high PoE power budget up to 240 W



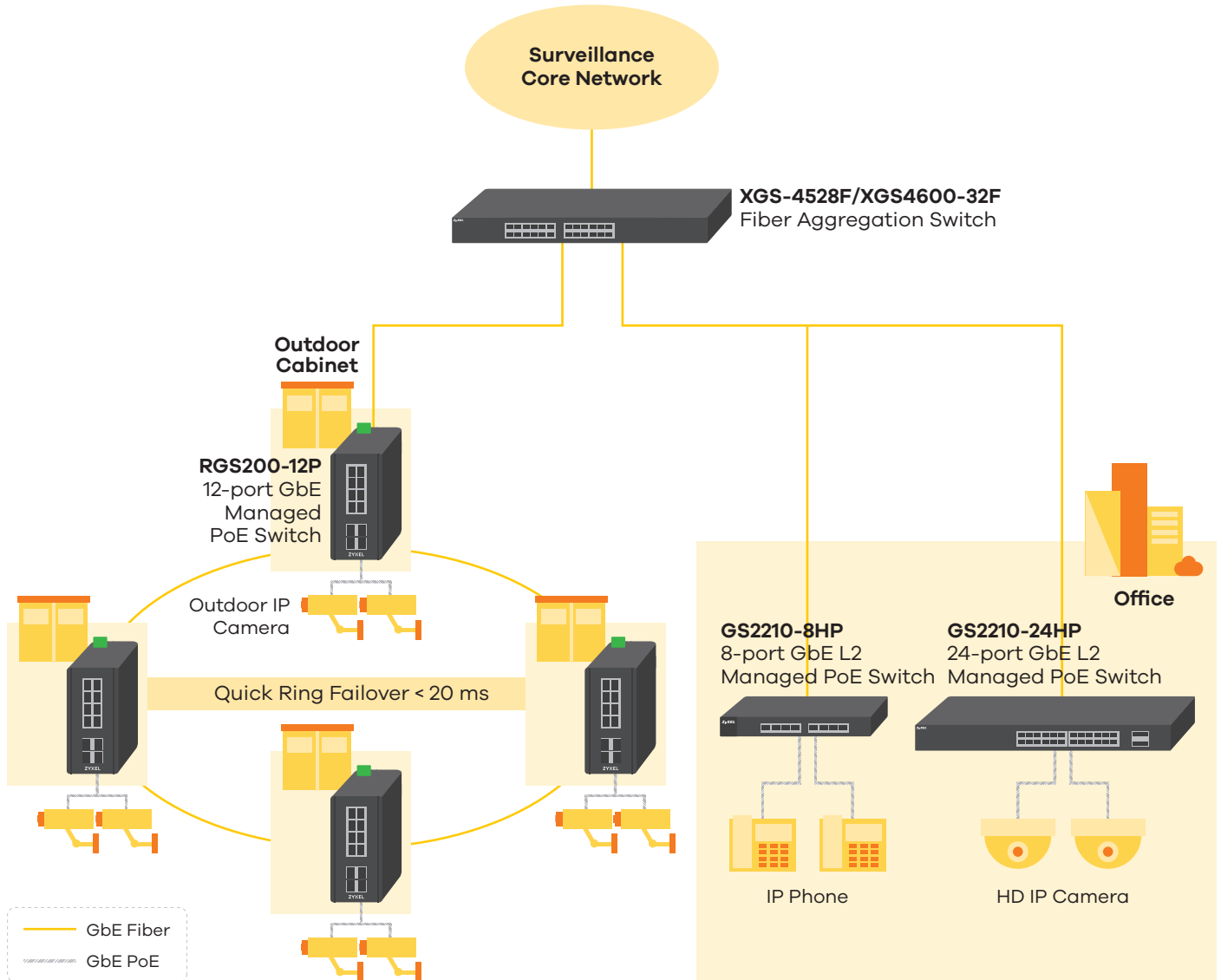
Limited life-time warranty\*

\* Warranty terms, service availability, and service response times may vary from country or region to country or region


## Trouble-free installation and easy extensibility

This rugged L2 Managed PoE switch comes with eight (8) 10/100/1000 Base-T copper PoE ports and four (4) 100/1000-Base-X SFP fiber interfaces. The switch also supports the 802.3at PoE plus standard, with each PoE port providing up to 30 W of power to efficiently accommodate the most power-hungry devices. The fiber uplink can extend the network to long-distance nodes up to 40 km (43,744 yards) away for added flexibility.

## Applications Diagram



## Specifications

<b>Model</b>	<b>RGS200-12P</b>	
<b>Product name</b>	12-port GbE Managed PoE Switch	
		
<b>Switch class</b>	Layer 2	
<b>Port Density</b>		
<b>Total port count</b>	12	
<b>100/1000 Mbps PoE</b>	8	
<b>Gigabit SFP</b>	4	
<b>Performance</b>		
<b>Switching capacity (Gbps)</b>	24	
<b>Forwarding rate (Mpps)</b>	17.86	
<b>Packet buffer (byte)</b>	512 K	
<b>MAC address table</b>	8 K	
<b>Jumbo frame (byte)</b>	9 K	
<b>Power</b>		
<b>Input</b>	Dual power input 12 V - 58 V DC	
<b>Max. power consumption (watt)</b>	255	
<b>Total PoE power budget (watt)</b>	240	
<b>Physical Specifications</b>		
<b>Item</b>	<b>Dimensions (WxDxH)(mm/in.)</b>	77 x 127.3 x 154/3.03 x 5.01 x 6.06
	<b>Weight (kg/lb.)</b>	1.45/3.2
<b>Packing</b>	<b>Dimensions (WxDxH)(mm/in.)</b>	133 x 192 x 238/5.24 x 7.56 x 9.37
	<b>Weight (kg/lb.)</b>	1.9/4.19
<b>Included accessories</b>	<ul style="list-style-type: none"> <li>• Wall mount kit</li> <li>• DIN-rail mounting kit</li> </ul>	
<b>Green Feature</b>		
<b>Fanless</b>	Yes	
<b>Environmental Specifications</b>		
<b>Operating environment</b>	<b>Temperature</b>	-40°C to 75°C/-40°F to 167°F
	<b>Humidity</b>	5% to 95% (non-condensing)
<b>Storage environment</b>	<b>Temperature</b>	-40°C to 85°C/-40°F to 185°F
	<b>Humidity</b>	5% to 90% (non-condensing)
<b>MTBF (hr)</b>	568,430	
<b>Heat dissipation (BTU/hr)</b>	869.55	
<b>Acoustic noise (dBA)</b>	0	

# Features

## Standard Compliance

- IEEE 802.3 10BASE-T Ethernet
- IEEE 802.3u 100BASE-TX Ethernet
- IEEE 802.3ab 1000BASE-T Ethernet
- IEEE 802.3z 1000BASE-X
- IEEE 802.3af PoE
- IEEE 802.3at PoE Plus
- IEEE 802.1p Class of Service (CoS) prioritization
- Full-duplex and half duplex operation with IEEE 802.3x flow control and backpressure
- Store and forward
- N-way auto-negotiation

## Traffic Control

- VLAN number (static: 1024)
- 802.1Q VLAN tagging
- GVRP
- IEEE 802.3ad LACP
- Static link aggregation (Group: 6, member: 8)
- LA algorithm of MAC
- LA algorithm of IP
- Port isolation
- Storm control (Unicast, broadcast, and unknown flooded traffic)

## Resilience and Availability

- Fast failover ring protection with single and multiple rings, ring coupling, dual homing, and chain
- IEEE 802.1D STP, IEEE 802.1w RSTP, IEEE 802.1s MSTP
- Static trunk or dynamic via LACP (Link Aggregation Control Protocol)

## Layer 2 Multicast

- L2 multicast group (256)
- IGMP snooping (v1, v2 and v3)
- IGMP snooping and querying
- MLD snooping and proxy
- Immediate leave and leave proxy
- Throttling and filtering

## Security

- IP and MAC-based access control (128)
- ACL (support IPv4/IPv6)(256)
- 802.1X (port-base)
- Guest VLAN

- Port security
- MAC address limit
- Layer 2 MAC filtering
- Static MAC forwarding
- Multiple RADIUS servers
- RADIUS/TACACS+ authentication
- RADIUS/TACACS+ authorization
- SSL (certificate key length 2048 bits)
- SSL (support SHA-2)
- Management VLAN
- CPU defense engine
- IP source guard
- ARP inspection

## QoS

- 802.1p priority queues per port
- 802.1p queuing method (scheduler)
- Input priority mapping
- Queue egress shaper
- Rate limiting, port based (accuracy of ingress/egress is 1 kbps on TCP)
- 802.3x flow control

## Class of Service (CoS)

- Voice VLAN (OUI, LLDP)
- 802.1p Class of Service (SPQ, WRR)
- Port-based CoS
- IP TOS precedence
- DSCP
- 8 queue per port

## Manageability

- SNMP v1, v2c, v3
- ICMP echo reply
- Syslog
- Ethernet copper connection diagnostic tool

## MIB

- RFC 2233 IF MIB
- RFC1213 MIB II
- RFC 1757 RMON 1, 2, 3, 9
- RFC1215 generic traps
- RFC1493 bridge
- Private MIB
- RFC 2674 Q-Bridge MIB
- LLDP-MIB
- LLDP-EXT-MED MIB

## Discovery

- 802.1AB LLDP
- 802.1AB LLDP MED

## IPv6 management

- IPv6 over Ethernet (RFC 2464)
- IPv6 addressing architecture (RFC 4291)
- Dual stack (RFC4213)
- ICMPv6 (RFC4884)
- Static IPv6 address and prefix length
- Static IPv6 default gateway

## Device Management

- Web interface
- HTTP/HTTPS
- IPv6 management (Web)
- CLI (support console)
- Telnet (5 sessions)
- SSHv2 (5 sessions)
- Firmware upgrade by web
- Firmware upgrade by TFTP
- Configuration download/upload by Web
- Configuration download/upload by cli via TFTP
- DHCP client
- DHCP relay
- DHCP snooping
- DHCP option 82
- SNTP
- Daylight saving setting
- Schedule PoE
- PoE MCU firmware upgradable
- Port mirroring
- Per VLAN mirroring
- Reset button (HW reset)
- Dual image
- EEE support
- Cable diagnostics

## Industrial Case/Installation

- Slim IP30 metal case protection
- DIN rail and wall mount design
- Dual power design
- Supports lightning surge protection:
  - Ethernet port: 2KV
  - Power input: 2KV
- Supports ESD protection (Air/Contact): 8KV/6KV
- Supports EFT protection: 4KV
- -40°C to 75°C operating temperature

## Accessories

### Transceivers (Optional)

Model	Speed	Connector	Wavelength	Max. Distance	DDMI
SFP-1000T	Gigabit	RJ-45	-	100 m (109 yd)	-
SFP-BX1310-10-D	Gigabit	LC	1310 nm (Tx); 1490 nm (Rx)	10 km (10936 yd)	Yes
SFP-BX1490-10-D	Gigabit	LC	1490 nm (Tx); 1310 nm (Rx)	10 km (10936 yd)	Yes
SFP-LHX1310-40-D	Gigabit	LC	1310 nm	40 km (43744 yd)	Yes
SFP-LX-10-D	Gigabit	LC	1310 nm	10 km (10936 yd)	Yes
SFP-SX-D	Gigabit	LC	850 nm	550 m (601 yd)	Yes
FP-ZX-80-D	Gigabit	LC	1550 nm	80 km (87488 yd)	Yes
SFP-100BX1310-20-D	Fast Ethernet	LC	1310 nm (Tx); 1550 nm (Rx)	20 km (21872 yd)	Yes
SFP-100BX1550-20-D	Fast Ethernet	LC	1550 nm (Tx); 1310 nm (Rx)	20 km (21872 yd)	Yes

For more product information, visit us on the web at [www.zyxel.com](http://www.zyxel.com)

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