



## XGS2210 Series

24/48-port GbE Layer 3 Access Switch with 10GbE Uplink

The XGS2210 Series is a Gigabit Layer 3 Access switch with four 10G ports. It can either be used to uplink with another switch or stacked together with the same XGS2210 switch by connecting their 10G ports to each other. As the needs for the converged data and video/voice networking are increasing in the SMB applications, the 10GbE connectivity is the core to ensure a consistent and seamless user experience. The built-in smart fan which is specifically designed to automatically adjust its speed based on the device temperature delivers a silent and reliable switch operation.

### Benefits

#### Agile traffic control for converged networking applications

The Zyxel XGS2210 Series has a rich Layer 2 feature set that can shape the traffic for diverse VoIP, video conference, IPTV and Networked AV deployments. Advanced traffic control features of the XGS2210 Series such as L2 multicast, IGMP snooping, Multicast VLAN Registration (MVR) provide hotels, businesses and educational institutions greater agility and more effective traffic management for the converged applications of today.



Handles the increasing high-bandwidth applications easily with four built-in 10G SFP+ uplinks



Physical stacking up to 2 units and 96 Gigabit ports through 2 standard 10G SFP+ ports



High power budget of 375 W



L2 multicast, IGMP snooping, MVR and voice VLAN for convergence



Enhanced network protection with IP source guard, DHCP snooping, ARP inspection, CPU protection



L2, L3 and L4 filtering, MAC freeze, port isolation, guest VLAN for improved isolation and access control



## 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 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.

## High-powered Power over Ethernet (PoE)

The XGS2210 Series PoE switches support the 802.3at PoE Plus standard which provides up to 30 watts of power per port for advanced Powered Devices (PD) like 802.11ac wireless APs and video IP phones. The high power budget enables the XGS2210 PoE switches to comfortably accommodate the PDs required in a modern network edge. Especially in consumption mode, the XGS2210 PoE switches deliver only the actual power required by the networked devices, reserve the rest and maximize its power budget. This capability increases the number of devices connected and ensures a better ROI for the business.

## High level network and access security

Equipped with an extensive array of security features such as IP source guard, DHCP snooping, ARP inspection and CPU protection, the ZyXel XGS2210 Series offers enhanced control and isolation for improved convergence of video, voice and data. Combining multiple L2, L3 and L4 filtering mechanisms with such education- and hospitality-friendly features as MAC freeze, port isolation and guest VLAN, the ZyXel XGS2210 Series offers a high level of security, flexibility and control for diverse access layer deployments.

## Future-proof connectivity and scalability

Full IPv6 support with features including auto-configuration, duplicate address prevention, dual-stack (IPv4 and IPv6) and neighbor discovery, the ZyXel XGS2210 Series helps businesses and organizations stay ahead and get ready for future IPv6 networks. Also, the physical stacking feature facilitates management for multiple switches with one single interface.

## Model List

### XGS2210-52

48-port GbE Layer 3 Access Switch with 10GbE Uplink



- 48 x GbE RJ-45 ports
- 4 x 10 GbE SFP+ slots

### XGS2210-52HP

48-port GbE Layer 3 Access PoE Switch with 10GbE Uplink



- 48 x GbE PoE RJ-45 ports
- 4 x 10 GbE SFP+ slots
- PoE power budget: 375 W

### XGS2210-28

24-port GbE Layer 3 Access Switch with 10GbE Uplink



- 24 x GbE RJ-45 ports
- 4 x 10 GbE SFP+ slots

### XGS2210-28HP

24-port GbE Layer 3 Access PoE Switch with 10GbE Uplink

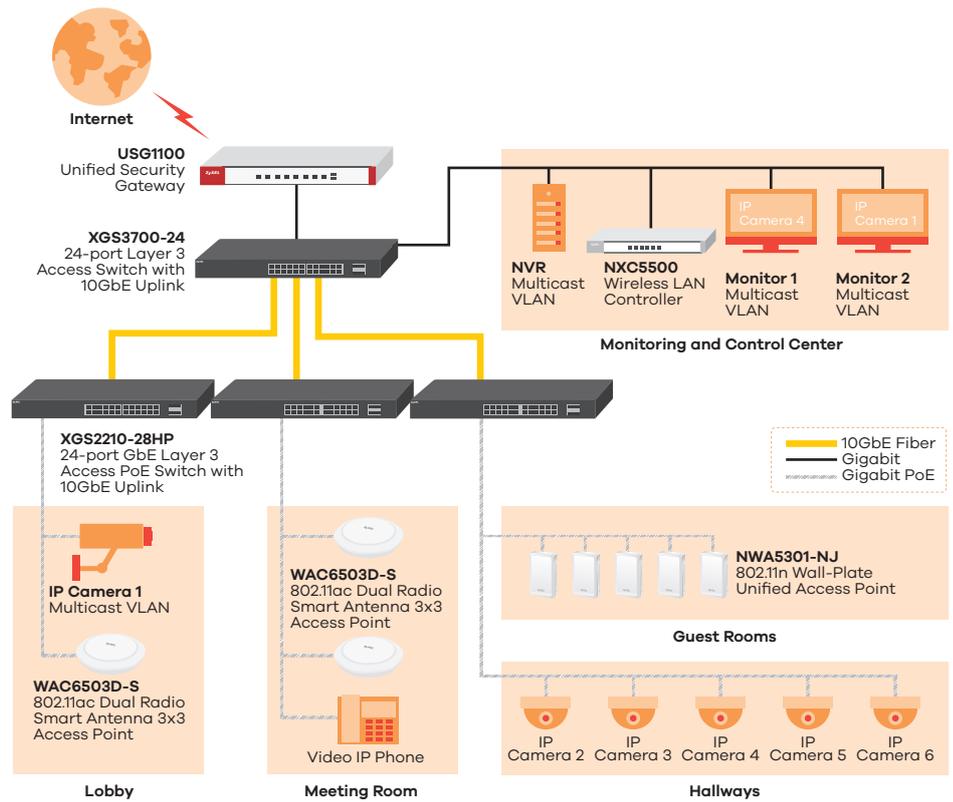


- 24 x GbE PoE RJ-45 ports
- 4 x 10 GbE SFP+ slots
- PoE power budget: 375 W

## Key Applications

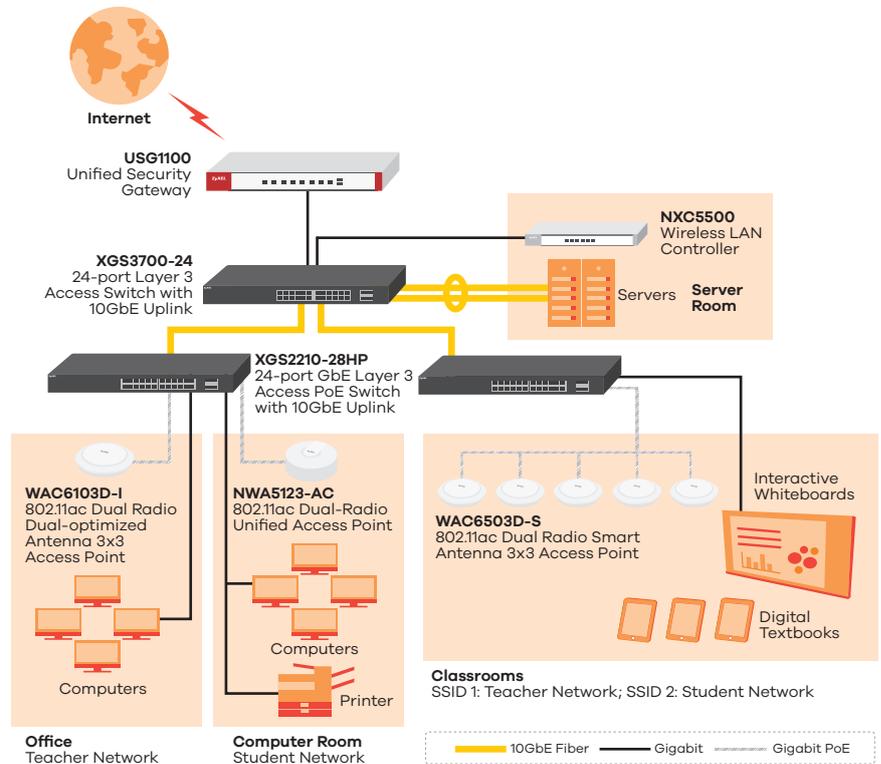
### IPTV, surveillance and guest access (hospitality)

- Each guest room can be assigned a dedicated data VLAN to provide better isolation and security to the Internet users
- The MVR function allows a single IPTV multicast VLAN to be shared with all the set-top boxes while the subscribers remain in separate data VLANs
- The total PoE power budget of up to 375 watts provides full supports to wireless APs and IP surveillance devices. (28HP/52HP)
- Enabling the IGMP snooping function allows IPTV traffic to be directed to the subscribers only, which reduces the waste of bandwidth caused by multicasting IPTV traffic to all ports
- The rich QoS feature set provides effective bandwidth prioritization and control to ensure various services quality and prevent bandwidth abuse



### Robust network infrastructure (education)

- The high power budget makes the XGS2210 Series perfect for classroom WLAN deployments with many APs for student digital textbooks
- The XGS2210 Series switch can separate the teacher's network from the student's network and grant different bandwidth privileges with port-based and ACL-based bandwidth management
- Support for 8 hardware queues per port and QoS based on 802.1p and DSCP reduces traffic congestions for latency-sensitive interactive learning applications
- Advanced defense mechanisms like IP source guard, DHCP snooping and ARP inspection safeguards the network from intentional attacks



## Specifications

Model	XGS2210-52	XGS2210-52HP	XGS2210-28	XGS2210-28HP	
<b>Product name</b>	48-port GbE Layer 3 Access Switch with 10GbE Uplink 	48-port GbE Layer 3 Access PoE Switch with 10GbE Uplink 	24-port GbE Layer 3 Access Switch with 10GbE Uplink 	24-port GbE Layer 3 Access PoE Switch with 10GbE Uplink 	
<b>Switch class</b>	Layer 3 Access	Layer 3 Access	Layer 3 Access	Layer 3 Access	
<b>Port Density</b>					
<b>Total port count</b>	52	52	28	28	
<b>100/1000 Mbps</b>	48	-	24	-	
<b>100/1000 Mbps PoE</b>	-	48	-	24	
<b>10 Gigabit SFP+</b>	4	4	4	4	
<b>Gigabit SFP</b>	-	-	-	-	
<b>Gigabit combo (SFP/RJ-45)</b>	-	-	-	-	
<b>Stacking</b>	Yes	Yes	Yes	Yes	
<b>Performance</b>					
<b>Switching capacity (Gbps)</b>	176	176	128	128	
<b>Forwarding rate (Mpps)</b>	130.9	130.9	95.2	95.2	
<b>Packet buffer (byte)</b>	1.5 M	1.5 M	1.5 M	1.5 M	
<b>MAC address table</b>	16 K	16 K	16 K	16 K	
<b>L3 forwarding table</b>	Max. 1 K IPv4 entries; Max. 512 IPv6 entries	Max. 1 K IPv4 entries; Max. 512 IPv6 entries	Max. 1 K IPv4 entries; Max. 512 IPv6 entries	Max. 1 K IPv4 entries; Max. 512 IPv6 entries	
<b>Static route</b>	64	64	64	64	
<b>IP interface</b>	32	32	32	32	
<b>Power</b>					
<b>Input</b>	100 - 240 V AC, 50/60 Hz	100 - 240 V AC, 50/60 Hz	100 - 240 V AC, 50/60 Hz	100 - 240 V AC, 50/60 Hz	
<b>Max. power consumption (watt)</b>	45	495	20	453	
<b>Total PoE power budget (watt)</b>	-	375	-	375	
<b>Physical Specifications</b>					
<b>Item</b>	<b>Dimensions (WxDxH)(mm/in.)</b>	441 x 270 x 45/ 17.36 x 10.63 x 1.77	440 x 330 x 44.5/ 17.32 x 12.99 x 1.75	441 x 270 x 45/ 17.36 x 10.63 x 1.77	440 x 330 x 44.5/ 17.32 x 12.99 x 1.75
	<b>Weight (kg/lb.)</b>	3.86/8.51	5.38/11.86	3.7/8.16	5.06/11.16
	<b>Packing</b>				
<b>Packing</b>	<b>Dimensions (WxDxH)(mm/in.)</b>	622 x 358 x 108/ 24.49 x 14.09 x 4.25	586 x 452 x 97/ 23.07 x 17.8 x 3.82	622 x 358 x 108/ 24.49 x 14.09 x 4.25	586 x 452 x 97/ 23.07 x 17.8 x 3.82
	<b>Weight (kg/lb.)</b>	4.92/10.85	6.75/14.9	4.8/10.58	6.4/14.1
<b>Included accessories</b>	<ul style="list-style-type: none"> <li>• Power cord</li> <li>• Rack mounting kit</li> </ul>	<ul style="list-style-type: none"> <li>• Power cord</li> <li>• Rack mounting kit</li> </ul>	<ul style="list-style-type: none"> <li>• Power cord</li> <li>• Rack mounting kit</li> </ul>	<ul style="list-style-type: none"> <li>• Power cord</li> <li>• Rack mounting kit</li> </ul>	
<b>Green Feature</b>					
<b>Fanless</b>	-	-	Yes	-	
<b>Environmental Specifications</b>					
<b>Operating</b>	<b>Temperature</b>	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
	<b>Humidity</b>	10% to 95% (non-condensing)	10% to 95% (non-condensing)	10% to 95% (non-condensing)	10% to 95% (non-condensing)
<b>Storage</b>	<b>Temperature</b>	-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
	<b>Humidity</b>	10% to 90% (non-condensing)	10% to 90% (non-condensing)	10% to 90% (non-condensing)	10% to 90% (non-condensing)
<b>MTBF (hr)</b>	970,594	500,904	831,699	560,726	
<b>Heat dissipation (BTU/hr)</b>	153.3	1,688	68.2	1,483.4	
<b>Acoustic noise @ 25°C (dBA)</b>	51.6	57.6	0	57	

# 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 802.3az EEE
- IEEE 802.3x flow control
- IEEE 802.3ad LACP aggregation
- IEEE 802.1AB LLDP/LLDP-MED
- 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
- Loop guard
- Root guard
- BPDU guard
- ErrDisable recovery
- MRSTP (Zyxel Proprietary)
- Dual configuration files
- Dual images
- Physical stacking

## Traffic Control

- 802.1Q static VLANs/dynamic VLANs: 1 K/4 K
- Port-based VLAN
- **New for V4.70** VLAN isolation
- Vendor ID based VLAN
- Protocol-based VLAN
- IP subnet-based VLAN
- MAC-based VLAN
- Private VLAN
- Voice VLAN
- VLAN ingress filtering
- LACP algorithm of source/destination IP or MAC
- GVRP
- L2PT
- VLAN mapping

## Security

- Port security
- Layer 2 MAC filtering
- Layer 3 IP filtering
- Layer 4 TCP/UDP socket filtering
- Static MAC forwarding
- Multiple RADIUS servers
- Multiple TACACS+ servers
- 802.1x VLAN and 802.1p assignment by RADIUS
- Login authentication by RADIUS
- Login authentication by TACACS+
- TACACS+ accounting
- RADIUS accounting
- Authorization on RADIUS
- **New for V4.70** Compound authentication
- Authorization on TACACS+
- SSH v2
- SSL
- Intrusion lock
- MAC freeze
- DHCP snooping
- ARP inspection
- Static IP-MAC-Port binding
- Policy-based security filtering
- Port isolation
- IP source guard (IPv4/IPv6)
- MAC search
- Guest VLAN
- ACL packet filtering (IPv4/IPv6)
- CPU protection
- Interface related trap enable/disable (by port)
- MAC-based authentication per VLAN

## Quality of Service (QoS)

- No. of hardware queues per port: 8
- Storm control and event log: 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, WRR, hybrid-SPQ 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

## Routing

- Static route
- IP port moving
- Assigned DHCP relay with specific source IP interface

## 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

## 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 PMTU of 1500
- Neighbor discovery (RFC 4861)
- DHCPv6 relay
- Default DHCP client mode

## Device Management

- Zyxel iStacking™
- Web interface
- Management through Console, Telnet, SNMP
- Remote firmware upgrade by FTP/ Web/TFTP
- **New for V4.70** Networked AV mode by Web Interface
- Configuration saving and retrieving
- Multiple logins supported
- Configure clone
- Multilevel CLI
- CLI (Cisco-like)
- DHCP relay per VLAN
- DHCP client
- DHCP option 82
- Daylight saving
- DHCP relay MAC proxy
- **New for V4.70** DHCP server guard
- Auto PD Recovery
- NTP supports IPv4/IPv6
- Port mirroring
- Flow-based mirroring
- VLAN-based mirroring
- RS-232 out-of-band console port
- Scheduled PoE
- PoE default consumption mode
- sFlow

## MIB

- Zyxel new private 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
- Cable diagnostic MIB

## Certifications

### Safety

- LVD
- BSMI

### EMC

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

### 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)

### 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\*

\* 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
<b>SFP10G-SR</b>	10-Gigabit SFP+	LC	850 nm	0.3 km (984 ft)	Yes
<b>SFP10G-SR-E</b>	10-Gigabit SFP+	LC	850 nm	0.3 km (984 ft)	Yes
<b>SFP10G-LR</b>	10-Gigabit SFP+	LC	1310 nm	10 km (10936 yd)	Yes
<b>SFP10G-LR-E</b>	10-Gigabit SFP+	LC	1310 nm	10 km (10936 yd)	Yes
<b>SFP-1000T</b>	Gigabit	RJ-45	-	0.1 km (109 yd)	-
<b>SFP-SX-D</b>	Gigabit	LC	850 nm	0.55 km (601 yd)	Yes
<b>SFP-SX-E</b>	Gigabit	LC	850 nm	0.55 km (601 yd)	Yes
<b>SFP-LX-10-D</b>	Gigabit	LC	1310 nm	10 km (10936 yd)	Yes
<b>SFP-LX-10-E</b>	Gigabit	LC	1310 nm	10 km (10936 yd)	Yes
<b>SFP-LHX1310-40-D</b>	Gigabit	LC	1310 nm	40 km (43744 yd)	Yes
<b>SFP-ZX-80-D</b>	Gigabit	LC	1550 nm	80 km (87488 yd)	Yes
<b>SFP-BX1310-10-D</b>	Gigabit	LC	1310 nm (Tx) 1490 nm (Rx)	10 km (10936 yd)	Yes
<b>SFP-BX1310-E</b>	Gigabit	LC	1310 nm (TX) 1550 nm (RX)	20 km (21872 yd)	Yes
<b>SFP-BX1490-10-D</b>	Gigabit	LC	1490 nm (Tx) 1310 nm (Rx)	10 km (10936 yd)	Yes
<b>SFP-BX1550-E</b>	Gigabit	LC/SC	1550 nm (TX) 1310 nm (RX)	20 km (21872 yd)	Yes

### Direct Attach Cables (Optional)

Model	Connector	Cable Length
<b>DAC10G-1M</b>	SFP+ to SFP+	1 m (39.37 inch)
<b>DAC10G-3M</b>	SFP+ to SFP+	3 m (118.11 inch)

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

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