ZYXEL

XGS4600 Series

28-port GbE L3 Managed Switch with 4 SFP+ Uplink

Bandwidth-intensive applications such as multimedia streaming, VoIP and video surveillance are used daily in business networks for more efficient workflows. However, the networks could be overloaded and that causes reduced business productivity. Deploying 10-Gigabit Ethernet ports at the aggregation layer to deal with bandwidth-intensive networks becomes the top choice of users such as hospitality venues and education institutions. Zyxel's brand new Layer-3 stackable XGS4600 Switch Series comes with Gigabit connectivity and four integrated 10-Gigabit SFP+ slots that enable high-speed uplink connections for affordable, reliable network elements. The front panel with carbon fiber look brings a totally fresh look than traditional switches. Under the elegant hood, the XGS4600 Series not only features advanced L2 switching functionality, but also L3 routing capabilities for communications between networks.

Benefits

High availability

To implement fault-tolerant networks, the Zyxel XGS4600 Series allows creating a physical stack through one or two 10-Gigabit SFP+ slots. Four units or 112 Gigabit ports can be configured as a stack using optional direct-attach cables or transceivers to provide high bandwidth on the XGS4600 Series for more flexible management. The stacking topology under the ring architecture provides high redundancy in case one of the stacking links fail. The system can quickly recover through another stacking connection. The XGS4600 Series is designed to support active-standby power redundancy to trigger backup power supply to take over in case the main power supply fails.

New ID design with carbon fiber look name plate delivers the modern look-and-feel in the closet

Four built-in 10G SFP+ uplinks enable congestion-free, smooth data delivery for high-bandwidth applications

Provides high-bandwidth with true physical stacking of up to 4 units and 112 Gigabit ports

High resiliency with redundant power supply units

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Redefining network integration

Datasheet XGS4600 Series

Advanced L3 features

Hierarchical business networks become more complex because of the increased communication among subnets. The XGS4600 Series features dynamic routing to simplify cross-subnet communications for businesses such as hospitality venues and education institutions that operate complex networks. In addition, the XGS4600 Series comes with full Layer-2 switching and Layer-3 routing capabilities if the system is working under the stacking mode. The stackable structure greatly enlarges network coverage as well as network resiliency that most enterprise networks require.

Flexible management and future-proof networks

The XGS4600 Series can be managed via CLI which is consistent with Zyxel managed switches, while the intuitive Web-based GUI helps skilled network administrators to quickly become more productive. As the IP address scheme evolves to accommodate a growing number of network devices, the Zyxel XGS4600 Series assures businesses a smooth migration path from IPv4-based networks to a full IPv6 infrastructure for protection to the investments in future network upgrades.

Model List

XGS4600-32
28-port GbE L3 Managed Switch with 4 SFP+ Uplink

- 24 x GbE RJ-45 ports
- 4 x GbE combo (RJ-45/SFP) ports
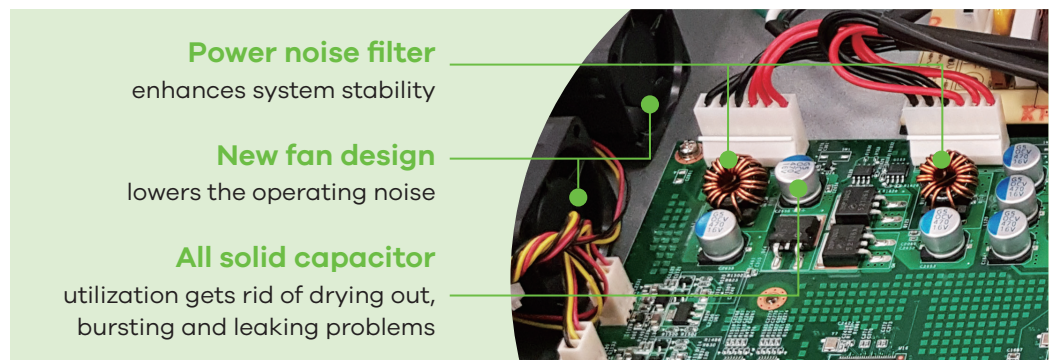- 4 x 10 GbE SFP+ slots

XGS4600-32F
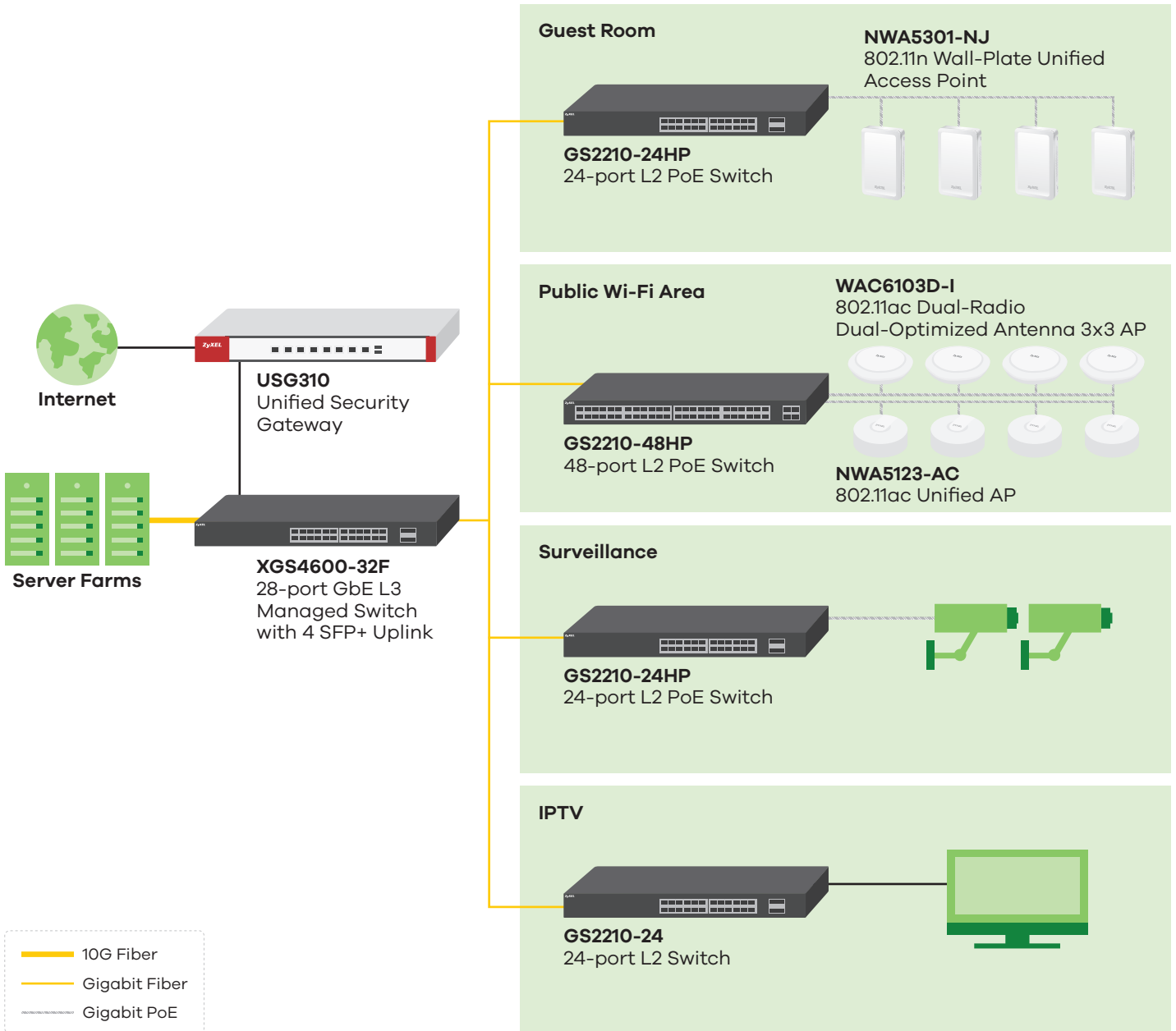28-port GbE L3 Managed Switch with 4 SFP+ Uplink

- 24 x GbE SFP slots
- 4 x GbE combo (RJ-45/SFP) ports
- 4 x 10 GbE SFP+ slots

Robust Hardware

High-quality hardware design ensures stability and longevity for XGS4600 Series on your networks.

Power noise filter enhances system stability

New fan design lowers the operating noise

All solid capacitor utilization gets rid of drying out, bursting and leaking problems

Application Diagram

Guest Room

GS2210-24HP
24-port L2 PoE Switch

NWA5301-NJ
802.11n Wall-Plate Unified
Access Point

Public Wi-Fi Area

GS2210-48HP
48-port L2 PoE Switch

WAC6103D-I
802.11ac Dual-Radio
Dual-Optimized Antenna 3x3 AP

NWA5123-AC
802.11ac Unified AP

Surveillance

GS2210-24HP
24-port L2 PoE Switch

IPTV

GS2210-24
24-port L2 Switch

Internet

USG310
Unified Security
Gateway

Server Farms

XGS4600-32F
28-port GbE L3
Managed Switch
with 4 SFP+ Uplink

10G Fiber
Gigabit Fiber
Gigabit PoE

Specifications

Model	XGS4600-32	XGS4600-32F
Product name	28-port GbE L3 Managed Switch with 4 SFP+ Uplink	28-port GbE L3 Managed Switch with 4 SFP+ Uplink
Switch class	Layer 3	Layer 3
Port Density		
Total port count	32	32
Gigabit SFP	-	24
100/1000 Mbps	24	-
Gigabit combo (SFP/RJ-45)	4	4
10-Gigabit SFP+	4	4
Performance		
Switching capacity (Gbps)	136	136
Forwarding rate (Mpps)	101.1	101.1
Packet buffer (byte)	4 MB	4 MB
MAC address table	32 K	32 K
L3 forwarding table	Max. 8 K IPv4 entries; Max. 4 K IPv6 entries	Max. 8 K IPv4 entries; Max. 4 K IPv6 entries
Routing table	12 K	12 K
IP interface	256	256
Flash/RAM	64 MB/1 GB	64 MB/1 GB
Power		
Input	100 - 240 V AC, 50/60 Hz	100 - 240 V AC, 50/60 Hz
Max. power consumption (watt)	47.0	60.1
Physical Specifications		
Item	Dimensions (WxDxH)(mm/in.)	441 x 270 x 44/17.36 x 10.63 x 1.73	441 x 270 x 44/17.36 x 10.63 x 1.73
	Weight (kg/lb.)	3.96/8.73	4.21/9.28
Packing	Dimensions (WxDxH)(mm/in.)	616 x 355 x 107/24.25 x 13.98 x 4.21	616 x 355 x 107/24.25 x 13.98 x 4.21
	Weight (kg/lb.)	5.69/12.54	5.83/12.85
Included accessories	• Power cord • Rack mounting kit	• Power cord • Rack mounting kit
Environmental Specifications		
Operating	Temperature	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)
Storage	Temperature	-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)
MTBF (hr)	860,610.82	794,270.06
Heat dissipation (BTU/hr)	160.27	204.94
Acoustic noise (dBA)	59.8	60.3

Features

Standard Compliance

- IEEE 802.3 10Base-T Ethernet
- IEEE 802.3u 100Base-Tx Ethernet
- IEEE 802.3ab 1000Base-T Ethernet
- IEEE 802.3z 1000 Base-X
- IEEE 802.3x flow control
- IEEE 802.3az EEE support
- IEEE 802.1p CoS support
- 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 802.1X Port authentication
- IEEE 802.3ad LACP aggregation

Traffic Management and QoS

- Rate limiting: policy-based/port-based bandwidth control with 64 kbps granularity
- Two Rate Three Color Marker (trTCM)
- CIR/PIR bandwidth control
- Port-based egress traffic shaping
- Broadcast storm control
- IEEE 802.1p with 8 priority queues per port
- WFR, WRR, SPQ scheduling algorithms
- DSCP/DSCP to 802.1p priority mapping
- IGMP/IGMP snooping v1, v2, v3
- IGMP throttling
- IGMP snooping fast leave
- IGMP snooping statistics
- Multicast VLAN Registration (MVR)
- Congestion control on all ports
- Selective Q-in-Q

IP Routing

IPv4

- Wire-speed IP forwarding
- RIP v1, v2
- OSPF
- Static routing
- DHCP server/relay
- OSPF summary address
- DVMRP
- ECMP
- IP port moving
- VRRP

IPv6

- IPv6 over Ethernet
- IPv6 addressing
- ICMPv6
- Dual Stack
- IPv6 static routing
- Neighbor discovery
- DHCPv6 relay

Link Aggregation

- IEEE 802.3ad LACP link aggregation
- Static port trunking
- Up to 16 aggregation groups, 8 ports per group randomly selected
- Link aggregation algorithm of source/destination IP address

Resiliency

- IEEE 802.1D Spanning Tree Protocol (STP)
- IEEE 802.1w Rapid Spanning Tree Protocol (RSTP)
- IEEE 802.1s Multiple Spanning Tree Protocol (MSTP)
- Equal Cost Multipath Routing (ECMP)
- Virtual Router Redundancy Protocol (VRRP)
- CPU protection

User Security and Authentication

- IEEE 802.1Q tag-based and port-based VLAN
- GVRP automatic VLAN member registration
- 1 K static VLANs and up to 4 K dynamic VLANs
- Full range 4 K PVID support
- Port-based VLAN and VLAN isolation
- IP classification VLAN
- VLAN counter
- VLAN search
- VLAN translation
- VLAN MAC limit
- Intrusion lock
- MAC freeze
- MAC search
- MAC filtering
- Port security
- Limited MAC number per port
- IP source guard
- Loop guard
- IP filtering
- TCP/UDP socket filtering
- BPDU transparency
- IEEE 802.1X port-based authentication
- Enhanced 802.1X compensation assignment over VLAN
- TACACS+
- Layer 2 protocol tunneling
- Guest VLAN

Network Administration Security

- Username/password required for Web/Telnet/local console administrators
- Two-level security by specific SNMP read/write community
- Multiple login sessions
- Multiple access permission
- SSH v1, v2
- SSL/TLS

Network Management

- Zyxel iStacking™, up to 24 switches managed by a single IP address
- Physical stacking up to 4 switches
- Web-based management
- Telnet
- SSH
- SNMP v1, v2c, v3
- RS-232c local console
- IP management: static IP or DHCP-assigned IP
- Four RMON groups 1, 2, 3, 9 (history, statistics, alarms and events)
- Port mirroring: ingress/egress/both port mirroring
- IEEE 802.1AB LLDP
- Transceiver DDMI information (including MIB)
- sFlow

Intelligent ACL (L2/L3/L4)

- Based on MAC address
- Based on VLAN
- Based on IP address
- Based on protocol type
- Based on TCP/UDP type
- Based on DSCP

MIB Information

- RFC 1066 TCP/IP-based MIB
- RFC 1213, 1157 SNMPv2c/v3 MIB
- RFC 2011, 2012, 2013 SNMPv2 MIB
- RFC 1493 bridge MIB
- RFC 2674 bridge MIB extension
- RFC 1643 Ethernet MIB
- RFC 2358 Ethernet-like MIB
- RFC 1757 RMON group 1, 2, 3, 9
- RFC 2819, 2925 remote management MIB
- RFC4293 – Management MIB for IP
- Zyxel private MIB

Certifications

Safety
- ANSI/UL 60950-1
- CSA 60950-1
- EN 60950-1
- IEC 60950-1

EMC
- FCC Part 15 (Class A)
- CE EMC (Class 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
SFP10G-SR	10-Gigabit SFP+	Duplex LC	850 nm	300 m (984 ft)	Yes
SFP10G-LR	10-Gigabit SFP+	Duplex LC	1310 nm	10 km (10936 yd)	Yes
SFP-1000T	Gigabit SFP	RJ-45	-	100 m (328 ft)	-
SFP-BX1310-10-D	Gigabit SFP	LC	1310 nm (Tx); 1490 nm (Rx)	10 km (10936 yd)	Yes
SFP-LHX1310-40-D	Gigabit SFP	LC	1310 nm	40 km (43744 yd)	Yes
SFP-LX-10-D	Gigabit SFP	LC	1310 nm	10 km (10936 yd)	Yes
SFP-SX-D	Gigabit SFP	LC	850 nm	550 m (1804 ft)	Yes
SFP-ZX-80-D	Gigabit SFP	LC	1550 nm	80 km (87488 yd)	Yes

Direct Attach Cables (Optional)

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

For more product information, visit us on the web at www.zyxel.com

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