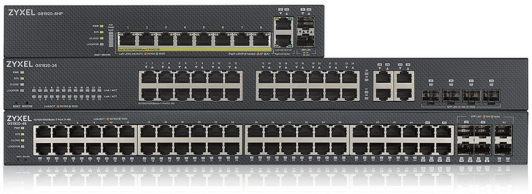
ZYXEL NETWORKS



GS1920v2 Series

8/24/48-port GbE Smart Managed Switch

Benefits

Introducing the new hybrid switch

The Zyxel GS1920v2 Smart Managed Switch Series introduces Zyxel NebulaFlex™ that allows you to easily switch between standalone and our license-free Nebula cloud management platform anytime with just a few simple clicks.

The NebulaFlex™ protects your investment on wired technology by offering the flexibility to transition to the cloud in your own time, without worrying about additional ongoing licensing costs.

Taking advantage of Nebula, you can centrally manage and access real-time network information to have effortless control over the GS1920v2 Smart Managed switches and other Hybrid and Nebula devices – all under a single intuitive platform without the need to install any software.

Still like the standalone style?

With rich L2 features such as LACP, advanced QoS, VLAN, ACL and multicast IGMP snooping, the GS1920v2 Series offers intuitive web-based interface for those who still stick on standalone management to access them without learning complex command-line interface (CLI). Additionally, the GS1920v2 Series is also part of the Zyxel One Network, which means that you can use the complimentary ZON Utility to easily perform repetitive operations during the deployment phases.

- NebulaFlex™ gives you the flexibility to switch between standalone and our license-free Nebula cloud management
- Nebula cloud management allows easy deployment, real-time configurations and effortless access to all your cloud devices anytime
- Using user-friendly web-based GUI to manage and set up the switch without learning complex CLI
- Smart fan and fanless designs offer silent operations in your office
- Check real-time status intuitively by cloud and PoE LED indicators

nebula

Zyxel one network
Redefining network integration

What's the benefit of Cloud central management?

When you're ready to join our Nebula cloud management solution, simply register your GS1920v2 Series via the Nebula Control Center (NCC); the device automatically joins, provisions and begins to give real-time information. The intuitive platform allows your switches to form a group, controlled centrally and gain access to diagnostics tools all under a single platform. The Nebula platform does not limit the number of your switches to be added, giving you an easy-to-use, scalable platform to access anytime, anywhere. What's more, the Nebula offers a mobile app for you to register hundreds of devices quickly on NCC with the built-in QR code scanner as well as to monitor the real-time network status.

Experience whisper-silent operations

The GS1920v2 Series includes fanless and built-in smart fan models. The smart fan is designed to automatically adjust speeds based on the device temperature, starting at 26 dBA max at 25°C ambient with GS1920-48v2. You can barely hear the sound while the GS1920v2 Series is working. It is ideal for your office environment.

Maximum flexibility for your Gig

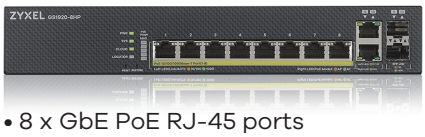
Small and medium-sized businesses (SMBs) today expect a higher level of performance from their networks—more connections to support diverse applications and easier management. The GS1920v2 Series is ideal for SMB deployments in multiple scenarios by providing up to 28 Gigabit copper ports for 24-port models or up to 6 Gigabit fiber ports for 48-port models to futureproof the network for growth.

Support intelligent PoE functions

The GS1920v2 Series PoE switches support 802.3at PoE Plus standards to offer 30-watt per port and a 375-watt high-power budget to meet the needs from power-hungry devices. The default consumption mode allows delivery of only the actual power required by devices connected to the switch for better business ROI. The user-friendly PoE consumption indicator located on the front panel and Web GUI to provide real-time power utilization.

Model List

GS1920-8HPv2
8-port GbE Smart Managed PoE Switch

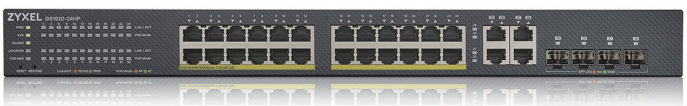


- 8 x GbE PoE RJ-45 ports
- 2 x GbE combo ports
- PoE power budget: 130 W

GS1920-24v2
24-port GbE Smart Managed Switch

- 24 x GbE RJ-45 ports
- 4 x GbE combo ports

GS1920-24HPv2
24-port GbE Smart Managed PoE Switch

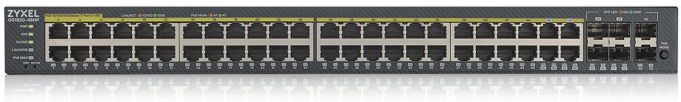


- 24 x GbE PoE RJ-45 ports
- 4 x GbE combo ports
- PoE power budget: 375 W

GS1920-48v2
48-port GbE Smart Managed Switch

- 44 x GbE RJ-45 ports
- 4 x GbE combo ports
- 2 x GbE SFP slots

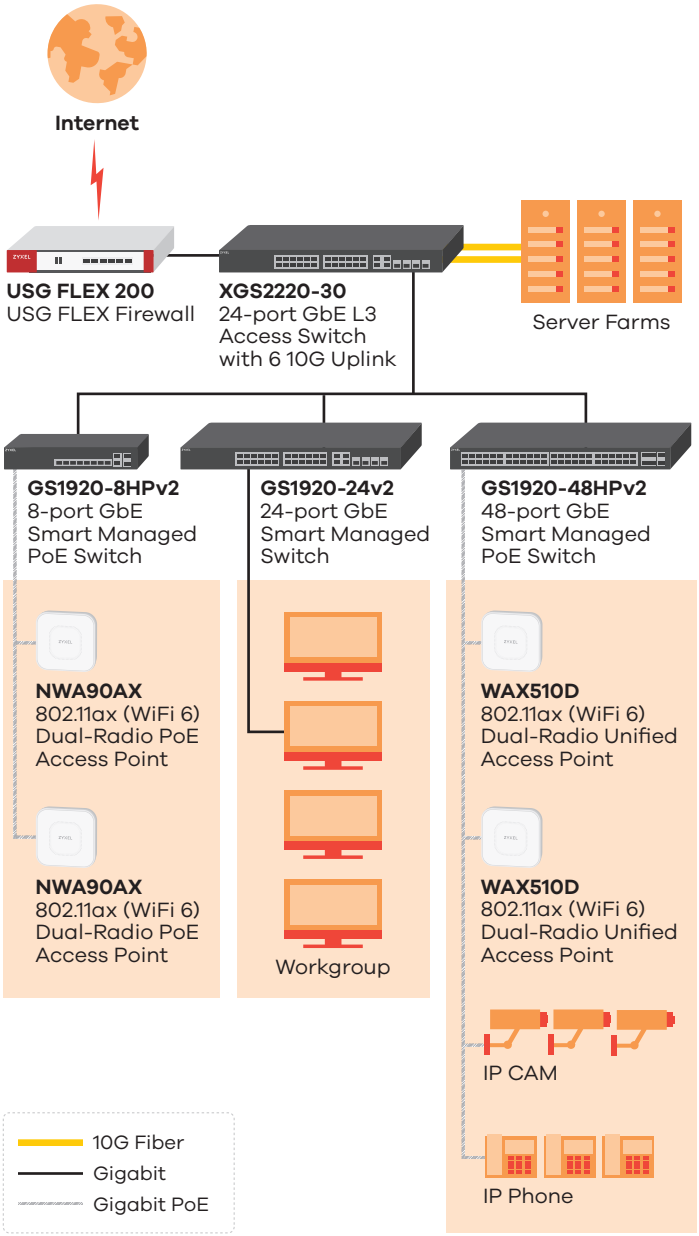
GS1920-48HPv2
48-port GbE Smart Managed PoE Switch



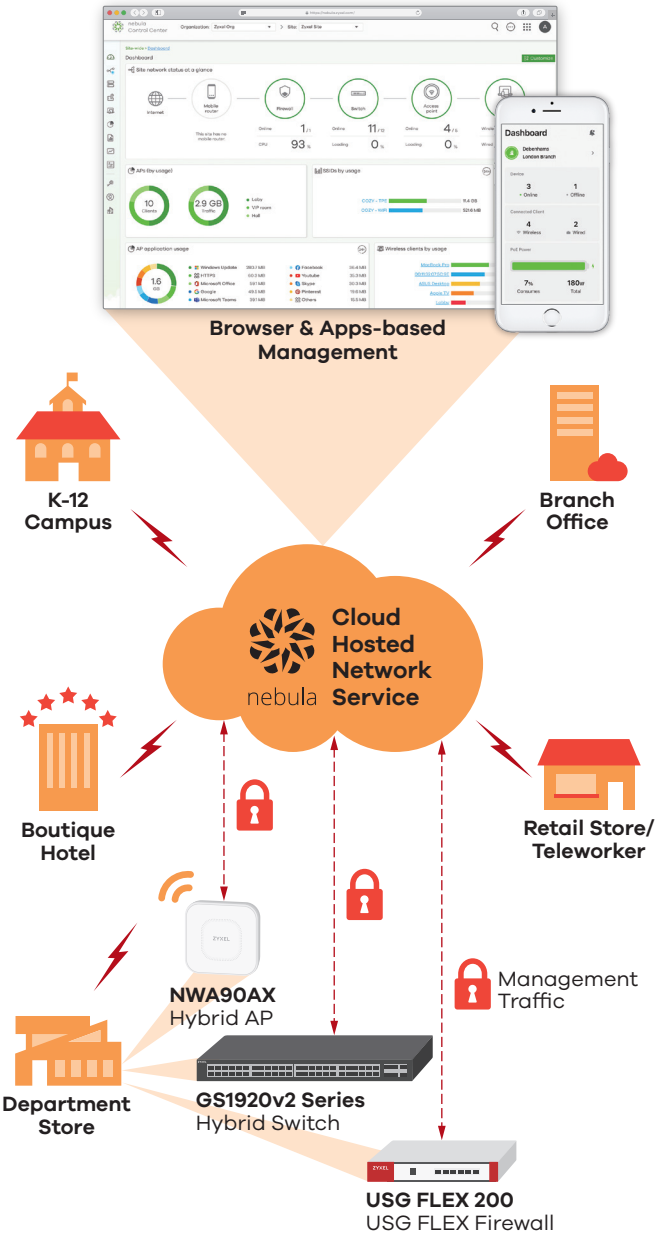
- 48 x GbE PoE RJ-45 ports
- 4 x GbE combo ports
- 2 x GbE SFP slots
- PoE power budget: 375 W

Application Diagram

Standalone Management



Cloud Management



Specifications

Model		GS1920-8HPv2	GS1920-24v2	GS1920-24HPv2	GS1920-48v2	GS1920-48HPv2
Product name		8-port GbE Smart Managed PoE Switch	24-port GbE Smart Managed Switch	24-port GbE Smart Managed PoE Switch	48-port GbE Smart Managed Switch	48-port GbE Smart Managed PoE Switch
Switch class		Smart Managed	Smart Managed	Smart Managed	Smart Managed	Smart Managed
Port Density						
Total port count		10	28	28	50	50
100/1000 Mbps		8	24	24	44	44
Gigabit Combo (RJ-45/SFP)		2	4	4	4	4
Gigabit SFP		-	-	-	2	2
PoE						
PoE ports		8	-	24	-	48
Total PoE budget (watts)		130	-	375	-	375
High power PoE 802.3at		Yes	-	Yes	-	Yes
Performance						
Switching capacity (Gbps)		20	56	56	100	100
Forwarding rate (Mpps)		15	42	42	74	74
Packet buffer (byte)		1.5 M	1.5 M	1.5 M	1.5 M	1.5 M
MAC address table		16 K	16 K	16 K	16 K	16 K
Flash/RAM		32 MB/256 MB	32 MB/256 MB	32 MB/256 MB	32 MB/256 MB	32 MB/256 MB
Power						
Input		100 to 240 V AC, 50/60 Hz	100 to 240 V AC, 50/60 Hz	100 to 240 V AC, 50/60 Hz	100 to 240 V AC, 50/60 Hz	100 to 240 V AC, 50/60 Hz
Max. power consumption (watts)		161.8	22.5	463.5	36.9	474.3
Min. power consumption (watts)		8.74	15.74	25.99	20.97	32.33
Physical Specifications						
Item	**Dimensions (WxDxH) (mm/in.)**	267 x 162 x 44/ 10.51 x 6.38 x 1.73	441 x 131 x 44/ 17.36 x 5.16 x 1.73	441 x 270 x 44/ 17.36 x 10.63 x 1.73	440 x 200 x 44.5/ 17.32 x 7.87 x 1.75	441 x 270 x 44/ 17.36 x 10.63 x 1.73
	Weight (kg/lb.)	1.9/4.19	2.1/4.63	3.8/8.38	2.8/6.17	4.1/9.04
Packing	**Dimensions (WxDxH) (mm/in.)**	380 x 235 x 81/ 14.96 x 9.25 x 3.19	558 x 214 x 79/ 21.97 x 8.43 x 3.11	616 x 355 x 107/ 24.25 x 13.98 x 4.21	496 x 289 x 90/ 19.53 x 11.38 x 3.54	616 x 355 x 107/ 24.25 x 13.98 x 4.21
	Weight (kg/lb.)	2.73/6.02	2.91/6.42	4.97/10.96	3.97/8.75	5.25/11.57
Included accessories		• Power cord • Desk-mount kit • Wall-mount kit	• Power cord • Rack mounting kit	• Power cord • Rack mounting kit	• Power cord • Rack mounting kit	• Power cord • Rack mounting kit
Green Feature						
Fanless		Yes	Yes	-	-	-
Environmental Specifications						
Operating	**Temperature**	0°C to 50°C/ 32°F to 122°F	0°C to 50°C/ 32°F to 122°F	0°C to 50°C/ 32°F to 122°F	0°C to 50°C/ 32°F to 122°F	0°C to 50°C/ 32°F to 122°F
	Humidity	10% to 95% (non-condensing)	10% to 95% (non-condensing)	10% to 95% (non-condensing)	10% to 95% (non-condensing)	10% to 95% (non-condensing)
Storage	**Temperature**	-40°C to 70°C/ -40°F to 158°F	-40°C to 70°C/ -40°F to 158°F	-40°C to 70°C/ -40°F to 158°F	-40°C to 70°C/ -40°F to 158°F	-40°C to 70°C/ -40°F to 158°F
	Humidity	10% to 95% (non-condensing)	10% to 95% (non-condensing)	10% to 95% (non-condensing)	10% to 95% (non-condensing)	10% to 95% (non-condensing)
MTBF (hr)		513,985	911,301	638,691	672,235	502,509
Heat dissipation (BTU/hr)		551.74	76.73	1,580.54	125.83	1,617.36
Acoustic noise @ 25°C (dBA)		0	0	27.2	26.0	26.5

Features

Standard Compliance

- 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 802.3az EEE*
- IEEE 802.3x flow control
- IEEE 802.1AB LLDP/LLDP-MED
- IEEE 802.3ad LACP aggregation*
- IEEE 802.1D Spanning Tree Protocol (STP)*
- IEEE 802.1w Rapid Spanning Tree Protocol (RSTP)*
- IEEE 802.1s Multiple Spanning Tree Protocol (MSTP)
- IEEE 802.1Q VLAN tagging*
- IEEE 802.1p Class of Service (CoS) prioritization*
- IEEE 802.1X port authentication*

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 (Max # Trunks/ Links per Trunk): 8/8*
- Loop guard*
- ErrDisable recovery
- MRSTP (Zyxel proprietary)
- Dual configuration files
- Dual images*

Traffic Control

- 802.1Q Static VLANs*/Dynamic VLANs: 1 K/4 K
- Port-based VLAN*
- Protocol-based VLAN
- IP Subnet-based VLAN
- MAC-based VLAN
- Private VLAN
- Voice VLAN*
- VLAN ingress filtering
- LACP algorithm of source/ destination MAC/IP
- GVRP
- L2PT

Security

- 802.1X*
- Port security*
- Layer 2 MAC filtering
- Layer 3 IP filtering
- Layer 4 TCP/UDP socket filtering
- Static MAC forwarding
- Multiple RADIUS servers (IPv4*/IPv6)
- Multiple TACACS+ servers
- 802.1x VLAN* and 802.1p assignment by RADIUS*
- Login authentication by RADIUS*
- Login authentication by TACACS+
- TACACS+ accounting
- Authorization on RADIUS*
- Authorization on TACACS+
- SSL*
- MAC freeze
- DHCP snooping IPv4*
- DHCP snooping IPv6
- ARP inspection
- Static IP-MAC-Port binding
- Policy-based security filtering
- Port isolation
- IP source guard*
- MAC search
- Guest VLAN*
- ACL packet filtering (IPv4/IPv6)*
- CPU protection
- Interface related trap enable/disable (by port)
- IPv6 Duplicated Address Detection (DAD)*

Quality of Service (QoS)

- No. of hardware queues per port: 8*
- 802.1p queuing methods: SPQ, WRR, WFQ*
- Storm control: broadcast, multicast, unknown unicast (DLF)*
- Port-based rate limiting (ingress/egress)
- Rate limiting per IP/TCP/UDP per port
- Policy-based rate limiting
- 802.3x flow control
- 802.1p Class of Service (SPQ, WFQ, SPQ/WFQ combination capable)
- DiffServ (DSCP)

Layer 2 Multicast

- L2 multicast
- IGMP snooping (v1, v2, v3)*
- IGMP snooping fast Leave
- Configurable IGMP snooping timer and priority
- IGMP snooping statistics
- IGMP throttling
- MVR support
- IGMP filtering
- IGMP snooping immediate leave
- IGMP proxy mode & snooping mode selection
- MLD snooping

Manageability

- SNMP v1, v2c, v3
- SNMP trap group
- RMON (1, 2, 3, 9)
- ICMP echo/echo reply
- Syslog*
- IEEE 802.1AB LLDP
- IEEE 802.1AB LLDP-MED
- Custom default
- Syslog (IPv4/IPv6)
- Display port utilization*
- Support NebulaFlex™ for hybrid mode
- **New for V4.80** Auto configuration recovery (only for cloud mode)
- **New for V4.80** New Web interface

IPv6 Management

- IPv6 over Ethernet (RFC 2464)
- IPv6 addressing architecture (RFC 4291)
- Dual stack (RFC 4213)
- ICMPv6 (RFC 4443)
- Path MTU (RFC 1981)
- Minimum path MTU size of 1280 (RFC 5095)
- Encapsulation for maximum MTU of 1500
- Neighbor discovery (RFC 4861)
- DHCPv6 relay
- Default DHCP client mode*
- DAD (Duplicated Address Detection)*

Device Management

- Standalone management by Web interface
- Cloud management by Nebula Control Center*
- Zyxel iStacking™
- Web interface
- Management through SNMP
- Remote firmware upgrade by Web
- Configuration saving and retrieving
- Configure clone
- DHCP relay per VLAN
- DHCP client IPv4*
- DHCP client IPv6
- Daylight saving*
- NTP Server (IPv4/IPv6) – Support DNS format*
- Port mirroring*
- Scheduled PoE*
- PoE default consumption mode*
- Restore to last custom default

* Cloud and standalone modes supported features.

MIB

- Zyxel Common MIB
- RFC 1066 TCP/IP-based MIB
- RFC 1213, 1157 SNMPv2c/v3 MIB
- RFC 1493 bridge MIB
- RFC 1643 Ethernet MIB
- RFC 1757 RMON Group 1, 2, 3, 9
- RFC 2011, 2012, 2013 SNMPv2 MIB
- RFC 2233 SMIv2 MIB
- RFC 2358 Ethernet-like MIB
- RFC 2674 bridge MIB extension
- RFC 2819, 2925 remote management MIB
- RFC 3621 power Ethernet MIB
- RFC 4022 management information base for transmission control protocol
- RFC 4113 management information base for user datagram protocol
- RFC 4292 IP forwarding table MIB
- RFC 4293 Management Information Base (MIB) for IP

Certifications

Safety

- LVD
- BSMI

EMC

- FCC Part 15 (Class A)
- CE EMC (Class A)
- BSMI ENC

RoHS

- Level A

Zyxel One Network

ZON Utility*

- Discovery of Zyxel switches, APs and gateways
- Centralized and batch configurations:
  - IP configuration
  - IP renew
  - Device factory reset
  - Device reboot
  - Device locating
  - Web GUI access
  - Password configuration
  - One-click quick association with Zyxel AP Configurator (ZAC)
- Automatic detection of the latest firmware
- Displays device serial number and hardware version
- Cloud mode on/off option for Hybrid series devices
- **New for V4.80** Intuitive Cloud connection status

Smart Connect

- Discover neighboring devices
- One-click remote management access to the neighboring Zyxel devices
- Reset neighboring devices remotely to factory defaults
- Power cycle neighboring powered devices (PoE switches only)

Warranty

- Limited life-time warranty**

* Nebula Cloud and Standalone modes supported features. Some Nebula features may need an extra license to work. For more details on the features and licenses, check Nebula Licensing Table.

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

Accessories

Transceivers (Optional)

Model	Speed	Connector	Wavelength	Max. Distance	DDMI
SFP-1000T	Gigabit	RJ-45	-	0.1 km (109 yd)	-
SFP-SX-D	Gigabit	Duplex LC	850 nm	0.55 km (601 yd)	Yes
SFP-SX-E	Gigabit	Duplex LC	850 nm	0.55 km (601 yd)	Yes
SFP-LX-10-D	Gigabit	Duplex LC	1310 nm	10 km (10936 yd)	Yes
SFP-LX-10-E	Gigabit	Duplex LC	1310 nm	10 km (10936 yd)	Yes
SFP-LHX1310-40-D	Gigabit	Duplex LC	1310 nm	40 km (43744 yd)	Yes
SFP-ZX-80-D	Gigabit	Duplex LC	1550 nm	80 km (87488 yd)	Yes
SFP-BX1310-10-D	Gigabit	Single LC	1310 nm (Tx) 1490 nm (Rx)	10 km (10936 yd)	Yes
SFP-BX1310-E	Gigabit	Single LC	1310 nm (Tx) 1550 nm (Rx)	20 km (21872 yd)	Yes
SFP-BX1490-10-D	Gigabit	Single LC	1490 nm (Tx) 1310 nm (Rx)	10 km (10936 yd)	Yes
SFP-BX1550-E	Gigabit	Single 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

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