

# ZyXEL



## Simple, Fast and Smart Managed Switches for Small Business Connectivity

- 10/100/1000 Mbps GbE ports
- Easy browser-based switch management
- Quick and easy set up wizard
- Advanced network error prevention features (loop protection, dual images, storm control, DoS and SSL)
- Fanless design (GS1900-8/8HP/16/24/24E)
- Green Ethernet IEEE 802.3az support and intelligent ZyXEL green features
- High-power PoE support IEEE 802.3at (GS1900-8HP/24HP/48HP)
- Limited life-time warranty\*

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

The ZyXEL GS1900 Series of 8/16/24/48-port GbE Smart Managed Switch with Gigabit speed and essential managing functions bring your business network more flexibility and connectivity. The 1900 Series consists of eight (8) models—the GS1900-8, GS1900-8HP, GS1900-16, GS1900-24E, GS1900-24, GS1900-24HP, GS1900-48 and GS1900-48HP. Providing GbE switches with power-saving functions, fanless design and full IPv6 support ensure your network to be ready for future expansions. In addition, the PoE models GS1900-8HP/24HP/48HP Gigabit switch complies with the IEEE 802.3at Power over Ethernet (PoE) Plus standard. The complete GS1900 Series has been designed with useful features and advanced performances that empower your networks with speed and security as well as silent operation in your office environments.

### Benefits

#### Versatility and flexibility for different needs

The complete ZyXEL GS1900 Series has an essential portfolio of 8/16/24/48-port compact desktop and rackmount size with GbE connectivity. All models support multiple deployment methods to fulfill the needs for small offices and meeting room environments such as wall-, under table- or desktop-mounting and rackmount options\*1. It's now quick and effortless to enjoy the high-speed business network applications without a hitch. Additionally, the GS1900-24/24HP/48/48HP is equipped with 2 extra SFP slots to provide 100M and GbE speeds for long-distance deployments.

The GS1900-8HP/24HP/48HP features IEEE 802.3at PoE Plus provide 8 PoE ports with up to 30 W powers per port to flexibly extend network deployment, especially for high-power devices such as Wi-Fi APs, IP cams and IP phones. The 802.3at PoE Plus capability makes the switch ideal for connecting numerous powered devices to form a flawless business network.

#### ZyXEL One Network experience

Aiming for relieving our customers from repetitive operations of deploying and managing a network, ZyXEL One Network is designed to simplify the configuration, management, and troubleshooting, allowing our customers to focus on the business priorities. ZyXEL One Network presents an easy-to-use tool, ZyXEL One Network Utility (ZON Utility), to realize speed network setup. ZyXEL Smart Connect\*2 allows ZyXEL networking equipment to be aware and recognize each other and further facilitating the network maintenance via one-click remote functions such as factory reset or power cycling. ZyXEL One Network redefines the network integration across multiple networking products from switch to Wi-Fi AP and to Gateway.

\*1: Rack mountable (16-, 24- and 48-port models)

\*2: ZyXEL Smart Connect is supported on selected models. Please refer to specifications for more detail.



ZyXEL **onenetwork**  
Redefining network integration

**GS1900 Series**  
8/16/24/48-port GbE  
Smart Managed Switch



### Simple, intuitive wizard set up

For small businesses that want to manage their infrastructure in advance, the ZyXEL GS1900 Series comes with a friendly built-in Web-based browser for simple configuration and management. Moreover, the friendly step-by-step intuitive wizard helps avoiding multiple complicated configuration pages for quick set up with few clicks in the matter of minutes. To guide the users from start-up, VLAN, Guest VLAN to QoS setting, the ZyXEL Series offers four most common steps and combines them into a quick and easy setup wizard; which does not just save deployment time and efforts, but is also helpful especially for the non-IT staff.



### Avoiding network errors with easy management

The ZyXEL GS1900 Series is equipped with advanced management features to make the network stable and secure: loop protection that prevents network flooding, dual images to provide a backup FW if one crashes and storm control to ensure network efficiency, friendly on/off DoS with simple click to enable/disable instead of several setup pages, while SSL ensures the management frames are well encrypted when the device is accessed. The GS1900 Series provides network error prevention features and integrated network security for reduced risk and improved data streaming.

### Energy saving for IEEE 802.3az

As operating overheads such as electric bills increase constantly due to the arising green awareness, businesses have to avoid unnecessary energy waste. The built-in IEEE 802.3az Energy Efficient Ethernet (EEE) and more ZyXEL innovative green features of ZyXEL GS1900 Series can reduce energy consumption of Ethernet devices through multiple intelligent ways.

#### • Traffic detection—Energy Efficient Ethernet (EEE) compliance

The IEEE 802.3az Energy Efficient Ethernet (EEE) feature automatically detects network traffic and adjusts power consumption dynamically, as such the switch can reduce power consumption during low link utilization periods.

#### • Inactive link detection

The inactive link detection function automatically reduces power usage when inactive links or devices are detected. The ZyXEL GS1900 Series can adjust power consumption according to the link status and number of the active network devices.

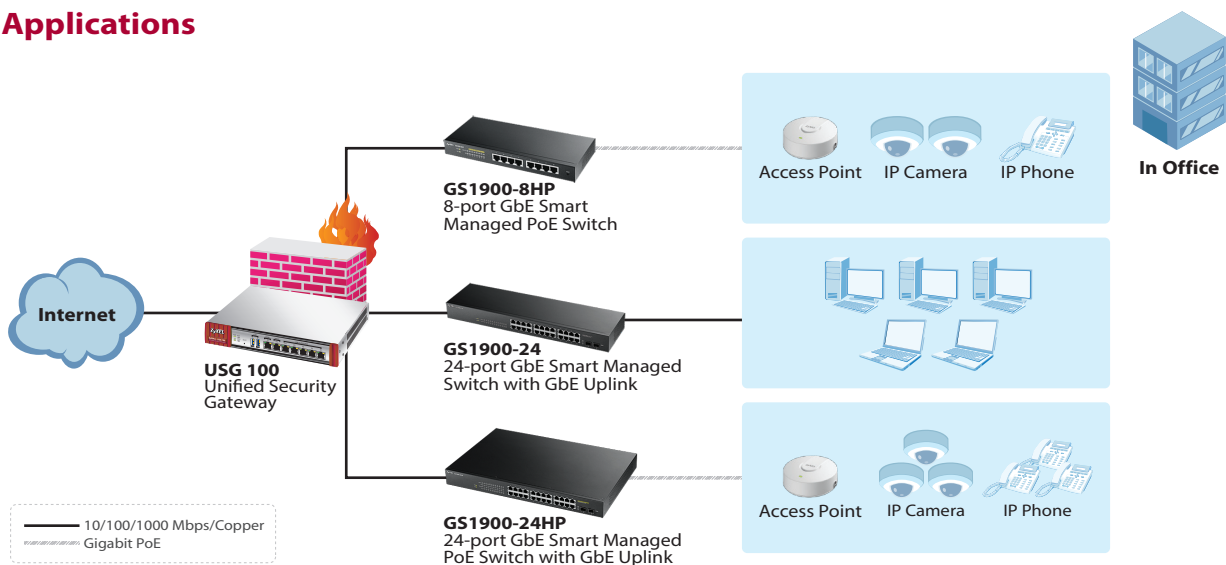
#### • Cable length detection

This green feature enables the switch to automatically detect the length of connected Ethernet cables and adjust power usage accordingly. The shorter the cable length, the less power it consumes.









### Intelligence to power more devices (GS1900-8HP/24HP/48HP)

ZyXEL's Intelligent PoE feature provides two PoE supply modes: classification mode and consumption mode. Especially in consumption mode, the GS1900-8HP/24HP/48HP reserves the actual required power automatically, and you can set power feeding priorities on different ports to get the optimized use of power resource. This capability increases the number of devices connected and deliver a better ROI for the business. In addition, the GS1900-8HP supports the IEEE 802.3at standard on all 8 ports, providing a maximum of 30 watts per port, total 70 watts. Besides, the GS1900-24HP and 48HP both provide 170 watts of total budget power for devices with higher power requirements such as IP phones, IP cameras and wireless access points.

## Key Applications



### Specifications

| Model                                | GS1900-8   | GS1900-8HP   | GS1900-16   | GS1900-24E  | GS1900-24  | GS1900-24HP   | GS1900-48   | GS1900-48HP   |  |
|--------------------------------------|--|--|---|---|--|---|---|---|--|
| <b>Product name</b>                  | 8-port GbE Smart Managed Switch<br> | 8-port GbE Smart Managed PoE Switch<br> | 16-port GbE Smart Managed Switch<br> | 24-port GbE Smart Managed Switch<br> | 24-port GbE Smart Managed Switch with GbE Uplink<br> | 24-port GbE Smart Managed PoE Switch with GbE Uplink<br> | 48-port GbE Smart Managed Switch with GbE Uplink<br> | 48-port GbE Smart Managed PoE Switch with GbE Uplink<br> |  |
| <b>Port Density</b>                  |  |  |   |   |  |   |   |   |  |
| <b>10/100/1000BASE-T, fixed</b>      | 8  | -  | 16  | 24  | 24   | -   | 48  | 24  |  |
| <b>10/100/1000BASE-T, PoE, fixed</b> | -  | 8  | -   | -   | -  | 24  | -   | 24  |  |
| <b>SFP 100/1000 Mbps</b>             | -  | -  | -   | -   | 2  | 2   | 2   | 2   |  |
| <b>Performance</b>                   |  |  |   |   |  |   |   |   |  |
| <b>Switching capacity (Gbps)</b>     | 16   | 16   | 32  | 48  | 52   | 52  | 100   | 100   |  |
| <b>Forwarding rate (Mpps)</b>        | 11.9   | 11.9   | 23.8  | 35.7  | 39   | 39  | 74  | 74  |  |
| <b>Packet buffer (byte)</b>          | 525 K  | 525 K  | 525 K   | 525 K   | 525 K  | 525 K   | 1.5 M   | 1.5 M   |  |
| <b>MAC address table</b>             | 8 K  | 8 K  | 8 K   | 8 K   | 8 K  | 8 K   | 8 K   | 8 K   |  |
| <b>Jumbo frame (byte)</b>            | 9 K  | 9 K  | 9 K   | 9 K   | 9 K  | 9 K   | 9 K   | 9 K   |  |
| <b>Power</b>                         |  |  |   |   |  |   |   |   |  |
| <b>Input voltage of AC</b>           | 100 - 240 V AC, 50/60 Hz   |  |   |   |  |   |   |   |  |
| <b>Max. power consumption (watt)</b> | 6.2  | 90   | 10.5  | 15.1  | 16   | 231   | 31.9  | 250   |  |
| <b>PoE power budget (watt)</b>       | -  | 70   | -   | -   | -  | 170   | -   | 170   |  |
| <b>Physical Specifications</b>       |  |  |   |   |  |   |   |   |  |
| <b>Item</b>                          | <b>Dimensions (WxDxH) (mm/in.)</b>   | 250 x 104 x 27/<br>9.84 x 4.10<br>x 1.06   | 250 x 104 x 27/<br>9.84 x 4.10<br>x 1.06  | 216 x 133 x 42/<br>8.50 x 5.23<br>x 1.65  | 267 x 162 x 42/<br>10.51 x 6.37<br>x 1.65  | 440 x 131 x 44/<br>17.32 x 5.16<br>x 1.73   | 440 x 310 x 45/<br>17.32 x 12.20<br>x 1.77  | 440 x 200 x 44/<br>17.32 x 7.87<br>x 1.73   | 440 x 310 x 45/<br>17.32 x 12.20<br>x 1.77 |
|                                      | <b>Weight (kg/lb.)</b>   | 0.65/1.43  | 0.66/1.46   | 0.97/2.13   | 1.56/3.44  | 2.09/4.60   | 4.03/8.88   | 2.9/6.39  | 4.24/9.35                                  |
| <b>Packing</b>                       | <b>Dimensions (WxDxH) (mm/in.)</b>   | 302 x 227 x 64/<br>11.89 x 8.94<br>x 2.52  | 302 x 227 x 64/<br>11.89 x 8.94<br>x 2.52   | 325 x 223 x 71/<br>12.80 x 8.78<br>x 2.80   | 325 x 223 x 71/<br>12.80 x 8.78<br>x 2.80  | 561 x 217 x 82/<br>21.97 x 8.54<br>x 3.23   | 583 x 451 x 98/<br>22.95 x 17.76<br>x 3.86  | 509 x 292 x 93/<br>20.03 x 11.50<br>x 3.66  | 583 x 451 x 98/<br>22.95 x 17.76<br>x 3.86 |
|                                      | <b>Weight (kg/lb.)</b>   | 1.04/2.30  | 1.51/3.33   | 1.80/3.97   | 2.05/4.52  | 2.85/6.28   | 5.1/11.24   | 4.3/9.48  | 5.31/11.70                                 |
| <b>Included accessories</b>          | • Power adapter<br>• Wall mount kit  | • Power cord<br>• Power adapter<br>• Wall mount kit  | • Power cord<br>• Wall mount kit<br>• Rack mounting kit   | • Power cord<br>• Wall mount kit<br>• Rack mounting kit   | • Power cord<br>• Rack mounting kit  | • Power cord<br>• Rack mounting kit   | • Power cord<br>• Rack mounting kit   | • Power cord<br>• Rack mounting kit   |  |
| <b>Green Feature</b>                 |  |  |   |   |  |   |   |   |  |
| <b>Fanless</b>                       | Yes  | Yes  | Yes   | Yes   | Yes  | -   | -   | -   |  |
| <b>Environmental Specifications</b>  |  |  |   |   |  |   |   |   |  |
| <b>Operating temperature</b>         | 0°C to 50°C/32°F to 122°F  |  |   |   |  |   |   |   |  |
| <b>Storage temperature</b>           | -40°C to 70°C/-40°F to 158°F   |  |   |   |  |   |   |   |  |
| <b>Operating humidity</b>            | 10% to 95% (non-condensing)  |  |   |   |  |   |   |   |  |
| <b>MTBF (hr)</b>                     | 862,561  | 533,086  | 843,668   | 804,714   | 432,673  | 318,142   | 229,313   | 175,767   |  |
| <b>Heat dissipation (BTU/hr)</b>     | 21.14  | 306.90   | 35.81   | 51.49   | 55   | 787.71  | 108.77  | 853   |  |
| <b>Acoustic noise (dBA)</b>          | 0  | 0  | 0   | 0   | 0  | 48.7  | 38.2  | 49.9  |  |

### Features

#### Standard Compliance

- IEEE 802.3 10BASE-T Ethernet
- IEEE 802.3u 100BASE-TX Ethernet
- IEEE 802.3ab (1000BASE-T) Ethernet
- IEEE 802.3x flow control
- IEEE 802.3az EEE support
- IEEE 802.1p CoS support
- IEEE 802.3af PoE (GS1900-8HP/24HP/48HP)
- IEEE 802.3at PoE plus (GS1900-8HP/24HP/48HP)
- IEEE 802.1D Spanning Tree Protocol (STP)
- IEEE 802.1w Rapid Spanning Tree Protocol (RSTP)
- IEEE 802.1s Multiple Spanning Tree Protocol (MSTP)
- Full-duplex and half duplex operation with IEEE 802.3x flow control and backpressure
- Store and forward
- Auto MDI/MID-X

#### Resilience and Availability

- IEEE 802.1D Spanning Tree Protocol (STP)
- IEEE 802.1w Rapid Spanning Tree Protocol (RSTP)
- IEEE 802.1s Multiple Spanning Tree Protocol (MSTP)
- IEEE 802.3ad LACP
- Dual configuration files
- Dual images

#### Traffic Management and QoS

- Port-based VLAN
- IEEE 802.1Q VLAN tagging
- IEEE 802.3ad LACP
- Guest VLAN
- Voice VLAN
- Storm control
- IEEE 802.1p priority queues per port
- IEEE 802.1p Queuing method (scheduler)
- Input priority mapping
- Rate limiting per port (ingress/egress)
- IEEE 802.3x flow control

#### Class of Service (CoS)

- IEEE 802.1p class of service (SPQ, WRR)
- Port-based CoS
- IP TOS precedence

#### Security

- IEEE 802.1x
- Port security
- Layer 2 MAC filtering
- Static MAC forwarding
- RADIUS
- TACACS+
- SSL
- Management VLAN
- CPU defense engine
- DoS prevention

#### Layer 2 Multicast

- IGMP snooping (v1, v2, v3)

#### IPv6

- IPv6 over Ethernet (RFC 2464)
- Dual-stack (RFC 4213)
- ICMPv6 (RFC 4884)
- Neighbor discovery (RFC 4861)
- Auto configuration
- Static IPv6 address and prefix length
- Static IPv6 default gateway
- IPv6 duplicate address detection

#### Discovery

- IEEE 802.1 AB LLDP
- LLDP-MED

#### Network Management

- SNMP v1, v2, v3
- RMON (1, 2, 3, 9)
- ICMP echo/echo reply
- Syslog

#### MIB

- RFC 1213 MIB II
- RFC 2819 RMON (group 1, 2, 3, 9)
- RFC 1215 generic traps
- RFC 1493 bridge
- Private MIB

#### Certifications

- EMC
  - CE, FCC, C-Tick, Class A (GS1900-8HP/24/24HP/48/48HP)
  - CE, FCC, C-Tick, Class B (GS1900-8/16/24E)
  - BSMI CNS13438
- Safety
  - LVD EN60950-1
  - BSMI CNS14336-1
  - CB IEC60950-1 (GS1900-8HP/16/24E/24)
- RoHS compliant

#### ZyXEL One Network

##### ZON Utility

- Discovery of ZyXEL switches, APs and gateways
- Centralized and batch configurations
  - IP configuration
  - IP renew
  - Device reboot
  - Device locating
  - Web GUI access
  - Firmware upgrade
  - Password configuration
- One-click quick association with ZyXEL AP Configurator (ZAC)

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



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