

## XGS3700 Series

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

The ZyXel XGS3700 Series are Layer 3 Gigabit managed switches with 10G uplink perfect for data center access, SMB core/aggregation, and mission critical PoE applications. There are 4 models for the XGS3700 Series including 24/48-port and PoE or non-PoE options; All of them come with Gigabit connectivity and four integrated 10-Gigabit SFP+ slots. The Series is designed with an advanced feature set with static routing, policy-based routing (PBR), VRRP and ECMP support. The high redundancy hardware architecture includes hot swappable and internal redundant power supply. The PoE models also comply with the IEEE 802.3at PoE Plus standard and provide industry-leading PoE power budget of up to 1000 watts.

#### Benefits

##### Resiliency and availability for non-stop business continuity

The ZyXel XGS3700 Series features a no single point of failure (NSPOF) hardware and software design to provide the resiliency needed for non-stop business continuity. Its high redundancy hardware architecture includes dual, internal power supplies—which not only ensures 100% uptime in the event of a power supply failure, but also saves rack space compared to external power supplies. In terms of software features, the ZyXel XGS3700 Series supports Equal Cost Multipath Routing (ECMP) and Virtual Router Redundancy Protocol (VRRP) for increased network availability and reliability. The physical stacking feature facilitates management for multiple switches with one single interface. The cross-stack LACP technology allows traffics to be carried over to other links when a LACP link fails to provide high redundancy. The stacking ring technology allows no interruption to data forwarding if any stack switch fails to ensure resiliency.



Extremely high availability hardware and software design



Non-stop connectivity with hot swappable and internal redundant power supply



Robust softwares include stacking, cross-stack LACP, ECMP and VRRP



Physical stacking up to 8 units and 384 Gigabit ports through 2 standard 10G SFP+ ports



High PoE power budget up to 1000 W

## High power capacity and high availability for mission critical PoE applications

The Zyxel XGS3700 Series PoE switches provides up to 30 watts per port with IEEE 802.3at PoE Plus compliance. All models provide an industry-leading PoE power budget of 1000 watts with dual power supply units or 460 watts with a single power supply unit. Combined with the high resiliency hardware and software features, the XGS3700 Series PoE switches are ideal for mission critical IP surveillance, WLAN and high quality VoIP applications.

## Layer 3 routing features

Business networks become more complex because of the increased communication among subnets. The XGS3700 Series features routing capability to simplify cross-subnet communications for businesses such as hospitality venues and education institutions that operate complex networks. In addition, the XGS3700 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 network resiliency.

## Deployment flexibility and investment protection

The XGS3700 Series provides added routing flexibility with support for static routing and policy-based routing (PBR); and its full and consistent GUI, CLI and MIB ensures simplified management and consistent configurations. Investment protection is guaranteed with the Zyxel XGS3700 Series. Its high port density and high power budget design leaves room for future deployment expansion and eliminates the need to purchase additional equipment. The four (4) 10GbE ports facilitate easy transition to 10GbE networking in data center and enterprise networks, while full IPv6 support ensures that your network is ready for the future.

## Model List

### XGS3700-24

24-port GbE L3 Switch with 10GbE Uplink



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

### XGS3700-48

48-port GbE L3 Switch with 10GbE Uplink



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

### XGS3700-24HP

24-port GbE L3 PoE Switch with 10GbE Uplink



- 24 x GbE PoE RJ-45 ports
- 4 x 10G SFP+ ports
- PoE power budget: 460W (Single PSU) / 1000W (Dual PSU)

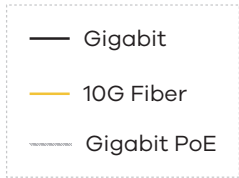
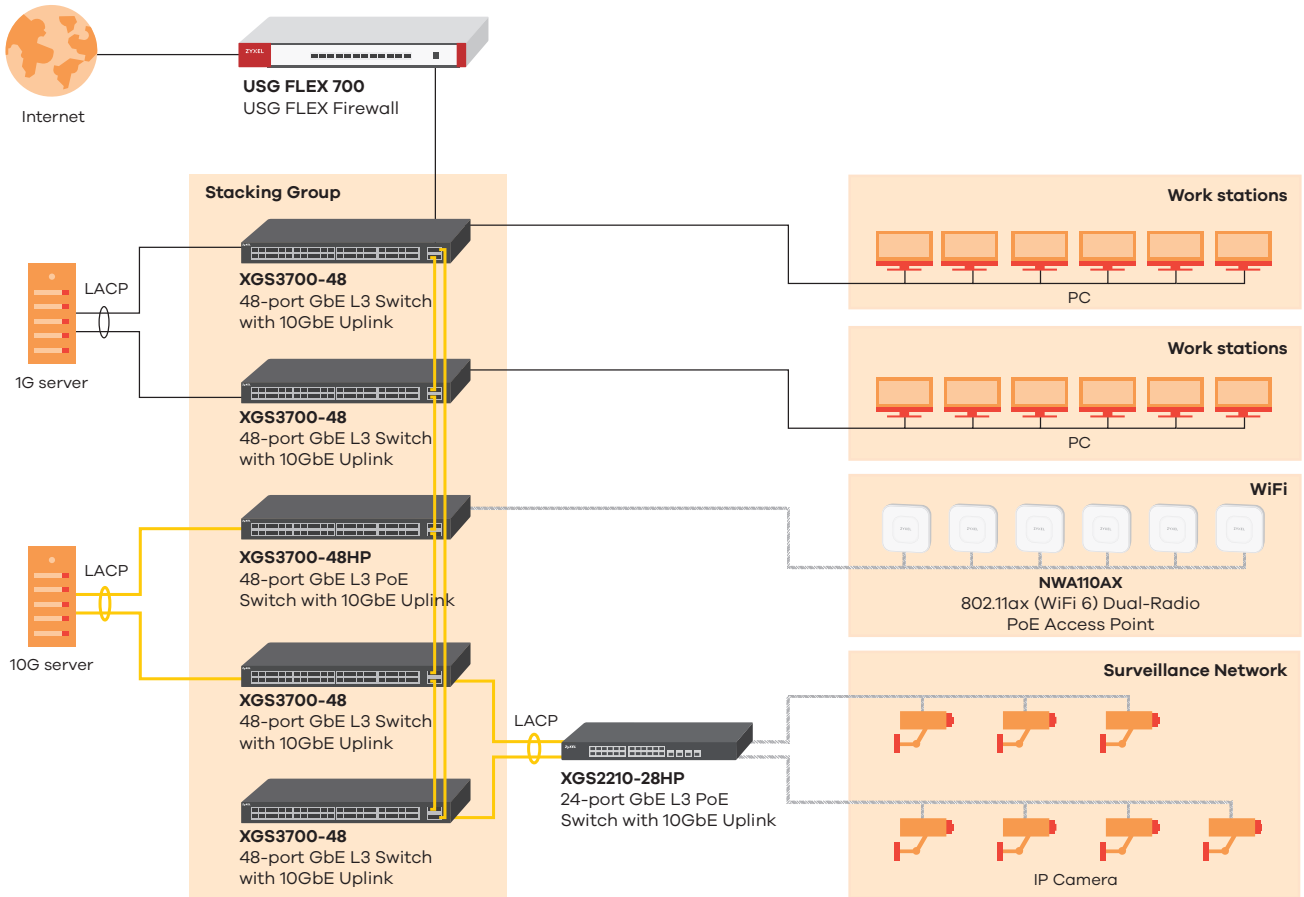
### XGS3700-48HP

48-port GbE L3 PoE Switch with 10GbE Uplink



- 48 x GbE PoE RJ-45 ports
- 4 x 10G SFP+ ports
- PoE power budget: 460W (Single PSU) / 1000W (Dual PSU)

# Application Diagram



## Specifications

Model	XGS3700-24	XGS3700-24HP	XGS3700-48	XGS3700-48HP	
<b>Product name</b>	24-port GbE L3 Switch with 10GbE Uplink	24-port GbE L3 PoE Switch with 10GbE Uplink	48-port GbE L3 Switch with 10GbE Uplink	48-port GbE L3 PoE Switch with 10GbE Uplink	
<b>Switch class</b>	Layer 3	Layer 3	Layer 3	Layer 3	
<b>Port Density</b>					
<b>Total port count</b>	28	28	52	52	
<b>100/1000 Mbps</b>	24	24	48	48	
<b>10-Gigabit SFP+</b>	4	4	4	4	
<b>PoE</b>					
<b>802.3at PoE ports</b>	-	24	-	48	
<b>Total PoE budget (Watts)</b>	-	Single PSU 460 W Dual PSU 1,000 W	-	Single PSU 460 W Dual PSU 1,000 W	
<b>Performance</b>					
<b>Switching capacity (Gbps)</b>	128	128	176	176	
<b>Forwarding rate (Mpps)</b>	95	95	131	131	
<b>Packet buffer (byte)</b>	2 M	2 M	2 M	2 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>Routing table</b>	64	64	64	64	
<b>IP interface</b>	128	128	128	128	
<b>Flash/RAM (MB)</b>	32/512	32/512	32/512	32/512	
<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>	Single PSU 57.8 W Dual PSU 70.3 W	Single PSU 534.3 W Dual PSU 1,098.5 W	Single PSU 74.7 W Dual PSU 87.6 W	Single PSU 556.7 W Dual PSU 1,121.3 W	
<b>Physical Specifications</b>					
<b>Item</b>	<b>Dimensions (WxDxH)(mm/in.)</b>	440 x 437 x 40/ 17.32 x 17.2 x 1.57	440 x 437 x 40/ 17.32 x 17.2 x 1.57	440 x 437 x 40/ 17.32 x 17.2 x 1.57	440 x 437 x 40/ 17.32 x 17.2 x 1.57
	<b>Weight (kg/lb.)</b>	7.27/16.03	7.55/16.64	7.57/16.69	8.02/17.68
	<b>Packing</b>	<b>Dimensions (WxDxH)(mm/in.)</b>	615 x 550 x 115/ 24.21 x 21.65 x 4.53	615 x 550 x 115/ 24.21 x 21.65 x 4.53	615 x 550 x 115/ 24.21 x 21.65 x 4.53
<b>Weight (kg/lb.)</b>		9.8/21.61	9.99/22.02	10.05/22.16	10.61/23.39
<b>Included accessories</b>		• Power cord • Rack mounting kit	• Power cord • Rack mounting kit	• Power cord • Rack mounting kit	• Power cord • Rack mounting kit
<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>		280,000	220,000	250,000	200,000
<b>Heat dissipation (BTU/hr)</b>		Single PSU 197.1 Dual PSU 239.7	Single PSU 1,821 Dual PSU 3,745.9	Single PSU 254.7 Dual PSU 298.7	Single PSU 1,898.3 Dual PSU 3,823.6
<b>Acoustic noise (dBA)</b>		53.3	53.3	53.6	53.6

# 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 802.3aq 10GBASE-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 802.3ah OAM
- IEEE 802.1ag CFM
- 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
- Virtual Router Redundancy Protocol (VRRP)
- Loop guard
- Root guard
- BPDU guard
- ErrDisable recovery
- MRSTP (Zykel Proprietary)
- Dual configuration files
- Dual flash images
- Dual redundant power supply support
- Physical stacking

## Traffic Control

- 802.1Q static VLANs/dynamic VLANs: 1 K/4 K
- Port-based VLAN
- Protocol-based VLAN
- Private VLAN
- IP subnet-based VLAN
- VLAN trunking
- VLAN translation

- VLAN ingress filtering
- 802.1ad VLAN stacking (Q-in-Q)
- LACP algorithm of source/destination IP
- GVRP
- Selected Q-in-Q
- L2PT

## Security

- 802.1X
- Port security
- MAC authentication
- Layer 2 MAC filtering
- Layer 3 IP filtering
- Layer 4 TCP/UDP socket filtering
- BPDU transparency
- 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
- Authorization on TACACS+
- Authorization on console
- SSH v1/v2
- SSL
- Intrusion lock
- MAC freeze
- DHCP snooping
- ARP inspection
- ARP freeze
- Static ARP
- Static IP/MAC binding
- Policy-based security filtering
- Port isolation
- IP source guard (IPv4/IPv6)
- Limit number of MAC per VLAN
- MAC search
- Guest VLAN
- ACL packet filtering (IPv4/IPv6)
- PPPoE relay agent
- PPPoE option 82
- PPPoE IA
- CPU protection
- MAC pinning
- Interface related trap enable/disable (by port)
- MAC-based authentication per VLAN

## Quality of Service (QoS)

- No. of hardware queues per port: 8

- 802.1p queuing method: SPQ/WRR/WFQ
- Storm control: Broadcast, multicast, unknown unicast (DLF)
- Port-based rate limiting (ingress/egress):\*/64 Kbps
- Rate limiting per IP/TCP/UDP per port
- Policy-based rate limiting
- Policy-based bandwidth control granularity
- Ingress CIR for bandwidth control
- 802.3x flow control
- Port-based egress traffic shaping CIR/PIR support
- Policy-based prioritization
- Two Rate Three Color Marking (TRTCM)
- 802.1p Class of Service (SPQ, WFQ, SPQ/WFQ combination capable)
- DiffServ (DSCP)

## Layer 2 Multicast

- L2 multicast (Group)
- 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
- IPv6 MLD snooping proxy

## Routing

- Static route
- Policy-based route
- IP port moving
- Multiple default route

## Manageability

- SNMP v1, v2c, v3
- SNMP trap group
- RMON (1, 2, 3, 9)
- ICMP echo/echo reply
- Syslog
- IEEE 802.3ah OAM (Link discovery, loopback)
- IEEE 802.1ag CFM
- IEEE 802.1AB LLDP
- IEEE 802.1AB LLDP-MED

## 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

- iStacking
- Web interface
- Management through Console, Telnet, SNMP
- Firmware upgrade by FTP
- Remote firmware upgrade by FTP/ Web
- Configuration saving and retrieving
- Multiple logins supported
- Configure clone
- Multilevel CLI
- CLI (Cisco-like)
- DHCP servers (IPv4/IPv6)
- DHCP relay per VLAN
- DHCP client
- DHCP option 82
- DHCP option 82 profile
- Daylight saving
- NTP
- Port mirroring
- Port mirroring per IP/TCP/UDP
- Policy-based port mirroring
- RJ-45 out-of-band management port
- RS-232 out-of-band console port

- sFlow
- Remote port monitoring
- Scheduled PoE

## MIB

- Zyxel 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

## Certifications

- Safety:
  - LVD
  - BSMI
- EMC:
  - FCC Part 15 (Class A)
  - CE EMC (Class A)
  - BSMI ENC
- RoHS:
  - Level A
  - Per host session limit
  - Guaranteed bandwidth
  - Maximum bandwidth
  - Priority-bandwidth utilization

## 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
  - Firmware upgrade
  - 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

### 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

### Power Modules (Optional)

Item	Description
RPS300	Non-PoE power supply unit for XGS3700-24, XGS3700-48
RPS600-HP	PoE power supply unit for XGS3700-24HP, XGS3700-48HP

### Transceivers (Optional)

Model	Speed	Connector	Wavelength	Max. Distance	DDMI
SFP10G-SR	10-Gigabit SFP+	Duplex LC	850 nm	0.3 km (984 ft)	Yes
SFP10G-SR-E	10-Gigabit SFP+	LC	850 nm	0.3 km (984 ft)	Yes
SFP10G-LR	10-Gigabit SFP+	Duplex LC	1310 nm	10 km (10936 yd)	Yes
SFP10G-LR-E	10-Gigabit SFP+	LC	1310 nm	10 km (10936 yd)	Yes
SFP-1000T	Gigabit	RJ-45	-	0.1 km (109 yd)	-
SFP-SX-D	Gigabit	LC	850 nm	0.55 km (601 yd)	Yes
SFP-SX-E	Gigabit	LC	850 nm	0.55 km (601 yd)	Yes
SFP-LX-10-D	Gigabit	LC	1310 nm	10 km (10936 yd)	Yes
SFP-LX-10-E	Gigabit	LC	1310 nm	10 km (10936 yd)	Yes
SFP-LHX1310-40-D	Gigabit	LC	1310 nm	40 km (43744 yd)	Yes
SFP-ZX-80-D	Gigabit	LC	1550 nm	80 km (87488 yd)	Yes
SFP-BX1310-10-D	Gigabit	LC	1310 nm (Tx) 1490 nm (Rx)	10 km (10936 yd)	Yes
SFP-BX1310-E	Gigabit	LC	1310 nm (TX) 1550 nm (RX)	20 km (21872 yd)	Yes
SFP-BX1490-10-D	Gigabit	LC	1490 nm (Tx) 1310 nm (Rx)	10 km (10936 yd)	Yes
SFP-BX1550-E	Gigabit	LC / SC	1550 nm (TX) 1310 nm (RX)	20 km (21872 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](http://www.zyxel.com)

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