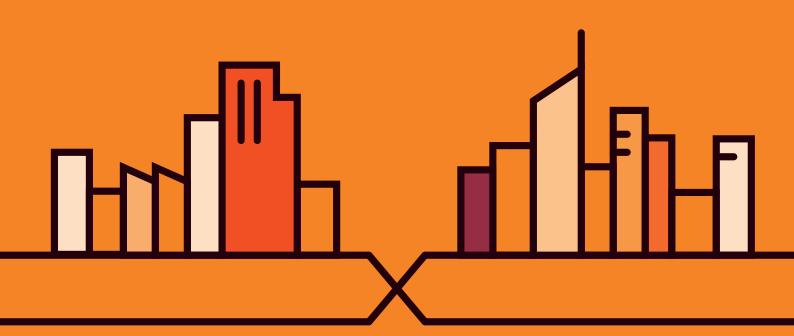


Grow with Your Business

- Wireless LAN Switch
- Security
- Gateway
- Cloud Networking &

Business Networking Product Guide

We help you build the future of your business



Contents

WLAN APs & Switches **Controllers**

Security **Appliances & Services**

- Wireless LAN Controllers
- Wireless LAN Access Points 13
- Accessories 17

- L3 Managed Switches
- L2/L2+ Managed Switches
- **Smart Managed Switches**
- Web Managed Switches
- **Unmanaged Switches**
- **Rugged Switches**
- Switch Accessories

- 61 Next-Generation Unified Security Gateway
- Unified Security Gateways
- **VPN Firewalls**
- 66 Appliances and Services

Access **Gateways**

Small Business Gateways

Network Management

- 82 Unified Access Gateways
- Small Business Gateways
- 94 Cloud Network Center
- Zyxel One Network Utility
- **Zyxel AP Configurator**
- Zyxel Wireless Optimizer

Cloud **Networking &** Management

- Nebula Control Center
- Nebula Cloud Managed Access Points
- Nebula Cloud Managed Switches
- 102 Nebula Cloud Managed Security Gateway

Experience a true one network like no others

The reality of today's business networks is that different product lines lack consistency and integration. It's not uncommon in the industry that equipment brands just acquire new technologies they lack for shorter timeto-market; as a result, products under One brand might have totally different graphic or command line interfaces, or similar features that perform differently. Zyxel addresses this problem and aims to take business networking to new heights with introduction of Zyxel One Network.

With the vision to help the world connect, Zyxel presents comprehensive businesses networking solutions from switches to Wireless LANs, security appliances and gateways. The robust, reliable networking equipment from Zyxel—one of the few companies that possess all key technologies for all business networking product lines—enables us to fully integrate switches, wireless APs and gateways in an innovative way. With this capability, Zyxel offers a truly integrated One Network experience from LAN to WLAN and the gateway.

Smart WLAN Solutions

Addressing the very needs of the customers

- Bulk APs installation, configuration, management and monitoring
- Reducing support effort and service calls
- High-performance, robust AP offerings

Fit SMB/SME, Education and Hospitality venues as well as Public Hotspots

Self-developed WLAN controller to realize zeroconfiguration, centralized management and flexible deployments

Rich AP lineup

- Unified AP series to support thin/fat dual modes
- Comprehensive form factors, adaptive to environment needs

Free utility for easy installation

- Zyxel Wireless Optimizer
- Zyxel AP Configurator

Comprehensive Switching Solutions

Complete line-up

- Ranging from unmanaged to full managed switches
- Comprehensive PoE offerings for WLAN and surveillance
- Covering port speed from FE and GbE to 10GbE, fiber and copper

Zyxel switches all come with self-developed, purposebuilt operating system

- Drive-optimized switching performance
- Fast response to market needs
- Highly secured software platform

Secure, Optimized **Business Services**

Zyxel One Network

Best value for small/medium businesses

- Ranked No.1 in SOHO/small business segment
- UTM featuring omnidirectional protections to secure SMB data and intellectual properties
- Application intelligence to prevent resource abuse

Ultra-high performance

• Implemented with advanced platforms to achieve the best performance for businesses

Leading VPN technologies

• VPN tunnel with leading SHA-2 encryption for superior, secure communications

Built-in WLAN controller

• Centralized WLAN management enabled to commit best CAPEX and OPEX

Mobile broadband access

• 3G broadband access fail-over to ensure business services

Zyxel One Network is the easiest, most efficient network setup and management for businesses with three key components:

Zyxel One Network Utility (ZON Utility) is an easy-to-use tool 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 oneclick remote functions such as factory reset or power cycling.





Neighbor Device Discovery







Default

Web GUI Redirection

AP Controller Technology is integrated into Zyxel commercial gateway ranges to benefit businesses when building or expanding the Wi-Fi network with centralized provisioning.



The Zyxel One Network values we deliver:

- Accelerate initial network deployment, and deployment of new hardware for expansion
- Eliminate the burden of repetitive network management tasks
- Support a flexible agile infrastructure that can respond quickly to business needs
- Streamline and simplify troubleshooting, preventing network related interruptions to business operations
- Eliminate the need for expensive and costly network management platforms
- Drive down the total cost of ownership of the network
- Support new working practices with a scalable and flexible network that can rapidly respond to change





WLAN APs & Controllers

- 12 Wireless LAN Controllers
- 13 Wireless LAN Access Points
- 17 Accessories

WLAN Quick Finder

Features/ Scalability

NWA1100-NH

NWA1123-ACV2

SNMP Management

Standalone AP Series



Business Scale

Small





Large

Zyxel wireless LAN solutions

Optimized for BYOD

More and more people are using personally-owned Wi-Fi enabled devices such as smartphones, tablets and laptops in the workplace. This BYOD (Bring Your Own Device) trend has brought many new challenges to the stability, capacity and security of business wireless networks. Businesses need a BYOD-ready WLAN solution to address the new security challenges and satisfy the increased demand for wireless access.

Not limited to business environments, a booming evolution in the education sector has tablets widely adopted and deployed as digital textbooks that brings many challenges to the existing Wi-Fi infrastructures.

Addressing these challenges, Zyxel presents its Smart WLAN Solutions designed to meet the immediate needs of customers. The Smart WLAN Solution improves large-scale AP installation, configuration, management and monitoring while reducing support effort and service calls by its high-performance, robust AP lineup. On the other hand, the Smart WLAN Solution also has the WLAN controller portfolio reinforced not only by refreshing the WLAN controller products, but also by integrating the controller functions across the unified security gateway and unified access

High Deployment Flexibility, Unmatched Performance

Zyxel's comprehensive WLAN AP portfolio with standalone, unified and unified pro AP can satisfy every need in every environment. The ceiling-mount, wall-plate and even outdoor form factors of Zyxel access points also offers the best Wi-Fi extension and coverage. Designed with the latest wireless technologies, Zyxel WLAN access points provide the speed, coverage and capacity needed for a new generation of Wi-Fi devices and applications. With the next-generation 802.11ac standard, Zyxel's APs achieve Gigabit wireless speeds—3 times the speed of 802.11n—for faster, more reliable wireless connectivity. Dual-radio and dual-band models adopt 5 GHz technology to solve the capacity and signal interference problems of crowded 2.4 GHz Wi-Fi environment offers the best Wi-Fi extension and coverage.

Standalone APs

Perfect for small WLAN deployments, the Zyxel NWA1000 Series standalone APs are fast, easy to set up and extremely cost-effective. Low-profile celling-mount and in-wall designs are also available for unobtrusive deployments.

Unified APs

With a 2-in-1 standalone/managed design, Zyxel Unified APs provide high flexibility for WLAN deployments. Users can start using it as a standalone AP, then convert it to a controller-managed AP when Wi-Fi demand grows. The growing business can painlessly scale up to 512 APs with the NXC5500 WLAN Controller.

Unified Pro APs

Featuring latest 802.11ac technology, Zyxel WAC6500 and WAC6100 Series also provide innovative smart antenna and dual-optimized antenna technology respectively with superior Gigabit Wi-Fi performance for different deployment requirements.

Worry-free WLAN Management

Zyxel offers a series of Wireless LAN Controllers that fulfill the different needs from small business to large enterprises and campuses. The Zyxel NXC Series WLAN Controllers feature advanced WLAN management features, flexible traffic forwarding modes, and comprehensive guest management features to get businesses and organizations ready for the era of BYOD.

Making Wi-Fi Easier

To facilitate quickly, easy Wi-Fi planning, deployment and configuration, Zyxel introduces free utilities to relieve customers from such headaches.

Zyxel Wireless Optimizer

A practical, effective and easy-to-use tool that assist you on tasks ranging from planning wireless networks to monitoring network performance.

Zyxel AP Configurator

Profile-based bulk configuration editing and application across all ranges of Zyxel WLAN access points.



NXC5500/NXC2500

Wireless LAN Controller



- Centralized WLAN management and auto provisioning
- ZyMesh simplifies complex, inconvenient cabling Wi-Fi Deployments
- Flexible traffic forwarding with tunnel and distributed modes
- Comprehensive internet guest account generator
- Support of multiple authentication methods



NXC5500

6 x GbE RJ-45 ports, 2 x USB ports



NXC2500

6 GbE ports with RJ-45, 2 x USB ports

Network interfaces	6 x auto-negotiating 10/100/1000BASE-T RJ-45 ports, 2 x USB ports
Managed AP support	NXC5500 Supports 64 WLAN APs by default, and up to 512 WLAN APs with license upgrade NXC2500 Supports 8 WLAN APs by default, and up to 64 WLAN APs with license upgrade
WLAN management	ZyMesh with multiple SSIDs and VLANs, auto healing, CAPWAP for WLAN AP auto discovery and provisioning, dynamic channel selection, client RSSI threshold, AP load balancing, primary and secondary controller for redundancy, band steering Rogue AP detection, rogue AP containment

Authentication	IEEE 802.1x, Microsoft AD, LDAP, MAC authentication, embedded RADIUS server, customizable captive portal, external captive portal, guest account (dynamic)
Networking functions	VLAN, DHCP client/server/relay, NAT, static routing, policy routing
Management features	CLI with SSH, Web UI with SSL, SNMP v1/v2c/ v3, management VLAN, system log
Managed AP scalability license	This license increases the number of AP that NXC5500/NXC2500 can support. Up to 512 APs (NXC5500) Up to 64 APs (NXC2500)
ZyMesh license	This license enables the Zyxel function on NXC5500/NXC2500

WAC6500 Series

802.11ac Dual-Radio Unified Pro Access Point



- Zyxel smart antenna provides enhanced performance anywhere
- Advanced IEEE 802.11ac delivers up to 1.75 Gbps combined data rates
- Industry-leading Rx sensitivity as low as -102 dBm
- \bullet APFlex $^{\text{TM}}$, DCS and tool-less bracket design streamline deployment



WAC6503D-S

802.11ac Dual Radio Smart Antenna 3x3 Access Point



WAC6502D-S

802.11ac Dual Radio Smart Antenna 2x2 Access Point



WAC6502D-E

802.11ac Dual Radio External Antenna 2x2 Access Point



WAC6553D-E

802.11ac Dual Radio External Antenna 3x3 Outdoor Access Point

Network interfaces	2 x 10/100/1000BASE-T full duplex RJ-45
Data transfer/data throughput	1.75 Gbps combined rates (WAC6503D-S, WAC6553D-E) 1.2 Gbps combined rates (WAC6502D-S, WAC6502D-E)
WLAN functions	Up to 16 multi SSID/VLAN
Security	WEP 64/128 bit, WPA PSK/WPA2 PSK, WLAN access control

Management	Web GUI, CLI, SNMP v3
Special	IPv6, plenum rating, standalone AP mode,
features	layer-2 isolation, dual-radio 2.4 GHz & 5 GHz
PoE power	17.04 W (WAC6503D-S)
draw	15.12 W (WAC6502D-S, WAC6502D-E)
Power supply	DC input: 12 V DC 2 A PoE: 802.3at compliant

WAC6103D-I

802.11ac Dual-Radio Dual-Optimized Antenna 3x3 Access Point



- Enterprise class 3x3 802.11ac AP supports combined data rates of up to 1.75 Gbps
- "Dual-optimized antenna" allows pattern optimization adapting to wall- or ceilingmount installations
- Stylish, ultra-slim ID design as the 32 mm height blends perfectly into modern interior decorations
- ullet APFlex $^{\text{TM}}$ and Zyxel one network utilities make deployment simple and fast
- Dynamic channel selection, load balancing and smart client steering ensure optimal wireless experience



WAC6103D-I

802.11ac Dual Radio Dual-optimized Antenna 3x3 Access Point

Network interfaces	2 x 10/100/1000BASE-T full duplex RJ-45
Data transfer/ data throughput	1.75 Gbps combined rates
WLAN functions	Up to 16 multi SSID/VLAN
Security	WEP 64/128 bit, WPA PSK/WPA2 PSK, WLAN access control

Management	Web GUI, CLI, SNMP v3
Special features	IPv6, plenum rating, standalone AP mode, layer-2 isolation, dual-radio 2.4 GHz & 5 GHz
PoE power draw	12.48 W
Power supply	PoE: 802.3at compliant

NWA5120 Series

802.11n/ac Unified Access Point





NWA5123-AC 802.11ac Dual-Radio Unified Access Point

Specifications

Data throughput



NWA5121-NI 802.11n Unified Access Point



NWA5121-N 802.11n Unified Access Point

• Ceiling and wall mountable

- Plenum rated housing
- 2-in-1 standalone/managed AP design
- CAPWAP management supported
- Enterprise class 2x2 802.11ac AP supports combined data rates of up to 1200 Mbps (NWA5123-AC)
- APFlexTM and Zyxel one network utilities make deployment simple and fast

Network interfaces	1 x 10/100/1000 Mbit BASE-T, auto-sensing LAN port
WLAN standard	IEEE 802.11 a/g/n, 2.4 GHz (NWA5121-NI, NWA5121-N) IEEE 802.11 a/b/g/n/ac, 2.4/5 GHz concurrent (NWA5123-AC)
Barrier de la companya de la company	300 Mbps (NWA5121-NI, NWA5121-N)

1200 Mbps (NWA5123-AC)

Operating modes	Managed/standalone AP
WLAN functions	VLAN (virtual WLANs), pre-defined VoIP/guest SSID
Security	WEP, WPA/WPA2-PSK, WPA/WPA2-enterprise
Special features	Layer 2 isolation, Rogue AP detection, CLI, plenum rating

NWA5301-NJ

802.11n Wall-Plate Unified Access Point





1 x 8P4C RJ-48 phone passthrough



1 x 10/100 uplink PoE PD port, 1 x 10/100 Mbps RJ-45 PoE PSE port, 2 x 10/100 Mbps RJ-45 port, 1 x 8P4C RJ-48 phone pass-through

- Unique back panel design that fits the majority of outlet boxes in the world
- 2.4 GHz 802.11n technology providing data rates of up to 300 Mbps
- High-gain antenna that optimizes Wi-Fi services for mobile devices
- LED suppress mode for comfortable room services

Network interfaces	2 x 10/100 PoE port (yellow); 2 x 10/100 port (black); 2 x 8P4C phone pass-through (gray)
WLAN standard	802.11 b/g/n
Data transfer/ data throughput	300 Mbps, up to 90 Mbps (Limited by 10/100 uplink)
Operating modes	Managed/standalone AP, web GUI, SNMP
WLAN functions	Multiple SSID

PoE power draw	13 W
Max. transmit power	FCC 2.4 GHz, 23 dBm, 2 antennas BSTI 2.4 GHz, 17 dBm, 2 antennas
Security	WEP/WPA/WPA2, enterprise WPA/WPA2, WLAN ACL, 802.1x security (EAP-TLS, TTLS, PEAP, SIM, -FAST, -AKA)
Power supply	Powered by PoE IEEE 802.3af/at PoE

NWA1120 Series

802.11n/ac Ceiling Mount PoE Access Point





- Compact ceiling-mount design with optimized RF performance
- High performance for better Wi-Fi experiences
- Easy RF planning with the same 2.4 GHz and 5 GHz signal coverage
- Flexible operating modes



NWA1123-ACv2 802.11ac Dual-Radio Ceiling Mount PoE Access Point



NWA1123-AC 802.11ac Dual-Radio Ceiling Mount PoE Access Point

Specifications

Network interfaces	1 x 10/100/1000BASE-T full duplex RJ-45
Data transfer/ data throughput	1200 Mbps combined rates
WLAN functions	Up to 16 multi SSID/VLAN
Security	WEP 64/128 bit, WPA PSK/WPA2 PSK, WLAN access control

Management	Web GUI, Telnet, SNMP v3
Special features	IPv6, plenum rating, standalone AP mode, layer-2 isolation, dual-radio 2.4 GHz & 5 GHz
Power supply	Input: AC 100 - 240 V - 50/60 Hz 0.3 A Output: DC +12 V 1 A
	Output: DC +12 V 1 A

NWA1100-NH

802.11n Long Range PoE Access Point



- High output power of up to 28 dBm delivers extended coverage
- 2 external antennas with high 5 dBi gain optimized for mobile devices
- Easy deployment via client mode or repeater AP and IEEE 802.3af PoE support
- ZON Utility and ZAC minimize repetitive configuration processes and efforts

Network interfaces	1 x 10/100/1000BASE-T full duplex RJ-45
WLAN standard	IEEE 802.11 b/g/n
Data transfer/ data throughput	300 Mbps/up to 110 Mbps per radio
Operation modes	Multiple SSID, client mode, root AP, and repeater AP

WLAN functions	Multiple 8 SSIDs
Security	Wireless L2-isolatoin WEP/WPA/WPA2, enterprise WPA/WPA2, WLAN ACL, 802.1x security
Management	Web GUI, SNMP v3
Power supply	External power adapter 12 V DC/1 A, PoE power draw 6 W

Antenna Series

Model EXT-108

For Indoors and Outdoors

Product photo						
Space	Outdoor		Outdoor		Outdoor	Outdoor
Туре	Omni, 1 port		Directional, 1	port	Directional, 1 port	Directional, 1 port
Frequency band (MHz)	2400 - 2500		2400 - 2500		2400 - 2500	2400 - 2500
Gain	8 dBi		8.5 dBi		14 dBi	18 dBi
VSWR	2.0:1 Max.		1.5:1 Max.		1.5:1 Max.	1.5:1 Max.
Polarization	Linear, vertic	al	Linear, vertic	al	Linear, vertical	Linear, vertical
HPBW/ Horizontal	360°		▼ 65°		▼ 30°	<u> </u>
HPBW/ Vertical	► 15°		▶ 1 60°		► 1 30°	—I 15°
Connector	N type jack		N type jack		N type jack	N type jack
Temperature	-40°C to 80°C	C/-40°F to 176°F	-40°C to 80°C	C/-40°F to 176°F	-40°C to 80°C/-40°F to 176°F	-40°C to 80°C/-40°F to 176°F
Weight (g/lb.)	340/0.75		107/0.24		407/0.90	1,600/3.53
Dimensions (mm/in.)	80 x 78 x 520/ 3.15 x 3.07 x 20		114 x 114 x 40, 4.49 x 4.49 x		200 x 200 x 50/ 7.87 x 7.87 x 1.97	360 x 360 x 16/ 14.17 x 14.17 x 0.63
Accessory kit	Screw kitN-plug adapterMounting kitQuick installation guide		 Cable: N-plug, RP-SMA plug; 3 m Mounting plate Quick installation guide 		Cable: N-plug, RP-SMA plug; 3 mMounting kitQuick installation guide	Cable: N-plug, RP-SMA plug; 3 mMounting setQuick installation guide
Model	ANT2206		ANT2105		ANT3108	ANT3218
Model Product photo	ANT2206	>	ANT2105		ANT3108	ANT3218
	ANT2206	>	ANT2105		ANT3108 Outdoor	ANT3218 Outdoor
Product photo		port	W			
Product photo Space	Indoor	port 4900 - 5875	Outdoor	5150 - 5875	Outdoor	Outdoor
Product photo Space Type Frequency band	Indoor Directional, 1		Outdoor Omni, 1 port	5150 - 5875 7 dBi	Outdoor Omni, 1 port	Outdoor Directional, 1 port
Product photo Space Type Frequency band (MHz)	Indoor Directional, 1 2400 - 2500	4900 - 5875	Outdoor Omni, 1 port 2400 - 2483		Outdoor Omni, 1 port 5150 - 5875	Outdoor Directional, 1 port 5150 - 5875
Product photo Space Type Frequency band (MHz) Gain	Indoor Directional, 1 2400 - 2500 6 dBi	4900 - 5875 8 dBi	Outdoor Omni, 1 port 2400 - 2483 4.5 dBi	7 dBi	Outdoor Omni, 1 port 5150 - 5875 8 dBi	Outdoor Directional, 1 port 5150 - 5875 18 dBi
Product photo Space Type Frequency band (MHz) Gain VSWR	Indoor Directional, 1 2400 - 2500 6 dBi 2.0:1 Max. Linear,	4900 - 5875 8 dBi 2.0:1 Max. Linear,	Outdoor Omni, 1 port 2400 - 2483 4.5 dBi 2.0:1 Max. Linear,	7 dBi 2.0:1 Max. Linear,	Outdoor Omni, 1 port 5150 - 5875 8 dBi 2.0:1 Max.	Outdoor Directional, 1 port 5150 - 5875 18 dBi 2.0:1 Max.
Product photo Space Type Frequency band (MHz) Gain VSWR Polarization HPBW/	Indoor Directional, 1 2400 - 2500 6 dBi 2.0:1 Max. Linear, vertical	4900 - 5875 8 dBi 2.0:1 Max. Linear, vertical	Outdoor Omni, 1 port 2400 - 2483 4.5 dBi 2.0:1 Max. Linear, vertical	7 dBi 2.0:1 Max. Linear, vertical	Outdoor Omni, 1 port 5150 - 5875 8 dBi 2.0:1 Max. Linear, vertical	Outdoor Directional, 1 port 5150 - 5875 18 dBi 2.0:1 Max. Linear, vertical
Product photo Space Type Frequency band (MHz) Gain VSWR Polarization HPBW/ Horizontal HPBW/	Indoor Directional, 1 2400 - 2500 6 dBi 2.0:1 Max. Linear, vertical	4900 - 5875 8 dBi 2.0:1 Max. Linear, vertical ▼ 50°	Outdoor Omni, 1 port 2400 - 2483 4.5 dBi 2.0:1 Max. Linear, vertical 360°	7 dBi 2.0:1 Max. Linear, vertical 360°	Outdoor Omni, 1 port 5150 - 5875 8 dBi 2.0:1 Max. Linear, vertical	Outdoor Directional, 1 port 5150 - 5875 18 dBi 2.0:1 Max. Linear, vertical
Product photo Space Type Frequency band (MHz) Gain VSWR Polarization HPBW/ Horizontal HPBW/ Vertical	Indoor Directional, 1 2400 - 2500 6 dBi 2.0:1 Max. Linear, vertical 1 65° 1 75°	4900 - 5875 8 dBi 2.0:1 Max. Linear, vertical ▼ 50°	Outdoor Omni, 1 port 2400 - 2483 4.5 dBi 2.0:1 Max. Linear, vertical 360° I 30° N type plug	7 dBi 2.0:1 Max. Linear, vertical 360°	Outdoor Omni, 1 port 5150 - 5875 8 dBi 2.0:1 Max. Linear, vertical 360° 1 20°	Outdoor Directional, 1 port 5150 - 5875 18 dBi 2.0:1 Max. Linear, vertical 1 15.5° 1 15.5° N type jack
Product photo Space Type Frequency band (MHz) Gain VSWR Polarization HPBW/ Horizontal HPBW/ Vertical Connector	Indoor Directional, 1 2400 - 2500 6 dBi 2.0:1 Max. Linear, vertical 65° A 75° RP-SMA plug	4900 - 5875 8 dBi 2.0:1 Max. Linear, vertical ▼ 50°	Outdoor Omni, 1 port 2400 - 2483 4.5 dBi 2.0:1 Max. Linear, vertical 360° I 30° N type plug	7 dBi 2.0:1 Max. Linear, vertical 360°	Outdoor Omni, 1 port 5150 - 5875 8 dBi 2.0:1 Max. Linear, vertical 360° 1 20° N type jack	Outdoor Directional, 1 port 5150 - 5875 18 dBi 2.0:1 Max. Linear, vertical 1 15.5° 1 15.5° N type jack
Product photo Space Type Frequency band (MHz) Gain VSWR Polarization HPBW/ Horizontal HPBW/ Vertical Connector Temperature	Indoor Directional, 1 2400 - 2500 6 dBi 2.0:1 Max. Linear, vertical 65° All 75° RP-SMA plug -10°C to 55°C	4900 - 5875 8 dBi 2.0:1 Max. Linear, vertical ▼ 50° ► 50°	Outdoor Omni, 1 port 2400 - 2483 4.5 dBi 2.0:1 Max. Linear, vertical 360° I 30° N type plug -10°C to 70°C	7 dBi 2.0:1 Max. Linear, vertical 360°	Outdoor Omni, 1 port 5150 - 5875 8 dBi 2.0:1 Max. Linear, vertical 360° 1 20° N type jack -40°C to 80°C/-40°F to 176°F	Outdoor Directional, 1 port 5150 - 5875 18 dBi 2.0:1 Max. Linear, vertical 15.5° 15.5° N type jack -40°C to 80°C/-40°F to 176°F

Antenna Series

For Indoors and Outdoors

Model	ANT1310	ANT1313	ANT1314	ANT1315	ANT3315
Product photo		人			
Space	Indoor	Outdoor	Outdoor	Outdoor	Outdoor
Туре	Directional, 2x2	Directional, 2x2	Sector, 2x2	Directional, 3x3	Sector, 2x2
Frequency band (MHz)	2300 - 2700	2400 - 2500	2400 - 2500	2400 - 2500	5150 - 5875
0-:-	9 - 10 dBi	13 - 13.5 dBi	14 ±0.5 dBi	Port 1	15 ±0.5 dBi
Gain	-	-	-	14.5 - 15	-
VSWR	1.5:1 Max.	2.0:1 Max.	2.0:1 Max.	2.0:1 Max.	2.0:1 Max.
Polarization	Linear/Horizontal	Cross polarization ±45°	Linear, ±45°	Linear, cross polarization	Linear, ±45°
HPBW/ Horizontal	▼ 51°	▼ 33°	▼ 60°	2 39° - 48°	▼ 60°
HPBW/ Vertical	▶ 1 66°	► I 35°	- 13°	► 19° - 20°	-18°
Side lobes level	-14 dB Max.	-13 dB Max.	-	-10 dB Max.	-5 dB Max.
Front to back ratio	-13 dB Max.	-25 dB Max.	-25 dB Max.	-19 dB Max.	-30 dB Max.
Connector	SMA jack x 2	N type jack x 2	N type jack x 2	N type jack x 3	N type jack x 2
Temperature	-10°C to 55°C/ 14°F to 131°F	-40°C to 80°C/ -40°F to 176°F			
Weight (g/lb.)	130/0.29	800/1.76	800/1.76	1140/2.51	1.4/3.09
Dimensions (mm/in.)	ø133 x 42/ ø5.24 x 1.65	210 x 210 x 73/ 8.27 x 8.27 x 2.87	560 x 120 x 145/ 22.04 x 4.72 x 5.71	320 x 320 x 43/ 12.60 x 12.60 x 1.69	560 x 120 x 145/ 22.04 x 4.72 x 5.71
Accessory kit	Mounting kitQuick installation guide	Mounting kitQuick installation guide	Mounting kitQuick installation guide	Mounting kitQuick installation guide	Mounting kitQuick installation guide

Model Product photo Space Outdoor Outdoor Directional, 2x2 Directional, 3x3 Frequency band 5150 - 5875 5150 - 5875 (MHz) 15 - 16 dBi Port 1 Gain 20±1 **VSWR** 2.0:1 Max. 2.0:1 Max. Linear, **Polarization** Linear, ±90° cross polarization HPBW/ **▼** 19° Horizontal HPBW/ **►** 21° **−**18° Vertical Side lobes level -10 dB Max. -35 dB Max. Front to back ratio -20 dB Max. Connector N type jack x 2 N type jack x 3 -40°C to 80°C/ -40°C to 80°C/ Temperature -40°F to 176°F -40°F to 176°F Weight (g/lb.) 800/1.76 2500/5.51 **Dimensions** 210 x 210 x 73/ 371 x 371 x 165/ (mm/in.) 8.27 x 8.27 x 2.87 14.61 x 14.61 x 6.50 Mounting kit • Mounting kit Accessory kit Quick installation • Quick installation

guide

guide

Cable Series

Product	LMR 200-N	LMR 400-N	EXT-300
Product Photo	O	O	
Description	RP-SMA plug to N-plug Cable length: 3 m, 9 m	N-plug to N-plug Cable length: 1 m, 9 m	RP-SMA plug, N-jack (Jumper Cable)/N- plug, N-jack (Surge Arrestor): 0.5 m

Model	NXC Controller	
	NXC5500	NXC2500
Port Density		
10/100/1000 Mbps RJ-45 ports	6	6
USB	2	2
Capacity & Performance		
Managed APs (default/max.)	64/512 6	8/64
Throughput (Gbps) Deployment Tools	6	1
AP planning	_	Yes
Coverage detection	_	Yes
WLAN quality map	-	Yes
WLAN Management		
CAPWAP	Yes	Yes
Controller address assignment	Manual/Auto discovery/DHCP option/DNS	Manual/Auto discovery/DHCP option/DNS
Auto provisioning	Yes	Yes
NAT pass-through	Yes	Yes
Encrypted managed frame (DTLS)	Yes	Yes
Primary/Backup controller	Yes	Yes
Manged AP firmware auto upgrade	Yes	Yes
Scheduled firmware upgrade Dynamic channel selection	Yes Yes	Yes Yes
Client RSSI threshold	Yes	Yes
Wireless multicst setting	Yes	Yes
ZyMesh*	Yes	Yes
ZyMesh with multiple SSIDs and VLANs	Yes	Yes
Auto healing	Yes	Yes
Fast roaming	Pre-authentication and PMK caching	Pre-authentication and PMK caching
Authentication & Security		
Authentication protocol	802.1x, MS AD, LDAP	802.1x, MS AD, LDAP
MAC authentication	Yes	Yes
Embedded RADIUS server	Yes (4,096 users)	Yes (512 users)
Rogue AP detection	Yes	Yes
Rogue AP containment	Yes	Yes
Customizable captive portal	Yes	Yes
External captive portal	Yes	Yes
Guest account (dynamic) L2 isolation	Yes (1,024) Yes	Yes (512) Yes
Network Features	165	165
VLAN	Yes (512)	Yes (256)
DHCP client/server/relay	Yes/Yes/Yes	Yes/Yes/Yes
NAT	Yes	Yes
Static routing	Yes	Yes
Policy routing	Yes	Yes
Firewall	Yes	Yes
QoS		
WMM power save	Yes	Yes
Diffserv marking	Yes	Yes
AP load balancing	Yes	Yes
Rate limiting (firewall)	Yes	Yes
Station bandwidth limit (per SSID)	Yes (up to 64 APs suggested)	Yes Ves (up to 16 APs suggested)
Data tunneling Management Features	Yes (up to 64 APs suggested)	Yes (up to 16 APs suggested)
CLI with SSH	Yes	Yes
	·	
Web UI with SSL	Yes	Yes
	Yes v1, v2c, v3	Yes v1, v2c, v3
SNMP		
SNMP Multi-level administration roles	v1, v2c, v3	v1, v2c, v3
SNMP Multi-level administration roles Remote configuration and management	v1, v2c, v3 Yes	v1, v2c, v3 Yes
SNMP Multi-level administration roles Remote configuration and management Management VLAN	v1, v2c, v3 Yes Yes	v1, v2c, v3 Yes Yes
SNMP Multi-level administration roles Remote configuration and management Management VLAN System log System log save to USB drive	v1, v2c, v3 Yes Yes Yes	v1, v2c, v3 Yes Yes Yes
SNMP Multi-level administration roles Remote configuration and management Management VLAN System log System log save to USB drive Others	V1, V2c, v3 Yes Yes Yes Yes Yes Yes	v1, v2c, v3 Yes Yes Yes Yes Yes Yes
SNMP Multi-level administration roles Remote configuration and management Management VLAN System log System log save to USB drive Others Packet capture	V1, V2c, V3 Yes Yes Yes Yes Yes Yes Yes	V1, V2c, V3 Yes Yes Yes Yes Yes Yes Yes
SNMP Multi-level administration roles Remote configuration and management Management VLAN System log System log save to USB drive Others Packet capture High availability	V1, V2c, V3 Yes Yes Yes Yes Yes Yes Yes Primay/Seconday controller	V1, V2c, V3 Yes Yes Yes Yes Yes Yes Yes Primay/Seconday controller
SNMP Multi-level administration roles Remote configuration and management Management VLAN System log System log save to USB drive Others Packet capture High availability 2nd controller configuration	V1, V2c, V3 Yes Yes Yes Yes Yes Yes Primay/Seconday controller Yes	V1, V2c, V3 Yes Yes Yes Yes Yes Yes Yes Primay/Seconday controller Yes
SNMP Multi-level administration roles Remote configuration and management Management VLAN System log System log save to USB drive Others Packet capture High availability 2nd controller configuration System diagnostic tool	V1, V2c, V3 Yes	V1, V2c, V3 Yes
SNMP Multi-level administration roles Remote configuration and management Management VLAN System log System log save to USB drive Others Packet capture High availability 2nd controller configuration System diagnostic tool Band select (steering)	V1, V2c, V3 Yes	V1, V2c, V3 Yes
SNMP Multi-level administration roles Remote configuration and management Management VLAN System log System log save to USB drive Others Packet capture High availability 2nd controller configuration System diagnostic tool Band select (steering)	V1, V2c, V3 Yes	V1, V2c, V3 Yes
SNMP Multi-level administration roles Remote configuration and management Management VLAN System log System log save to USB drive Others Packet capture High availability 2nd controller configuration System diagnostic tool Band select (steering) IPv6 host Power supply	V1, V2c, V3 Yes	V1, V2c, V3 Yes
SNMP Multi-level administration roles Remote configuration and management Management VLAN System log System log save to USB drive Others Packet capture High availability 2nd controller configuration System diagnostic tool Band select (steering) IPv6 host Power supply MTBF (hr)	V1, V2c, V3 Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Primay/Seconday controller Yes Yes Yes Yes Yes You want and the second of t	V1, V2c, V3 Yes Yes Yes Yes Yes Yes Yes Yes Yes
SNMP Multi-level administration roles Remote configuration and management Management VLAN System log System log save to USB drive Others Packet capture High availability 2nd controller configuration System diagnostic tool Band select (steering) IPv6 host Power supply MTBF (hr) Heat dissipation (BTU/hr)	V1, V2c, V3 Yes	V1, V2c, V3 Yes
SNMP Multi-level administration roles Remote configuration and management Management VLAN System log System log save to USB drive Others Packet capture High availability 2nd controller configuration System diagnostic tool Band select (steering) IPv6 host Power supply MTBF (hr) Heat dissipation (BTU/hr) Physical Specifications	V1, V2c, V3 Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Primay/Seconday controller Yes Yes Yes Yes Yes You want and the second of t	V1, V2c, V3 Yes Yes Yes Yes Yes Yes Yes Yes Yes
Web UI with SSL SNMP Multi-level administration roles Remote configuration and management Management VLAN System log System log save to USB drive Others Packet capture High availability 2nd controller configuration System diagnostic tool Band select (steering) IPv6 host Power supply MTBF (hr) Heat dissipation (BTU/hr) Physical Specifications Dimensions (WxDxH)(mm/in.) Weight (g/lb.)	V1, V2c, V3 Yes Yes Yes Yes Yes Yes Yes Yes Primay/Seconday controller Yes Yes Yes Yes Yes Yes Yes 467	V1, V2c, V3 Yes Yes Yes Yes Yes Yes Yes Yes Yes
SNMP Multi-level administration roles Remote configuration and management Management VLAN System log System log save to USB drive Others Packet capture High availability 2nd controller configuration System diagnostic tool Band select (steering) IPv6 host Power supply MTBF (hr) Heat dissipation (BTU/hr) Physical Specifications Dimensions (WxDxH)(mm/in.)	V1, V2c, V3 Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Primay/Seconday controller Yes Yes Yes Yes Yes Yes Yes Yes Y	V1, V2c, V3 Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Primay/Seconday controller Yes Yes Yes Yes Yes 12 V DC, 100 - 240 V AC 815,464 64.83 242 x 175 x 35.5/9.53 x 6.89 x 1.38 805/1.77 • Power adapter
SNMP Multi-level administration roles Remote configuration and management Management VLAN System log System log save to USB drive Others Packet capture High availability 2nd controller configuration System diagnostic tool Band select (steering) IPv6 host Power supply MTBF (hr) Heat dissipation (BTU/hr) Physical Specifications Dimensions (WxDxH)(mm/in.)	V1, V2c, V3 Yes Yes Yes Yes Yes Yes Yes Yes Primay/Seconday controller Yes	V1, V2c, V3 Yes Yes Yes Yes Yes Yes Yes Yes Yes Primay/Seconday controller Yes

Model	Unified Pro AP Seri	es				Wall-Plate AP
viodei	WAC6503D-S	WAC6502D-S	WAC6502D-E	WAC6553D-E	WAC6103D-I	NWA5301-NJ
Product description	802.11ac Dual-Radio Smart Antenna 3x3 Access Point	802.11ac Dual-Radio Smart Antenna 2x2 Access Point	802.11ac Dual-Radio External Antenna 2x2 Access Point	802.11ac Dual-Radio External Antenna 3x3 Outdoor Access Point	802.11ac Dual-Radio Dual-Optimized Antenna 3x3 Access Point	802.11n Wall-Plate Unified Access Poir
Basic Design						
Vireless frequency	2.4 and 5 GHz	2.4 and 5 GHz	2.4 and 5 GHz	2.4 and 5 GHz	2.4 and 5 GHz	2.4 GHz
Radio	2	2	2	2	2	1
RF Specifications						
Number of antenna	6 embedded smart antenna	4 embedded smart antenna	4 external	6 N-type connectors**	6 internal dual- optimized antenna Ceiling:	2 embedded
Antenna gain	4 dBi @2.4 GHz 6 dBi @5 GHz	4 dBi @2.4 GHz 6 dBi @5 GHz	5 dBi @2.4 GHz 7 dBi @5 GHz	4.5 dBi @2.4 GHz 7 dBi @5 GHz	3 dBi @2.4 GHz 4 dBi @5 GHz Wall: 4 dBi @2.4 GHz 5 dBi @5 GHz	5 dBi
_AN						
Number of IO/100M LAN	-	-	-	-	-	Uplink:1 Downlink: 3
Number of	2	2	2	1	2	=
0/100/1000M LAN	Yes	Yes	Yes	Yes	Yes	Yes
-						13 (Include 7 W for
PoE power draw (watt)	17.04	15.12	15.12	25	12.48	PoE PSE)
WLAN Features						11 1 65:11
WLAN maximum net hroughput	Up to 900 Mbps	Up to 600 Mbps	Up to 600 Mbps	Up to 900 Mbps	Up to 900 Mbps	Up to 90 Mbps (Limited by 10/100 uplink)
Mesh AP (By license)	Yes (V4.21)	Yes (V4.21)	Yes (V4.21)	Yes (V4.21)	Yes (V4.21)	Yes (V4.1)
Mesh AP for multiple SSID with VLAN	Yes (V4.21)	Yes (V4.21)	Yes (V4.21)	Yes (V4.21)	Yes (V4.21)	-
ast roaming	Pre-authentication and PMK caching	Pre-authentication and PMK caching	Pre-authentication and PMK caching	Pre-authentication and PMK caching	Pre-authentication and PMK caching	Pre-authentication and PMK caching
Wireless Security	<u> </u>		J		3	3
WPA/WPA2-PSK	Yes	Yes	Yes	Yes	Yes	Yes
WPA/WPA2-Enterprise	Yes	Yes	Yes	Yes	Yes	Yes
WMM (Wi-Fi Certified)	Yes	Yes	Yes	Yes	Yes	Yes
AP types	EAP-TLS, EAP-TTLS, E	AP-PEAP, EAP-FAST, EA	AP-AKA and EAP-SIM		TLS, TTLS, PEAP, FAST	, AKA and SIM
EEE 802.1X	Yes	Yes	Yes	Yes	Yes	Yes
Number of SSID	16	16	16	16	16	8
Web authentication	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*
MAC filtering	Yes	Yes	Yes	Yes	Yes	Yes
_ayer-2 isolation	Yes	Yes	Yes	Yes	Yes	Yes, multiple profile
RADIUS authentication	Yes	Yes	Yes	Yes	Yes	Yes
Microsoft AD authentication	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*
LDAP authentication	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*
MAC authentication	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*
Embedded RADIUS	-	-	-	-	-	-
Rogue AP detection	Yes	Yes	Yes	Yes	Yes	Yes
Rogue AP containment		Yes	Yes	Yes	Yes	Yes (V4.1)
Firewall	Yes*	Yes*	Yes*	Yes*	Yes*	Yes*
Network						
Pv6 host	Yes	Yes	Yes	Yes	Yes	Yes (V4.1)
/LANs	Yes	Yes	Yes	Yes	Yes	Yes
OHCP client	Yes	Yes	Yes	Yes	Yes	Yes
Management						
Standalone AP mode	Yes	Yes	Yes	Yes	Yes	Yes
Managed AP mode	Yes	Yes	Yes	Yes	Yes	Yes
Web UI/CLI	Yes	Yes	Yes	Yes	Yes	Yes
SNMP	Yes	Yes	Yes	Yes	Yes	Yes
Others						
Plenum rating	Yes	Yes	Yes	Yes PoE only: 802.3at	Yes	-
ower supply		PoE: 802.3at compliant		compliant	PoE12-HP	-
MTBF (hr)	1,202,489	1,407,374	1,427,755	562,413	1,005,235	531,785
Heat dissipation (BTU/hr)	56.6	48.17	48.17	85.3	42.58	17.709
Physical Specifications		226 v 227 v 62/	226 v 227 v 62/	255 y 256 y 62/	2020 v 1017 v 247/	95 v 120 v 27 4/
Dimensions (WxDxH) mm/in.)	236 x 227 x 62/ 9.28 x 8.95 x 2.43	236 x 227 x 62/ 9.28 x 8.95 x 2.43	236 x 227 x 62/ 9.28 x 8.95 x 2.43	255 x 256 x 62/ 10.04 x 10.08 x 2.44	203.9 x 191.7 x 34.7/ 8.03 x 7.55 x 1.37	85 x 138 x 37.4/ 3.35 x 5.43 x 1.47
Weight (g/lb.)	982/2.17	961/2.12	841/1.86	1,708/3.77	445/0.98	172/0.379
Included accessories	Ceiling mount plate Mounting screws	Ceiling mount plate Mounting screws	External antennaCeiling mount plateMounting screws	 Pole/wall mounting kits PoE injector Power cord 	Wall/ceiling mount plate	Wall/ceiling moun plate

^{*:} Supported when working with the NXC2500 and NXC5500
**: The antenna is not embedded and external antennas are separately sold

Model	Unified AP Series			Standalone AP Ser		
	NWA5123-AC	NWA5121-N	NWA5121-NI	NWA1123-ACv2	NWA1123-AC	NWA1100-NH
Product description	802.11ac Dual-Radio Unified Access Point	802.11n Unified Access Point	802.11n Unified Access Point	802.11ac Dual-Radio Ceiling Mount PoE Access Point	802.11ac Dual-Radio Ceiling Mount PoE Access Point	802.11n Long Range PoE Access Point
Basic Design						
Wireless frequency	2.4 and 5 GHz	2.4 GHz	2.4 GHz	2.4 and 5 GHz	2.4 and 5 GHz	2.4 GHz
Radio	2	1	1	2	2	1
RF Specifications						
Number of antenna	4 embedded	2 external	2 embedded	2T2R MIMO	4 embedded	2T2R MIMO
Antenna gain	3 dBi @2.4 GHz 4 dBi @5 GHz	3 dBi	7 dBi	3 dBi @2.4 GHz 4 dBi @5 GHz	4 dBi @2.4 GHz 6 dBi @5 GHz	5 dBi
LAN						
Number of 10/100M LAN	-	-	-	-	-	-
Number of 10/100/1000M LAN	1	1	1	1	1	1
PoE	Yes	Yes	Yes	Yes	Yes	Yes
PoE power draw (watt)	9	4	4	9	7	6
WLAN Features						
WLAN maximum net throughput	Up to 450 Mbps	Up to 110 Mbps	Up to 110 Mbps	Up to 450 Mbps	Up to 300 Mbps	Up to 110 Mbps
Mesh AP (By license)	Yes (V4.22)	Yes (V4.1)	Yes (V4.1)	-	-	-
Mesh AP for multiple SSID with VLAN	-	-	-	-	-	-
Fast roaming	Pre-authentication and PMK caching	Pre-authentication and PMK caching	Pre-authentication and PMK caching	-	-	-
Wireless Security						
WPA/WPA2-PSK	Yes	Yes	Yes	Yes	Yes	Yes
WPA/WPA2-Enterprise	Yes	Yes	Yes	Yes	Yes	Yes
WMM (Wi-Fi Certified)	Yes	Yes	Yes	Yes	Yes	Yes
EAP types	TLS, TTLS, PEAP, FAST, AKA and SIM	TLS, TTLS, PEAP, FAST, AKA and SIM	TLS, TTLS, PEAP, FAST, AKA and SIM	TLS, TTLS, PEAP, FAST, AKA and SIM	TLS, TTLS, PEAP, FAST, AKA and SIM	PEAP, EAP-TLS, -TTLS, -SIM, -FAST, -AKA, -MD5 and -GTC
IEEE 802.1X	Yes	Yes	Yes	Yes	Yes	Yes
Number of SSID	16	8	8	16	16	8
Web authentication	Yes*	Yes*	Yes*	-	-	-
MAC filtering	Yes	Yes	Yes	Yes	Yes	Yes
Layer-2 isolation	Yes, multiple profile	Yes, multiple profile	Yes, multiple profile	Yes	Yes	Yes
RADIUS authentication	Yes	Yes	Yes	Yes	Yes	Yes
Microsoft AD authentication	Yes*	Yes*	Yes*	-	_	_
LDAP authentication	Yes*	Yes*	Yes*	-	-	-
MAC authentication	Yes*	Yes*	Yes*	-	-	-
Embedded RADIUS server	-	-	-	-	-	-
Rogue AP detection	Yes	Yes	Yes	-	-	-
Rogue AP containment		Yes (V4.1)	Yes (V4.1)	-	-	-
Firewall	Yes*	Yes*	Yes*	-	-	-
Network						
IPv6 host	Yes (V4.22)	Yes (V4.1)	Yes (V4.1)	Yes	Yes	Yes
VLANs	Yes	Yes	Yes	Yes	Yes	Yes
DHCP client	Yes	Yes	Yes	Yes	Yes	Yes
Management	.,	V.	V	.,	V	
Standalone AP mode	Yes	Yes	Yes	Yes	Yes	Yes
Managed AP mode	Yes	Yes	Yes	-	-	-
Web UI/CLI	Yes	Yes	Yes	Yes	Yes	Yes
SNMP	Yes	Yes	Yes	Yes	Yes	Yes
Others	· ·	· ·	· ·	· ·		
Plenum rating	Yes	Yes	Yes	Yes	Yes	- Input: AC 100 240 V
Power supply	Input: AC 100 - 240 V - 50/60 Hz 0.3 A Output: DC +12 V 1.5 A	Input: AC 100 - 240 V - 50/60 Hz 0.3 A Output: DC +12 V 1.5 A	Input: AC 100 - 240 V - 50/60 Hz 0.3 A Output: DC +12 V 1.5 A	Input: AC 100 - 240 V - 50/60 Hz 0.3 A Output: DC +12 V 1 A	Input: AC 100 - 240 V - 50/60 Hz 0.3 A Output: DC +12 V 1 A	Input: AC 100 - 240 V - 50/60 Hz 0.3 A Output: DC +12 V 1 A
MTBF (hr)	1,727,244	627,152	627,152	1,727,244	656,972	1,018,460
Heat dispersion	30.7	13.66	13.66	30.7	23.9	23.9
(BTU/hr)						
Physical Specifications Dimensions (WxDxH)	130 x 130x 54.7/	150 x 130 x 54.5/	130 x 130 x 54.5/	130 x 130 x 54.7/	130 x 130 x 54.5/	153 x 110 x 38/
(mm/in.)	5.12 x 5.12 x 2.17	5.9 x 5.12 x 2.17	5.12 x 5.12 x 2.17	5.12 x 5.12 x 2.17	5.12 x 5.12 x 2.17	6.02 x 4.33 x 1.5
	300/0.67	230/0.51	230/0.51	300/0.57	260/0.57	240/0.529
Weight (g/lb.)	Power adapter	Power adapter	Power adapter	Power adapter	Power adapter	Power adapter

^{*:} Supported when working with the NXC2500 and NXC5500



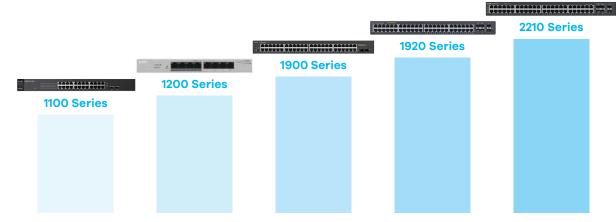
Switches

- 28 L3 Managed Switches
- 30 L2/L2+ Managed Switches
- 36 Smart Managed Switches
- 38 Web Managed Switches
- 39 Unmanaged Switches
- 41 Rugged Switches
- 42 Switch Accessories



LAN Switch Quick Finder

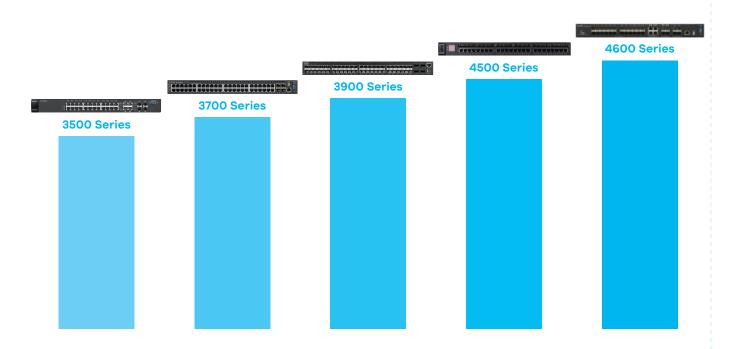
Features/Scalability



Business Scale

Small

ocar							
	Unmanaged		Web Managed	Smart Manage	d		L2 Managed
	Unmanaged		Web Managed	Smart Manage	d		Access Switches
PRFM	1100 Series		1200 Series	1900 Series	1920 Series		2210 Series
Ports	10/100M	Gigabit	Gigabit	Gigabit	Gigabit	10 Gigabit	Gigabit
52	-	-	-	-	-	-	-
48	-	-	-	GS1900-48 GS1900-48HP	GS1920-48 GS1920-48HP	-	GS2210-48 GS2210-48HP
32	-	-	-	-	-	-	-
28	-	-	-	-	-	-	-
24	ES1100-24E ES1100-24	GS1100-24 GS1100-24E	-	GS1900-24E GS1900-24 GS1900-24HP	GS1920-24 GS1920-24HP	-	GS2210-24 GS2210-24HP GS2210-24LP
16	ES1100-16 ES1100-16P	GS1100-16	-	GS1900-16	-	-	-
12	-	-	-	-	-	XS1920-12	-
10	-	GS1100-10HP	-	GS1900-10HP	-	-	-
8	ES1100-8P	GS1100-8HP	GS1200-8HP	GS1900-8 GS1900-8HP	-	-	GS2210-8 GS2210-8HP
5	-	-	GS1200-5HP	-	-	-	-
Accessories	EM-412/EM-42	2, MC1000-SFP-F	P/MC100FX-SC30)-A/MC100FX-SC	2-A, PoE12-HP, R	PS300, RPS600-l	HP



Large

L2 Managed						L3 Managed		
Access Switche	Switches Aggregation Switches					Core/Distribut	Core/Distribution Switches	
2210 Series	3500 Series	3700 Series			3900 Series	4500 Series	4600 Series	
10G Uplink	10/100M	Gigabit	10G Uplink	10 Gigabit	40G Uplink	10G Uplink	10G Uplink	
XGS2210-52 XGS2210-52HP	-	-	-	-	-	-	-	
-	-	GS3700-48 GS3700-48HP	XGS3700-48 XGS3700-48HP	-	XS3900-48F	-	-	
-	-	-	-	-	-	-	XGS4600-32F XGS4600-32	
XGS2210-28 XGS2210-28HP	-	-	-	-	-	-	-	
-	ES3500-24	GS3700-24 GS3700-24HP	XGS3700-24 XGS3700-24HP	XS3700-24	-	XGS-4528F XGS-4526	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	
-	ES3500-8PD	-	-	-	-	-	-	
-	-	-	-	-	-	-	-	

Zyxel switch solutions

Empowering businesses productivity

Businesses today face the challenges of a fast-pace and highly dynamic global economy. They rely on cloud applications, social media, mobility and unified communications to enhance cross-site collaboration and facilitate business growth. It is now imperative that businesses build network infrastructure to support these technologies. Business networks today must be fast, expandable, green, and easy to deploy and manage.

Zyxel Switch Solutions lay the network foundation for efficient business operations. They provide the speed, flexibility and manageability to support voice, video or data center applications in growing business environments. Zyxel's portfolio range from Unmanaged to Layer 3 switches, with PoE and 10-Gigabit connectivity available to satisfy a wide variety of deployment needs.

High-speed Connectivity

Zyxel Switches are designed to provide the speed to handle spikes in network traffic and bandwidth-hungry applications. With Gigabit Ethernet technology, Zyxel Switches offer high-speed LAN connectivity for data, voice and video applications. They also feature 10-Gigabit connectivity for aggregation, HSIA, storage, or high-bandwidth server connections.

Management Visibility

Zyxel Switches offer multiple management options and features to make deployment effortless. IT staff can manage Zyxel Switches via Web GUI, CLI, or SNMP. Zyxel's intuitive Web GUI makes management easy even for non-technical users; while CLI consistency across Zyxel's switch portfolio lowers expenses on IT training. With LLDP and LLDP-MED support, Zyxel Switches offer automated device discovery for easy deployment mapping.





Power over Ethernet

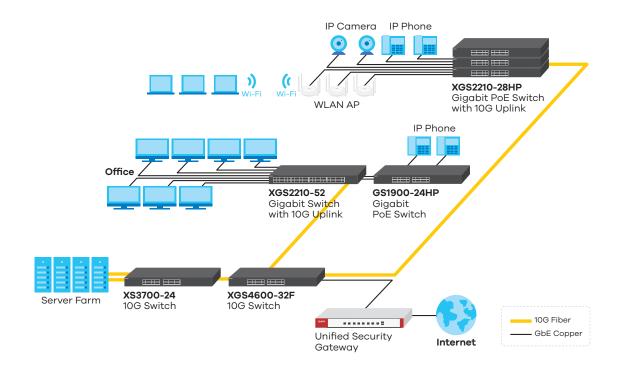
Zyxel offers a complete range of standard-based Power over Ethernet (PoE) switches that help businesses ease the installation of WLAN, VoIP and IP surveillance systems. Zyxel's PoE portfolio includes unmanaged, smart managed and fully managed PoE switches. They are designed with intelligent PoE and power management features to help businesses use energy more efficiently and maximize service availability.

Intelligent PoE

Zyxel PoE Switches feature intelligent PoE technology that automatically detects the power consumption status of each powered device and supply only the amount of power required. This smart feature enables Zyxel PoE Switches to use power more efficiently and help businesses save money.

Centralized Power Management

Zyxel PoE Switches provide a centralized interface to monitor power consumption levels and set power supply policies. These robust power monitoring and management features help IT staff manage powered devices more easily and maximize service availability.



Switch 4600 Series

Layer 3 Managed Switches — 10 Gigabit Ethernet



- Four (4) 10 Gigabit SFP+ uplinks enable congestion free and smooth data delivery for high-bandwidth applications
- Provide high-bandwidth by true physical stacking up to 4 units and 112 Gigabit ports
- L2 and L3 stacking capability to sustain larger network deployment needs
- Redundant power supply support
- 32K MAC address table and 12K Layer 3 Route table for increasing network demand
- Fresh look-and-feel with carbon-like front panel and new Zyxel logo



XGS4600-32

24 x Gigabit RJ-45 ports, 4 x Gigabit (RJ-45/SFP) combo ports, 4 x 10-Gigabit SFP+ ports. 19" rackmount



XGS4600-32F

24 x Gigabit SFP ports, 4 x Gigabit combo (RJ-45/SFP) ports, 4 x 10-Gigabit SFP+ ports. 19" rackmount

Backplane	136 Gbps, non-blocking
MAC address table	32,000
L3 forwarding table	Max. 8 K IPv4 entries Max. 4 K IPv6 entries
Routing table	12 K
IP interface	256
Redundancy	802.3ad link aggregation, VRRP, 802.1w RSTP, 802.1s MSTP

Security	802.1x RADIUS authentication, SSH, SSL, intrusion lock, MAC filtering/forwarding, MAC freeze, VLAN stacking, TACACS+, RADIUS
Special features	Support Digital Diagnostics Monitoring Interface (DDMI) for better fault isolation and error detection
Power supply	100 - 240 V AC, 50/60 Hz

Switch 4500 Series

Layer 3 Managed Switches — 10 Gigabit Ethernet



- Slot for 2 port 10 Gbit module
- Extended L3 routing and L2 switching functions for highest performance
- Multilayer-aware (L2/L3/L4) ACL for security protection and traffic optimization
- Port security and enhanced 802.1x port authentication



XGS-4526

20 x Gigabit RJ-45 ports, 4 x Gigabit combo (RJ-45/SFP) ports, 1 x 2-port 10G open slot. 19" rackmount



EM-412

2-port CX4 module



XGS-4528F

24 x Gigabit combo (RJ-45/SFP) ports, 1 x 2-port 10G open slot, and 2 x 10G CX4 ports. 19" rackmount



EM-422

2-port XFP module

96 Gbps, non-blocking (XGS-4526) 144 Gbps, non-blocking (XGS-4528F)
8,000
1,000 static, 4,000 dynamic
Max. 2 K IPv4 entries Max. 1 K IPv6 entries
512
64
802.3ad link aggregation, VRRP, 802.1w RSTP, 802.1s MSTP

Security	802.1x RADIUS authentication, SSH, SSL, intrusion lock, MAC filtering/forwarding, MAC freeze, VLAN stacking, TACACS+, RADIUS
Extension modular	10 Gbit CX4 slot module (EM-412) 10 Gbit XFP slot module (EM-422)
Power supply	100 - 240 V AC, 50/60 Hz

Switch 3900 Series

Layer 2+ Managed Switch



- 1.28 Tbps non-blocking switching capacity
- Forty-eight 10GbE SFP+ ports and four 40GbE QSFP+ uplinks
- Data center optimized with DCBX, 802.1Qaz (ETS) and 802.1Qbb (PFC) protocol support
- Redundant and hot-swappable fan trays and power supply modules
- Modular and flexible rack-by-rack deployment
- Low power consumption design



XS3900-48F

48 x 10-Gigabit SFP+ ports, 4 x 40-Gigabit QFSP+. 19" rackmount

Backplane	1,280 Gbps, non-blocking		IEEE 802.1x, port security, MAC authentication, L2 MAC filtering, L3 IP
MAC address table	128,000	_	filtering, L4 TCP/UDP socket filtering, BPDU transparency, static MAC forwarding, multiple RADIUS servers, multiple
Data Center Bridging (DCB)			TACACS+ servers, IEEE 802.1x VLAN and bandwidth assignment by RADIUS, login authentication by RADIUS, login authentication by TACACS+, TACACS+ accounting, RADIUS accounting, authorization on TACACS+, SSH v1/v2, SSL
		Power supply	100 - 240 V AC, 50/60 Hz

Switch 3700 Series

Layer 2+ Managed Switches — 10 Gigabit Ethernet



XS3700-24

12 x 10-Gigabit SFP+ ports, 8 x 10-Gigabit RJ-45 ports, 4 x 10-Gigabit combo (RJ-45/SFP) ports. 19" rackmount

Specifications

Backplane	480 Gbps, non-blocking
MAC address table	16,000
L3 forwarding table	Max. 1 K IPv4 entries Max. 512 IPv6 entries

- Flexible 10GbE connectivity with 12 SFP+ ports, 8 10G BASE-T ports and 4 SFP+ combo ports
- Layer-2 plus (L2+) feature set equipped with static, policy route and VRRP
- No single-point of failure hardware and software design
- Internal redundant power supply design
- Comprehensive security features to ensure network availability

Static route	64
IP interface	128
Power supply	100 - 240 V AC, 50/60 Hz

Switch 3700 Series

Layer 2+ Managed Switches — Gigabit Ethernet with 10G Uplink



XGS3700-24

24 x Gigabit RJ-45 ports, 4 x 10-Gigabit SFP+ ports. 19" rackmount

XGS3700-24HP

24 x Gigabit RJ-45 PoE ports, 4 x 10-Gigabit SFP+ ports. 19" rackmount

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

- 24 or 48 port Gigabit connectivity with four 10G SFP+ uplinks
- Internal redundant power supply design
- High PoE power budget up to 1000 W

XGS3700-48

48 x Gigabit RJ-45 ports, 4 x 10-Gigabit SFP+ ports. 19" rackmount



XGS3700-48HP

48 x Gigabit RJ-45 PoE ports, 4×10 -Gigabit SFP+ ports. 19" rackmount

Backplane	128 Gbps, non-blocking (XGS3700-24/24HP) 176 Gbps, non-blocking (XGS3700-48/48HP)
MAC address table	16,000
L3 forwarding table	Max. 1 K IPv4 entries Max. 512 IPv6 entries

Static route	64
IP interface	128
Power supply	100 - 240 V AC, 50/60 Hz

Switch 3700 Series

Layer 2+ Managed Switches — Gigabit Ethernet



- Full Layer 2 feature set with Layer 3 features including static routing, policy-based routing, VRRP and ECMP support
- 24 or 48 ports of Gigabit Ethernet desktop connectivity
- Four (4) 1GbE SPF uplink flexibility
- Internal redundant power supply design
- High PoE power budget up to 1000 W



GS3700-24

24 x Gigabit RJ-45 ports, 4 x Gigabit SFP ports. 19" rackmount



GS3700-48

 $48 \times Gigabit RJ-45 ports, 4 \times Gigabit SFP ports. 19" rackmount$



GS3700-24HP

24 x Gigabit RJ-45 PoE ports, 4 x Gigabit SFP ports. 19" rackmount



GS3700-48HP

48 x Gigabit RJ-45 PoE ports, 4 x Gigabit SFP ports. 19" rackmount

Backplane	56 Gbps, non-blocking (GS3700-24/24HP) 104 Gbps, non-blocking (GS3700-48/48HP)
MAC address table	16,000
L3 forwarding table	Max. 1 K IPv4 entries Max. 512 IPv6 entries
Static route	64
IP interface	128

Redundancy	802.3ad link aggregation, 802.1w RSTP, 802.1s MSTP, MRSTP, supports backup power system
Security	802.1x RADIUS authentication, multi-layer ACL (L2/3/4), SSH, SSL, intrusion lock, MAC filtering/forwarding, MAC freeze, TACACS+, RADIUS
Management	SNMP v3, RMON, DHCP, out-of-band management port, RS-232 console port, Telnet CLI, web management, port mirroring
Power supply	100 - 240 V AC, 50/60 Hz

Switch 3500 Series

Layer 2 Managed Switches — Fast Ethernet



- 16 K MAC address table
- Policy-based QoS optimizes multi-service quality
- IGMP snooping v1, v2, v3, MVR
- Multilayer (L2/L3/L4) ACL suite for security protection
- High redundancy and resilient architecture with RSTP and port trunking
- IPv6 management support



ES3500-8PD

 $8 \times 100 \text{ Mbit RJ-}45 \text{ ports}, 2 \times \text{Gigabit combo (RJ-}45/SFP) ports.}$ Desktop design



ES3500-24

24 x 100 Mbit RJ-45 ports, 4 x Gigabit combo (RJ-45/SFP) ports. 19" rackmount

Backplane	12.8 Gbps, non-blocking (ES3500-24) 5.6 Gbps, non-blocking (ES3500-8PD)
MAC address table	16,000
Redundancy	Dual image
Security	Static address filtering, Static address forwarding, Mac Freeze, 802.1X port authentication, Limiting number of dynamic address per port, PPPoE-IA Option 82, SSH v1/v2, SSL, Multiple RADIUS servers, Multiple TACACS+ servers, 802.1X VLAN and bandwidth assignment, IP source guard

Management	DB-9 RS-232 console, SNMP v2c/v3, Syslog, 802.3ah OAM, 802.1ag CFM, Loop guard, Cable diagnostic
Power supply	100 - 240 V AC, 50/60 Hz

Switch 2210 Series

Layer 2 Managed Switches — Gigabit Ethernet with 10G Uplink



- Physical stacking up to 2 units through 2 standard 10G SFP+ ports
- Gigabit connectivity, plus four (4) SFP+ ports to deal with high-bandwidth network with ease
- PoE models comply with IEEE 802.3at PoE Plus with high power budget up to 375 W
- VLAN communication through access switch by static routing feature for agile, reliable network operations
- Supports sFlow that analyzes client behavior to discover source of bandwidth abuse
- Enhanced network protection with IP source guard, DHCP snooping, ARP inspection, CPU protection



XGS2210-28

24 x Gigabit RJ-45 ports, 4 x 10-Gigabit SFP+ ports. 19" rackmount



XGS2210-28HP

24 x Gigabit RJ-45 PoE ports, 4 x 10-Gigabit SFP+ ports. 19" rackmount



XGS2210-52

48 x Gigabit RJ-45 ports, 4 x 10-Gigabit SFP+ ports. 19" rackmount



XGS2210-52HP

48 x Gigabit RJ-45 PoE ports, 4 x 10-Gigabit SFP+ ports. 19" rackmount

Backplane	128 Gbps, non-blocking (XGS2210-28/28HP) 176 Gbps, non-blocking (XGS2210-52/52HP)
MAC address table	16,000
L3 forwarding table	Max. 1 K IPv4 entries Max. 512 IPv6 entries
Static route	64

IP interface	32
Power over Ethernet	All PoE ports with 802.3at, power budget 375 watts for XGS2210-28HP/52HP
Power supply	100 - 240 V AC, 50/60 Hz

Switch 2210 Series

Layer 2 Managed Switches — Gigabit Ethernet



- GbE RJ-45, GbE combo (RJ-45/SFP) and fixed GbE SFP connectivity
- PoE models comply with IEEE 802.3at PoE Plus with high power budget
- L2 multicast, IGMP snooping, and MVR 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



GS2210-8

 $8 \times Gigabit RJ-45 ports, 2 \times Gigabit combo (RJ-45/SFP) ports$



GS2210-8HP

8 x Gigabit RJ-45 PoE ports, 2 x Gigabit combo (RJ-45/SFP) ports



GS2210-24

24 x Gigabit RJ-45 ports, 4 x Gigabit combo (RJ-45/SFP) ports. 19" rackmount



GS2210-24HP

 $24 \times \text{Gigabit RJ-}45 \text{ PoE ports}, 4 \times \text{Gigabit combo (RJ-}45/\text{SFP)}$ ports. 19" rackmount

GS2210-24LP

 $24 \times Gigabit RJ-45 PoE ports, 4 \times Gigabit combo (RJ-45/SFP) ports.$ 19" rackmount



GS2210-48

44 x Gigabit RJ-45 ports, 2 x Gigabit SFP ports, 4 x Gigabit combo (RJ-45/SFP) ports. 19" rackmount



GS2210-48HP

48 x Gigabit RJ-45 PoE ports, 2 x Gigabit SFP ports, 4 x Gigabit combo (RJ-45/SFP) ports. 19" rackmount

Backplane	100 Gbps, non-blocking (GS2210-48/48HP) 56 Gbps, non-blocking (GS2210-24/24HP/24LP) 20 Gbps, non-blocking (GS2210-8/8HP)
MAC address table	16,000
VLAN support	1,000 static, 4,000 dynamic
Security	802.1x RADIUS authentication, SSH, SSL, intrusion lock, MAC filtering/forwarding, MAC freeze

Management	iStacking, CLI over Telnet/SSH/RS232 console, Web GUI over HTTP/HTTPS, SNMP v2c, v3 manageable, RMON, F/w upgrade, configuration backup/restore via ftp, IEEE 802.1ag CFM, IEEE 802.3ah OAM
Special feature	Digital Diagnostics Monitoring Interface (DDMI) for better fault isolation and error detection
Power over Ethernet	All PoE ports with 802.3at, power budget 375 watts for GS2210-24HP/48HP; 180 watts for GS2210-24LP/8HP
Power supply	100 - 240 V AC, 50/60 Hz

Switch 1920 Series

Advanced Smart Managed Switches — 10 Gigabit Ethernet



XS1920-12

 10×10 -Gigabit RJ-45 ports, 2×10 -Gigabit combo (RJ-45/SFP+) ports. 19" rackmount

Specifications

Backplane	240 Gbps, non-blocking
Forwarding rate	178.6 Mpps
MAC address table	16,000
L3 forwarding table	Max. 512 IPv4 entries Max. 256 IPv6 entries

- Upgrades your network to 10GbE connectivity easily and economically
- Simplified configuration with user-friendly web-based management GUI
- Flexible 10G connection to 10G servers and network storage through both copper and
- Dual firmware images and configuration ensure network availability

Static route	64
IP interface	32
Power supply	100 - 240 V AC, 50/60 Hz

Switch 1920 Series

Advanced Smart Managed Switches — Gigabit Ethernet



GS1920-24

Specifications

24 x Gigabit RJ-45 ports, 4 x Gigabit combo (RJ-45/SFP) ports. 19" rackmount

GS1920-24HP

24 x Gigabit RJ-45 PoE ports, 4 x Gigabit combo (RJ-45/ SFP) ports. 19" rackmount

GS1920-48

44 x Gigabit RJ-45 ports, 2 x Gigabit SFP ports, 4 x Gigabit combo (RJ-45/SFP) ports. 19" rackmount

• GbE RJ-45, GbE combo (RJ-45/SFP) and fixed GbE SFP connectivity

- PoE models comply with IEEE 802.3at PoE Plus with 375 W power budget
- Reliable network availability with Loop Guard, IPSG, and CPU protection
- RADIUS, static MAC forwarding and 802.1X authentication-enhance network security

GS1920-48HP

48 x Gigabit RJ-45 PoE ports, 2 x Gigabit SFP ports, 4 x Gigabit combo (RJ-45/SFP) ports. 19" rackmount

Backplane	100 Gbps, non-blocking (GS1920-48/48HP) 56 Gbps, non-blocking (GS1920-24/24HP)
MAC address table	16,000
Power over Ethernet	All PoE ports with 802.3at, power budget 375 watts (GS1920-24HP/48HP)

Data transfer and prioritization	802.1p (8 priority queues per port), SPQ/WRR/WFQ, L2 multicast, IGMP snooping, 802.1Q VLAN tagging, VLAN trunking, GVRP, bandwidth management
Power supply	100 - 240 V AC, 50/60 Hz

Switch 1900 Series

Advanced Smart Managed Switches — Gigabit Ethernet



GS1900-8

8 x Gigabit RJ-45 ports. Desktop design



GS1900-10HP

8 x Gigabit RJ-45 ports. 2 x Gigabit SFP ports. Desktop design



GS1900-24E

24 x Gigabit RJ-45 ports. Desktop design



GS1900-24HP

24 x Gigabit RJ-45 PoE ports, 2 x Gigabit SFP ports. 19" rackmount



GS1900-48HP

24 x Gigabit RJ-45 PoE ports, 24 x Gigabit RJ-45 ports, 2 x Gigabit SFP ports. 19" rackmount

• 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/10HP/16/ 24/24E)
- Green Ethernet IEEE 802.3az support and intelligent Zyxel green features
- High-power PoE support IEEE 802.3at (GS1900-8HP/10HP/24HP/48HP)



GS1900-8HP

8 x Gigabit RJ-45 PoE ports. Desktop design



GS1900-16

16 x Gigabit RJ-45 ports. Desktop design



GS1900-24

24 x Gigabit RJ-45 ports, 2 x Gigabit SFP ports. 19" rackmount



GS1900-48

48 x Gigabit RJ-45 ports, 2 x Gigabit SFP ports. 19" rackmount

Backplane	16 Gbps, non-blocking (GS1900-8/8HP) 20 Gbps, non-blocking (GS1900-10HP) 32 Gbps, non-blocking (GS1900-16) 48 Gbps, non-blocking (GS1900-24E) 52 Gbps, non-blocking (GS1900-24/24HP) 100 Gbps, non-blocking (GS1900-48/48HP)
MAC address table	8,000
Security	IEEE 802.1x, port security, L2 MAC filtering, BPDU guard, static MAC forwarding, RADIDUS, TACACS+, SSL, Mgmt. VLAN, DoS prevention

Jumbo frame (byte)	9K
Management	SNMP v3, web management, port mirroring
Power over Ethernet	8 ports each with 30 watts, total power budget 70 watts for GS1900-8HP and 77 watts for GS1900-10HP 24 ports each with 30 watts, total power budget 170 watts (GS1900-24HP/48HP)
Power supply	100 - 240 V AC, 50/60 Hz

Switch 1200 Series

Web Managed Switches — Gigabit Ethernet



- Four Gigabit high-power PoE+ ports, total budget 60 watt
- Intuitive Web management
- Quality of Service for better traffic control
- Multicast IGMP snooping v1/v2 and v3 compatible for streaming applications
- Virtual LAN for enhanced network security



GS1200-5HP

Gigabit Ethernet switch, Web managed, 5 ports RJ-45 with 4 ports PoE, desktop design



GS1200-8HP

Gigabit Ethernet switch, Web managed, 8 ports RJ-45 with 4 ports PoE, desktop design

Standard compliance	IEEE 802.3u 100BASE-TX Ethernet IEEE 802.3ab 1000BASE-T Ethernet IEEE 802.3az EEE support IEEE 802.3x flow control IEEE 802.3z 1000BASE-X IEEE 802.1p CoS IEEE 802.3af PoE IEEE 802.3at PoE Plus (30 W per port) Auto MDI/MDI-X IEEE 802.1Q VLAN tagging	Special features	 Web-based management System password Port-based VLAN VLAN (Port supported) GS1200-5HP: 5 ports GS1200-8HP: 8 ports Port-based QoS 802.1p CoS Broadcast storm control
	 Switching capacity: 10 Gbps/16Gbps (GS1200-5HP/GS1200-8HP) Packet buffer: 128 KB/192KB (GS1200-5HP/ 		IGMP snooping v1/v2/and v3 compatibleSupported multicast groups: 20Firmware update
Performance	GS1200-8HP) • MAC address: 4000 • Jumbo frame (byte): 9 KB	Power	 Input voltage: 55 V/1.3 A Power supply: External Maximum power consumption: 72 Watt PoE power budget: 60 Watt

Switch 1100 Series

Unmanaged Switch — Gigabit Ethernet



- Non-blocking, wire-speed transmission
- Auto MDI/MDI-X support
- IEEE 802.3az compliant
- Fanless design for silent operation
- IEEE 802.3x flow control supported
- IEEE 802.1p CoS supported
- Jumbo frame support (up to 9 K bytes)
- IEEE 802.3at PoE Plus standard with 30 W per port (GS1100-8HP/GS1100-10HP)



GS1100-8HP

4 x Gigabit RJ-45 PoE ports, 4 x Gigabit RJ-45 ports. Desktop design



GS1100-10HP

8 x Gigabit RJ-45 PoE ports, 2 x Gigabit SFP ports. Desktop design



GS1100-16

16 x Gigabit RJ-45 ports. Desktop design



GS1100-24E

24 x Gigabit RJ-45 ports. Desktop design



GS1100-24

24 x Gigabit RJ-45 ports, 2 x Gigabit SFP ports. 19" rackmount

Backplane	16 Gbps, non-blocking (GS1100-8HP) 20 Gbps, non-blocking (GS1100-10HP) 32 Gbps, non-blocking (GS1100-16) 52 Gbps, non-blocking (GS1100-24) 48 Gbps, non-blocking (GS1100-24E)
MAC address table	8,000
Buffer memory	256 KB (G\$1100-8HP/G\$1100-16) 525 KB (G\$1100-24/G\$1100-24E)
Buffer memory	, , , , , , , , , , , , , , , , , , , ,

Plug & Play
Fanless design, IEEE 802.3az compliant
4 ports each with 30 Watt, total power budget, 75 Watt (GS1100-8HP), 8 ports each with 30 Watt total power budget 130 Watt (GS1100-10HP)
100 - 240 V AC, 50/60 Hz

Switch 1100 Series

Unmanaged Switch — Fast Ethernet



- Non-blocking, wire-speed transmission
- Auto MDI/MDI-X support
- IEEE 802.3az compliant (ES1100-8P/ES1100-16P/ES1100-16/ES1100-24E/ES1100-24)
- Fanless design for silent operations (ES1100-8P/ES1100-16/ES1100-24E/ES1100-24)
- IEEE 802.3x flow control supported
- IEEE 802.1p CoS supported
- IEEE 802.3af power on up to 4/8 ports (ES1100-8P/16P)



ES1100-8P

4 x 100 Mbit RJ-45 PoE ports, 4 x 100 Mbit RJ-45 ports. Desktop design



ES1100-16

16 x 100 Mbit RJ-45 ports. Desktop design



ES1100-24E

24 x 100 Mbit RJ-45 ports. Desktop design



ES1100-24

24 x 100 Mbit RJ-45 ports. 19" rackmount



ES1100-16P

8 x 100 Mbit RJ-45 PoE ports, 8 x 100 Mbit RJ-45 ports. Desktop design

Backplane	1.6 Gbps, non-blocking (ES1100-8P) 3.2 Gbps, non-blocking (ES1100-16/ES1100-16P) 4.8 Gbps, non-blocking (ES1100-24/ES1100-24E)
MAC address	1,000 (ES1100-8P) 8,000 (ES1100-16/ES1100-16P/ES1100-24/ ES1100-24E)
Buffer memory	96 KB (ES1100-8P), 160 KB (ES1100-16P) 256 KB (ES1100-16/ES1100-24/ES1100-24E)
Management	Plug & Play

Special feature	IEEE 802.3az compliant (ES1100-8P/ ES1100-16P/ES1100-16/ES1100-24/ES1100-24E)
Power over Ethernet	8/16 ports each with 15.4 Watt, total power budget 64 Watt/130 Watt (ES1100-8P/ES1100- 16P)
Power supply	100 - 240 V AC, 50/60 Hz

Rugged Switch 100 Series

Unmanaged Switch — Gigabit Ethernet



4 x Gigabit RJ-45 PoE ports, 1 x Gigabit SFP ports. DIN rail and wall mount

- Wide-ranging operating temperature design from -40 to 75 degree C
- All PoE ports support PoE+ and high PoE power budget up to 120 W
- Fanless design and compact mechanism with IP30 standard
- Dual power inputs (12 V 58 V DC)

Specifications

Backplane	10 Gbps
MAC address	2,000
Data transfer and prioritization	Half and full duplex operation, jumbo frames, 802.1p class of service, 802.3x flow control

Special feature	Dual DC power inputs, IP30 metal case protection, DIN rail and wall mount
Power over Ethernet	120 Watt
Power supply	Dual power input 12 V - 58 V DC

Rugged Switch 200 Series

Managed Switches — Gigabit Ethernet





8 x Gigabit RJ-45 PoE ports, 4 x Gigabit SFP ports. DIN rail and wall mount

- Wide-ranging operating temperature design from -40 to 75 degree C
- Redundant ring technology with quick failover in less than 20 ms
- Fanless design and compact mechanism with IP30 standard
- Dual power inputs for high network resilience
- Full PoE+ support and high PoE power budget up to 240 W

Backplane	24 Gbps
MAC address	8,000
Data transfer and prioritization	802.1p (8 priority queues per port), SPQ/ WRR, prioritization L2 multicast, IGMP snooping, 802.1Q VLAN tagging, GVRP

Special feature	PoE scheduling, 2KV Ethernet surge protection, IP30 metal case protection, DIN rail and wall mount
Power over Ethernet	240 Watt
Power supply	Dual power input 12 V - 58 V DC

Transceiver Series

Fiber Transceivers and Direct Attached Cables



- Industry standards compliant
- SFP Multi-Source Agreement (MSA) compliant
- Hot pluggable with maximum flexibility
- Compact size with high port density
- Low power dissipation

	10GbE Transceiver Modules			
	10 Gigabit XFP		10 Gigabit SFP+	
	XFP-SR	FTLX1412D3BCL (XFP-LR)	SFP10G-SR	SFP10G-LR
Connector	LC	LC	Duplex LC	Duplex LC
Wavelength	850 nm	1310 nm	850 nm	1310 nm
Max Transmission Distance	0.3 km/328 yd	10 km/10936 yd	0.3 km/328 yd	10 km/10936 yd
Support DDMI Features	Yes	Yes	Yes	Yes
Optical Fiber Type	Multiple Mode	Single Mode	Multiple Mode	Single Mode
Operational Ranges				
Supply Voltage	3.1 - 3.45 V	3.1 - 3.5 V	3.14 - 3.46 V	3.14 - 3.46 V
Max Current	400 mA	600 mA	250 mA	285 mA

	GbE Transceiver Modules								
	Gigabit SFP								
	SFP-1000T	SFP-SX-D	SFP-LX-10-D	SFP-BX 1310-10-D*1	SFP-BX 1490-10-D*1	SFP-LHX 1310-40-D	SFP-ZX-80-D		
Connector	RJ-45	LC	LC	LC	LC	LC	LC		
Wavelength	-	850 nm	1310 nm	1310 nm (TX) 1490 nm (RX)	1490 nm (TX) 1310 nm (RX)	1310 nm	1550 nm		
Max Transmission Distance	0.1 km/ 109 yd	0.55 km/ 601 yd	10 km/ 10936 yd	10 km/ 10936 yd	10 km/ 10936 yd	40 km/ 43744 yd	80 km/ 87488 yd		
Support DDMI Features	-	Yes	Yes	Yes	Yes	Yes	Yes		
Optical Fiber Type	Multiple Mode	Multiple Mode	Single Mode	Single Mode	Single Mode	Single Mode	Single Mode		
Operational Ranges									
Supply Voltage	3.1 - 3.45 V	3.1 - 3.5 V	3.1 - 3.5 V	3.1 - 3.5 V	3.1 - 3.5 V	3.1 - 3.5 V	3.1 - 3.5 V		
Max Current	300 mA	250 mA	300 mA	-	300 mA	300 mA	300 mA		

^{*1:} SFP-BX1310-10-D and SFP-BX1490-10-D are pair used.

	Direct Attached Cable 10G Series DAC10G				
	DAC10G-1M	DAC10G-3M			
Connector	SFP+ to SFP+	SFP+ to SFP+			
Wavelength	-	-			
Max Transmission Distance	1 m/3.28 ft	3 m/9.84 ft			
Support DDMI Features	-	-			
Optical Fiber Type	-	-			
Operational Ranges					
Supply Voltage	3.13 - 3.47 V	3.13 - 3.47 V			
Max Current	480 mA	480 mA			

PoE12-HP

Power over Ethernet Power Injector



- Install anywhere thanks to PoE technology
- Simple installation for IEEE 802.3at compatible wireless LAN APs or IP video cameras
- Up to 100 m coverage via CAT-5 Ethernet cables



1-port Gigabit Ethernet PoE power injector

Specifications

Network interfaces	1 x 1 Gbit BASE-T 1 x 1 Gbit BASE-T with PoE
PoE standard	802.3at compatible, 100 m coverage
Special features	Power surge and short circuit proof

Power supply	100 - 240 V AC, 50/60 Hz
Dimensions (WxDxH)	207 x 65 x 38.5 mm (8.15" x 2.56" x 1.52")

MC1000-SFP-FP

Media Converter



- Conversion between different transfer rates and types of media
- Standard fiber slots for SFP transceivers
- Link Fault Signalling (LFS) for interrupted connection display
- Wall mountable

MC1000-SFP-FP

Media converter fiber/Gigabit Ethernet, 1 x SFP connection, 1 x RJ-45

Network interfaces	1 x 1 Gbit BASE-T, 1 x 1 Gbit SFP slot
Special features	Link Fault Signalling (LFS), special enclosure design for fiber protection
Mounting	Wall fastening

Power supply	External power supply unit 100 - 240 V AC, 50/60 Hz
Dimensions (WxDxH)	194 x 129 x 25 mm (7.64" x 5.08" x 0.98")

Model	Switch 4600 Seires	s*	Switch 4500 Series	s	Switch 3900 Series	Switch 3700 Series	
viodei	XGS4600-32	XGS4600-32F	XGS-4526	XGS-4528F	XS3900-48F	XS3700-24	XGS3700-24
Switch class	Layer 3	Layer 3	Layer 3	Layer 3	Layer 2	Layer 2 Plus (Layer 3 Lite)	Layer 2 Plus (Layer 3 Lite)
lardware						(Edyor o'Elto)	(Edyor o Erco)
otal port count	32	32	26	28	52	24	28
00 Mbit J-45 ports	-	-	-	-	-	-	-
00 Mbit			_			_	_
J-45 PoE ports	-						
00 Mbit SFP slots 0 Giaabit	_	-	=	-	-	-	-
J-45 ports	-	-	-	-	-	8	-
Gigabit 2J-45 ports	24	-	20	-	-	-	24
Gigabit	_		_	_		_	_
J-45 PoE ports		- 04					
Gigabit SFP slots O Gigabit		24	-	-	-	-	-
ombo ports	-	-	-	-	-	4	-
RJ-45/SFP+) Bigabit combo				0.4			
orts (RJ-45/SFP)	4	4	4	24	-	-	-
0 Gigabit X4 ports	-	-	-	2	-	-	-
0 Gigabit module	-	-	1	1	-	-	-
O Gigabit	4	4	-	-	48	12	4
FP+ slots 0-Gigabit QSFP+					4		
ackplane	136	136	96	144	1,280	480	128
andwidth (Gbps)		130	<i>3</i> 0	144	1,200	400	120
orwarding rate Mpps)	101.1	101.1	71.4	100	952.4	357.14	95
AAC addresses	32 K	32 K	8 K	8 K	128 K	16 K	16 K
able Ianagement							
Pv6 management	Yes	Yes	Yes	Yes	Yes	Yes	Yes
LI, Web GUI	Yes/Yes	Yes/Yes	Yes/Yes	Yes/Yes	Yes/Yes	Yes/Yes	Yes/Yes
Stacking (single	Yes	Yes	Yes	Yes	Yes	Yes	Yes
P management) Out-of-band							
nanagement port	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Routing/Redundan							
OSPF	Yes	Yes	Yes	Yes	-	-	-
RIP v1, v2 Static IP routing	Yes Yes	Yes Yes	Yes Yes	Yes Yes	-	Yes	Yes
/RRP	Yes	Yes	Yes	Yes		Yes	Yes
Spanning Tree	Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes		Yes/Yes/Yes	Yes/Yes/Yes
STP/MSTP/RSTP)	163/163/163	163/163/163	165/165/165	165/165/165		163/163/163	163/163/163
Redundant power support	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Quality of Service							
Priority queues	8	8	8	8	8	8	8
oata prioritization SPQ/WRR/WFQ)	Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes
		100, 100, 100					
Buest VLAN	Yes	Yes	Yes	Yes	Yes	Yes	Yes
GMP snooping	Yes Yes		Yes Yes	Yes Yes	Yes Yes	Yes Yes	Yes Yes
GMP snooping v1/v2/v3)	Yes	Yes Yes	Yes	Yes	Yes	Yes	Yes
GMP snooping v1/v2/v3) NVR Jumbo frame	Yes Yes	Yes Yes Yes	Yes Yes	Yes Yes	Yes Yes	Yes Yes	Yes Yes
GMP snooping v1/v2/v3) MVR Jumbo frame orwarding	Yes Yes Yes	Yes Yes Yes Yes	Yes Yes Yes	Yes Yes Yes	Yes Yes Yes	Yes Yes Yes	Yes Yes Yes
GMP snooping v1/v2/v3) MVR Jumbo frame orwarding	Yes Yes Yes	Yes Yes Yes Yes Yes	Yes Yes Yes	Yes Yes Yes	Yes Yes Yes	Yes Yes Yes	Yes Yes Yes
GMP snooping v1/v2/v3) VVR Jumbo frame orwarding DVMRP 102.1p class of ervice	Yes Yes Yes	Yes Yes Yes Yes	Yes Yes Yes	Yes Yes Yes	Yes Yes Yes	Yes Yes Yes	Yes Yes Yes
GMP snooping v1/v2/v3) AVR lumbo frame orwarding DVMRP 102.1p class of ervice Security	Yes Yes Yes	Yes Yes Yes Yes Yes	Yes Yes Yes	Yes Yes Yes	Yes Yes Yes	Yes Yes Yes	Yes Yes Yes
GMP snooping v1/v2/v3) AVR lumbo frame orwarding DVMRP loc2.1p class of ervice security AAC freeze/	Yes Yes Yes	Yes Yes Yes Yes Yes	Yes Yes Yes	Yes Yes Yes	Yes Yes Yes	Yes Yes Yes	Yes Yes Yes
GMP snooping v1/v2/v3) AVR lumbo frame orwarding DVMRP 02.1p class of ervice security AC freeze/ ntrusion lock 102.1X	Yes Yes Yes Yes Yes	Yes Yes Yes Yes Yes Yes Yes	Yes Yes Yes Yes Yes	Yes Yes Yes Yes Yes	Yes Yes Yes - Yes	Yes Yes Yes - Yes	Yes Yes Yes - Yes
GMP snooping v1/v2/v3) MVR umbo frame orwarding DVMRP 02.1p class of ervice eccurity MAC freeze/ ntrusion lock 02.1X uthentication	Yes Yes Yes Yes Yes Yes Yes	Yes Yes Yes Yes Yes Yes Yes Yes Yes	Yes Yes Yes Yes Yes Yes Yes	Yes Yes Yes Yes Yes Yes Yes	Yes Yes - Yes Yes Yes	Yes Yes Yes - Yes Yes Yes Yes	Yes Yes - Yes Yes Yes Yes
GMP snooping v1/v2/v3) MVR umbo frame orwarding DVMRP 02.1p class of ervice GCURITY MAC freeze/ ntrusion lock 02.1X uthentication CACACS+/RADIUS	Yes Yes Yes Yes Yes Yes Yes Yes	Yes	Yes	Yes Yes Yes Yes Yes Yes Yes Yes Yes	Yes Yes Yes Yes Yes Yes Yes	Yes Yes Yes - Yes Yes Yes Yes Yes	Yes Yes Yes - Yes Yes Yes Yes Yes Yes
GMP snooping v1/v2/v3) VR umbo frame prowarding VMRP 02.1p class of ervice ecurity MAC freeze/ thrusion lock 02.1X uthentication ACACS+/RADIUS CL security filter 2/L3/L4	Yes	Yes	Yes	Yes	Yes Yes Yes Yes Yes Yes Yes Yes Yes	Yes Yes Yes - Yes Yes Yes Yes Yes Yes Yes	Yes Yes - Yes Yes Yes Yes Yes Yes Yes Yes
MP snooping /1/v2/v3) IVR umbo frame prwarding VMRP 02.1p class of ervice ecurity IAC freeze/ thrusion lock 02.1X uthentication ACACS+/RADIUS CL security filter 2/L3/L4 flow	Yes	Yes	Yes	Yes	Yes	Yes Yes Yes - Yes Yes Yes Yes Yes Yes Yes Yes Yes	Yes
MP snooping /1/v2/v3) VR umbo frame prwarding VMRP 02.1p class of ervice ecurity MAC freeze/ thrusion lock 02.1X uthentication ACACS+/RADIUS CL security filter 2/L3/L4 flow PU protection	Yes	Yes	Yes	Yes	Yes Yes Yes Yes Yes Yes Yes Yes Yes	Yes Yes Yes - Yes Yes Yes Yes Yes Yes Yes	Yes Yes - Yes Yes Yes Yes Yes Yes Yes Yes
GMP snooping v1/v2/v3) VR umbo frame orwarding VMRP 02.1p class of ervice ecurity AC freeze/ thrusion lock 02.1X uthentication ACACS+/RADIUS ACACS-/RADIUS ACACS-/RADI	Yes	Yes	Yes	Yes	Yes	Yes Yes Yes - Yes Yes Yes Yes Yes Yes Yes Yes Yes	Yes
MP snooping /1/v2/v3) NR umbo frame orwarding VMRP 02:1p class of ervice ecurity IAC freeze/ ntrusion lock 02:1X uthentication ACACS+/RADIUS CL security filter 2/L3/L4 flow PU protection ireen Features anless EEE Energy-	Yes	Yes	Yes	Yes	Yes	Yes Yes Yes - Yes	Yes
MP snooping /1/v2/v3) NR umbo frame orwarding VMRP 02:1p class of ervice ecurity IAC freeze/ ntrusion lock 02:1X uthentication ACACS+/RADIUS CL security filter 2/L3/L4 flow PU protection ireen Features anless EEE Energy- fficient-Ethernet	Yes	Yes	Yes	Yes	Yes	Yes Yes Yes - Yes	Yes
GMP snooping v1/v2/v3) MVR umbo frame prowarding VMRP 02.1p class of ervice ecurity MAC freeze/ ntrusion lock 02.1X uthentication ACACS+/RADIUS CL security filter 2/L3/L4 filow CPU protection Green Features anless EEE Energy- fficient-Ethernet	Yes	Yes	Yes	Yes	Yes Yes Yes - Yes Yes Yes Yes Yes Yes Yes Yes	Yes Yes Yes - Yes	Yes
GMP snooping v1/v2/v3) VR umbo frame prowarding VMRP 02.1p class of ervice ecurity MAC freeze/ ntrusion lock 02.1X uthentication ACACS+/RADIUS ACACS-/RADIUS ACACS-/RADI	Yes	Yes	Yes	Yes	Yes Yes Yes - Yes Yes Yes Yes Yes Yes Yes 156,472	Yes Yes Yes - Yes	Yes
SMP snooping /1/v2/v3) VR umbo frame orwarding VMRP 02.1p class of ervice ecurity AC freeze/ thrusion lock 02.1X uthentication ACACS+/RADIUS CL security filter 2/L3/L4 flow PPU protection creen Features anless EEE Energy- fficient-Ethernet thers TIBF (hr) leat dissipation BTU/hr)	Yes	Yes	Yes	Yes	Yes Yes Yes - Yes Yes Yes Yes Yes Yes Yes Yes	Yes Yes Yes - Yes	Yes
GMP snooping y1/v2/v3) AVR umbo frame orwarding VMRP 02.1p class of ervice ecurity ACC freeze/ ntrusion lock 02.1X uthentication ACACS+/RADIUS ACL security filter 2/L3/L4 flow PU protection Green Features anless EEE Energy- fficient-Ethernet Others ATBF (hr) leat dissipation BTU/hr) Physical Specificat	Yes	Yes	Yes	Yes	Yes Yes Yes - Yes Yes Yes Yes Yes Yes Yes 156,472 1,024.32	Yes Yes Yes - Yes Yes Yes Yes Yes Yes Yes Yes Yes Single PSU: 487.971 Dual PSU: 549.01	Yes
GMP snooping v1/v2/v3) AVR Jumbo frame orwarding orwarding ov/MRP JO2.1p class of ervice electrity ACA freeze/ ntrusion lock JO2.1X JUMBO Freeze/ ntrusion lock JO2.1X JUMBO Freeze/ ntrusion lock JO2.1X JUMBO FREEZE/ NTRUS ACL security filter 2/L3/L4 JUMBO FREEZE/ NTRUS ACL security filter 2/L3/L4 JUMBO FREEZE/ NTRUS ACL security filter 2/L3/L4 JUMBO FREEZE/ NTRUS ACL SECURITY FILTER SE	Yes	Yes	Yes	Yes	Yes Yes Yes - Yes Yes Yes Yes Yes Yes Yes 156,472	Yes Yes Yes - Yes	Yes
Guest VLAN GMP snooping v1/v2/v3) MVR Jumbo frame forwarding DVMRP 302.1p class of service Security MAC freeze/ ntrusion lock 302.1X ACL security filter .2/L3/L4 Sflow CPU protection Green Features Fanless EEE Energy- Efficient-Ethernet Dthers MTBF (hr) Heat dissipation BTU/hr) Dehysical Specificat Dimensions WxDxH)(mm/in.) Weight (kg/lb.)	Yes	Yes	Yes	Yes	Yes Yes Yes - Yes Yes Yes Yes Yes Yes Yes 156,472 1,024.32 440 x 455 x 43/	Yes Yes Yes - Yes	Yes
GMP snooping v1/v2/v3) MVR Jumbo frame orwarding ovMRP BO2.1p class of service security MAC freeze/ntrusion lock socurity MAC freeze/ntrusion lock socurity filter. CACACS+/RADIUS ACL security filter. 2/L3/L4 Sflow CPU protection services free features Fanless EEE Energy- Efficient-Ethernet others MTBF (hr) Heat dissipation BTU/hr) Physical Specificat on SwxDxH)(mm/in.)	Yes	Yes	Yes	Yes	Yes Yes Yes - Yes Yes Yes Yes Yes Yes Yes Yes 156,472 1,024.32 440 × 455 × 43/ 17.32 × 17.91 × 1.69 10.2/22.49 • Power cord	Yes Yes Yes - Yes	Yes
GMP snooping v1/v2/v3) AVR Jumbo frame orwarding ovMRP JUMRP	Yes	Yes	Yes	Yes	Yes Yes Yes - Yes Yes Yes Yes Yes Yes Yes Yes 156,472 1,024.32 440 x 455 x 43/ 17.32 x 17.91 x 1.69 10.2/22.49	Yes Yes Yes - Yes	Yes

^{*:} XGS4600 Series is available in Q1 2017

	Switch 3700 Series	s					
Model	XGS3700-24HP	XGS3700-48	XGS3700-48HP	GS3700-24	GS3700-24HP	GS3700-48	GS3700-48HP
Switch class	Layer 2 Plus (Layer 3 Lite)	Layer 2 Plus (Layer 3 Lite)	Layer 2 Plus (Layer 3 Lite)	Layer 2 Plus (Layer 3 Lite)	Layer 2 Plus (Layer 3 Lite)	Layer 2 Plus (Layer 3 Lite)	Layer 2 Plus (Layer 3 Lite)
-lardware							
Total port count	28	52	52	28	28	52	52
IOO Mbit RJ-45 ports	-	-	-	-	-	-	-
IOO Mbit	_	-	_	_	_	_	-
RJ-45 PoE ports 100 Mbit SFP slots	_	_	_	_	_	_	_
10 Gigabit							
RJ-45 ports	-	-		-		-	_
1 Gigabit RJ-45 ports 1 Gigabit		48	-	24	-	48	-
RJ-45 PoE ports	24	=	48	-	24	-	48
1 Gigabit SFP slots	-	-	-	4	4	4	4
10 Gigabit combo ports (RJ-45/SFP+)	=	=	-	-	-	-	=
Gigabit combo ports (RJ-45/SFP)	-	-	-	-	-	-	-
10 Gigabit							
CX4 ports	-	-	-	-	-	-	-
10 Gigabit module 10 Gigabit	=	-	_	-	-	_	=
SFP+ slots	4	4	4	-	-	-	-
40-Gigabit QSFP+	-	-	-	-	-	-	-
Backplane bandwidth (Gbps)	128	176	176	56	56	104	104
Forwarding rate	95	131	131	42	42	77	77
(Mpps) MAC addresses table		16 K	16 K	16 K	16 K	16 K	16 K
Management				***			
IPv6 management	Yes	Yes	Yes	Yes	Yes	Yes	Yes
CLI, Web GUI	Yes/Yes	Yes/Yes	Yes/Yes	Yes/Yes	Yes/Yes	Yes/Yes	Yes/Yes
iStacking (single IP management)	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Out-of-band	Yes	Yes	Yes	Yes	Yes	Yes	Yes
management port Routing/Redundancy							
OSPF	_	_	_	-	_	_	_
RIP v1, v2	-	-	-	-	-	-	-
Static IP routing	Yes	Yes	Yes	Yes	Yes	Yes	Yes
VRRP	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Spanning Tree (STP/MSTP/RSTP)	Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes
	103/103/103	100/100/100	.00, .00, .00				
Redundant power	Yes	Yes	Yes	Yes	Yes	Yes	Yes
support				Yes	Yes	Yes	Yes
				Yes 8	Yes 8	Yes 8	Yes 8
Support Quality of Service Priority queues Data prioritization	Yes	Yes	Yes				
Support Quality of Service Priority queues Data prioritization (SPQ/WRR/WFQ)	Yes 8 Yes/Yes/Yes	Yes 8 Yes/Yes/Yes	Yes 8 Yes/Yes/Yes	8 Yes/Yes/Yes	8 Yes/Yes/Yes	8 Yes/Yes/Yes	8 Yes/Yes/Yes
support Quality of Service Priority queues Data prioritization (SPQ/WRR/WFQ) Guest VLAN IGMP snooping	Yes 8 Yes/Yes/Yes Yes	Yes 8 Yes/Yes/Yes Yes	Yes 8 Yes/Yes/Yes Yes	8 Yes/Yes/Yes Yes	8 Yes/Yes/Yes Yes	8 Yes/Yes/Yes Yes	8 Yes/Yes/Yes Yes
support Quality of Service Priority queues Data prioritization (SPQ/WRR/WFQ) Guest VLAN IGMP snooping (v1/v2/v3)	8 Yes/Yes/Yes Yes	Yes 8 Yes/Yes/Yes Yes Yes	Yes 8 Yes/Yes/Yes Yes Yes	8 Yes/Yes/Yes Yes Yes	8 Yes/Yes/Yes Yes Yes	8 Yes/Yes/Yes Yes Yes	8 Yes/Yes/Yes Yes Yes
support Quality of Service Priority queues Data prioritization (SPQ/WRR/WFQ) Guest VLAN IGMP snooping	Yes 8 Yes/Yes/Yes Yes Yes Yes	Yes 8 Yes/Yes/Yes Yes Yes Yes	Yes 8 Yes/Yes/Yes Yes Yes Yes	8 Yes/Yes/Yes Yes Yes Yes	8 Yes/Yes/Yes Yes Yes Yes	8 Yes/Yes/Yes Yes Yes Yes	8 Yes/Yes/Yes Yes Yes Yes
support Quality of Service Priority queues Data prioritization (SPQ/WRR/WFQ) Guest VLAN IGMP snooping (v1/v2/v3) MVR Jumbo frame forwarding	Yes 8 Yes/Yes/Yes Yes Yes Yes Yes Yes	Yes 8 Yes/Yes/Yes Yes Yes Yes Yes Yes	Yes 8 Yes/Yes/Yes Yes Yes Yes Yes	8 Yes/Yes/Yes Yes Yes Yes Yes	8 Yes/Yes/Yes Yes Yes Yes Yes	8 Yes/Yes/Yes Yes Yes Yes Yes Yes	8 Yes/Yes/Yes Yes Yes Yes Yes Yes
support Quality of Service Priority queues Data prioritization (SPQ/WRR/WFQ) Guest VLAN IGMP snooping (v1/v2/v3) MVR Jumbo frame forwarding DVMRP	8 Yes/Yes/Yes Yes Yes Yes Yes -	Yes 8 Yes/Yes/Yes Yes Yes Yes Yes	Yes 8 Yes/Yes/Yes Yes Yes Yes Yes	8 Yes/Yes/Yes Yes Yes Yes Yes -	8 Yes/Yes/Yes Yes Yes Yes Yes -	8 Yes/Yes/Yes Yes Yes Yes Yes -	8 Yes/Yes/Yes Yes Yes Yes Yes -
support Quality of Service Priority queues Data prioritization (SPQ/WRR/WFQ) Guest VLAN IGMP snooping (v1/v2/v3) MVR Jumbo frame forwarding DVMRP 802.1p class of service	Yes 8 Yes/Yes/Yes Yes Yes Yes Yes Yes	Yes 8 Yes/Yes/Yes Yes Yes Yes Yes Yes	Yes 8 Yes/Yes/Yes Yes Yes Yes Yes	8 Yes/Yes/Yes Yes Yes Yes Yes	8 Yes/Yes/Yes Yes Yes Yes Yes	8 Yes/Yes/Yes Yes Yes Yes Yes Yes	8 Yes/Yes/Yes Yes Yes Yes Yes Yes
support Quality of Service Priority queues Data prioritization (SPQ/WRR/WFQ) Guest VLAN IGMP snooping (v1/v2/v3) MVR Jumbo frame forwarding DVMRP 802.1p class of service Security	8 Yes/Yes/Yes Yes Yes Yes Yes -	Yes 8 Yes/Yes/Yes Yes Yes Yes Yes -	Yes 8 Yes/Yes/Yes Yes Yes Yes Yes	8 Yes/Yes/Yes Yes Yes Yes Yes -	8 Yes/Yes/Yes Yes Yes Yes Yes -	8 Yes/Yes/Yes Yes Yes Yes Yes -	8 Yes/Yes/Yes Yes Yes Yes Yes -
support Quality of Service Priority queues Data prioritization (SPQ/WRR/WFQ) Guest VLAN IGMP snooping (v1/v2/v3) MVR Jumbo frame forwarding DVMRP 802.1p class of service Security MAC freeze/	8 Yes/Yes/Yes Yes Yes Yes Yes -	Yes 8 Yes/Yes/Yes Yes Yes Yes Yes -	Yes 8 Yes/Yes/Yes Yes Yes Yes Yes	8 Yes/Yes/Yes Yes Yes Yes Yes -	8 Yes/Yes/Yes Yes Yes Yes Yes -	8 Yes/Yes/Yes Yes Yes Yes Yes -	8 Yes/Yes/Yes Yes Yes Yes Yes -
support Quality of Service Priority queues Data prioritization (SPQ/WRR/WFQ) Guest VLAN IGMP snooping (v1/v2/v3) MVR Jumbo frame forwarding DVMRP 802.1p class of service Security MAC freeze/ intrusion lock 802.1X	Yes 8 Yes/Yes/Yes Yes Yes Yes Yes Yes Yes	Yes 8 Yes/Yes/Yes Yes Yes Yes Yes Yes Yes	Yes 8 Yes/Yes/Yes Yes Yes Yes Yes Yes	8 Yes/Yes/Yes Yes Yes Yes Yes Yes Yes Yes Yes	8 Yes/Yes/Yes Yes Yes Yes Yes Yes Yes Yes	8 Yes/Yes/Yes Yes Yes Yes Yes Yes Yes Yes	8 Yes/Yes/Yes Yes Yes Yes Yes Yes Yes Yes
support Quality of Service Priority queues Data prioritization (SPQ/WRR/WFQ) Guest VLAN IGMP snooping (v1/v2/v3) MVR Jumbo frame forwarding DVMRP 802.1p class of service Security MAC freeze/ intrusion lock 802.1X authentication	Yes 8 Yes/Yes/Yes Yes Yes Yes Yes Yes Yes - Yes Yes Yes	Yes 8 Yes/Yes/Yes Yes Yes Yes Yes Yes Yes - Yes Yes Yes	Yes 8 Yes/Yes/Yes Yes Yes Yes Yes Yes	8 Yes/Yes/Yes Yes Yes Yes Yes Yes Yes Yes - Yes Yes Yes	8 Yes/Yes/Yes Yes Yes Yes Yes Yes - Yes Yes Yes	8 Yes/Yes/Yes Yes Yes Yes Yes Yes Yes - Yes Yes Yes	8 Yes/Yes/Yes Yes Yes Yes Yes Yes - Yes Yes Yes
support Quality of Service Priority queues Data prioritization (SPQ/WRR/WFQ) Guest VLAN IGMP snooping (v1/v2/v3) MVR Jumbo frame forwarding DVMRP 802.1p class of service Security MAC freeze/ intrusion lock 802.1X authentication TACACS+/RADIUS ACL security filter	Yes 8 Yes/Yes/Yes Yes Yes Yes Yes Yes - Yes Yes Yes Yes Yes Yes	Yes 8 Yes/Yes/Yes Yes Yes Yes Yes Yes - Yes Yes Yes Yes Yes Yes	Yes 8 Yes/Yes/Yes Yes Yes Yes Yes Yes - Yes Yes Yes Yes Yes Yes	8 Yes/Yes/Yes Yes Yes Yes Yes Yes Yes Yes - Yes Yes Yes Yes Yes	8 Yes/Yes/Yes Yes Yes Yes Yes Yes - Yes Yes Yes Yes Yes	8 Yes/Yes/Yes Yes Yes Yes Yes Yes Yes - Yes Yes Yes Yes Yes Yes	8 Yes/Yes/Yes Yes Yes Yes Yes Yes - Yes Yes Yes Yes Yes Yes
support Quality of Service Priority queues Data prioritization (SPQ/WRR/WFQ) Guest VLAN IGMP snooping (v1/v2/v3) MVR Jumbo frame forwarding DVMRP 802.1p class of service Security MAC freeze/ intrusion lock 802.1X authentication TACACS+/RADIUS ACL security filter L2/L3/L4	Yes 8 Yes/Yes/Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes	Yes 8 Yes/Yes/Yes Yes Yes Yes Yes Yes - Yes Yes Yes Yes Yes Yes Yes Yes	Yes 8 Yes/Yes/Yes Yes Yes Yes Yes Yes - Yes Yes Yes Yes Yes Yes Yes Yes	8 Yes/Yes/Yes Yes Yes Yes Yes Yes - Yes Yes Yes Yes Yes Yes Yes Yes	8 Yes/Yes/Yes Yes Yes Yes Yes Yes - Yes Yes Yes Yes Yes Yes	8 Yes/Yes/Yes Yes Yes Yes Yes Yes Yes - Yes Yes Yes Yes Yes Yes Yes	8 Yes/Yes/Yes Yes Yes Yes Yes Yes - Yes Yes Yes Yes Yes Yes Yes
support Quality of Service Priority queues Data prioritization (SPQ/WRR/WFQ) Guest VLAN IGMP snooping (v1/v2/v3) MVR Jumbo frame forwarding DVMRP 802.1p class of service Security MAC freeze/ intrusion lock 802.1X authentication TACACS+/RADIUS ACL security filter L2/L3/L4 Sflow	Yes 8 Yes/Yes/Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes	Yes 8 Yes/Yes/Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes	Yes 8 Yes/Yes/Yes Yes Yes Yes Yes Yes - Yes	8 Yes/Yes/Yes Yes Yes Yes Yes Yes - Yes	8 Yes/Yes/Yes Yes Yes Yes Yes Yes - Yes Yes Yes Yes Yes Yes Yes Yes Yes	8 Yes/Yes/Yes Yes Yes Yes Yes Yes Yes - Yes Yes Yes Yes Yes Yes Yes Yes Yes	8 Yes/Yes/Yes Yes Yes Yes Yes Yes - Yes
support Quality of Service Priority queues Data prioritization (SPQ/WRR/WFQ) Guest VLAN IGMP snooping (v1/v2/v3) MVR Jumbo frame forwarding DVMRP 802.1p class of service Security MAC freeze/ intrusion lock 802.1X authentication TACACS+/RADIUS ACL security filter L2/L3/L4 Sflow CPU protection	Yes 8 Yes/Yes/Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes	Yes 8 Yes/Yes/Yes Yes Yes Yes Yes Yes - Yes Yes Yes Yes Yes Yes Yes Yes	Yes 8 Yes/Yes/Yes Yes Yes Yes Yes Yes - Yes Yes Yes Yes Yes Yes Yes Yes	8 Yes/Yes/Yes Yes Yes Yes Yes Yes - Yes Yes Yes Yes Yes Yes Yes Yes	8 Yes/Yes/Yes Yes Yes Yes Yes Yes - Yes Yes Yes Yes Yes Yes	8 Yes/Yes/Yes Yes Yes Yes Yes Yes Yes - Yes Yes Yes Yes Yes Yes Yes	8 Yes/Yes/Yes Yes Yes Yes Yes Yes - Yes Yes Yes Yes Yes Yes Yes
support Quality of Service Priority queues Data prioritization (SPQ/WRR/WFQ) Guest VLAN IGMP snooping (v1/v2/v3) MVR Jumbo frame forwarding DVMRP 802.1p class of service Security MAC freeze/ intrusion lock 802.1X authentication TACACS+/RADIUS ACL security filter L2/L3/L4 Sflow CPU protection Green Features	Yes 8 Yes/Yes/Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes	Yes 8 Yes/Yes/Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes	Yes 8 Yes/Yes/Yes Yes Yes Yes Yes Yes - Yes	8 Yes/Yes/Yes Yes Yes Yes Yes Yes - Yes	8 Yes/Yes/Yes Yes Yes Yes Yes Yes - Yes Yes Yes Yes Yes Yes Yes Yes Yes	8 Yes/Yes/Yes Yes Yes Yes Yes Yes Yes - Yes Yes Yes Yes Yes Yes Yes Yes Yes	8 Yes/Yes/Yes Yes Yes Yes Yes Yes - Yes
support Quality of Service Priority queues Data prioritization (SPQ/WRR/WFQ) Guest VLAN IGMP snooping (v1/v2/v3) MVR Jumbo frame forwarding DVMRP 802.1p class of service Security MAC freeze/ intrusion lock 802.1X authentication TACACS+/RADIUS ACL security filter L2/L3/L4 Sflow CPU protection Green Features Fanless IEEE Energy-	Yes 8 Yes/Yes/Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes	Yes 8 Yes/Yes/Yes Yes Yes Yes Yes Yes - Yes	Yes 8 Yes/Yes/Yes Yes Yes Yes Yes Yes - Yes	8 Yes/Yes/Yes Yes Yes Yes Yes Yes - Yes	8 Yes/Yes/Yes Yes Yes Yes Yes Yes - Yes	8 Yes/Yes/Yes Yes Yes Yes Yes Yes Yes Yes - Yes	8 Yes/Yes/Yes Yes Yes Yes Yes Yes - Yes
support Quality of Service Priority queues Data prioritization (SPQ/WRR/WFQ) Guest VLAN IGMP snooping (v1/v2/v3) MVR Jumbo frame forwarding DVMRP 802.1p class of service Security MAC freeze/ intrusion lock 802.1X authentication TACACS+/RADIUS ACL security filter L2/L3/L4 Sflow CPU protection Green Features Fanless IEEE Energy- Efficient-Ethernet	Yes 8 Yes/Yes/Yes Yes Yes Yes Yes Yes Y	Yes 8 Yes/Yes/Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes	Yes 8 Yes/Yes/Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes	8 Yes/Yes/Yes Yes Yes Yes Yes Yes - Yes	8 Yes/Yes/Yes Yes Yes Yes Yes - Yes	8 Yes/Yes/Yes Yes Yes Yes Yes Yes - Yes	8 Yes/Yes/Yes Yes Yes Yes Yes - Yes
support Quality of Service Priority queues Data prioritization (SPQ/WRR/WFQ) Guest VLAN IGMP snooping (v1/v2/v3) MVR Jumbo frame forwarding DVMRP 802.1p class of service Security MAC freeze/ intrusion lock 802.1X authentication TACACS+/RADIUS ACL security filter L2/L3/L4 Sflow CPU protection Green Features Fanless IEEE Energy- Efficient-Ethernet Others	Yes 8 Yes/Yes/Yes Yes Yes Yes Yes Yes Y	Yes 8 Yes/Yes/Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes	Yes 8 Yes/Yes/Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes	8 Yes/Yes/Yes Yes Yes Yes Yes Yes - Yes	8 Yes/Yes/Yes Yes Yes Yes Yes - Yes	8 Yes/Yes/Yes Yes Yes Yes Yes Yes - Yes	8 Yes/Yes/Yes Yes Yes Yes Yes Yes - Yes
support Quality of Service Priority queues Data prioritization (SPQ/WRR/WFQ) Guest VLAN IGMP snooping (v1/v2/v3) MVR Jumbo frame forwarding	Yes 8 Yes/Yes/Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes	Yes 8 Yes/Yes/Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes	Yes 8 Yes/Yes/Yes Yes Yes Yes Yes Yes Y	8 Yes/Yes/Yes Yes Yes Yes Yes - Yes	8 Yes/Yes/Yes Yes Yes Yes Yes Yes - Yes	8 Yes/Yes/Yes Yes Yes Yes Yes - Yes	8 Yes/Yes/Yes Yes Yes Yes Yes - Yes
support Quality of Service Priority queues Data prioritization (SPQ/WRR/WFQ) Guest VLAN IGMP snooping (v1/v2/v3) MVR Jumbo frame forwarding DVMRP 802.1p class of service Security MAC freeze/ intrusion lock 802.1X authentication TACACS+/RADIUS ACL security filter L2/L3/L4 Sflow CPU protection Green Features Fanless IEEE Energy- Efficient-Ethernet Others MTBF (hr) Heat dissipation (BTU/hr) Physical Specification	Yes 8 Yes/Yes/Yes Yes Yes Yes Yes Yes	Yes 8 Yes/Yes/Yes Yes Yes Yes Yes Yes	Yes 8 Yes/Yes/Yes Yes Yes Yes Yes Yes	8 Yes/Yes/Yes Yes Yes Yes Yes - Yes	8 Yes/Yes/Yes Yes Single PSU: 1,794.7 Dual PSU: 3,707.7	8 Yes/Yes/Yes Yes Yes Yes Yes - Yes	8 Yes/Yes/Yes Yes Yes Yes Yes - Yes
support Quality of Service Priority queues Data prioritization (SPQ/WRR/WFQ) Guest VLAN IGMP snooping (v1/v2/v3) MVR Jumbo frame forwarding DVMRP 802.1p class of service Security MAC freeze/ intrusion lock 802.1X authentication TACACS+/RADIUS ACL security filter L2/L3/L4 Sflow CPU protection Green Features Fanless IEEE Energy- Efficient-Ethernet Others MTBF (hr) Heat dissipation (BTU/hr) Physical Specification Dimensions	Yes 8 Yes/Yes/Yes Yes Yes Yes Yes Yes	Yes 8 Yes/Yes/Yes Yes Yes Yes Yes Yes	Yes 8 Yes/Yes/Yes Yes Yes Yes Yes Yes	8 Yes/Yes/Yes Yes Yes Yes Yes - Yes	8 Yes/Yes/Yes Yes Yes Yes Yes - Yes	8 Yes/Yes/Yes Yes Yes Yes Yes - Yes	8 Yes/Yes/Yes Yes Yes Yes Yes - Yes
support Quality of Service Priority queues Data prioritization (SPQ/WRR/WFQ) Guest VLAN IGMP snooping (v1/v2/v3) MVR Jumbo frame forwarding DVMRP 802.1p class of service Security MAC freeze/ intrusion lock 802.1X authentication TACACS+/RADIUS ACL security filter L2/L3/L4 Sflow CPU protection Green Features Fanless IEEE Energy- Efficient-Ethernet Others MTBF (hr) Heat dissipation (BTU/hr) Physical Specification	Yes 8 Yes/Yes/Yes Yes Yes Yes Yes Yes	Yes 8 Yes/Yes/Yes Yes Yes Yes Yes Yes	Yes 8 Yes/Yes/Yes Yes Yes Yes Yes Yes	8 Yes/Yes/Yes Yes Yes Yes Yes - Yes	8 Yes/Yes/Yes Yes Single PSU: 1,794.7 Dual PSU: 3,707.7	8 Yes/Yes/Yes Yes Yes Yes Yes - Yes	8 Yes/Yes/Yes Yes Yes Yes Yes - Yes
support Quality of Service Priority queues Data prioritization (SPQ/WRR/WFQ) Guest VLAN IGMP snooping (v1/v2/v3) MVR Jumbo frame forwarding DVMRP 802.1p class of service Security MAC freeze/ intrusion lock 802.1X authentication TACACS+/RADIUS ACL security filter L2/L3/L4 Sflow CPU protection Green Features Fanless IEEE Energy- Efficient-Ethernet Others MTBF (hr) Heat dissipation (BTU/hr) Physical Specification Dimensions (WxDxH)(mm/in.)	8 Yes/Yes/Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes	Yes 8 Yes/Yes/Yes Yes Yes Yes Yes - Yes Yes Ye	Yes 8 Yes/Yes/Yes Yes Yes Yes Yes - Yes Yes Ye	8 Yes/Yes/Yes Yes Yes Yes Yes Yes - Yes	8 Yes/Yes/Yes Yes Yes Yes Yes Yes - Yes	8 Yes/Yes/Yes Yes Yes Yes Yes Yes - Yes	8 Yes/Yes/Yes Yes Yes Yes Yes - Yes

	Switch 3500 Series		Switch 2210 Series			
Model	ES3500-24	ES3500-8PD	XGS2210-28	XGS2210-28HP	XGS2210-52	XGS2210-52HP
Switch class	Layer 2	Layer 2	Layer 2	Layer 2	Layer 2	Layer 2
Hardware						
Total port count	28	10	28	28	52	52
00 Mbit RJ-45 ports	24	8	-	-	-	-
00 Mbit RJ-45 PoE ports	-		-	-	-	-
00 Mbit SFP slots	=	=	=	=	=	=
0 Gigabit RJ-45 ports	-	-	-	-	-	-
Gigabit RJ-45 ports	-	-	24	-	48	-
Gigabit RJ-45PoE ports	-	-	-	24	-	48
Gigabit SFP slots	-	-	-	-	-	-
0 Gigabit combo ports RJ-45/SFP+)	-	-	-	-	-	-
Gigabit combo ports	4	2	_	_	_	_
RJ-45/SFP)						
0 Gigabit CX4 ports	-	-	-	-	-	-
0 Gigabit module	-	-	-	-	-	-
O Gigabit SFP+ slots	-	-	-	4	-	4
IO-Gigabit QSFP+ Backplane bandwidth (Gbps)						
forwarding rate (Mpps)	9.6	5.6 4.17	95.2	95.2	176 130.9	176 130.9
AAC addresses table	9.6 16 K	16 K	95.2 16 K	95.2 16 K	16 K	16 K
Management	IO K	IO K	IVIX	10 K	10 K	10 K
Pv6 management	Yes	Yes	Yes	Yes	Yes	Yes
CLI, Web GUI	Yes/Yes	Yes/Yes	Yes/Yes	Yes/Yes	Yes/Yes	Yes/Yes
Stacking				·		
single IP management)	Yes	Yes	Yes	Yes	Yes	Yes
Out-of-band nanagement port	Yes	Yes	-	-	-	-
outing/Redundancy						
SPF	-	-	-	-	-	-
IP v1, v2	-	-	-	-	-	-
tatic IP routing	-	-	Yes	Yes	Yes	Yes
/RRP	-	-	-	-	-	-
Spanning Tree STP/MSTP/RSTP)	Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes
Redundant power support	-	_	_		_	_
Quality of Service						
riority queues	8	8	8	8	8	8
ata prioritization	Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes
SPQ/WRR/WFQ)						
Guest VLAN	Yes	Yes	Yes	Yes	Yes	Yes
9MP snooping √1/v2/v3)	Yes	Yes	Yes	Yes	Yes	Yes
1VR	Yes	Yes	Yes	Yes	Yes	Yes
umbo frame forwarding	Yes	Yes	Yes	Yes	Yes	Yes
VMRP	-	-	-	-	-	-
02.1p class of service	Yes	Yes	Yes	Yes	Yes	Yes
ecurity						
MAC freeze/intrusion lock	Yes	Yes	Yes	Yes	Yes	Yes
02.1X authentication	Yes	Yes	Yes	Yes	Yes	Yes
ACACS+/RADIUS	Yes	Yes	Yes	Yes	Yes	Yes
CL security filter L2/L3/L4	Yes	Yes	Yes	Yes	Yes	Yes
flow	Yes	Yes	Yes	Yes	Yes	Yes
PU protection	Yes	Yes	Yes	Yes	Yes	Yes
Freen Features						
anless	Yes	Yes	Yes	-	-	-
EEE Energy-Efficient- thernet	Yes	Yes	Yes	Yes	Yes	Yes
thers						
ITBF (hr)	133,798	485,196	831,699	560,726	970,594	500,904
eat dissipation (BTU/hr)	48	32.4	68.2	1,483.4	153.3	1,688
hysical Specifications						
imensions	438 x 180 x 44.5/	215.5 x 123 x 42/	441 x 270 x 45/	440 x 330 x 44.5/	441 x 270 x 45/	440 x 330 x 44.5
WxDxH)(mm/in.)	17.24 x 7.09 x 1.75	8.48 x 4.84 x 1.65	17.36 x 10.63 x 1.77	17.32 x 12.99 x 1.75	17.36 x 10.63 x 1.77	17.32 x 12.99 x 1.7
Veight (kg/lb.)	2.4/5.29 • Power cord	1.04/2.29 • Power cord	3.7/8.16 • Power cord	5.06/11.16 • Power cord	3.86/8.51 • Power cord	5.38/11.86 • Power cord
ncluded accessories	Rack mounting kit		• Rack-mount kits	• Rack-mount kits	Rack-mount kits	Rack-mount kit

Madal	Switch 2210 Series						
Model	GS2210-8	GS2210-8HP	GS2210-24	GS2210-24HP	GS2210-24LP	GS2210-48	GS2210-48HP
Switch class	Layer 2	Layer 2	Layer 2	Layer 2	Layer 2	Layer 2	Layer 2
Hardware	10	10	22				
Total port count 100 Mbit RJ-45	10	10	28	28	28	50	50
ports	-	_	-	-	-	-	-
100 Mbit RJ-45 PoE ports	-	-	-	-	-	-	-
100 Mbit SFP slots	-	-	-	-	-	-	-
10 Gigabit RJ-45 ports	-	-	-	-	-	-	-
1 Gigabit RJ-45 ports	8	-	24	-	-	44	-
1 Gigabit	-	8	_	24	24	-	48
RJ-45 PoE ports 1 Gigabit SFP slots	-	_	_	_	_	2	2
10 Gigabit combo							
ports (RJ-45/ SFP+)	-	_	-	-	-	-	-
Gigabit combo ports (RJ-45/SFP)	2	2	4	4	4	4	4
10 Gigabit	-	-	_	_	-	-	_
CX4 ports 10 Gigabit module	-	_	_	_	_	-	_
10 Gigabit	_	_	_	_	_	_	_
SFP+ slots 40-Gigabit QSFP+	-	-	-	-		-	
Backplane	20	20	56	56	56	100	100
bandwidth (Gbps) Forwarding rate							
(Mpps) MAC addresses	15	15	41.7	41.7	41.7	74	74
table	16 K	16 K	16 K	16 K	16 K	16 K	16 K
Management	V	\\	V	V	V	V	V
IPv6 management CLI, Web GUI	Yes Yes/Yes	Yes Yes/Yes	Yes Yes/Yes	Yes Yes/Yes	Yes Yes/Yes	Yes Yes/Yes	Yes Yes/Yes
iStacking							-
(single IP management)	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Out-of-band management port	-	-	-	-	-	-	-
Routing/Redundan							
OSPF	-	-	-	-	-	-	-
RIP v1, v2	-	-	-	-	-	-	-
Static IP routing VRRP	_	-	_	_	_	-	-
Spanning Tree	Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes
(STP/MSTP/RSTP) Redundant power	100, 100, 100						
support .	-	-	-	-	-	-	-
Quality of Service Priority queues	8	8	8	8	8	8	8
Data prioritization	Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes
(SPQ/WRR/WFQ) Guest VLAN	Yes	Yes	Yes	Yes	Yes	Yes	Yes
IGMP snooping	Yes	Yes	Yes	Yes	Yes	Yes	Yes
(v1/v2/v3) MVR	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Jumbo frame	Yes	Yes	Yes	Yes	Yes	Yes	Yes
forwarding DVMRP	-	-	-	-	-	-	-
802.1p class of	Yes	Yes	Yes	Yes	Yes	Yes	Yes
service Security	103	103	100	103	103	103	100
MAC freeze/	Yes	Yes	Yes	Yes	Yes	Yes	Yes
intrusion lock 802.1X							
authentication	Yes	Yes	Yes	Yes	Yes	Yes	Yes
TACACS+/RADIUS ACL security filter	Yes	Yes	Yes	Yes	Yes	Yes	Yes
L2/L3/L4	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Sflow CPU protection	- Voc	- Yes	Yes	- Yes	- Yes	- Yes	- Yes
Green Features	Yes	100	100	100	100	100	100
Fanless	Yes	-	Yes	-	-	-	-
IEEE Energy- Efficient-Ethernet	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Others							
MTBF (hr)	1,382,030	1,155,719	211,623	133,063	616,247	631,451	337,690
Heat dissipation (BTU/hr)	41.26	753.61	92.75	1625.55	864.09	128.90	364.87
Physical Specificat							
Dimensions (WxDxH)(mm/in.)	250 x 150 x 44/ 9.84 x 5.91 x 1.72	330 x 230.5 x 44.5/ 12.99 x 9.07 x 1.75	440 x 131 x 44.5/ 17.32 x 5.16 x 1.75	440 x 330 x 44.5/ 17.32 x 12.99 x 1.75	440 x 330 x 44.5/ 17.32 x 12.99 x 1.75	440 x 200 x 44.5/ 17.32 x 7.87 x 1.75	440 x 330 x 44.5/ 17.32 x 12.99 x 1.75
Weight (kg/lb.)	1.425/3.14	2.703/5.96	2.26/4.98	4.83/10.63	4.40/9.7	3.04/6.7	5.13/11.3
Weight (kg/lb.)				_			
Included	Power cordWall mount kit	Power cordRack mounting					

	Switch 1920 Series					Switch 1900 Series		
Model	XS1920-12	GS1920-24	GS1920-24HP	GS1920-48	GS1920-48HP	GS1900-8	GS1900-8HP	
Switch class	Smart Managed	Smart Managed						
Hardware								
Total port count 100 Mbit	12	28	28	50	50	8	8	
RJ-45 ports	-	-	-	-	-	=	-	
100 MbitRJ-45 PoE ports	-	-	-	-	-	-	-	
100 Mbit SFP slots	-	-	-	-	-	-	-	
10 Gigabit RJ-45 ports	10	-	-	-	-	-	-	
1 Gigabit		24		4.4		0		
RJ-45 ports	-	24	-	44	-	8	-	
1 Gigabit RJ-45 PoE ports	-	-	24	-	48	-	8	
1 Gigabit SFP slots	_	-	-	2	2	-	-	
10 Gigabit combo ports	2	-	-	-	-	-	-	
(RJ-45/SFP+) Gigabit combo								
ports (RJ-45/SFP)	-	4	4	4	4	-	-	
10 Gigabit CX4 ports	-	-	-	-	-	-	-	
10 Gigabit module	-	-	-	-	-	-	-	
10 Gigabit SFP+ slots	-	-	-	-	-	-	-	
40-Gigabit QSFP+	-	-	-	-	-	-	-	
Backplane bandwidth (Gbps)	240	56	56	100	100	16	16	
Forwarding rate	178.6	41.7	41.7	74	74	11.9	11.9	
(Mpps) MAC addresses								
table	16 K	8 K	8 K					
Management		V	V	V	V	V	V	
IPv6 management CLI, Web GUI	Yes -/Web GUI	Yes -/Web GUI	Yes -/Web GUI	Yes -/Web GUI	Yes -/Web GUI	Yes -/Web GUI	Yes -/Web GUI	
iStacking (single	Yes	Yes	Yes	Yes	Yes	- vveb Ooi	-/ Web Ooi	
IP management) Out-of-band	res	165	res	165	res			
management port	-	-	-	-	-	-	-	
Routing/Redundan								
OSPF RIP v1, v2	-	-	_	-	-	-	_	
Static IP routing	Yes	-	-	-	-	-	-	
VRRP	-	-	-	-	-	-	-	
Spanning Tree (STP/MSTP/RSTP)	Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes	
Redundant power	_	_	_	_	_	_	_	
support Quality of Service								
Priority queues	8	8	8	8	8	8	8	
Data prioritization (SPQ/WRR/WFQ)	Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes	Yes/-/Yes	Yes/-/Yes	
Guest VLAN	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
IGMP snooping	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
(v1/v2/v3) MVR	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Jumbo frame	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
forwarding								
BO2.1p class of	- Voo	- Von	- Von	- Von	- Von	- Voo	- Voc	
service	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Security MAC freeze/								
intrusion lock	Yes/-	Yes/-	Yes/-	Yes/-	Yes/-	-	-	
802.1X authentication	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
TACACS+/RADIUS	Yes	Yes	Yes	Yes	Yes	-/RADIUS	-/RADIUS	
ACL security filter L2/L3/L4	Yes	Yes	Yes	Yes	Yes	-	-	
Sflow	-	-	-	-	-	-	-	
CPU protection	Yes	Yes	Yes	Yes	Yes	-	-	
Green Features		Vac				Vee	Vee	
Fanless IEEE Energy-	-	Yes	-	-	-	Yes	Yes	
Efficient-Ethernet	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Others MTRE (br)	930 62F	616 247	040 226	631.452	227600	862 561	533.086	
MTBF (hr) Heat dissipation	839,625	616,247	949,326	631,452	337,690	862,561	533,086	
(BTU/hr)	320.89	88.32	1,548.14	128.90	1,643.62	22.17	306.9	
Physical Specificat Dimensions	ions 440 x 330 x 44.5/	440 x 131 x 44.5/	440 x 330 x 44.5/	440 x 200 x 44.5/	440 x 330 x 44.5/	250 x 104 x 27/	250 x 104 x 27/	
(WxDxH)(mm/in.)	17.32 x 12.99 x 1.75	17.32 x 5.16 x 1.75	17.32 x 12.99 x 1.75	17.32 x 7.87 x 1.75	17.32 x 12.99 x 1.75	9.84 x 4.10 x 1.06	9.84 x 4.10 x 1.06	
Weight (kg/lb.)	4.205/9.27	2.26/4.98	4.83/10.63	3.04/6.7	5.13/11.3	0.65/1.43	0.66/1.46	
Included accessories	Power cordRack mounting	Power adapterWall mounting kit	Power cordPower adapter					
	kit	kit	kit	kit	kit		Wall mounting kit	

Model	Switch 1900 Series						
Switch class	GS1900-10HP Smart Managed	GS1900-16 Smart Managed	GS1900-24E Smart Managed	GS1900-24 Smart Managed	GS1900-24HP Smart Managed	GS1900-48 Smart Managed	GS1900-48HP Smart Managed
Hardware	Smart Managea	Smart Managea	Smart Managea	Smart Managea	Smart Managea	Smart Managea	Smart Managea
Total port count	10	16	24	26	26	50	50
100 Mbit RJ-45 ports	-	-	-	-	-	-	-
100 Mbit RJ-45	_	_			_		
PoE ports 100 Mbit SFP slots		-					
10 Gigabit	-	-	-	-	-	-	-
RJ-45 ports	-	-	-	-	-	-	-
I Gigabit RJ-45 ports	=	16	24	24	-	48	24
l Gigabit RJ-45 PoE ports	8	-	-	-	24	-	24
Gigabit SFP slots	2	-	-	2	2	2	2
0 Gigabit combo ports	_	_	_	_	_	_	_
(RJ-45/SFP+)							
Gigabit combo Corts (RJ-45/SFP)	-	-	-	-	-	-	-
0 Gigabit	-	-	-	-	-	-	-
OX4 ports O Gigabit module	_	-	_	-	_	_	_
0 Gigabit	=	=	=	=	=	=	=
SFP+ slots 10-Gigabit QSFP+	_	_					
Backplane	20	32	48	52	52	100	100
oandwidth (Gbps)							
Forwarding rate (Mpps)	14.9	23.8	35.7	39	39	74	74
MAC addresses able	8 K	8 K	8 K	8 K	8 K	8 K	8 K
Management							
Pv6 management		Yes	Yes	Yes	Yes	Yes	Yes
CLI, Web GUI	-/Web GUI	-/Web GUI	-/Web GUI	-/Web GUI	-/Web GUI	-/Web GUI	-/Web GUI
Stacking (single P management)	-	-	-	-	-	-	-
Out-of-band management port	-	-	-	-	-	-	-
Routing/Redundan	су						
OSPF	-	-	-	-	-	-	-
RIP v1, v2	-	-	-	-	-	-	-
Static IP routing VRRP	-	-	_	_	_	_	_
Spanning Tree	Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes
(STP/MSTP/RSTP) Redundant power	103/103/103	103/103/103	103/103/103	103/103/103	103/103/103	103/103/103	103/103/103
support	-	-	-	-	-	-	-
Quality of Service		0					
Priority queues Data prioritization	8	8	8	8	8	8	8
(SPQ/WRR/WFQ)	162/162/162	Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes
GMP snooping	Yes	Yes	Yes	Yes	Yes	Yes	Yes
(v1/v2/v3)	Yes	Yes	Yes	Yes	Yes	Yes	Yes
MVR	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Jumbo frame orwarding	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DVMRP	-	-	-	-	-	-	-
802.1p class of service	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Security							
MAC freeze/ intrusion lock	-	-	-	-	-	-	-
302.1X	Yes	Yes	Yes	Yes	Yes	Yes	Yes
TACACS+/RADIUS		Yes	Yes	Yes	Yes	Yes	Yes
ACL security filter	-	-	-	-	-	-	-
L2/L3/L4 Sflow			_	_		_	-
Sflow CPU protection	-	-	-	-	-	-	
Green Features							
anless	Yes	Yes	Yes	Yes	-	-	-
EEE Energy- Efficient-Ethernet	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Others							
MTBF (hr)	801,113	843,668	804,714	432,673	318,142	229,313	175,767
Heat dissipation (BTU/hr)	65.47	35.81	51.49	55	787.71	108.77	853
Physical Specificat	ions						
Dimensions (WxDxH)(mm/in.)	250 x 104 x 27/ 9.84 x 4.10 x 1.06	216 x 133 x 42/ 8.50 x 5.23 x 1.65	267 x 162 x 42/ 10.51 x 6.37 x 1.65	440 x 131 x 44/ 17.32 x 5.16 x 1.73	440 x 310 x 45/ 17.32 x 12.20 x 1.77	440 x 200 x 44/ 17.32 x 7.87 x 1.73	440 x 330 x 45/ 17.32 x 13 x 1.77
Weight (kg/lb.)	0.72/1.59	0.97/2.13	1.56/3.44	2.09/4.60	4.03/8.88	2.9/6.39	4.24/9.35
Included	Power cord Dower adapter	Power cord Wall mount kit	Power cord Wall mount kit	Power cord Pack mounting	Power cord Pack mounting	Power cord Pack mounting	Power cord Pack mounting
accessories	Power adapter Wall mount kit	Wall mount kitRack mounting kit	Wall mount kitRack mounting kit	Rack mounting kit	 Rack mounting kit 	 Rack mounting kit 	Rack mounting kit

	Switch 1200 Serie	s	Switch 1100 Series				
Model	GS1200-5HP	GS1200-8HP	GS1100-8HP	GS1100-10HP	GS1100-16	GS1100-24	GS1100-24E
Switch class	Web Managed	Web Managed	Unmanaged	Unmanaged	Unmanaged	Unmanaged	Unmanaged
lardware							
otal port count 00 Mbit	5	8	8	10	16	26	24
J-45 ports	-	-	-	-	-	-	-
00 Mbit J-45 PoE ports	-	-	-	-	-	-	-
00 Mbit SFP slots	-	-	-	-	-	-	-
0 Gigabit 1J-45 ports	-	-	-	-	-	-	-
Gigabit	1	4	4	_	16	24	24
J-45 ports Gigabit					10	27	2-7
J-45 PoE ports	4	4	4	8	-	-	-
Gigabit SFP slots	-	-	-	2	-	2	-
0 Gigabit ombo ports	-	-	-	-	-	-	-
RJ-45/SFP+) Sigabit combo							
orts (RJ-45/SFP)	-	-	-	_	-	-	-
0 Gigabit X4 ports	-	-	-	-	-	-	-
) Gigabit module	-	-	-	-	-	-	-
) Gigabit FP+ slots	-	-	-	-	-	-	-
0-Gigabit QSFP+	-	-	-	-	-	-	-
ackplane	10	16	16	20	32	52	48
andwidth (Gbps) orwarding rate							
Mpps)	14.88	14.88	11.9	14.9	23.8	38.7	35.7
IAC addresses able	4k	4k	8 K	8 K	8 K	8 K	8 K
lanagement							
Pv6 management	Yes	Yes	-	-	-	-	-
LI, Web GUI	-/Web GUI	-/Web GUI	-	-	=	-	-
Stacking (single P management)	-	-	-	-	-	-	-
ut-of-band	-	-	-	_	-	-	-
nanagement port outing/Redundan	CV						
SPF	- -	-	-	-	-	-	-
IP v1, v2	-	-	-	-	-	-	-
tatic IP routing	-	-	-	-	-	-	-
RRP	-	-	-	-	-	-	-
panning Tree STP/MSTP/RSTP)	-	-	-	=	=	-	-
edundant power	=	=	=	_	_	_	_
upport Quality of Service							
riority queues	4	4	4	8	8	8	8
ata prioritization	_	=	=	_		=	=
SPQ/WRR/WFQ) Juest VLAN	Yes	Yes					_
GMP snooping							
/1/v2/v3)	Yes	Yes	-	-	-	_	-
IVR	-	-	-	-	-	-	-
umbo frame orwarding	Yes	Yes	Yes	Yes	Yes	Yes	Yes
VMRP	-	-	-	-	-	-	-
02.1p class of ervice	Yes	Yes	Yes	Yes	Yes	Yes	Yes
ecurity							
IAC freeze/	-	-	-	-	-	-	_
ntrusion lock 02.1X							
uthentication	-	=	-	-	-	-	-
ACACS+/RADIUS		-	-	-	-	-	-
CL security filter 2/L3/L4	-	-	-	-	-	-	-
low	-	-	-	-	-	-	-
PU protection	-	-	-	-	-	-	-
reen Features			Voc	Voc	Voc	Voc	Voc
inless EE Energy-	-	-	Yes	Yes	Yes	Yes	Yes
EE Energy- fficient-Ethernet	Yes	Yes	Yes	Yes	Yes	Yes	Yes
thers	1000 633	1007777	00105	1000 272	1007012	100005	00072
TBF (hr)	1,393,888	1,297,717	631,254	1,000,070	1,297,212	1,206,050	929,704
eat dissipation 3TU/hr)	132.23	128.16	306.9	89	27.62	50.13	49.10
hysical Specificat							
imensions VxDxH)(mm/in.)	193 x 84 x 26/ 7.59 x 3.3 x 1.02	240 x 105 x 26/ 9.44 x 4.13 x 1.02	210 x 104 x 27/ 8.27 x 4.09 x 1.06	250 x 104 x 27/ 9.84 x 4.10 x 1.06	215 x 133 x 42/ 8.46 x 5.24 x 1.65	441 x 131 x 44/ 17.36 x 5.16 x 1.73	267 x 162 x 42/ 10.51 x 6.38 x 1.6
/eight (kg/lb.)	0.4/0.88	0.65/1.43	0.54/1.19	0.73/1.6	0.92/2.28	1.82/4.01	1.53/3.37
	• Power cord	• Power cord	Power cord Power adapter	Power cord Power adapter	Power cord	• Power cord	Power cord Wall mount kir
ncluded					 Wall mount kit 	 Rack mounting kit 	

Model	Switch 1100 Series					Rugged Switch Se	ries
Model	ES1100-8P	ES1100-16P	ES1100-16	ES1100-24	ES1100-24E	RGS200-12P	RGS100-5P
Switch class	Unmanaged	Unmanaged	Unmanaged	Unmanaged	Unmanaged	Managed	Unmanaged
Hardware Total port count	8	16	16	24	24	12	5
100 Mbit	4	8	16	24	24	-	-
RJ-45 ports			10	24	24		
100 Mbit RJ-45 PoE ports	4	8	-	-	-	-	-
100 Mbit SFP slots	-	-	-	-	-	-	-
10 Gigabit RJ-45 ports	-	-	-	-	-	-	-
1 Gigabit RJ-45 ports	-	-	=	=	-	-	-
1 Gigabit	_					8	4
RJ-45 PoE ports 1 Gigabit SFP slots						4	1
10 Gigabit				-		4	I
combo ports (RJ-45/SFP+)	-	-	-	-	-	-	-
Gigabit combo	_	_	_	_	_	_	_
ports (RJ-45/SFP) 10 Gigabit							
CX4 ports	-	-	-	-	-	-	-
10 Gigabit module	-	-	-	-	-	-	-
10 Gigabit SFP+ slots	-	-	-	-	-	-	-
40-Gigabit QSFP+	-	-	-	-	-	-	-
Backplane bandwidth (Gbps)	1.6	3.2	3.2	4.8	4.8	24	10
Forwarding rate (Mpps)	1.2	2.4	2.4	3.6	3.6	17.86	7.44
MAC addresses	1K	8 K	8 K	8 K	8 K	8 K	2 K
table	IN	O N	O N	O N	O N	O N	4 N
Management IPv6 management	-	-	-	-	-	Yes	-
CLI, Web GUI	=				-	Yes/Yes	
iStacking (single IP management)	-	-	_	_	-	-	_
Out-of-band					_		
management port		-	-	-	-	-	-
Routing/Redundan OSPF	cy -	_	_	_	-	_	_
RIP v1, v2	-	-	-	-	-	-	-
Static IP routing	-	-	-	-	-	-	-
VRRP	-	-	-	-	-	-	-
Spanning Tree (STP/MSTP/RSTP)	-	-	-	-	-	Yes/Yes/Yes	-
Redundant power support	_	-	-	-	-	Yes	Yes
Quality of Service							
Priority queues	4	8	8	8	8	8	8
Data prioritization (SPQ/WRR/WFQ)	-	-	-	-	-	Yes/Yes/-	-
Guest VLAN	-	-	-	-	-	Yes	-
IGMP snooping (v1/v2/v3)	-	-	-	-	-	Yes	-
MVR	-	-	-	-	-	-	-
Jumbo frame	-	_	Yes	Yes	Yes	Yes	-
forwarding DVMRP		-	-	-	-	-	
802.1p class of	Yes	Yes	Yes	Yes	Yes	Yes	Yes
service Security			.00	.00			
MAC freeze/		_			_	_	
intrusion lock 802.1X	-	_	-	-	_		-
authentication	-	-	-	-	-	Yes	-
TACACS+/RADIUS	-	-	-	-	-	Yes/Yes	-
ACL security filter L2/L3/L4		-	-	-	-	-	-
Sflow	-	-	-	-	-	-	-
CPU protection	-	-	-	-	-	-	-
Green Features Fanless	Yes	-	Yes	Yes	Yes	Yes	Yes
IEEE Energy-	Yes	Yes	Yes	Yes	Yes	-	-
Efficient-Ethernet Others				.00	.00		
Others MTBF (hr)	164,603	75,888	322,400	295,895	295,895	568,430	568,430
Heat dissipation	232.22	232.22	8.53	13.30	13.30	869.55	426.25
(BTU/hr) Physical Specificat							
Dimensions	262 x 184 x 41/	262 x 184 x 41/	216 x 133 x 42/	441 x 131 x 44/	267 x 162 x 42/	77 x 127.3 x 154/	29.1 x 107.3 x 139/
(WxDxH)(mm/in.)	10.31 x 7.24 x 1.61	10.31 x 7.24 x 1.61	8.50 x 5.24 x 1.65	17.36 x 5.16 x 1.73	10.51 x 6.38 x 1.65	3.03 x 5.01 x 6.06	1.15 x 4.22 x 5.47
Weight (kg/lb.)	1.4/3.09 • Power cord	1.7/3.75 • Power cord	0.77/1.70 • Power cord	1.35/2.98 • Power cord	1.28/2.82 • Power cord	1.45/3.2 • Wall mount kit	• Wall mount kit
Included accessories	Wall mount kit Rack mounting kit	Wall mount kit Rack mounting kit	Wall mount kit Rack mounting kit	Rack mounting kit	Wall mount kit Rack mounting kit	DIN-rail mounting kit	DIN-rail mounting kit



Security Appliances and Services

- 61 Next-Generation Unified Security Gateway
- 64 Unified Security Gateways
- 64 VPN Firewalls
- 66 Appliances and Services



Next Generation Unified Security Gateway Quick Finder

Features/ Scalability







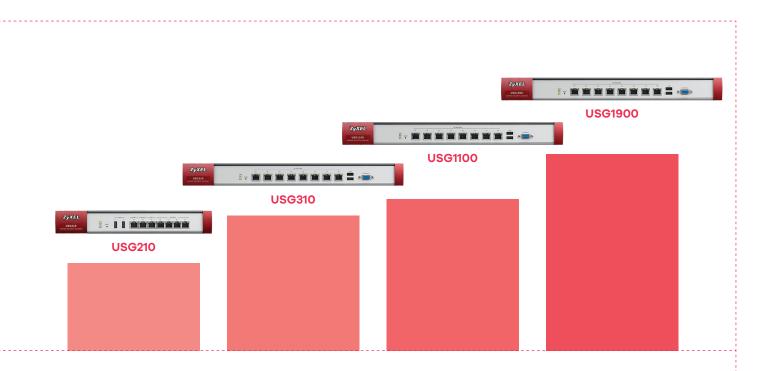
Business Scale

Small

	Performance Series		Advanced Series
Model	USG40/40W	USG60/60W	USG110
Firewall throughput	400 Mbps	1000 Mbps	1600 Mbps
UTM throughput (AV and IDP)	50 Mbps	90 Mbps	250 Mbps
Managed AP number (default/max.)	2/18	2/18	2/34
Multi-WAN	Yes	Yes	Yes
Unified security policy	Yes	Yes	Yes
SSL inspection	-	-	Yes
Device HA	-	-	Yes
Device HA Pro	-	-	Yes
Port grouping	Yes	Yes	Yes
Easy mode	Yes	Yes	-
Cloud Helper	Yes	Yes	Yes
PCI DSS compliance	Yes	Yes	Yes
Content Filtering 2.0	Yes	Yes	Yes
Hotspot Management	-	-	-

Note

- Performance: Actual performance may vary depending on network conditions and activated applications.
- Firewall throughput: Maximum throughput based on RFC 2544 (1,518-byte UDP packets).
- IDP/AV throughput: Measured using the industry standard HTTP performance test (1,460-byte HTTP packets). Testing done with multiple flows.



Medium to Large

			Extreme Series	
	USG210	USG310	USG1100	USG1900
·	1900 Mbps	5000 Mbps	6000 Mbps	7000 Mbps
	300 Mbps	400 Mbps	500 Mbps	600 Mbps
	2/34	2/34	2/66	2/66
	Yes	Yes	Yes	Yes
	Yes	Yes	Yes	Yes
	Yes	Yes	Yes	Yes
	Yes	Yes	Yes	Yes
	Yes	Yes	Yes	Yes
	Yes	-	-	-
	-	-	-	-
	Yes	Yes	Yes	Yes
	Yes	Yes	Yes	Yes
	Yes	Yes	Yes	Yes
	-	Yes	Yes	Yes

- UTM (AV and IDP) throughput: Maximum sessions measured using the industry standard IXIA IxLoad testing tool.
- Product availability varies by country and region. Please contact local sales team regarding availability in you region.
- \bullet Max managed AP number with firmware ZLD4.15 or later.

VPN Firewall Quick Finder

Features/ Scalability



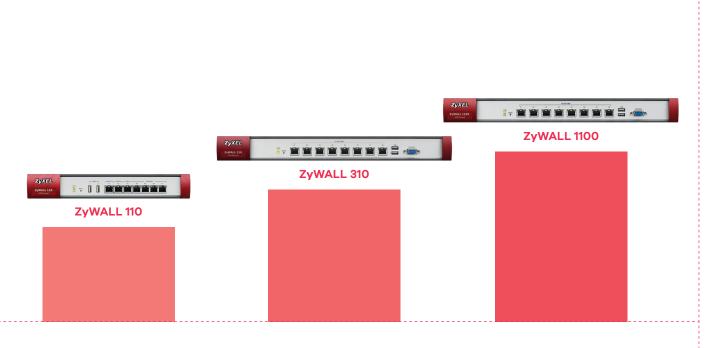


Business Scale

Small Business or Branch Office

	Remote Offices/ Small Businesses (SBs)	
Model	USG20-VPN	USG20W-VPN
VPN throughput (Mbps)	90	90
Max. concurrent IPsec VPN tunnels	10	10
Concurrent SSL VPN users (default/max.)	5/15	5/15
Managed AP number (default/max.)	-	-
Multi-WAN	Yes	Yes
Unified security policy	Yes	Yes
SSL inspection	-	-
Device HA	-	-
Device HA Pro	-	-
Port grouping	Yes	Yes
Easy mode	Yes	Yes
Cloud Helper	Yes	Yes
PCI DSS compliance	Yes	Yes
Content Filtering 2.0	Yes	Yes
Hotspot Management	-	-

- Performance: Actual performance may vary depending on network conditions and activated applications.
- Firewall throughput: Maximum throughput based on RFC 2544 (1,518-byte UDP packets).
 Product availability varies by country and region. Please contact local sales team regarding availability in you region.



Small Business

Medium to Large Businesses

Remote Offices/ Small Businesses (SBs)	Small- and Medium-sized Businesses (SMBs)	
ZyWALL 110	ZyWALL 310	ZyWALL 1100
400	650	800
100	300	1000
25/150	50/150	250/500
2/34	2/34	2/66
Yes	Yes	Yes
Yes	-	-
-	-	-
Yes	Yes	Yes
Yes	Yes	Yes
Yes	Yes	Yes
-	Yes	Yes

Zyxel security solutions

Network security that works

Businesses deploy network security appliances for two main purposes: to protect company resources against a multitude of threats and to enable secured communications between multiple locations via Virtual Private Network (VPN). For many years, Zyxel's highly-acclaimed Unified Security Gateway (USG) Series has helped businesses satisfy all these demands. Fortifying businesses against a new generation of threats, Zyxel is offering a new line of Next Generation Unified Security Gateways that deliver unmatched capacity, performance and protection for businesses of all sizes.

On the other hand, business operations today are more mobile, more global, and more dynamic than ever. This, combined with the use of advanced or bandwidth consuming applications in the workplace, has created great demand for even faster VPN and firewall performance. To satisfy this demand, Zyxel has introduced the all-new ZyWALL Series VPN Firewalls. Zyxel's new ZyWALL VPN Firewalls are business-grade VPN gateways fine-tuned to deliver the fastest VPN and firewall performance for the most performance-demanding deployments.

Next Generation USG Series Unified Security Gateways

Next Generation Security and Application Intelligence

- Next Generation Firewall (NGFW) solution
- Integrated WLAN controller
- Application Intelligence and Control
- Intrusion Detection and Prevention (IDP)
- Anti-Virus (Kaspersky)
- Anti-Spam
- Content Filtering 2.0
- VPN connectivity
- Firewall



Next Generation Firewall

Zyxel's Next Generation Unified Security Gateways offer businesses robust, user-aware security all in one package. They offer multi-threat protection and effective policy enforcement with a wide range of mechanisms. The all-in-one design helps businesses minimize management efforts and total cost of ownership (TCO), while maximizing network security.



ZyWALL SeriesVPN Firewalls

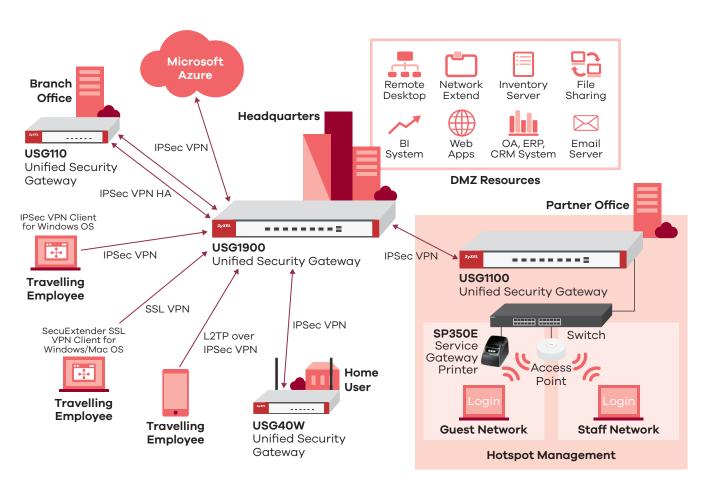
Fine-tuned for Ultra-fast VPN Performance

- Purpose-built VPN gateway solution
- Ultra-fast VPN connectivity
- Ultra-fast firewall performance

Zero-configuration Remote Access

The ZyWALL Series VPN Firewalls feature Easy VPN to provide auto- provisioned client-to-site IPSec VPN setup. A wizard is available with the Zyxel IPSec VPN client software that automatically retrieves the VPN configuration file from the remote ZyWALL VPN Firewall.





myZyxel

Zyxel's new online service platform

myZyxel is the license and service lifecycle management portal for Zyxel's business customers. Built on a cloud-based infrastructure, it delivers stable and efficient services to our customers all over the world. myZyxel offers an array of enhancements that enable our channel partners to develop their businesses and support their end customers.

Service portal: https://portal.myzyxel.com/



myZyxel allows users to register devices and activate services online anytime, anywhere as a supplemental service to traditional registration directly through the device GUI.

Grow Your Business

myZyxel provides a separate sign-in portal for channel partners and customers. With permission from customers, resellers can view and manage registered devices and status for their customers to ensure continuity of subscribed services – especially in respect of security concerns.





OneSecurity

Zyxel's new security information website

Zyxel OneSecurity.com provides a new resource of complimentary network security information and know-hows for small- to medium-sized businesses (SMBs) and IT departments to protect their networks and operations from security risks of the digital age.

Service Portal: http://onesecurity.zyxel.com/

Comprehensive Knowledge

Zyxel OneSecurity.com provides a unified source of information ranging from updates for the latest security threats and advisories to troubleshooting walkthroughs as well as FAQs to better secure your network and to guard against threats.

Professional Advisory

Zyxel's USG and ZyWALL Series products integrate OneSecurity.com service in their GUI, so the IT staff can quickly and easily catch up with new threats and take effective actions immediately.





USG1900/USG1100

Unified Security Gateway — Extreme Series









- Ultra-high performance Next Generation Firewall (NGFW) for medium to large businesses
- Enhanced manageability with unified security policy and Single Sign-On (SSO) support
- Multi-threat protection with firewall, Anti-Virus, Anti-Spam, Content Filtering 2.0, IDP, Application Intelligence, and SSL inspection
- Robust SSL, IPSec and L2TP over IPSec VPN connectivity and VPN High Availability (HA)
- Hotspot Management and built-in WLAN controller for centralized AP management and effortless WLAN scalability



USG1100

8 Giga ports (configurable), 2 USB



USG1900

8 Giga ports (configurable), 2 USB

Security features	Unified security policy, firewall, NAT, hybrid VPN (IPSec/SSL), UTM, application intelligence, SSL inspection, user-aware management, PCI DSS compliance, Geo IP Blocking
UTM support	Content Filtering 2.0, Anti-Virus, ADP, IDP, Anti-Spam
Bandwidth management	Priority bandwidth utilization, guaranteed/ maximum bandwidth, dual-WAN load balancing, user-based policy management
Redundancy	Dual-WAN failover and fall back, device HA Pro (active-passive), VPN HA, 3G/LTE backup

Networking	IPv4, IPv6, static routing, policy routing, RIP2/OSPF, VLAN tagging (802.1q), DDNS, DHCP server/client/relay, PPTP, L2TP, 3G/ LTE WAN (USB dongle), WLAN controller, Hotspot Management
Authentication	Web authentication, local database, RADIUS, LDAP, Microsoft AD, SSO (single sign-on)
System management	SNMPv2/v3, Web GUI (HTTP and HTTPS), CLI, vantage report, console, dual image, Cloud Helper









- Mid-range Next Generation Firewall (NGFW) for small and medium-sized businesses
- Comprehensive 3G/LTE USB dongle compatibility and multi-WAN loadbalancing, failover and fall back support
- Built-in WLAN controller for centralized AP management and effortless WLAN scalability
- Multi-threat protection with firewall, Anti-Virus, Anti-Spam, Content Filtering 2.0, IDP, Application Intelligence, and SSL inspection
- Robust SSL, IPSec and L2TP over IPSec VPN connectivity and VPN High Availability (HA)



7 Giga ports, 2 USB (multi-WAN & mobile broadband)



USG210

7 Giga ports, 2 USB (multi-WAN & mobile broadband)



USG310

8 Giga ports (configurable), 2 USB

Security features	Unified security policy, firewall, NAT, hybrid VPN (IPSec/SSL), UTM, application intelligence, SSL inspection, user-aware management, PCI DSS compliance, GeoIP blocking
UTM support	Content Filtering 2.0, Anti-Virus, ADP, IDP, Anti-Spam
Bandwidth management	Priority bandwidth utilization, guaranteed/ maximum bandwidth, dual-WAN load balancing, user-based policy management
Redundancy	Dual-WAN failover and fall back, device HA Pro (active-passive), VPN HA, 3G/LTE backup

Networking	IPv4, IPv6, static routing, policy routing, RIP2/OSPF, VLAN tagging (802.1q), DDNS, DHCP server/client/relay, PPTP, L2TP, 3G/ LTE WAN (USB dongle), WLAN controller
Authentication	Web authentication, local database, RADIUS, LDAP, Microsoft AD, SSO (single sign-on)
System management	SNMPv2/v3, Web GUI (HTTP and HTTPS), CLI, vantage report, console, dual image, Cloud Helper

USG40/40W/60/60W

Unified Security Gateway — Performance Series









- Desktop Next Generation Firewall (NGFW) for small businesses
- Integrated single-radio (USG40W) or dualradio (USG60W) wireless access point
- Multi-threat protection with firewall, Anti-Virus, Anti-Spam, Content Filtering 2.0, IDP, and Application Intelligence
- Robust SSL, IPSec and L2TP over IPSec VPN connectivity
- Built-in WLAN controller for centralized AP management and effortless WLAN scalability



USG40

5 Giga ports, 1 USB (dual-WAN & mobile broadband)



USG40W

5 Giga ports, 1 USB (dual-WAN & mobile broadband), 802.11 b/g/n



USG60

6 Giga ports, 2 USG (dual-WAN & mobile broadband)



USG60W

6 Giga ports, 2 USG (dual-WAN & mobile broadband), 802.11 a/b/g/n

Security features	Unified security policy, firewall, NAT, hybrid VPN (IPSec/SSL), UTM, application intelligence, user-aware management, PCI DSS compliance, GeoIP blocking
UTM support	Content Filtering 2.0, Anti-Virus, ADP, IDP, Anti-Spam
Bandwidth management	Priority bandwidth utilization, guaranteed/ maximum bandwidth, dual-WAN load balancing, user-based policy management
Redundancy	Dual-WAN failover and fall back, VPN HA, 3G/LTE backup

Networking	IPv4, IPv6, static routing, policy routing, RIP2/OSPF, VLAN tagging (802.1q), DDNS, DHCP server/client/relay, PPTP, L2TP, 3G/ LTE WAN (USB dongle), WLAN controller, built-in AP (USG60W & USG40W)
Authentication	Web authentication, local database, RADIUS, LDAP, Microsoft AD, SSO (single sign-on)
System management	SNMPv2/v3, Web GUI (HTTP and HTTPS), CLI, vantage report, console, dual image, Cloud Helper, Easy Mode

USG20/20W

Unified Security Gateway







- · Robust security without sacrificing performance
- Zero-configuration remote access with Easy VPN
- ICSA Firewall, IPSec certification
- Content filter stops malware and Web threats
- Non-stop Internet access with multiple WAN and 3G backups

Max. concurrent sessions*	10,000
Operating mode	Routing/NAT mode, bridge mode, mix (routing+bridge) mode
UTM support	Content Filter with Web firewall feature, Anti-Spam

802.11 b/g/n

Security	Firewall, Hybrid VPN (IPSec/SSL/L2TP over IPSec), user-aware management, UTM
Network	VLAN Tagging (802.1q), 3G/WLAN support Web GUI (HTTP and HTTPS), CLI, Vantage CNM, Vantage Report

^{*:} Maximum sessions measured using the industry standard IXIA IxLoad testing tool

USG20-VPN/USG20W-VPN

VPN Firewall

Specifications



USG20-VPN

5 Giga ports, 1 Fiber port (SFP), 1 USB (dual-WAN & mobile broadband)

USG20W-VPN

5 Giga ports, 1 Fiber port (SFP), 1 USB (dual-WAN & mobile broadband), 802.11 a/b/g/n/ac

- Comprehensive supports to IPv6
- Robust hybrid VPN (IPSec/SSL/L2TP)
- Superior wireless performance and signal quality with 802.11ac (2.4G/5G) Wi-Fi support
- High-performance SPI Firewall
- Bandwidth management

Firewall

• Dual-WAN (SFP and Eth WAN) loadbalancing and failover for robust connection

Specifications

Max. TCP 20,000 concurrent sessions* HTTP, HTTPS, SMTP, DHCP, PPPoE, PPTP, **Network functions** NA, VLAN RADIUS authentication, RADIUS VSA support Device failure detection and notification, High availability M-WAN LB, failover/fallback, mobile WAN support, auto fallback

Routing and transparent (Bridge) modes, zone-based access control list, stateful packet inspection, useraware policy enforcement, SIP/H.323 NAT traversal, ALG supports custom ports, role-based administration, multiple administrator login, multi-lingual Web GUI (HTTPS /HTTP), object-based configuration, command line interface (Console/Web console/SSH/TELNET), SNMPv2c/v3 (MIB-II), system configuration rollback, firmware upgrade via FTP/Web GUI

^{*:} Maximum sessions measured using the industry standard IXIA IxLoad testing tool

ZyWALL 110/310/1100

VPN Firewall









- Multi-core CPUs deliver up to 6 Gbps firewall throughput and 800 Mbps VPN throughput
- Up to 15x faster firewall performance and 4.4x faster VPN performance than preceding models
- More secure VPN connections with SHA-2 cryptographic
- VPN High Availability (HA) with dual-WAN failover and fallback support
- L2TP/IPSec support for iOS, Android and Windows mobile devices
- Auto-provisioned client-to-site IPSec setup with Easy VPN



ZyWALL 110

7 Giga ports, 2 USB (multi-WAN & mobile broadband)



ZyWALL 1100

Firewall

8 Giga ports (configurable), 2 USB



ZyWALL 310

8 Giga ports (configurable), 2 USB

Specifications

Max. concurrent sessions*	60,000/200,000/500,000 (ZyWALL 110/310/1100)
Network functions	HTTP, HTTPS, SMTP, DHCP, PPPoE, PPTP, NAT, VLAN RADIUS authentication, RADIUS VSA support
Max. concurrent IPSec VPN tunnels	100/300/1,000 (ZyWALL 110/310/1100)
Max. concurrent SSL VPN users	150/150/500 (ZyWALL 110/310/1100)
High availability	Active-passive mode, Device failure detection and notification, ICMP and TCP ping check, Link monitoring, Auto-sync configurations

Routing and transparent (Bridge) modes, zone-based access control list, stateful packet inspection, user-aware policy enforcement, SIP/H.323 NAT traversal, ALG supports custom ports, Role-based administration, multiple administrator login, multi-lingual Web GUI (HTTPS/HTTP), object-based configuration, command line interface (Console/Web console/SSH/ TELNET), SNMPv2c/v3 (MIB-II), system configuration rollback, firmware upgrade via FTP/Web GUI

^{*:} Maximum sessions measured using the industry standard IXIA IxLoad testing tool

Anti-Virus

Software Subscriptions

- Integrate Kaspersky's leading technology SafeStream II gateway Anti-Virus
- Anti-malware including viruses, Trojans, worms, spyware and rogue ware
- Fast stream-based scanning provides realtime protection with no file size limitation
- High detection rate without sacrifycing performance
- Cloud-optimized database supported

Specifications

Compatible security appliances	NG USG Extreme Series/Advanced Series/ Performance Series ZyWALL Series
Support for various protocols	HTTP, FTP, SMTP, POP3 and IMAP4
Scanning of archives and packed objects	ZIP, PKZIP e, GZIP and RAR
SSL Inspection supported	Yes

Anti-Spam

Software Subscriptions

- Transparent mail interception via SMTP and POP3 protocols
- Zero-hour virus outbreak protection
- Sender-based IP reputation filter
- Blacklist and whitelist support

Compatible security appliances	USG Series VPN Firewall Series
Configurable ports	POP3 and SMTP

Content Filtering 2.0

Software Subscriptions

- Dynamic, cloud-based URL filtering database
- Bandwidth regulation by filtering
- SafeSearch support for social networking content constraints
- IPv6 GeoIP Blocking covers management of billions of IOT and mobile devices.
- GeoIP maps and tracks IP addresses from the cloud into real geographical locations

_								•	
S		$\overline{}$	\sim	141	_	\sim	•	\sim	•
•	u	ᆮ	u		·	u	ш	ı	

Compatible security appliances	USG Series VPN Firewall Series
Covering content	Security threat, Adult, Illegal, Life information, Web entertainment and services
SafeSearch engine supported	Yahoo, Google, Bing and Yandex
Blocking rule	Category, URL, keyword, Blacklist
SSL Inspection supported	Yes

Intrusion Detection and Prevention (IDP)

Software Subscriptions

- Routing and transparent (bridge) mode
- Detects and alerts you of suspicious or malicious activity
- Customizable protection profile
- Customized signatures supported

Compatible security appliances	NG USG Extreme Series/Advanced Series/ Performance Series ZyWALL Series
Covering content	Dos/DDos, Buffer overflow, Access control, Scan, Trojan/Backdoor, Malware, Web attack
Detection pattern	Signature-based, behavior-based
SSL Inspection supported	Yes

Application Intelligence

Software Subscriptions

- Granular control over the most important applications
- Identifies and controls application behavior
- Application bandwidth management
- Supports user authentication
- Real-time statistics and reports

Compatible security appliances	NG USG Extreme Series/Advanced Series/ Performance Series ZyWALL Series
Bandwidth control mode	Prioritize, Throttle, Block
Detection pattern	Signature-based, behaviour-based

Instant messaging, Streaming Media, Database, Remote Access Terminals, Bypass Proxies and Tunnels, Network Protocols,

Social Network, P2P, Business, Games, Web, Web IM, Mobile, file Transfer, voice over IP, network Management, security Update, Mail and collaboration, private protocol.

AP Controller

Software Subscriptions

- Integrated AP controller as central management to provide flexible deployment
- AP auto discovery and auto provisioning

Specifications

Specifications

Category

Compatible security appliances	NG USG Extreme Series/Advanced Series/ Performance Series ZyWALL Series
Wireless QoS	AP load balancing, Smart Classroom Load balancing, WLAN Station bandwidth limiting by per-ssid
Authentication, authorization, accounting	MAC authentication with local database, MAC authentication with external Radius, Captive Portal (internal & external), Captive Portal customizable, web login page, Dynamic guest account, RADIUS authentication, Microsoft AD authentication, LDAP authentication, embedded RADIUS server, RADIUS accounting, RADIUS Session resumption, Log-out page

Device High Availability Pro

Software Subscriptions

- Device failure detection and notification
- Supports ICMP and TCP ping check
- Configuration auto-sync and link monitoring
- Smart handover through dedicated Heartbeat Link
- NAT/Firewall/VPN Sessions synchronization

Specifications

Compatible security appliances	NG USG Extreme Series/Advanced Series ZyWALL Series
When failover occurs	Connections keep alive
Mode	Active - Passive
Synchronization data	Configuration file/TCP sessions (IPv4/IPv6) /IPSec VPN sessions/Login and logout information/License and Signatures status /AP Image/Dynamic DHCP table/ARP table/UDP table/IP MAC binding table/SIP connection table

^{*} Firmware ZLD4.20 or later

Hotspot Management

Software Subscriptions

- High speed Internet access
- Tier of service
- Log record for regulatory compliance
- Premium security control
- Various Network access control

security	USG 310/1100/1900
appliances	ZyWALL 310/1100
Billing and free-	Build-in Accounting - Time to Finish
time service	Accumulation Paypal/Authroiz.net
Authentication	Advertisement link Walled garden SMS
Others	SP350E Printer Manager 3rd Party Social Login

^{*} Firmware ZLD4.20 or later

VPN Client Software

SSL VPN/IPSec VPN Client Software

- Providing solutions of both SSL VPN (SecuExtender software) and IPSec VPN remote access
- Enhanced layered security incorporating Zyxel security appliances
- Easy and intelligent installation reducing IT effort

Specifications

Compatible security appliances	SecuExtender SSL VPN: • USG series and ZyWALL series with firmware version ZLD V4.10 or above IPSec VPN: • All models in the USG Series and all models in the ZyWALL Series
Supported operating systems	SecuExtender SSL VPN: • Windows 10/8.1/8/7/XP • MAC OS 10.7 or later (license required) IPSec VPN (license required): • Windows 8/7/10/Vista/Server 2008/Server 2003/XP

SSO Agent

Single Sign-on Agent

- Simplified single sign in to multiple resources
- Improved user experience without repetitive logging in various web browsers
- Secure communication via shared key encryption for data transmission protection
- Login mechanism works with any protocol, not just HTTP

Compatible security appliances	Next-Gen Unified Security Gateway (USG) series and ZyWALL VPN Firewall series with firmware version ZLD V4.10 or above
	Windows 10 Pro (and above),
Supported	Windows Server 2008,
operating	Windows Server 2008 R2,
systems	Windows Server 2012,
	Windows Server 2012 R2

Vantage Report

Reporting Analyser for USG and ZyWALL

- Central editing of graphic reports
- Pre-defined reports
- Reports forwarded via e-mail
- Supports USG and ZyWALL
- Licenses for 1, 5, 25 and 100 devices

Specifications

Compatible security appliances	All models in the USG Series and all models in the ZyWALL Series
Supported operating systems	Windows 2003/Windows Vista/Window XP 32 bit/Window XP 64 bit/ Vista 32 bit/Vista 64 bit/Window 7 32 bit/ Window 7 64 bit

Cloud CNM SecuManager

Security Appliance Management

- Perform management and backup configuration from a centralized center
- Apply manual or scheduled firmware upgrades to all managed gateways
- VPN provisioning with different scenarios
- Centralized display and management of event/alarm notifications
- Manage a wide set of system restore/backup and monitoring

Compatible security appliances	Next-Gen Unified Security Gateway (USG) series and VPN Firewall series with firmware version ZLD 4.13 or above
Supported operating systems	64 bits OS — Debian 7.x or RHEL 6.5 & above systems

^{*} Available in Q4, 2016

Subscription Ordering Guide

Security

Next Generation Unified Security Gateway

Product	Anti-Virus	Application Intelligence & IDP	Content Filtering 2.0	Anti-Spam
USG1900				
USG1100				
USG310				
USG210	1 year 2 years	1 year 2 years	1 year 2 years	1 year 2 years
USG110	2 yours	2 yours	2 yours	2 ,0010
USG60/60W				
USG40/40W				

Unified Security Gateway

Product	Content Filtering	Anti-Spam
USG20/20W	1 year/2 years	1 year/2 years

VPN

Next Generation Unified Security Gateway

Product	SSL VPN Tunnels	SecuExtender SSL VPN Client [™]	IPSec VPN Client
USG1900			
USG1100	Add 5 Tunnels	For 1 client For 5 clients For 10 client	For 1 client For 5 clients For 10 clients For 50 clients
USG310	Add 5 Turmels Add 50 Tunnels		
USG210			
USG110			
USG60/60W	Add 5 Tunnels		
USG40/40W	Add 10 Tunnels		

VPN Firewall

Product	SSL VPN Tunnels	SecuExtender SSL VPN Client [™]	IPSec VPN Client
ZyWALL 1100	Add 5 Tunnels		
ZyWALL 310	Add 10 Tunnels Add 50 Tunnels	For 1 client For 5 clients For 10 client	For 1 client For 5 clients For 10 clients For 50 clients
ZyWALL 110			
USG20-VPN/ USG20W-VPN	Add 5 Tunnels Add 10 Tunnels		

Unified Security Gateway

Product	IPSec VPN Client
USG20/20W	For 1 client For 5 clients For 10 clients For 50 clients

^{*1:} Support OS: MAC OS 10.7 or later

Connectivity

Next Generation Unified Security Gateway

Product	Concurrent Device Upgrade [™]	Hotspot Management [™]	Managed APs	HA Pro ^{⁴¹}	Vantage Report
USG1900	100 nodes				
USG1100	300 nodes	1 year/one-time			
USG310				One-time	For 1 device
USG210	100 nodes		Add 4 APs Add 8 APs		For 5 devices For 25 devices
USG110			7,0007,10		For 100 devices
USG60/60W		_			
USG40/40W	-			-	

VPN Firewall

Product	Concurrent Device Upgrade*1	Hotspot Management [™]	Managed APs	HA Pro ^{*1}	Vantage Report
ZyWALL 1100	100 nodes 300 nodes	1 year perpetual (one-time)	Add 4 APs Add 8 APs One-	Out time	
ZyWALL 310	100	(One-time)		One-time	For 1 device For 5 devices For 25 devices
ZyWALL 110	100 nodes				
USG20-VPN USG20W-VPN	-	-	-	-	For 100 devices

Unified Security Gateway

Product	Vantage Report
USG20/20W	For 1 device For 5 devices For 25 devices For 100 devices

^{*1:} With firmware ZLD 4.20 or later

Access Point Compatibility List

	NWA5120 Series	NWA5000 Series	NWA3000-N Series	WAC6500 Series
Product	Unified Access Point	Managed Access Point	Unified Pro Access Point	Unified Pro Access Point
Models	NWA5121-NI NWA5121-N NWA5123-NI NWA5301-NJ NWA5123-AC	NWA5160N NWA5560-N NWA5550-N	NWA3160-N NWA3560-N NWA3550-N	WAC6503D-S WAC6502D-S WAC6502D-E WAC6553D-E WAC6103D-I
Functions				
Central management	Yes	Yes	Yes	Yes
Auto provisioning	Yes	Yes	Yes	Yes
Data forwarding	Local bridge	Local bridge	Local bridge	Local bridge

Next Generation Unified Security Gateway

		Extreme Series		Advanced Series		
Model		USG1900	USG1100	USG310	USG210	USG110
Hardware Spec	oifications	0301300	0301100	030310	030210	030110
-	bps RJ-45 ports	8 (configurable)	8 (configurable)	8 (configurable)	4 x LAN/DMZ, 2 x WAN	1 × ODT
	bps RJ-45 ports	2	2	2	2	2
USB ports		Yes (DB9)		Yes (DB9)		
Console port	.1-		Yes (DB9)		Yes (DB9)	Yes (DB9)
Rack-mountab	oie	Yes	Yes	Yes	Yes	Yes
Fanless		-	-	-	-	-
	ity & Performance*1	7000	0.000	5000	1000	1000
	oughput (Mbps)*2	7,000	6,000	5,000	1,900	1,600
VPN throughpu		900	800	650	500	400
IDP throughput		650	550	450	350	300
AV throughput		600	500	400	300	250
	ut (AV and IDP)*4	600	500	400	300	250
Concurrent dev (default/max.)		1,500/2,000	800/1,500	500/800	200/300	200/300
	urrent sessions*5	500,000	500,000	200,000	80,000	60,000
Max. concurrer	nt IPsec VPN	2,000	1,000	300	200	100
tunnels*6	1 MDM	2,000	1,000			100
Concurrent SS (default/max.)		250/750	250/500	50/150	35/150	25/150
Customizable z		Yes	Yes	Yes	Yes	Yes
IPv6 support		Yes	Yes	Yes	Yes	Yes
VLAN interface	9	128	128	64	32	16
WLAN Manage						
AP Controller (Yes	Yes	Yes	Yes	Yes
Managed AP no		2/66	2/66	2/34	2/34	2/34
(default/max.)		2/00	2/00	2/34	2/34	2/34
Key Software F	eatures					
Firewall		Yes	Yes	Yes	Yes	Yes
Virtual Private	Network (VPN)	Yes (IPSec, SSL, L2TP ov	rer IPSec)			
Bandwidth ma	nagement	Yes	Yes	Yes	Yes	Yes
Logging and m	onitoring	Yes	Yes	Yes	Yes	Yes
SSL (HTTPS) in	spection	Yes	Yes	Yes	Yes	Yes
Unified security	y policy	Yes	Yes	Yes	Yes	Yes
EZ mode		-	-	=	=	=
Cloud Helper		Yes	Yes	Yes	Yes	Yes
Device HA		Yes	Yes	Yes	Yes	Yes
License Service	е					
Anti-Virus (AV))	Yes	Yes	Yes	Yes	Yes
Intrusion Detec	tion and Prevention	Yes	Yes	Yes	Yes	Yes
	tion Intelligence					
Anti-Spam	(0.50.0)*7	Yes	Yes	Yes	Yes	Yes
Content Filteri	ng (CF2.0)"	Yes	Yes	Yes	Yes	Yes
Device HA Pro		Yes	Yes	Yes	Yes	Yes
Hostpot Manag	-	Yes	Yes	Yes	<u> </u>	<u>-</u>
Power Require	ments					
Power input		100 - 240 V AC, 50/60 H	z, 1.3 A max.		12 V DC, 3.33 A max.	12 V DC, 3.33 A max.
	nsumption (watt)	58.5	58.5	58.5	37.0	37.0
Heat dissipation		199.61	199.61	199.61	126.25	126.25
Physical Specif						
	Dimensions (WxDxH)(mm/in.)	430 x 250 x 44/ 16.93 x 9.84 x 1.73	430 x 250 x 44/ 16.93 x 9.84 x 1.73	430 x 250 x 44/ 16.93 x 9.84 x 1.73	300 x 178 x 44/ 11.81 x 7 x 1.73	300 x 178 x 44/ 11.81 x 7 x 1.73
Item	Weight (kg/lb.)	3.3/7.28	3.3/7.28	3.3/7.28	2/4.4	2/4.4
	Dimensions	519 x 392 x 163/	519 x 392 x 163/		351 x 149 x 243/	351 x 149 x 243/
Packing	(WxDxH)(mm/in.)	20.43 x 15.43 x 6.42	20.43 x 15.43 x 6.42	519 x 392 x 163/ 20.43 x 15.43 x 6.42	13.82 x 5.87 x 9.57	13.82 x 5.87 x 9.57
	Weight (kg/lb.)	4.8/10.58	4.84.8/10.58	4.8/10.58	3.264/7.20	3.264/7.20
Included acces	ssories	Power cordRack mounting kit	Power cordRack mounting kit	Power cordRack mounting kit	Power adapterPower cordRack mounting kit	Power adapterPower cordRack mounting kit
Environmental	Specifications					
Operating	Temperature	0°C to 40°C/32°F to 104	°F			
environment	Humidity	10% to 90% (non-conde				
Storess	Temperature	-30°C to 70°C/-22°F to 1				
Storage environment	Humidity	10% to 90% (non-conde				
MTBF (hr)		560,811.5	560,811.5	560,811.5	787,109.3	787,109.3
Certifications		110,010		230,010	. 5.7.00.0	. 5.7.55.5
EMC		ECC Part 15 (Class A) C	E EMC (Class A), C-Tick (Class A) RSMI		
Safety		LVD (EN60950-1), BSMI	L LIVIO (OIGSS A), O-TICK (OIGGG A), DOIVII		
-		L+D (L1400300-1), D3IVII				
Note:						

Note:

*: This matrix with firmware ZLD 4.20 or later.

*: Actual performance may vary depending on network conditions and activated applications.

*2: Maximum throughput based on RFC 2544 (1,518-byte UDP packets).

*3: VPN throughput measured based on RFC 2544 (1,424-byte UDP packets).

*4: AV and IDP throughput measured using the industry standard HTTP performance test (1,460-byte HTTP packets). Testing done with multiple flows.

*5: Maximum sessions measured using the industry standard IXIA IxLoad testing tool.

*6: Including Gateway-to-Gateway and Client-to-Gateway.

*7: SafeSearch function in CF2.0 need to enable SSL Inspection firstly and not for small business models.

Next Generation Unified Security Gateway

		Performance Series			
Model		USG60W	USG60	USG40W	USG40
Hardware Spec	cifications				
	ops RJ-45 ports	4 x LAN/DMZ, 2 x WAN	4 x LAN/DMZ, 2 x WAN	3 x LAN/DMZ, 1 x WAN, 1 x OPT	3 x LAN/DMZ, 1 x WAN, 1 x OPT
USB ports		2	2	1	1
Console port		Yes (DB9)	Yes (DB9)	Yes (RJ-45)	Yes (RJ-45)
Rack-mountab	le	Yes	Yes	-	-
Fanless		Yes	Yes	Yes	Yes
	ity & Performance [™]				
	oughput (Mbps)*2	1,000	1,000	400	400
VPN throughpu		180	180	100	100
IDP throughput		90	90	55 50	55
AV throughput	ut (AV and IDP)*4	90	90	50	50
Concurrent de					
(default/max.)		128	128	64	64
	urrent sessions*5	40,000	40,000	20,000	20,000
Max. concurrer tunnels*6	nt IPsec VPN	40	40	20	20
Concurrent SSI	L VPN users	5/20	5/20	5/15	5/15
(default/max.)		*	· · · · · · · · · · · · · · · · · · ·		<u> </u>
Customizable z	zones	Yes	Yes	Yes	Yes
IPv6 support VLAN interface		Yes 16	Yes 16	Yes 8	Yes 8
WLAN Manage					
AP Controller (Yes	Yes	Yes	Yes
Managed AP nu	umber	2/18	2/18	2/18	2/18
(default/max.)		2/18	2/18	2/18	2/10
Key Software F	eatures				
Firewall	Network (VPN)	Yes Yes (IPSec, SSL, L2TP over IPSe	Yes	Yes	Yes
Bandwidth mai		Yes (IPSec, SSL, LZTP over IPSe	Yes	Yes	Yes
Logging and m		Yes	Yes	Yes	Yes
SSL (HTTPS) in:		-	-	-	-
Unified security	-	Yes	Yes	Yes	Yes
EZ mode	, , , , ,	Yes	Yes	Yes	Yes
Cloud Helper		Yes	Yes	Yes	Yes
Device HA		=	=	=	=
License Service	Э				
Anti-Virus (AV)		Yes	Yes	Yes	Yes
	ction and Prevention Ition Intelligence	Yes	Yes	Yes	Yes
Anti-Spam	tion intelligence	Yes	Yes	Yes	Yes
Content Filterin	ng (CF2.0)*7	Yes	Yes	Yes	Yes
Device HA Pro	-	-	-	-	-
Hostpot Manag	gement	=	=	=	-
Power Requirer	ments				
Power input		12 V DC, 3.0 A max.	12 V DC, 3.0 A max.	12 V DC, 2.0 A max.	12 V DC, 2.0 A max.
<u> </u>	nsumption (watt)	28.0	19.0	17.0	14.0
Heat dissipatio		95.54	64.83	58.01	47.77
Physical Specif		272 × 197 × 26/	242 × 176 × 26/	216 v 142 v 22/	216 x 143 x 33/
Item	Dimensions (WxDxH)(mm/in.)	272 x 187 x 36/ 10.71 x 7.36 x 1.42	242 x 176 x 36/ 9.53 x 6.93 x 1.42	216 x 143 x 33/ 8.50 x 5.63 x 1.30	216 x 143 x 33/ 8.50 x 5.63 x 1.30
	Weight (kg/lb.)	1.46/3.23	1.25/2.76	0.91/2	0.89/1.96
	Dimensions "	427 × 247 × 73/	394 x 240 x 101/	381 x 216 x 79/	381 x 216 x 79/
Packing	(WxDxH)(mm/in.)	16.81 x 9.72 x 2.87	15.51 x 9.45 x 3.98	15.00 x 8.50 x 3.11	15.00 x 8.50 x 3.11
	Weight (kg/lb.)	2.23 (W/O breacket) 2.42 (w bracket)	2.25/4.96	1.63/3.59	1.57/3.46
Included acces	sories	 Power adapter Rack mounting kit (optional, by regions) Antenna 	Power adapter Rack mounting kit	Power adapter DB9 - RJ-45 cable for console connection Antenna	Power adapter DB9 - RJ-45 cable for console connection
Environmental	Specifications				
Operating environment	Temperature Humidity	0°C to 40°C/32°F to 104°F 10% to 90% (non-condensing)			
Storage	Temperature	-30°C to 70°C/-22°F to 158°F			
environment	Humidity	10% to 90% (non-condensing)			
MTBF (hr)		497,644	815,463.9	386,931.7	414,329.4
Certifications					
EMC		FCC Part 15 (Class B), CE EMC	(Class B), C-Tick (Class B), BSM	11	
Safety		LVD (EN60950-1), BSMI			

Wireless Specifications

	USG60W	USG40W
Standard compliance	802.11 a/b/g/n	802.11 b/g/n
Wireless frequency	Concurrent 2.4 & 5 GHz	2.4 GHz
Radio	2	1
SSID number	16	8
Maximum transmit power (Max. total channel)	US (FCC) 2.4 GHz: 24.3 dBm, 2 antennas US (FCC) 5 GHz: 25.8 dBm, 2 antennas EU (ETSI) 2.4 GHz: 18.6 dBm (EIRP), 2 antennas EU (ETSI) 5 GHz: 28.4 dBm (EIRP), 2 antennas	US (FCC) 2.4 GHz: 24.3 dBm, 2 antennas EU (ETSI) 2.4 GHz: 19.6 dBm (EIRP), 2 antennas
No. of antenna	2.4 GHz: 2T2R MIMO; 5 GHz: 2T2R MIMO (Detachable, SMA-R)	2.4 GHz: 2T2R MIMO (Detachable, SMA-R)
Antenna gain	3 dBi	3 dBi
Data rate	802.11b/g: 1, 2, 5.5, 6, 9, 11, 12, 18, 24, 36, 48 and 54 Mbps 802.11a: 6, 9, 12, 18, 24, 36, 48 and 54 Mbps 802.11a: up to 300 Mbps in MCS15 (40 MHz; GI = 400 ns)	802.11b/g: 1, 2, 5.5, 6, 9, 11, 12, 18, 24, 36, 48 and 54 Mbps 802.11n: up to 300 Mbps in MCS15 (40 MHz; GI = 400 ns)
Frequency band	2.4 GHz (IEEE 802.11 b/g/n) • USA (FCC): 2.412 to 2.462 GHz • Europe (ETSI): 2.412 to 2.462 GHz • TWN (NCC): 2.412 to 2.462 GHz TWN (NCC): 2.412 to 2.462 GHz Taiwan (TW): 5.25 to 5.35 GHz	• Europe (ETSI): 2.412 to 2.472 GHz • TWN (NCC): 2.412 to 2.462 GHz
Receive sensitivity	2.4 GHz: 5 GHz: • 11 Mbps ≤ -87 dBm • 54 Mbps ≤ -74 dBm • HT20 ≤ -71 dBm; HT40 ≤ -68 dBm • HT20, MCS15 ≤ -69 dBm	2.4 GHz: • 11 Mbps ≤ -87 dBm; 54 Mbps ≤ -74 dBm • HT20, MCS15 ≤ -71 dBm; HT40, MCS15 ≤ -68 dBm

Unified Security Gateway

Model		Remote Offices/Small Businesses (SBs)				
viodei		USG20W	USG20			
lardware Specificati	ons					
0/100/1000 Mbps RJ-		4 x LAN/DMZ,1 x WAN	4 x LAN/DMZ, 1 x WAN			
Gigabit combo (SFP/I	· · · · · · · · · · · · · · · · · · ·	- -				
JSB ports		1	1			
SEM slot (Security Ex	tension Module)	-	<u> </u>			
anless		-	-			
System Capacity & Pe	erformance*1					
PI firewall throughpu		175	175			
/PN throughput (Mbp		75	75			
JTM throughput (AV		-				
Max. TCP concurrent		10,000	10,000			
Max. concurrent IPSe		5	5			
Max. concurrent SSL		1	1			
ncluded SSL VPN use		1	1			
Customizable zones	,, 110.	Yes	Yes			
Pv6 support		Yes	Yes			
VLAN Management						
	upport	-	<u>-</u>			
AP Controller (APC) support		-				
Managed AP number (default/max.)		- 	<u>-</u>			
Key Software Features		Vee	Van			
irewall		Yes	Yes			
/irtual Private Netwo	ork (VPN)	Yes (IPSec, SSL, L2TP over IPSec)	Yes (IPSec, SSL, L2TP over IPSec)			
Anti-Virus (AV)	15 (100)	-	-			
ntrusion Detection a	nd Prevention (IDP)	-	-			
Inti-Spam		Yes	Yes			
Content Filtering (CF)		Yes	Yes			
Application Intelligen	ce and Control	-	-			
SSL inspection		-	-			
Single Sign-On (SSO)		-	-			
VLAN controller		-	-			
Power Requirements						
Power input		100 - 240 V AC, 50/60 Hz, 1.5 A max.	100 - 240 V AC, 50/60 Hz, 1.5 A max.			
Max. power consump	tion (watt)	16.0	15.0			
leat dissipation (BTU	J/hr)	54.59	51.18			
Physical Specification						
tem -	Dimensions (WxDxH)(mm/in.)		216 x 140 x 33/8.50 x 5.51 x 1.30			
	Weight (kg/lb.)	0.42/0.93	0.38/0.84			
acking		305 x 205 x 106/12.01 x 8.07 x 4.17	305 x 205 x 106/12.01 x 8.07 x 4.17			
COKING	Weight (kg/lb.)	1.1/2.43	1/2.20			
Included accessories		Power adapter Ethernet cable DB9—RJ-45 cable for console connection Antenna	Power adapterEthernet cableDB9—RJ-45 cable for console connection			
nvironmental Specif	ications					
perating	Temperature	0°C to 40°C/32°F to 104°F				
nvironment	Humidity	10% to 90% (non-condensing)				
torage	Temperature	-30°C to 70°C/-22°F to 158°F				
nvironment	Humidity	10% to 90% (non-condensing)				
ATBF (hr)		301,502	323,269			
Certifications			·			
MC		FCC Part 15 (Class B), CE EMC (Class B)				

Wireless Specifications

Wireless Specifications	Henney
	USG20W
Standard compliance	802.11 b/g/n
Wireless frequency	2.4 GHz
Radio	1
Maximum transmit power (Max. total channel)	US (FCC) 2.4 GHz: 26.6 dBm, 2 antennas EU (ETSI) 2.4 GHz: 19.1 dBm (EIRP), 2 antennas
No. of antenna	2.4 GHz: 2T2R MIMO
Antenna gain	2 dBi
Data rate	802.11b/g: 1, 2, 5.5, 6, 9, 11, 12, 18, 24, 36, 48 and 54 Mbps 802.11n: up to 300 Mbps in MCS15 (40 MHz; GI = 400 ns)
Receive sensitivity	2.4 GHz: • 11 Mbps ≤ -83 dBm • 54 Mbps ≤ -70 dBm • HT20, MCS15 ≤ -64 dBm

- Note:

 *: This matrix with firmware ZLD 4.20 or later.

 *: Actual performance may vary depending on network conditions and activated applications.

 *2: Maximum throughput based on RFC 2544 (1,518-byte UDP packets).

 *3: VPN throughput measured based on RFC 2544 (1,424-byte UDP packets).

 *4: AV and IDP throughput measured using the industry standard HTTP performance test (1,460-byte HTTP packets). Testing done with multiple flows.

 *5: Maximum sessions measured using the industry standard IXIA IxLoad testing tool.

 *6: Including Gateway-to-Gateway and Client-to-Gateway

 *7: SafeSearch function in CF2.0 need to enable SSL Inspection firstly and not for small business models

Model		Small- and Medi Businesses (SMB		Remote Offices/ Small Businesses (SBs)	Remote Offices/ (SBs)	Small Businesses
		ZyWALL 1100	ZyWALL 310	ZyWALL 110	USG20-VPN	USG20W-VPN
Hardware Spe	cifications					
10/100/1000 N	lbps RJ-45 ports	8 (configurable)	8 (configurable)	2 x WAN, 1 x OPT, 4 x LAN/DMZ	1 x WAN, 1 x SFP, 4 x LAN/DMZ	1 x WAN, 1 x SFP, 4 x LAN/DMZ
JSB ports		2	2	2	1	1
Console port		Yes (DB9)	Yes (DB9)	Yes (DB9)	Yes (RJ-45)	Yes (RJ-45)
Rack-mounta Fanless	ble	Yes -	Yes -	Yes	_	-
	city & Performance		_	-	_	
-	roughput (Mbps)*2	6,000	5,000	1,600	350	350
/PN throughp		800	650	400	90	90
Concurrent de default/max.		800/1500	500/800	200/300	64	64
lax. TCP con	current sessions*5	500,000	200,000	60,000	20,000	20,000
lax. concurre unnels*6	ent IPSec VPN	1,000	300	100	10	10
	SL VPN users	250/500	50/150	25/150	5/15	5/15
ustomizable		Yes	Yes	Yes	Yes	Yes
v6 support		Yes	Yes	Yes	Yes	Yes
VLAN Manag			,			
(P Controller Managed AP 1	(APC) support	Yes	Yes	Yes		-
default/max.		2/66	2/34	2/34	-	-
ey Software	Features					
irewall	- NI-t	Yes	Yes	Yes	Yes	Yes
andwidth me	e Network (VPN)	Yes (IPSec, SSL, L2T Yes	Yes	Yes	Yes (IPSec, SSL, L27 Yes	Yes
ogging and r		Yes	Yes	Yes	Yes	Yes
SL (HTTPS) i		Yes	Yes	Yes	-	-
nified securi	ty policy	Yes	Yes	Yes	Yes	Yes
Z mode		-	-	- -	Yes	Yes
Cloud Helper Device HA		Yes Yes	Yes Yes	Yes Yes	Yes -	Yes -
icense Servi	e	103	103	103		
nti-Virus (AV	")	Yes	Yes	Yes	-	-
ntrusion Dete revention (ID ntelligence	ction and P) & Application	Yes	Yes	Yes	=	-
nti-Spam		Yes	Yes	Yes	Yes	Yes
ontent Filter		Yes	Yes	Yes	Yes	Yes
evice HA Pro		Yes Yes	Yes Yes	Yes	-	-
ospot Manag		res	res	-	_	
ower input		100 - 240 V AC, 50/	60 Hz, 1.3 A max.	12 V DC, 3.33 A max.	12 V DC, 2.0 A max.	12 V DC, 2.0 A max.
lax. power co	nsumption (watt)	58.5	58.5	37	12.00	18.0
leat dissipati		199.61	199.61	126.25	40.92	61.38
hysical Spec	ifications Dimensions	430 x 250 x 44/	430 x 250 x 44/	300 x 178 x 44/	216 x 143 x 33/	216 x 143 x 33/
em	(WxDxH)(mm/in.)	16.93 x 9.84 x 1.73	16.93 x 9.84 x 1.73	11.81 x 7 x 1.73	8.50 x 5.63 x 1.30	8.50 x 5.63 x 1.30
	Weight (kg/lb.)	3.3/7.28	3.3/7.28	2/4.41	1.04/2.29	1.14/2.51 (Antenna included)
acking	Dimensions (WxDxH)(mm/in.) Weight (kg/lb.)	519 x 392 x 163/ 20.43 x 15.43 x 6.42 4.74/10.45	519 x 392 x 163/ 20.43 x 15.43 x 6.42 4.74/10.45	245 x 152 x 351/ 9.65 x 5.98 x 13.82 2.83/6.24	276 x 185 x 98/ 10.87 x 7.28 x 3.86 1.41/3.11	276 x 185 x 98/ 10.87 x 7.28 x 3.86 1.50/3.31
ncluded acce		Power cord Rack mounting kit	Power cord Rack mounting kit	Power adaptor Power cord Rack mounting kit	Power adapter RJ-45 - RS-232 cable for console connection	Power adapter RJ-45 - RS-232 cable for consol connection Antenna
nvironmento	l Specifications					
perating	Temperature	0°C to 40°C/32°F to			0°C to 40°C/32°F to	
nvironment	Humidify	10% to 90% (non-co			10% to 90% (non-co	
torage nvironment	Temperature Humidify	10% to 90% (non-co			10% to 90% (non-c	
/ITBF (hr)		560,811.5	560,811.5	787,109.3	44,000	44,000
Certifications						
MC		· · · · · · · · · · · · · · · · · · ·		, C-Tick (Class A), BSMI		B), IC, CE EMC (Class B), RCM, BSM
Safety		LVD (EN60950-1), B	PIMI		BSMI, UL	BSMI, UL

Wireless Specifications

	USG20W-VPN			
Standard compliance	802.11 a/b/g/n/ac			
Wireless frequency	2.4 GHz/5 GHz			
Radio	1			
SSID number	8			
Maximum transmit power (Max. total channel)	US (FCC) 2.4 GHz: 25 dBm, 3 US (FCC) 5 GHz: 25 dBm, 3 c		EU (ETSI) 2.4 GHz: 20 dBm (E EU (ETSI) 5 GHz: 20 dBm (EIR	
No. of antenna	3 detachable antennas			
Antenna gain	2 dBi @2.4 GHz, 3 dBi @5 GHz			
Data rate	802.11n Up to 450 Mbps; 820	.11ac Up to 1300 Mbps		
Frequency band	2.4 GHz (IEEE 802.11 b/g/n) • USA (FCC): 2.412 to 2.462 GHz • Europe (ETSI): 2.412 to 2.472 GHz • TWN (NCC): 2.412 to 2.462 GHz		5 GHz (IEEE 802.11 a/n/ac) • USA (FCC): 5.15 to 5.25 GHz; 5.725 GHz; 5.7250 to 5.850 G • Europe (ETSI): 5.15 to 5.35 G • TWN (NCO): 5.15 to 5.25 GHz; 5.725 GHz; 5.7250 to 5.850 G	Hz; 5.470 to 5.725 GHz ; 5.250 to 5.350 GHz; 5.470 to
Receive sensitivity	2.4 GHz: • 11 Mbps ≤ -87 dBm • HT20, MCS15 ≤ -71 dBm	• 54 Mbps ≤ -74 dBm • HT40, MCS15 ≤ -67 dBm	5 GHz: • 54 Mbps ≤ -74 dBm • HT40, MCS23 ≤ -68 dBm • VHT40, MCS9 ≤ -62 dBm	• HT20, MCS23 ≤ -71 dBm • VHT20, MCS8 ≤ -66 dBm • VHT80, MCS9 ≤ -59 dBm



Access Gateways

82 Unified Access Gateways



Access gateways

Tailor-made for hospitality business



High quality Internet access is no longer an amenity for hospitality businesses. It is a guest expectation and a key to customer satisfaction. Yet, providing satisfactory Internet services is not simply a matter installing Ethernet cables and wireless access points. Questions of bandwidth sufficiency, access management, and regulation compliance need to be considered to avoid customer complaints, bandwidth abuse, and breaking the law.

Zyxel's access gateway solutions are tailor-made to help hospitality businesses boost service value. They help hotels, restaurants and cafés provide superb network quality to customers, manage guest accounts easily, comply with data retention regulations, and generate revenue with Internet services. Zyxel's access gateway portfolio offers solutions for a wide range of hospitality environments—including single-location Wi-Fi hotspot and multi-room Internet access solutions.

Manage and Monetize

Designed with advanced billing, user authentication, and access control features, Zyxel's access gateways help hospitality businesses manage guest accounts, block unauthorized access, and generate revenue with their Internet services. Providing the flexibility to offer Internet

access as a free service, a tiered service (premium when a purchase is made), or a paid service, Zyxel access gateway solutions help hospitality businesses increase in-room revenue, meeting room revenue, and other revenue opportunities.

Increase Customer Loyalty

Zyxel's access gateways help hospitality businesses provide better performance, capacity, and service quality to their customers. Advanced features like 802.11 a/b/g/n dual-radio (2.4 GHz and 5 GHz) technology provides 2x the spectrum and 2x the bandwidth to accommodate the exploding amount of customer wireless devices. Zyxel's access gateways also offer bandwidth management capabilities to enforce equal bandwidth sharing, avoid bandwidth abuse, and provide good service quality to increase customer loyalty.



Single-spot or Multi- Regulatory room Deployments

Zyxel offers access gateway solutions for a wide range of hospitality environments—including single-location Wi-Fi hotspot and multi-room Internet access solutions. Selected models feature built-in WLAN controllers, which makes it easy for hotels and resorts to extend the WLAN to multiple locations like guest rooms, dining areas, or even outdoors. Zyxel also offers ticket printers that enable one-click billing and account generation for Wi-Fi hotspot services in hotel lobbies, conference rooms, waiting areas, restaurants and cafés.

Compliance

To address information security concerns, hospitality businesses are sometimes required to retain Internet usage records for a certain amount time; and this can become a significant burden for the businesses without the right equipment. Designed with the hospitality industry in mind, the Zyxel's line of access gateways help the businesses resolving the challenges. The Zyxel access gateways can automatically record user account information, MAC addresses, source and destination IPs, data volume and protocol types for future auditing requirements.

UAG5100

Unified Access Gateway



UAG5100

5 x GbE RJ-45 ports, 2 x USB ports, 1 x console port

Specifications

Network	uPnP, iPnP, NAT, DHCP client/server/relay
Authentication	VPN 1-1 mapping, SMTP, Web-based authentication, user agreement, external RADIUS support, RADIUS authentication
Billing	Up to 10 billing profiles, time-to-finish & accumulation billing modes, multiple logins, idle time-out
Security	SPI firewall, IPSec VPN, L2 isolation

- Integrated account generator, Web-based authentication portal and billing system and supports external RADIUS servers
- 250 Mbps maximum routing throughput, Supports 500 concurrent logins by default and up to 800 via license upgrade
- Supports SMS ticketing and the SP350E Service Gateway Printer
- Dual-WAN failover and load-balancing support
- Supports up to 10 IPSec VPN tunnels

Services	Customizable Web portal, advertisement link, walled garden, customizable user agreement page	
Management & Monitoring	Bandwidth management (per account), SNMP v2c, Syslog (account, IP, MAC, traffic)	
WLAN controller	Build-in WLAN controller to manage up to 32 APs	

UAG4100

Unified Access Gateway



UAG4100

5 x GbE RJ-45 ports, 2 x USB ports, 1 x console port

Specifications

Network	uPnP, iPnP, NAT, DHCP client/server/relay, VPN 1-1 Mapping, SMTP
Authentication	Web-based authentication, user agreement, external RADIUS support, RADIUS Authentication
Billing	Up to 10 billing profile, billing mode (time- to-finished & accumulation), multiple login, idle time-out

- IEEE 802.11 a/b/g/n dual-radio (2.4 GHz and 5 GHz) design
- Supports 200 concurrent logins by default and up to 300 via license upgrade
- Integrated account generator, Web-based authentication portal and billing system
- Supports external RADIUS servers
- SMS ticketing with ViaNett protocol support

Security	Firewall, L2 isolation		
Services	Customizable Web portal, advertisement link, walled garden, customizable user agreement page		
Management & Monitoring	BWM (per account), SNMP v2c, Syslog (account, IP, MAC, traffic)		
WLAN controller	Build-in WLAN controller & management up to 16 APs		

UAG2100

Unified Access Gateway



UAG2100

5 x GbE RJ-45 ports, 2 x USB ports, 1 x console port

Specifications

Network	uPnP, iPnP, NAT, DHCP client/server/relay, VPN 1-1 Mapping, SMTP	
Web-based authentication, user Authentication agreement, external RADIUS suppo RADIUS authentication		
Billing	Up to 10 billing profile, billing mode (time- to-finished & accumulation), multiple login, idle time-out	

- IEEE 802.11 a/b/g/n dual-radio (2.4 GHz and 5 GHz) design
- Supports 100 concurrent logins by default and up to 200 via license upgrade
- Integrated account generator, Web-based authentication portal and billing system
- Supports external RADIUS servers
- Supports SMS ticketing and the SP350E Service Gateway Printer

Security	Firewall, L2 isolation		
Services	Customizable Web portal, advertisement link, walled garden, customizable user agreement page		
Management & Monitoring	BWM (per account), SNMP v2c, Syslog (account, IP, MAC, traffic)		
WLAN controller	Build-in WLAN controller & management up to 8 APs		

UAG50

Unified Access Gateway



UAG50

1x USB LAN, 1x WAN, 1x USB port

Specifications

Network	uPnP, iPnP, NAT, DHCP client/server/relay, VPN-passthrough, SMTP
Authentication	Web-based authentication, user agreement, external RADIUS support, RADIUS authentication
Billing	Up to 10 billing profile, billing mode (time- to-finished & accumulation), idle time-out

- Built-in thermal printer
- Supports 100 concurrent log-ins
- Integrated account generator, Web-based authentication portal and billing system
- Supports 10 billing profiles
- Supports external RADIUS servers
- Equal bandwidth management
- Facilitates compliance with data retention regulations

Security	L2 isolation		
Services	Customizable Web portal, advertisement link, walled garden, customizable user agreement page		
Management & Monitoring	SNMP v2c, Syslog		





10/100 Mbps RJ-45 port

SP350E

Specifications

Buttons	3
Paper roll width	58 (+0/-1) mm
Interface	10/100 Mbps RJ-45 port
Power input	12 V DC, 5 A max.
Item dimensions (WxDxH)	176 x 111 x 114 mm (6.93" x 4.37" x 4.49")
Item weight	0.8 kg (1.76 lb.)

• Accessories of generating revenue

- One-click billing and account generation
- Relieve receptionists from complicated operations

Supported Model

Model	Supported	Model	Supported
UAG50	-	USG40(W)	-
UAG2100	Yes	USG60(W)	-
UAG4100	Yes	USG110	-
UAG5100	Yes	USG210	-
USG20(W)-VPN	-	USG310	Yes
ZyWALL 110	-	USG1100	Yes
ZyWALL 310	Yes	USG1900	Yes
ZyWALL 1100	Yes		

UAG License

Item	Model	UAG5100	UAG4100	UAG2100	UAG50
Managed AP scalability	LIC-EAP	16 APs	8 APs	8 APs	-
User scalability	LIC-SX	300 nodes	100 nodes	100 nodes	-
Bundled license	LIC-BUN	16 APs 300 nodes	-	-	-
SMS ticketing	LIC-eSMS	-	-	One time	-
Content filter	LIC-CCF	1 year/2 years	-	-	-
APP portal	LIC-APM	1 year/2 years	-	-	-

Model Name		UAG5100	UAG4100	UAG2100	UAG50
Hardware Spe	cifications	2 × 1 AN 2 × WAN	A V L ANI 1 V WANI	A V L ANI 1 V WANI	1 V LICE I ANI 1 V MANI
RJ-45 ports		3 x LAN, 2 x WAN (10/100/1000 Mbps)	4 x LAN, 1 x WAN (10/100/1000 Mbps)	4 x LAN, 1 x WAN (10/100/1000 Mbps)	1 x USB LAN, 1 x WAN (10/100 Mbps)
JSB ports		2	2	2	1
Ficket printer	support city & Performance	Yes (SP350E)	Yes (SP350E)	Yes (SP350E)	Yes (All-in-One)
-	ghput (Mbps)*2	250	200	150	> 85 Mbps (TCP upstream)
Concurrent log	gins	500/800	200/300	100/200	50/50
(default/max.)					·
Max. concurre DHCP pool size		80,000 4,096	40,000 4,096	20,000 4,096	16,385 253
Built-in	Static accounts	300	150	50	-
account generator	Dynamic accounts	4,000	2,000	1,000	256
WLAN Manage Built-in WLAN		Yes	Yes	Vee	_
Managed AP n default/max.)	umber	16/32	8/16	Yes 0/8	-
SSID		-	8	8	-
Wireless Speci					
Standard com	•	=	802.11 a/b/g/n	802.11 a/b/g/n	802.11 b/g/n
Wireless frequ Radio	ency	_	Concurrent 2.4 & 5 GHz	Concurrent 2.4 & 5 GHz	2.4 GHz
SSID number			16	16	8
	US (FCC) 2.4 GHz	-	24.3 dBm, 2 antennas	24.3 dBm, 2 antennas	18 dBm, 2 antennas
Maximum transmit	US (FCC) 5 GHz	-	25.8 dBm, 2 antennas	25.8 dBm, 2 antennas	-
power (Max. total channel)	EU (ETSI) 2.4 GHz		18.6 dBm (EIRP), 2 antennas	18.6 dBm (EIRP), 2 antennas	18 dBm (EIRP), 2 antennas
5114111161/	EU (ETSI) 5 GHz	-	28.4 dBm (EIRP), 2 antennas	28.4 dBm (EIRP), 2 antennas	-
No. of antenna	1	-	2.4 GHz: 2T2R MIMO 5 GHz: 2T2R MIMO (Detachable, SMA-R)	2.4 GHz: 2T2R MIMO 5 GHz: 2T2R MIMO (Detachable, SMA-R)	2.4 GHz: 2T2R MIMO (Detachable, SMA-R)
Antenna gain		-	3 dBi	3 dBi	2 dBi
Data rate		-	802.11b/g: 1, 2, 5.5, 6, 9, 11, 12, 18, 2 802.11a: 6, 9, 12, 18, 24, 36, 48 and 802.11n: up to 300 Mbps in MCS	d 54 Mbps	
Receive	2.4 GHz	-	11 Mbps ≤ -87 dBm; 54 Mbps ≤ -71 dBm; HT40 ≤ -68 dBr	74 dBm	11b: -71 dBm@10% PER 11g: -71 dBm@10% PER
sensitivity	5 GHz	-	54 Mbps ≤ -75 dBm HT20, MCS15 ≤ -71 dBm; HT40, N		11n: -85 dBm@10% PER -
WAN			, , , , , , , , , , , , , , , , , , , ,		
	ancing/failover	Yes/Yes	-/-	-/-	-/-
AAA & Billing					
Web-based au RADIUS client	ithentication	Yes Yes	Yes Yes	Yes Yes	Yes Yes
	/Accumulation				
billing modes	-	Yes/Yes	Yes/Yes	Yes/Yes	Yes/Yes
	billing profiles	Yes	Yes	Yes	Yes
Account opera User agreemei		Yes Yes	Yes Yes	Yes Yes	Yes Yes
SMS ticketing		Yes	Yes	License	-
Security					
SPI firewall		Yes	Yes	Yes	Yes
Layer 2 isolatio		Yes Yes	Yes	Yes	Yes
VPN pass-thro IPSec VPN	bugn	Yes (10 tunnels)	Yes -	Yes -	Yes -
802.1x support		Yes	Yes	Yes	Yes
Management					
Syslog		Yes	Yes	Yes	Yes
SNMP		Yes	Yes	Yes	Yes (read only)
Limited user se		Yes (IP)	Yes (IP)	Yes (IP)	Yes
Pass-through Walled garden		Yes (IP) Yes	Yes (IP) Yes	Yes (IP) Yes	Yes Yes
Customizable		Yes	Yes	Yes	Yes
Customizable	user	Yes	Yes	Yes	Yes
agreement pa Power Require					
Power Require	monto	802.3at PoE Plus input; 100 - 240 V AC, 50/60 Hz,	12 V DC, 3 A max.	12 V DC, 3 A max.	100 - 240 V AC, 50/60 Hz
Max noweres	nsumption (watt)	0.6 A max. 25	28	28	12 V, 1.5 A
Max. power co Physical Speci	•				12 V, 1.0 A
Item	Dimensions (WxDxH)	382 x 205 x 44/ 15.04 x 8.07 x 1.73	272 x 171 x 36/ 10.71 x 6.73 x 1.42	272 x 171 x 36/ 10.71 x 6.73 x 1.42	109 x 155 x 90/ 4.29 x 61 x 3.54
	(mm/in.) Weight (kg/lb.)	2.36/5.20	1.46/3.22	1.46/3.22	0.8284/1.83
	Dimensions	444 x 295 x 152/	416 × 247 × 71/	416 × 247 × 71/	
Packing	(WxDxH) (mm/in.)	17.48 x 11.61 x 5.98	16.38 x 9.72 x 2.80	16.38 x 9.72 x 2.80	150 x 190 x 145/ 5.91 x 7.48 x 5.71
-	Weight (kg/lb.)	3.7/8.16	2.3/5.07	2.3/5.07	1.049/2.31
ncluded acces		Power cord Rack mounting kit	Power adapter Rack mounting kit Antenna	Power adapter Rack mounting kit Antenna	Antenna x2 USB to Ethernet convertor Power adapter Thermal paper
Environ	l Specification				Paper roller
	l Specifications Temperature	0°C to 45°C/32°F to 113°F	0°C to 40°C/32°F to 104°F	0°C to 40°C/32°F to 104°F	0°C to 50°C/32°F to 122°F
Operating environment	Humidity	10% to 90% (non-condensing)	10% to 90% (non-condensing)	10% to 90% (non-condensing)	20% to 80% (non-condensing
Storage	Temperature	-40°C to 70°C/-40°F to 158°F	-30°C to 70°C/-22°F to 158°F	-30°C to 70°C/-22°F to 158°F	-10°C to 60°C/14°F to 140°F
environment	Humidity	10% to 90% (non-condensing)	10% to 90% (non-condensing)	10% to 90% (non-condensing)	20% to 95% (non-condensing
MTBF (hr)		71,032	497,644	497,644	42,486
Certifications EMC		FCC Part 15 (Class D) OF FMO	(Class B), C-Tick (Class B), BSMI		
Safety		LVD (EN60950-1), BSMI	(CIGSS D), C-TICK (CIGSS B), BSMI		
	mance may vary de	pending on network conditions and	d activated applications		

^{*1:} Actual performance may vary depending on network conditions and activated applications.
*2: Routing throughput measured using the industry standard IXIA IxLoad testing tool (1,460-byte TCP packets).
*3: Maximum sessions measured using the industry standard IXIA IxLoad testing tool.



Small Business Gateways

89 Small Business Gateways



Small business gateways

Zyxel's small business gateway (SBG) is the ultimate solution for small businesses with multiple offices and to support remote and home-based workers to ensure security, speed and coverage across their sites. The affordable SBG can adopt various internet interfaces to enhance network performance, reduce running costs and ultimately enable small businesses to communicate effectively.

Zyxel's SBG is purpose-built for small businesses who need greater functionality, security and reliability than a consumer-grade router can provide, but do not need an expensive enterprise-grade gateway designed for much larger organisations. Instead, the SBG sits comfortably between an overly simplistic solution and a high-end option with complicated features that are unnecessary for a small business.

With a reliable network and effortless deployment, Zyxel's SBG is a high quality solution that caters to the needs of a growing business.









Model	SBG3300-N	SBG3500-N	SBG3600-N
Multi-WAN	DSL, GbE, 3G/4G dongle	Fiber/GbE, DSL, 3G/4G dongle	Embedded LTE, Fiber/GbE, DSL, 3G dongle
STD	VDSL/ADSL2+ single line	VDSL/ADSL2+ 17a bonding	VDSL/ADSL2+ 17a bonding
USB 2.0 port	2	1	1
Wired throughput*	800 Mbps	800 Mbps	800 Mbps
VPN throughput**	40 Mbps	40 Mbps	40 Mbps
Wireless	802.11n, 300 Mbps	802.11n, 300 Mbps	802.11n, 300 Mbps
Embedded AP controller	-	Yes	Yes

^{*} Wired Throughput is based on RFC 2544 (1,518-byte UDP packets)
** VPN Throughput is based on RFC 2544 (1,424-byte UDP packets)

SBG3600-N

LTE Multi-WAN Small Business Gateway



Specifications

WAN connection	VDSL (up to 17a), ADSL2+, GbE/SFP combo port, LTE
Bridge/Router functionality	Bridge/Router, NAT, DHCP Client/Server/ Relay, Load balancing/Failover
QoS/VLAN	ATM QoS, 802.1p/q, IP QoS
LTE interface	Support B3/7/8/20

- Multi-WAN interfaces for various connectivity (LTE, VDSL, ADSL, Ethernet-SFP, 3G/4G USB)
- Supports VDSL bonding and vectoring to expand bandwidth on existing infrastructure
- VPN, firewall and URL/key word filtering provide solid data security
- Built-in Wi-Fi AP controller enabled with guest management on external/internal AAA captive Web portal support
- Auto provisioning upon installation with TR-069 support

Wireless	IEEE 802.11n compliant, data rate: up to 300 Mbps, frequency range: 2.4 GHz
VPN	IPSec/PPTP/L2TP over IPSec (up to 20 concurrent IPSec VPN tunnels), IPSec hardware engine
Management	Via Web/Telnet/FTP/TFTP/SNMP, TR-069 (mutual SSL), user database

SBG3500-N

Wireless N Fiber WAN Small Business Gateway



Specifications

WAN connection	VDSL (up to 17a), ADSL2+, GbE/SFP combo port
Bridge/Router functionality	Bridge/Router, NAT, DHCP Client/Server/ Relay, Load balancing/Failover
QoS/VLAN	ATM QoS, 802.1p/q, IP QoS

- Multi-WAN interfaces for various connectivity (VDSL, ADSL, Ethernet-SFP, 3G/4G USB)
- Supports VDSL bonding and vectoring to expand bandwidth on existing infrastructure
- VPN, firewall and URL/key word filtering provide solid data security
- Built-in Wi-Fi AP controller enabled with guest management on external/internal AAA captive Web portal support
- Auto provisioning upon installation with TR-069 support

Wireless	IEEE 802.11n compliant, data rate: up to 300 Mbps, frequency range: 2.4 GHz
VPN	IPSec/PPTP/L2TP over IPSec (up to 20 concurrent IPSec VPN tunnels), IPSec hardware engine
Management	Via Web/Telnet/FTP/TFTP/SNMP, TR-069 (mutual SSL), user database

SBG3300-N

Wireless N Dual-WAN Small Business Gateway



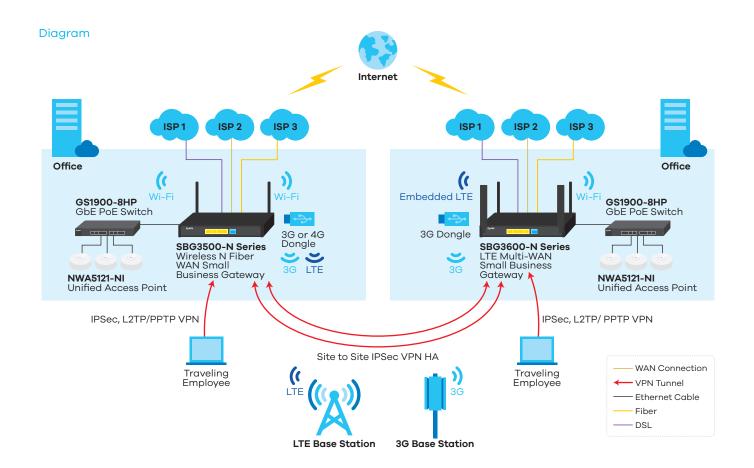
- Multi-WAN connectivity with load-balancing and failover
- High bandwidth of up to 300 Mbps for high network performance and coverage
- VPN-encrypted data protection for remote access and site-to-site connections
- Firewall and URL/keyword filtering to prevent network resource abuse
- Auto provisioning upon installation with TR-069 support

WAN connection	VDSL2 (up to 17a profile), ADSL2
Bridge/Router functionality	Bridge/Router, NAT, DHCP Client/Server/ Relay, Load balancing/Failover
QoS/VLAN	ATM QoS, 802.1p/q, IP QoS
	IEEE 802.11n compliant, data rate: up to

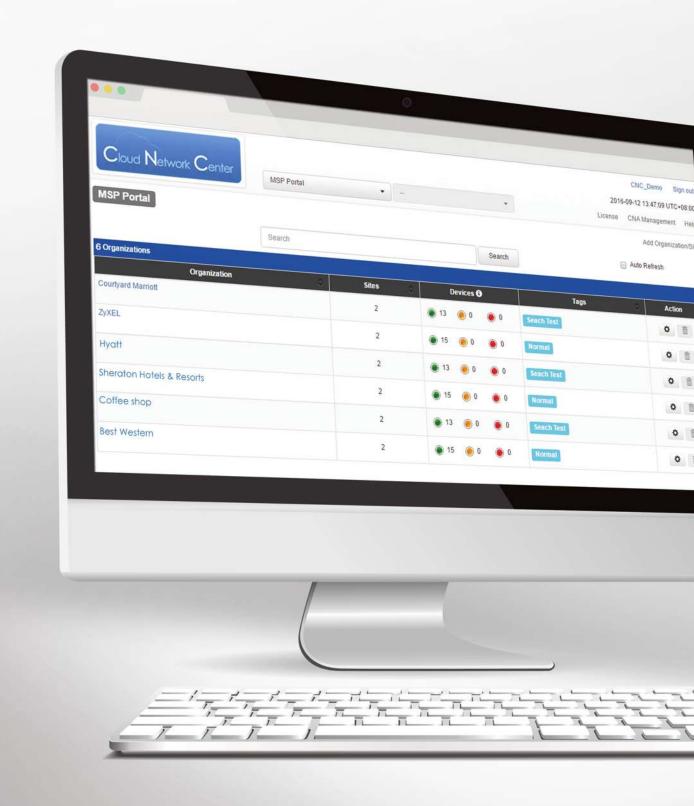
300 Mbps, frequency range: 2.4 GHz

Wireless

Management	Via Web/Telnet/FTP/TFTP/SNMP, TR-069 (mutual SSL), user database
VPN	concurrent IPSec VPN tunnels), IPSec hardware engine



Model	SBG3600-N	SBG3500-N	SBG3300-N
Product Name	LTE Multi-WAN Small Business Gateway	Wireless N Fiber WAN Small Business Gateway	Wireless N Dual-WAN Small Business Gateway
WAN			
I/O Port	Two RJ-11 connectors for VDSL2/AD One RJ-45 connector for VDSL2/AD One RJ-45/SFP combo connector fo	SL2+ over ISDN	One RJ-11 connector for VDSL/ ADSL2+ over POTS/ISDN
STD	VDSL2/ADSL2+ 17a Bonding	VDSL2/ADSL2+ 17a Bonding	VDSL2/ADSL2+ Single Line
SIM Card Slot	Yes	-	-
LAN			
I/O Port	Four 10/100/1000M auto MDI/MDIX	RJ-45 ports	
DMZ	Yes (LAN selectable)	Yes (LAN selectable)	Yes (LAN selectable)
USB 2.0 Port	1	1	2
VLAN	802.1Q VLAN tag support	802.1Q VLAN tag support	802.1Q VLAN tag support
Multi-WAN			
WAN Load Balancing/Failover	DSL/Gigabit Ethernet or SFP/LTE	DSL/Gigabit Ethernet or SFP	DSL/Gigabit Ethernet
Mobile Broadband	LTE built-in; 3G external USB dongle	3G/4G external USB dongle	3G/4G external USB dongle
VPN			
Connection	Client-to-site, Site-to-site		
VPN Protocol	IPSec, PPTP, L2TP/IPSec		
VPN Session	Concurrent IPSec 20 VPN tunnels, N	Max. VPN tunnel 35	
VPN HA	Yes		
VPN Throughput	40 Mbps		
Security			
Stateful Packet Inspection (SPI)	Yes	Yes	Yes
URL Keyword Blocking (Whitelist and Blacklist)	Yes	Yes	Yes
Time Schedule Control	Yes	Yes	Yes
Wireless			
Wireless	2x2 802.11n, up to 300 Mbps	2x2 802.11n, up to 300 Mbps	2x2 802.11n, up to 300 Mbps
Built-in WLAN Controller	Yes	Yes	-
Management			
SNMP MIB II	Yes	Yes	Yes
TR069	Yes	Yes	Yes
Others			
Rack Mountable	Yes	Yes	Yes
Physical Specifications			
Dimensions (WxDxH)(mm/in.)	242 x 170 x 36/ 9.53 x 6.69 x 1.42	242 x 170 x 36/ 9.53 x 6.69 x 1.42	210 x 115 x 33/ 8.27 x 6.06 x 1.57
Weight (g/lb.)	1,690/3.73	1,690/3.73	495/1.09





Network Management

- 94 Cloud Network Center
- 94 Zyxel One Network Utility
- 95 Zyxel AP Configurator
- 95 Zyxel Wireless Optimizer



- Anywhere, anytime accessibility to manage network remotely through public clouds
- Quick overview of network status across multiple sites
- Single pane of glass management for networking devices from switches, access points to gateways
- No local IT support required, any on-site person can replace failed devices with new ones easily

Features

- Cloud-based management hosted on Amazon for high availability
- Service capacity is scalable by requirement anytime
- Manage multiple networks centrally over WAN on single CNA
- Easy to manage license via license calculator
- Visit CNC web page for more details

CNC License

1yr 250-node	1 Year CNC service for 250 Zyxel networking devices
1yr 100-node	1 Year CNC service for 100 Zyxel networking devices
1yr 50-node	1 Year CNC service for 50 Zyxel networking devices

ZON Utility

Zyxel ONE Network Utility



- Unified discovery and setup tool for Zyxel switches, wireless APs and gateways
- Centralized IP configuration, device reboot and firmware upgrade interface reduces deployment time and effort
- Eliminates the need to work with multiple discovery utilities or complicated network management systems
- Working with Zyxel AP Configurator (ZAC) for further configuration of WLAN access points

Specifications

Operating system

Windows 7 (32-bit, 64-bit) Windows 8 (32-bit, 64-bit) Windows 8.1 (32-bit, 64-bit) Windows 10 (32-bit, 64-bit)

- 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)





- Centrally set up and configure up to 15 standalone APs
- Intuitive, easy-to-use UI facilitates AP configuration
- Multiple AP provision relieves timeconsuming single AP setting issues
- Batch configuration, firmware upgrade and backup reduce IT maintenance efforts

Specifications

Operating system

Windows 7 (32-bit, 64-bit) Windows 8 (32-bit, 64-bit) Windows 8.1 (32-bit, 64-bit)

Features

- Batch AP configuration
- Batch AP firmware upgrade
- Batch AP profile backup



- Facilitates the estimation of the quantity and placement of APs
- One-click calculation of the coverage with real-time data from the wireless LAN infrastructure
- Proactive RF parameter adjustments for simulating the best coverage and performance
- Visualized device location for troubleshooting, planning and asset tracking
- Practical, essential RF statistics (channel in use, stations counts, Tx/Rx packet count and retry rate)

Specifications

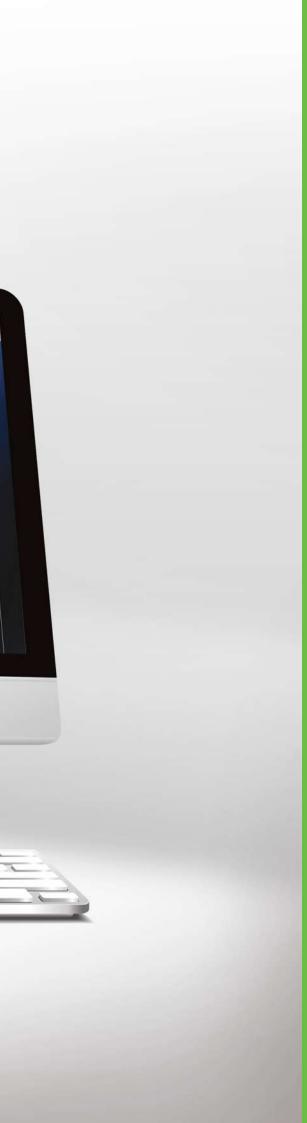
Operating system

Windows XP Professional SP2+ Windows Vista (32-bit) Windows 7 (32-bit, 64-bit) Windows 8 (32-bit, 64-bit) Windows 8.1 (32-bit, 64-bit) Windows 10 (32-bit, 64-bit)

Map import

A site map in the following supported formats: .bmp, .gif, .jpg, .png





Cloud Networking & Management

- 99 Nebula Control Centers
- 99 Nebula Cloud Managed Access Points
- 101 Nebula Cloud Managed Switches
- 102 Nebula Cloud Managed Security Gateway

Zyxel Nebula cloud networking and management solutions

Unlock networking possibilities with the cloud

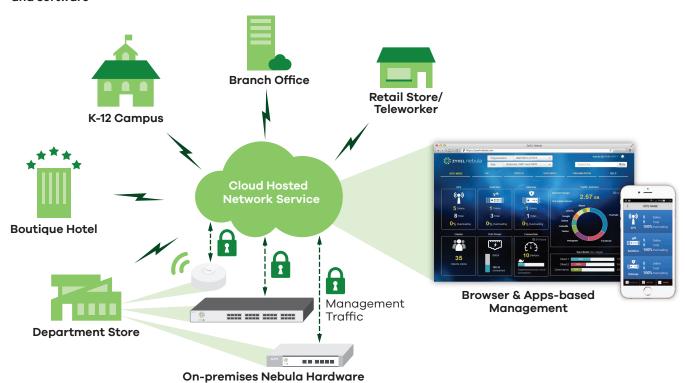
The Nebula cloud networking and management solution provides centralized control and visibility over all Nebula wired and wireless networking hardware – all without the cost and complexity of on-site control equipment

or overlay management systems. With comprehensive product portfolio that can be centrally managed from the cloud, Nebula offers simple, intuitive and scalable management for all networks.

Highlights

- Zero-touch provisioning, built-in multisite network management tools accelerate deployment of large networks
- Intuitive, automated network management interface as well as continuous feature updates that eliminate training and labor for network maintenance and support
- Centralized, unified and on-demand control as well as visibility that reduce capital expense for hardware and software

- A comprehensive networking product portfolio from a single vendor ensures better product compatibility
- Credit and on-demand licensing model provides high flexibility based on business dynamics
- Standard-based, affordable solution to fit even the tightest budget and to maximize ROI



Nebula Control Center

Nebula Control Center (NCC)



- Responsive Web design and intuitive user interface
- Multi-tenant, multi-site view
- Role-based administration privileges
- Real-time and historical monitoring/reporting
- Site-based auto and smart configuring tools
- Misconfigure protection against disconnecting NCC
- Rich site-wide management tools
- Configure login auditing

Nebula Mobile APP

Nebula mobile app

- Built-in QR code scanner for adding hundreds of devices quickly
- Photo capturing for uploading and recording locations where devices are mounted
- Overview monitoring of APs, switches and gateways
- Quick selection to view different sites

License Information

First year license points (Nebula Points) bundled with devices

Model name	Number of Nebula Points for 1 Yr NCC service
NAP102 NAP203 NAP303	30
NSW100-28P NSW200-28P	35
NSG100	50

NAP303

802.11ac Dual-radio Smart Antenna 3x3 Nebula Cloud Managed Access Point





802.11ac Dual-radio Smart Antenna 3x3 Nebula Cloud Managed Access Point

- Cloud-managed, dual-radio 3x3 MIMO 802.11ac access point supports combined data rates of up to 1.75 Gbps
- Smart Antenna provides breakthrough performance anywhere
- Self-configuration and zero-touch deployment
- Enterprise-class security and RF optimization
- Dynamic Channel Selection, Load Balancing and Smart Client Steering

Specifications

Network interface	2 x 10/100/1000BASE-T full duplex RJ-45
Data transfer/ data throughput	1.75 Gbps combined rates
WLAN functions	Up to 8 SSID (per radio)

Security	WEP 64/128 bit, WPA PSK/WPA2 PSK, WLAN access control
PoE power draw	17.04 W
Power supply	DC input: 12 V DC 2 A; PoE: 802.3at compliant





NAP203

802.11ac Dual-Radio, Dual-Optimized Antenna 3x3 Nebula Cloud Managed Access Point

Specifications

Network interface	2 x 10/100/1000BASE-T full duplex RJ-45
Data transfer/ data throughput	1.75 Gbps combined rates
WLAN functions	Up to 8 SSID (per radio)

- Cloud-managed, dual-radio 3x3 MIMO 802.11ac access point supports combined data rates of up to 1.75 Gbps
- Dual-optimized antenna allows pattern optimization adapting to wall- or ceilingmount installations
- Self-configuration and zero-touch deployment
- Enterprise-class security and RF optimization
- Dynamic Channel Selection, Load Balancing and Smart Client Steering

Security	WEP 64/128 bit, WPA/WPA2-PSK, WPA/WPA2-enterprise, WLAN access control	
PoE power draw	12.48 W	
Power supply	PoE: 802.3at compliant	

NAP102

802.11ac Dual-Radio Nebula Cloud Managed Access Point





802.11ac Dual-Radio Nebula Cloud Managed Access Point

- **Specifications**

Network interface	1 x 10/100/1000 Mbit BASE-T, auto-sensing LAN port
Data transfer/ data throughput	1.2 Gbps combined rates
WLAN functions	Up to 8 SSID (per radio)

- Cloud-managed, dual-radio 2x2 MIMO 802.11ac access point
- Supports combined data rates of up to 1.2 Gbps
- Self-configuration and zero-touch deployment
- Enterprise-class security and RF optimization
- Dynamic Channel Selection, Load Balancing and Smart Client Steering

Security	WEP 64/128 bit, WPA PSK/WPA2 PSK, WLAN access control	
PoE power draw	9 W	
Power supply	12 VDC, 1 A	

802.11ac Dual-Radio External Antenna 3x3 Outdoor Nebula Cloud Managed Access Point



NAP353

802.11ac Dual-Radio External Antenna 3x3 Outdoor Nebula Cloud Managed Access Point

Specifications

Network interface	2 x 10/100/1000BASE-T full duplex RJ-45
Data transfer/ data throughput	1.75 Gbps combined rates
WLAN functions	Up to 8 SSID (per radio)

- Cloud-managed, dual-radio 3x3 MIMO 802.11ac access point supports combined data rates of up to 1.75 Gbps
- IP66-rated weather protection for harsh outdoor environments
- Self-configuration and zero-touch deployment
- Enterprise-class security and RF optimization
- Dynamic Channel Selection, Load Balancing and Smart Client Steering

Security	WEP 64/128 bit, WPA PSK/WPA2 PSK, WLAN access control
PoE power draw	25 W
Power supply	PoE: 802.3at compliant

NSW200-28P

24-port GbE Nebula Cloud Managed PoE Switch with 10GbE Uplink



NSW200-28P

Gigabit Ethernet cloud managed L2 switch with 10G uplink, 48 ports RJ-45, 4×10 GbE SFP+ ports, 19" rackmount

Specifications

Backplane	128 Gbps, non-blocking	
MAC addresses	16,000	
VLAN support	1,000 static	
Data transfer and prioritization	802.1p (8 priority queues per port), L2 multicast, IGMP snooping, 802.1Q VLAN tagging, bandwidth management	

- Essential L2 features with user-friendly ACL and VLAN configuration
- Support 10GE uplinks to servers for high bandwidth network
- Optimized for quality voice and video traffic with high 375-watt power budget PoE technology
- Support Port Mirroring for network traffic monitoring
- Support DHCP white list and IGMP snooping
- RADIUS, static MAC forwarding and 802.1X authentication

Security	802.1x RADIUS authentication, SSL, MAC/forwarding
Power over	All PoE ports with 802.3at,
Ethernet	power budget 375 watts

NSW100-28P

24-port GbE Nebula Cloud Managed PoE Switch



NSW100-28P

Gigabit Ethernet cloud managed switch, 24 ports RJ-45 with PoE, 4 x GbE combo ports, 19" rackmount

Specifications

Backplane	56 Gbps, non-blocking
MAC addresses	16,000
VLAN support	1,000 static

- Essential L2 features with user-friendly ACL and VLAN configuration
- Optimized for quality voice and video traffic with high 375-watt power budget PoE technology
- Support Port Mirroring for network traffic monitoring
- Support DHCP white list and IGMP snooping
- RADIUS, static MAC forwarding and 802.1X authentication

Data transfer and prioritization	802.1p (8 priority queues per port), L2 multicast, IGMP snooping, 802.1Q VLAN tagging, bandwidth management
Security	802.1x RADIUS authentication, SSL, MAC/forwarding
Power over Ethernet	All PoE ports with 802.3at, power budget 375 watts

NSG100

Nebula Cloud Managed Security Gateway



NICC100

6 Giga ports, 2 USB

Specifications

Firewall	Stateful packet inspection, user-aware policy enforcement, VLAN, PPPoE, static routing, firewall, Intrusion Detection and Prevention (IDP), application intelligence
IPSec VPN	Topology: Site-to-site, hubs-and-spoke, encryption: AES (256-bit), 3DES and DES, authentication: SHA-2 (512-bit), SHA-1 and MD5, perfect forward secrecy (DH groups) support 1, 2, 5, 14, IPSec NAT traversal, dead peer detection and relay detection, VPN guto-reconnection, I 2TP over IPSec

- Complete networking, security and application control over the cloud
- Zero-touch site-to-site VPN
- Secure networks with Next-Gen Firewall, IDP and Application Intelligence*
- Built-in DHCP, NAT, QoS and VLAN management
- Identity-based security policies and application management
- * Every NSG100 is pre-bundled with one year IDP and Application Intelligence service.

Streamlined policy management	Unified policy management interface, supported exclusive security features: IDP, application intelligence, firewall (ACL), policy criteria: source and destination IP address, destination port, time
Networking	Routing mode, Ethernet and PPPoE, NAT, VLAN tagging (802:1Q), DHCP client/server/relay, dynamic DNS support, maximum bandwidth, bandwidth limit per client IP

Note: IDP and Application Intelligence service needs to be purchased on top of NCC service license, and it will not be co-terminated along with NCC service license.

		Nebula Cloud Managed A	ccess Points		
Model		NAP303	NAP203	NAP102	NAP353
Product descr	iption	802.11ac Dual-Radio Smart Antenna 3x3 Nebula Cloud Managed Access Point	802.11ac Dual-Radio, Dual-Optimized Antenna 3x3 Nebula Cloud Managed Access Point	802.11ac Dual-Radio Nebula Cloud Managed Access Point	802.11ac Dual-Radio External Antenna 3x3 Outdoor Nebula Cloud Managed Access Point
Basic Design					
Vireless frequ	iency	2.4 and 5 GHz	2.4 and 5 GHz	2.4 and 5 GHz	2.4 and 5 GHz
Radio		2	2	2	2
RF Specification	ons				
		6 embedded	6 internal		
Number of ant Antenna gain	tenna	smart antenna 4 dBi @ 2.4 GHz 6 dBi @ 5 GHz	dual-optimized antenna Ceiling: 2.4 GHz 3 dBi; 5 GHz 4 dBi Wall:	4 embedded 3 dBi @ 2.4 GHz 4 dBi @ 5 GHz	6 N-type connectors*
		0 dbi @ 0 0112	2.4 GHz 4 dBi; 5 GHz 5 dBi	- GBI @ 0 OI IZ	
.AN					
Number of 10/	100/1000M				
_AN	100, 1000111	2	2	1	1
PoE		Yes	Yes	Yes	Yes
PoE Power dro	aw (watt)	17.04	12.48	9	25
WLAN Feature		17.O .	12.TU		
WLAN Maximu	urn net	Up to 900 Mbps	Up to 900 Mbps	Up to 450 Mbps	Up to 900 Mbps
hroughput	with				
Wireless Secur	rity	W.			V.
WEP		Yes	Yes	Yes	Yes
WPA/WPA2-PS	SK	Yes	Yes	Yes	Yes
WPA/WPA2-En	nterprise	Yes	Yes	Yes	Yes
EAP types		EAP-TLS, EAP-TTLS, EAP- PEAP, EAP-FAST, EAP- AKA and EAP-SIM	PEAP, EAP-FAST, EAP- AKA and EAP-SIM	TLS, TTLS, PEAP, FAST, AKA and SIM	EAP-TLS, EAP-TTLS, EAP- PEAP, EAP-FAST, EAP- AKA and EAP-SIM
EEE 802.1X		Yes	Yes	Yes	Yes
Number of SSI	ID	8 (per radio)	8 (per radio)	8 (per radio)	8 (per radio)
MAC filtering		Yes	Yes	Yes	Yes
_ayer-2 isolati	ion	Yes	Yes	Yes	Yes
RADIUS authe	ntication	Yes	Yes	Yes	Yes
				Yes	Yes
Captive porta	ıl	Yes	Yes	res	
	l	Yes	Yes	res	165
Network	il				
Network VLANs	il	Yes	Yes	Yes	Yes
Network VLANs DHCP client	ll				
Network VLANs DHCP client QoS (PG)	l	Yes Yes	Yes Yes	Yes Yes	Yes Yes
Network VLANs DHCP client QoS (PG) WMM		Yes Yes Yes	Yes Yes	Yes Yes	Yes Yes
Network VLANs DHCP client QoS (PG) WMM WMM power so	ave	Yes Yes	Yes Yes	Yes Yes	Yes Yes Yes Yes
Network VLANs DHCP client QoS (PG) WMM WMM power so	ave	Yes Yes Yes	Yes Yes	Yes Yes	Yes Yes
Network VLANs DHCP client QoS (PG) WMM WMM power sc DiffServ mark	ave	Yes Yes Yes	Yes Yes Yes	Yes Yes Yes	Yes Yes Yes Yes
Network VLANs DHCP client QoS (PG) WMM WMM power so DiffServ marki	ave ing	Yes Yes Yes	Yes Yes Yes	Yes Yes Yes	Yes Yes Yes
Network VLANs DHCP client QoS (PG) WMM WMM power so DiffServ marki Management Cloud manage	ave ing	Yes Yes Yes Yes Yes Yes	Yes Yes Yes Yes Yes	Yes Yes Yes Yes Yes	Yes Yes Yes Yes Yes Yes
Network VLANs DHCP client QoS (PG) WMM WMM power so DiffServ marki Management Cloud manage	ave ing	Yes Yes Yes Yes Yes Yes Support	Yes Yes Yes Yes Yes Yes	Yes Yes Yes Yes Yes Yes Support	Yes Yes Yes Yes Yes Yes Support
Network VLANs DHCP client QoS (PG) WMM WMM power so DiffServ marki Management Cloud manage	ave ing	Yes Yes Yes Yes Yes Yes	Yes Yes Yes Yes Yes Support	Yes Yes Yes Yes Yes Yes	Yes Yes Yes Yes Yes Yes Yes
Network VLANs DHCP client QoS (PG) WMM WMM power so DiffServ mark Management Cloud manage ZON utility Smart connec	ave ing	Yes Yes Yes Yes Yes Yes Support Neighbor device	Yes Yes Yes Yes Yes Yes Support Neighbor device	Yes Yes Yes Yes Yes Yes Support Neighbor device	Yes Yes Yes Yes Yes Yes Support Neighbor device
Captive porta Network VLANs DHCP client QoS (PG) WMM WMM power so DiffServ marki Management Cloud manage ZON utility Smart connec	ave ing ed	Yes Yes Yes Yes Yes Yes Yes Support Neighbor device discovery	Yes Yes Yes Yes Yes Yes Support Neighbor device discovery	Yes Yes Yes Yes Yes Yes Yes Support Neighbor device discovery	Yes Yes Yes Yes Yes Yes Yes Support Neighbor device discovery
Network VLANs DHCP client QoS (PG) WMM WMM power so DiffServ marki Management Cloud manage ZON utility Smart connec	ave ing ed	Yes Yes Yes Yes Yes Yes Support Neighbor device	Yes Yes Yes Yes Yes Yes Support Neighbor device	Yes Yes Yes Yes Yes Yes Support Neighbor device	Yes Yes Yes Yes Yes Yes Yes Support Neighbor device discovery Yes
Network VLANs DHCP client QoS (PG) WMM WMM power so DiffServ mark Management Cloud manage ZON utility Smart connec Others Plenum rating	ave ing ed	Yes Yes Yes Yes Yes Yes Yes Support Neighbor device discovery Yes DC input: 12 VDC 2 A;	Yes Yes Yes Yes Yes Yes Yes Support Neighbor device discovery Yes	Yes Yes Yes Yes Yes Yes Yes Support Neighbor device discovery Yes Input: AC 100 - 240 V -50/60Hz 0.3 A;	Yes Yes Yes Yes Yes Yes Yes Support Neighbor device discovery Yes
Network VLANs DHCP client QoS (PG) WMM WMM power so DiffServ marki Management Cloud manage ZON utility Smart connec Dthers Plenum rating Power supply	ave ing ed	Yes Yes Yes Yes Yes Yes Yes Support Neighbor device discovery Yes DC input: 12 VDC 2 A; PoE: 802.3at compliant	Yes Yes Yes Yes Yes Yes Yes Support Neighbor device discovery Yes 802.3at PoE only	Yes Yes Yes Yes Yes Yes Yes Support Neighbor device discovery Yes Input: AC 100 - 240 V -50/60Hz 0.3 A; Output: DC +12 V 1 A	Yes Yes Yes Yes Yes Yes Yes Support Neighbor device discovery Yes PoE: 802.3at compliant
Network VLANs DHCP client QoS (PG) WMM WMM power so DiffServ mark Management Cloud manage ZON utility Smart connec Others Plenum rating Power supply MTBF Physical Specitem dimension mm/in.)	ave ing ed it ifications ons (WxDxH)	Yes Yes Yes Yes Yes Yes Yes Yes Support Neighbor device discovery Yes DC input: 12 VDC 2 A; PoE: 802.3at compliant 1,727,246 236 x 227 x 62/ 9.28 x 8.95 x 2.43	Yes Yes Yes Yes Yes Yes Yes Support Neighbor device discovery Yes 802.3at PoE only 1,727,245 203.9 x 191.7 x 34.7/ 8.03 x 7.55 x 1.37	Yes Yes Yes Yes Yes Yes Yes Support Neighbor device discovery Yes Input: AC 100 - 240 V -50/60Hz 0.3 A; Output: DC +12 V 1 A 1,727,244 130 x 130 x 54.7/ 5.12 x 5.12 x 2.17	Yes Yes Yes Yes Yes Yes Yes Yes Support Neighbor device discovery Yes PoE: 802.3at compliant 562,413 255 x 256 x 62/ 10.04 x 10.08 x 2.44
Network //LANs DHCP client QoS (PG) //MM //MM power so DiffServ mark //Management Cloud manage //ON utility Chers Plenum rating Power supply //TBF Physical Specitem dimension mm/in.)	ave ing ed it ifications ons (WxDxH)	Yes Yes Yes Yes Yes Yes Yes Yes Support Neighbor device discovery Yes DC input: 12 VDC 2 A; PoE: 802.3at compliant 1,727,246 236 x 227 x 62/ 9.28 x 8.95 x 2.43 982/2.17	Yes Yes Yes Yes Yes Yes Yes Support Neighbor device discovery Yes 802.3at PoE only 1,727,245 203.9 x 191.7 x 34.7/ 8.03 x 7.55 x 1.37 445/0.98	Yes Yes Yes Yes Yes Yes Yes Support Neighbor device discovery Yes Input: AC 100 - 240 V -50/60Hz 0.3 A; Output: DC +12 V 1 A 1,727,244 130 x 130 x 54.7/ 5.12 x 5.12 x 2.17 300/0.67	Yes Yes Yes Yes Yes Yes Yes Yes Support Neighbor device discovery Yes PoE: 802.3at compliant 562,413 255 × 256 × 62/ 10.04 × 10.08 × 2.44 1,708/3.77
Network VLANs DHCP client QoS (PG) WMM WMM power so DiffServ marki Management Cloud manage ZON utility Smart connec Dthers Plenum rating Power supply MTBF Physical Speci tem dimensio mm/in.) tem weight (g	ave ing ed ifications ons (WxDxH) g/lb.)	Yes Yes Yes Yes Yes Yes Yes Yes Support Neighbor device discovery Yes DC input: 12 VDC 2 A; PoE: 802.3at compliant 1,727,246 236 x 227 x 62/ 9.28 x 8.95 x 2.43 982/2.17 • Ceiling mount plate • Mounting screws	Yes Yes Yes Yes Yes Yes Yes Support Neighbor device discovery Yes 802.3at PoE only 1,727,245 203.9 x 191.7 x 34.7/ 8.03 x 7.55 x 1.37	Yes Yes Yes Yes Yes Yes Yes Support Neighbor device discovery Yes Input: AC 100 - 240 V -50/60Hz 0.3 A; Output: DC +12 V 1 A 1,727,244 130 x 130 x 54.7/ 5.12 x 5.12 x 2.17	Yes Yes Yes Yes Yes Yes Yes Yes Support Neighbor device discovery Yes PoE: 802.3at compliant 562,413 255 x 256 x 62/ 10.04 x 10.08 x 2.44
Network VLANs DHCP client QoS (PG) WMM WMM power so DiffServ marki Management Cloud manage ZON utility Smart connec Dthers Plenum rating Power supply MTBF Physical Speci tem dimensio mm/in.) tem weight (g	ave ing ed ifications ons (WxDxH)	Yes Yes Yes Yes Yes Yes Yes Yes Support Neighbor device discovery Yes DC input: 12 VDC 2 A; PoE: 802.3at compliant 1,727,246 236 x 227 x 62/ 9.28 x 8.95 x 2.43 982/2.17 • Ceiling mount plate • Mounting screws	Yes Yes Yes Yes Yes Yes Yes Support Neighbor device discovery Yes 802.3at PoE only 1,727,245 203.9 x 191.7 x 34.7/ 8.03 x 7.55 x 1.37 445/0.98 • Wall/Ceiling-mount	Yes Yes Yes Yes Yes Yes Yes Support Neighbor device discovery Yes Input: AC 100 - 240 V -50/60Hz 0.3 A; Output: DC +12 V 1 A 1,727,244 130 x 130 x 54.7/ 5.12 x 5.12 x 2.17 300/0.67 • Power adapter • Wall/Ceiling-mount	Yes Yes Yes Yes Yes Yes Yes Yes Yes Support Neighbor device discovery Yes PoE: 802.3at compliant 562,413 255 x 256 x 62/ 10.04 x 10.08 x 2.44 1,708/3.77 • Pole/wall mounting kit • PoE injector
Network VLANs DHCP client QoS (PG) WMM WMM power so DiffServ marki Management Cloud manage ZON utility Smart connec Dthers Plenum rating Power supply WTBF Physical Speci tem dimensio imm/in.) tem weight (g	ave ing ed it ifications ons (WxDxH) g/lb.) ssories	Yes Yes Yes Yes Yes Yes Yes Support Neighbor device discovery Yes DC input: 12 VDC 2 A; PoE: 802.3at compliant 1,727,246 236 x 227 x 62/ 9.28 x 8.95 x 2.43 982/2.17 • Ceiling mount plate • Mounting screws	Yes Yes Yes Yes Yes Yes Yes Support Neighbor device discovery Yes 802.3at PoE only 1,727,245 203.9 x 191.7 x 34.7/ 8.03 x 7.55 x 1.37 445/0.98 • Wall/Ceiling-mount plate	Yes Yes Yes Yes Yes Yes Yes Support Neighbor device discovery Yes Input: AC 100 - 240 V -50/60Hz 0.3 A; Output: DC +12 V 1 A 1,727,244 130 x 130 x 54.7/ 5.12 x 5.12 x 2.17 300/0.67 • Power adapter • Wall/Ceiling-mount plate	Yes Yes Yes Yes Yes Yes Yes Yes Support Neighbor device discovery Yes PoE: 802.3at compliant 562,413 255 x 256 x 62/ 10.04 x 10.08 x 2.44 1,708/3.77 Pole/wall mounting kite PoE injector Power cord IP66 (Embedded heate for harsh weather)
Network VLANs DHCP client QoS (PG) WMM WMM power sc DiffServ marki Management Cloud manage ZON utility Smart connec Dthers Plenum rating Power supply MTBF Physical Specitem dimension (mm/in.) tem weight (g ncluded access Environmenta	ave ing ed it ifications ons (WxDxH) g/lb.) ssories	Yes Yes Yes Yes Yes Yes Yes Support Neighbor device discovery Yes DC input: 12 VDC 2 A; PoE: 802.3at compliant 1,727,246 236 x 227 x 62/ 9.28 x 8.95 x 2.43 982/2.17 • Ceiling mount plate • Mounting screws - 0°C to 50°C/	Yes Yes Yes Yes Yes Yes Yes Support Neighbor device discovery Yes 802.3at PoE only 1,727,245 203.9 x 191.7 x 34.7/ 8.03 x 7.55 x 1.37 445/0.98 • Wall/Ceiling-mount plate - 0°C to 50°C/	Yes Yes Yes Yes Yes Yes Yes Support Neighbor device discovery Yes Input: AC 100 - 240 V -50/60Hz 0.3 A; Output: DC +12 V 1 A 1,727,244 130 x 130 x 54.7/ 5.12 x 5.12 x 2.17 300/0.67 • Power adapter • Wall/Ceiling-mount plate - O°C to 50°C/	Yes Yes Yes Yes Yes Yes Yes Support Neighbor device discovery Yes PoE: 802.3at compliant 562,413 255 × 256 × 62/ 10.04 × 10.08 × 2.44 1,708/3.77 • Pole/wall mounting kir • PoE injector • Power cord IP66 (Embedded heate for harsh weather) -40°C to 60°C/
Network VLANs DHCP client QoS (PG) WMM WMM power so DiffServ marki Management Cloud manage ZON utility Smart connec Others Plenum rating Power supply MTBF Physical Speci tem dimensio imm/in.) tem weight (g ncluded acces Environmenta Wether protec	ave ing ed ifications ons (WxDxH) g/lb.) ssories al Specifications etion	Yes Yes Yes Yes Yes Yes Yes Support Neighbor device discovery Yes DC input: 12 VDC 2 A; PoE: 802.3at compliant 1,727,246 236 x 227 x 62/ 9.28 x 8.95 x 2.43 982/2.17 • Ceiling mount plate • Mounting screws - 0°C to 50°C/ 32°F to 122°F	Yes Yes Yes Yes Yes Yes Yes Support Neighbor device discovery Yes 802.3at PoE only 1,727,245 203.9 x 191.7 x 34.7/ 8.03 x 7.55 x 1.37 445/0.98 • Wall/Ceiling-mount plate - 0°C to 50°C/ 32°F to 122°F	Yes Yes Yes Yes Yes Yes Yes Support Neighbor device discovery Yes Input: AC 100 - 240 V -50/60Hz 0.3 A; Output: DC +12 V 1 A 1,727,244 130 x 130 x 54.7/ 5.12 x 5.12 x 2.17 300/0.67 • Power adapter • Wall/Ceiling-mount plate - O°C to 50°C/ 32°F to 122°F	Yes Yes Yes Yes Yes Yes Yes Support Neighbor device discovery Yes PoE: 802.3at compliant 562,413 255 x 256 x 62/ 10.04 x 10.08 x 2.44 1,708/3.77 Pole/wall mounting kine PoE injector Power cord IP66 (Embedded heate for harsh weather) -40°C to 60°C/ -40°F to 140°F
Network VLANs DHCP client QoS (PG) WMM WMM power so DiffServ marki Management Cloud manage ZON utility Smart connec Dthers Plenum rating Power supply MTBF Physical Speci tem dimensio mm/in.) tem weight (g ncluded acces Environmenta Wether protec	ave ing ed ifications ons (WxDxH) g/lb.) ssories al Specifications etion	Yes Yes Yes Yes Yes Yes Yes Support Neighbor device discovery Yes DC input: 12 VDC 2 A; PoE: 802.3at compliant 1,727,246 236 × 227 × 62/ 9.28 × 8.95 × 2.43 982/2.17 • Ceiling mount plate • Mounting screws - 0°C to 50°C/ 32°F to 122°F 10% to 90%	Yes Yes Yes Yes Yes Yes Yes Support Neighbor device discovery Yes 802.3at PoE only 1,727,245 203.9 × 191.7 × 34.7/ 8.03 × 7.55 × 1.37 445/0.98 • Wall/Ceiling-mount plate - 0°C to 50°C/ 32°F to 122°F 10% to 90%	Yes Yes Yes Yes Yes Yes Yes Support Neighbor device discovery Yes Input: AC 100 - 240 V -50/60Hz 0.3 A; Output: DC +12 V 1 A 1,727,244 130 x 130 x 54.7/ 5.12 x 5.12 x 2.17 300/0.67 • Power adapter • Wall/Ceiling-mount plate - O°C to 50°C/ 32°F to 122°F 10% to 90%	Yes Yes Yes Yes Yes Yes Yes Support Neighbor device discovery Yes PoE: 802.3at compliant 562,413 255 × 256 × 62/ 10.04 × 10.08 × 2.44 1,708/3.77 Pole/wall mounting ki PoE injector Power cord IP66 (Embedded heate for harsh weather) -40°C to 60°C/ -40°F to 140°F 10% to 95%
Network VLANs DHCP client QoS (PG) WMM WMM power so DiffServ marki Management Cloud manage ZON utility Smart connec Dthers Plenum rating Power supply MTBF Physical Speci tem dimensio mm/in.) tem weight (g ncluded acces Environmenta Wether protec	ave ing ed ifications ons (WxDxH) g/lb.) ssories al Specifications etion Temperature	Yes Yes Yes Yes Yes Yes Yes Support Neighbor device discovery Yes DC input: 12 VDC 2 A; PoE: 802.3at compliant 1,727,246 236 × 227 × 62/ 9.28 × 8.95 × 2.43 982/2.17 • Ceiling mount plate • Mounting screws - 0°C to 50°C/ 32°F to 122°F 10% to 90% (non-condensing)	Yes Yes Yes Yes Yes Yes Yes Support Neighbor device discovery Yes 802.3at PoE only 1,727,245 203.9 × 191.7 × 34.7/ 8.03 × 7.55 × 1.37 445/0.98 • Wall/Ceiling-mount plate - 0°C to 50°C/ 32°F to 122°F 10% to 90% (non-condensing)	Yes Yes Yes Yes Yes Yes Yes Yes Support Neighbor device discovery Yes Input: AC 100 - 240 V -50/60Hz 0.3 A; Output: DC +12 V 1 A 1,727,244 130 x 130 x 54.7/ 5.12 x 5.12 x 2.17 300/0.67 • Power adapter • Wall/Ceiling-mount plate - O°C to 50°C/ 32°F to 122°F 10% to 90% (non-condensing)	Yes Yes Yes Yes Yes Yes Yes Support Neighbor device discovery Yes PoE: 802.3at compliant 562,413 255 × 256 × 62/ 10.04 × 10.08 × 2.44 1,708/3.77 Pole/wall mounting kit PoE injector Power cord IP66 (Embedded heate for harsh weather) -40°C to 60°C/ -40°F to 140°F 10% to 95% (non-condensing)
Network VLANs DHCP client QoS (PG) WMM WMM power sc DiffServ marki Management Cloud manage ZON utility Smart connec Dthers Plenum rating Power supply MTBF Physical Specitem dimension (mm/in.) tem weight (g ncluded access Environmenta	ave ing ed ifications ons (WxDxH) g/lb.) ssories al Specifications etion Temperature	Yes Yes Yes Yes Yes Yes Yes Support Neighbor device discovery Yes DC input: 12 VDC 2 A; PoE: 802.3at compliant 1,727,246 236 × 227 × 62/ 9.28 × 8.95 × 2.43 982/2.17 • Ceiling mount plate • Mounting screws - 0°C to 50°C/ 32°F to 122°F 10% to 90%	Yes Yes Yes Yes Yes Yes Yes Support Neighbor device discovery Yes 802.3at PoE only 1,727,245 203.9 × 191.7 × 34.7/ 8.03 × 7.55 × 1.37 445/0.98 • Wall/Ceiling-mount plate - 0°C to 50°C/ 32°F to 122°F 10% to 90%	Yes Yes Yes Yes Yes Yes Yes Support Neighbor device discovery Yes Input: AC 100 - 240 V -50/60Hz 0.3 A; Output: DC +12 V 1 A 1,727,244 130 x 130 x 54.7/ 5.12 x 5.12 x 2.17 300/0.67 • Power adapter • Wall/Ceiling-mount plate - O°C to 50°C/ 32°F to 122°F 10% to 90%	Yes Yes Yes Yes Yes Yes Yes Support Neighbor device discovery Yes PoE: 802.3at compliant 562,413 255 × 256 × 62/ 10.04 × 10.08 × 2.44 1,708/3.77 Pole/wall mounting kit PoE injector Power cord IP66 (Embedded heate for harsh weather) -40°C to 60°C/ -40°F to 140°F 10% to 95%

 $[\]ensuremath{^{*}}$ The antenna is not embedded and external antennas are separately sold.

		Nebula Cloud Managed Switches	
Model		NSW200-28P	NSW100-28P
Switch class		Layer 2	Layer 2
Hardware			
Total port count		28	28
1 Gigabit RJ45 PoE	ports	24	24
Gigabit combo por	rts (RJ-45/SFP)	-	4
10 Gigabit SFP+ slo	ots	4	-
Backplane bandwi	dth (Gbps)	128	56
Forwarding rate (M	(pps)	95.2	41.7
MAC addresses tal	ble	16 K	16 K
Routing/Redundan	псу		
Spanning tree (STF	P/MSTP/RSTP)	Yes	Yes
Quality of Service			
Priority queues		8	8
Data prioritization (WRR)		Yes	Yes
Guest VLAN		Yes	Yes
IGMP snooping (v1/v2/v3)		Yes	Yes
Jumbo frame forwarding		Yes	Yes
802.1p class of service		Yes	Yes
Security			
802.1X authenticat	ion	Yes	Yes
ACL security filter	L3/L4	Yes	Yes
CPU protection		Yes	Yes
Others			
MTBF (hr)		560,726	949,326
Heat dissipation (E	BTU/hr)	1,483.40	1625.55
Physical Specificat	tions		
Item dimensions (V	VxDxH)(mm/in.)	440 x 330 x 44.5/17.32 x 12.99 x 1.75	440 x 330 x 44.5/17.32 x 12.99 x 1.75
Item weight (kg/lb.	.)	5.06/11.16	4.79/10.56
Included accessories		Power cord Rack-mount kits	Power cordRack-mount kits
Environmental Specifications			
Operating	Temperature	0°C to 50°C/32°F to 122°F	0°C to 50°C/32°F to 122°F
environment	Humidify	10% to 95% (non-condensing)	10% to 90% (non-condensing)
Storage	Temperature	-40°C to 70°C/-40°F to 158°F	-40°C to 70°C/-40°F to 158°F
environment	Humidify	10% to 90% (non-condensing)	10% to 90% (non-condensing)
	•		

Model		Nebula Cloud Managed Security Gateway	
		NSG100	
Hardware Specifications			
10/100/1000 Mbps RJ-45 ports		4 x LAN/DMZ, 2 x WAN	
USB ports		2	
Console port		Yes (DB9)	
Rack-mountable		Yes	
Fanless		Yes	
System Capacity & Perfo	ormance ^{*1}		
SPI firewall throughput (Mbps)*2	650	
VPN throughput (Mbps)*	3	140	
IDP throughput (Mbps)*4		180	
Unlimited user licenses		Yes	
Max. TCP concurrent ses	ssions*5	40,000	
Max. concurrent IPsec V	PN tunnels*6	40	
Customizable zones		Yes	
VLAN interface		8	
Key Software Features			
Firewall		Yes	
Virtual Private Network	(VPN)	Yes (IPSec, L2TP over IPSec)	
Application intelligence		Yes	
Intrusion Detection and Prevention (IDP)		Yes	
Bandwidth management		Yes	
Power Requirements			
Power input		12 V DC, 3.0 A max.	
Max. power consumption (watt)		19.0	
Heat dissipation (BTU/hr)		64.83	
Physical Specifications			
Item dimensions (WxDxH	H)(mm/in.)	242 x 175 x 36/9.53 x 6.89 x 1.42	
Item weight (kg/lb.)		1.25/2.76	
Included accessories		Power adapter Rack mounting kit	
Environmental Specifications			
Operating	Temperature	0°C to 40°C/32°F to 104°F	
environment	Humidify	10% to 90% (non-condensing)	
Storage	Temperature	-30°C to 70°C/-22°F to 158°F	
environment	Humidify	10% to 90% (non-condensing)	
Certifications			
EMC		FCC Part 15 (Class B), CE EMC (Class B), C-Tick (Class B), BSMI	
Safety		LVD (EN60950-1), BSMI	

^{*1:} Actual performance may vary depending on network conditions and activated applications.
*2: Maximum throughput based on RFC 2544 (1,518-byte UDP packets).
*3: VPN throughput measured based on RFC 2544 (1,424-byte UDP packets).
*4: IDP throughput measured using the industry-standard HTTP performance test (1,460-byte HTTP packets). Tests were done with multiple flows.
*5: Maximum sessions measured using the industry-standard IXIA IxLoad testing tool.
*6: Including Gateway-to-Gateway and Client-to-Gateway.

Index

Page	Model List
18	ANT1310
18	ANT1313
18	ANT1314
18	ANT1315
17	ANT2105
17	ANT2206
17	ANT3108
17	ANT3218
18	ANT3315
18	ANT3316
18	ANT3320
66	Anti-Spam
66	Anti-Virus
68	AP Controller
68	Application Intelligence
71	Cloud CNM
	SecuManager
94	CNC
67	Content Filtering 2.0
42	DAC10G-1M
42	DAC10G-3M
69	Device High
	Availability Pro
12	EM-412
12	EM-422
40	ES1100-16
40	ES1100-16P
40	ES1100-24
40	ES1100-24E
40	ES1100-8P
33	ES3500-24
33	ES3500-8PD
17	EXT-108
17	EXT-109
17	EXT-114
17	EXT-118
18	EXT-300
42	FTLX1412D3BCL (XFP-LR)

Page	Model List
39	GS1100-10HP
39	GS1100-16
39	GS1100-24
39	GS1100-24E
39	GS1100-8HP
38	GS1200-5HP
38	GS1200-8HP
37	GS1900-10HP
37	GS1900-16
37	GS1900-24
37	GS1900-24E
37	GS1900-24HP
37	GS1900-48
37	GS1900-48HP
37	GS1900-8
37	GS1900-8HP
36	GS1920-24
36	GS1920-24HP
36	GS1920-48
36	GS1920-48HP
35	GS2210-24
35	GS2210-24HP
35	GS2210-24LP
35	GS2210-48
35	GS2210-48HP
35	GS2210-8
35	GS2210-8HP
32	GS3700-24
32	GS3700-24HP
32	GS3700-48
32	GS3700-48HP
69	Hotspot Management
67	Intrusion Detection and Prevention (IDP)
18	LMR 200-N
18	LMR 400-N
43	MC1000-SFP-FP
100	NAP102
100	NAP203

Page	Model List
99	NAP303
101	NAP353
99	Nebula Control Center
102	NSG100
102	NSW100-28P
101	NSW200-28P
16	NWA1100-NH
16	NWA1123-AC
16	NWA1123-ACv2
15	NWA5121-N
15	NWA5121-NI
15	NWA5123-AC
15	NWA5301-NJ
12	NXC2500
12	NXC5500
43	PoE12-HP
41	RGS100-5P
41	RGS200-12P
90	SBG3300-N
89	SBG3500-N
89	SBG3600-N
42	SFP-1000T
42	SFP10G-LR
42	SFP10G-SR
42	SFP-BX1310-10-D
42	SFP-BX1490-10-D
42	SFP-LHX1310-40-D
42	SFP-LX-10-D
42	SFP-SX-D
42	SFP-ZX-80-D
84	SP350E
70	SSO Agent
83	UAG2100
82	UAG4100
83	UAG50
82	UAG5100
62	USG110
61	USG1100
61	USG1900

Page	Model List
64	USG20
64	USG20-VPN
64	USG20W
64	USG20W-VPN
62	USG210
62	USG310
63	USG40
63	USG40W
63	USG60
63	USG60W
71	Vantage Report
70	VPN client software
14	WAC6103D-I
13	WAC6502D-E
13	WAC6502D-S
13	WAC6503D-S
13	WAC6553D-E
42	XFP-SR
34	XGS2210-28
34	XGS2210-28HP
34	XGS2210-52
34	XGS2210-52HP
31	XGS3700-24
31	XGS3700-24HP
31	XGS3700-48
31	XGS3700-48HP
29	XGS-4526
29	XGS-4528F
28	XGS4600-32
28	XGS4600-32F
36	XS1920-12
31	XS3700-24
30	XS3900-48F
95	ZAC
94	ZON Utility
95	ZWO
65	ZyWALL 110
65	ZyWALL 1100
65	ZyWALL 310

Corporate Headquarters

Zyxel Communications Corp.

Tel: +886-3-578-3942 Fax: +886-3-578-2439 Email: sales@zyxel.com.tw http://www.zvxel.com

Europe

Zyxel Belarus

Tel: +375 17 334 6099 Fax: +375 17 334 5899 Email: sales@zyxel.by http://www.zyxel.by

Zyxel BeNeLux

Tel: +31 23 555 3689 Fax: +31 23 557 8492 Email: sales@zyxel.nl http://www.zvxel.nl http://www.zyxel.be

Zvxel Bulgaria (Bulgaria, Macedonia, Albania, Kosovo)

Tel: +3592 4443343 Email: info@cz.zyxel.com http://www.zyxel.bg

Zyxel Czech Republic

Tel: +420 241 091 350 Hotline: +420 241 774 665 Fax: +420 241 091 359 Email: sales@cz.zyxel.com http://www.zyxel.cz

Zyxel Denmark A/S

Tel: +45 39 55 07 00 Fax: +45 39 55 07 07 Email: sales@zyxel.dk http://www.zyxel.dk

Zyxel Finland

Tel: +358 9 4780 8400 Email: myynti@zyxel.fi http://www.zyxel.fi

Zyxel France

Tel: +33 (0)4 72 52 97 97 Fax: +33 (0)4 72 52 19 20 Email: info@zyxel.fr http://www.zyxel.fr

Zvxel Germany GmbH

Tel: +49 (0) 2405-6909 0 Fax: +49 (0) 2405-6909 99 Email: sales@zyxel.de http://www.zvxel.de

Zyxel Hungary & SEE

Tel: +36 1 848 0690 Email: info@zvxel.hu http://www.zyxel.hu

Zvxel Italy

Tel: +39 011 2308000 Email: info@zyxel.it http://www.zyxel.it

Zyxel Norway

Tel: +47 22 80 61 80 Fax: +47 22 80 61 81 Email: salg@zyxel.no http://www.zvxel.no

Zvxel Poland

Tel: +48 223 338 250 Hotline: +48 226 521 626 Fax: +48 223 338 251 Email: info@pl.zyxel.com http://www.zyxel.pl

Zyxel Romania

Tel: +40 31 0809 888 Fax: +40 31 0809 890 Email: info@cz.zyxel.com http://www.zyxel.ro

Zvxel Russia

Tel: +7 (495) 539-9935 Fax: +7 (495) 542-8925 Email: info@zvxel.ru http://www.zyxel.ru

Zyxel Slovakia

Tel: +421 220 861 847 Hotline: +421 220 861 848 Fax: +421 243 193 990 Email: info@cz.zyxel.com http://www.zyxel.sk

Zyxel Communications ES Ltd

Tel: 911 792 100 Email: ventas@zyxel.es http://www.zyxel.es

Zyxel Sweden A/S

Tel: +46 8 55 77 60 60 Fax: +46 8 55 77 60 61 Email: sales@zyxel.se http://www.zyxel.se

Zyxel Switzerland

Tel: +41 (0)44 806 51 00 Fax: +41 (0)44 806 52 00 Email: info@zyxel.ch http://www.zyxel.ch

Zyxel Turkey A.S.

Tel: +90 212 314 18 00 Fax: +90 212 220 25 26 Email: bilgi@zyxel.com.tr http://www.zyxel.com.tr

Zvxel UK Ltd.

Tel: +44 (0) 118 9121 700 Fax: +44 (0) 118 9797 277 Email: sales@zyxel.co.uk http://www.zyxel.co.uk

Zvxel Ukraine

Tel: +380 44 494 49 31 Fax: +380 44 494 49 32 Email: sales@ua.zyxel.com http://www.ua.zyxel.com

Asia

Zyxel China (Shanghai) China Headquarters

Tel: +86-021-61199055 Fax: +86-021-52069033 Email: sales@zyxel.cn http://www.zyxel.cn

Zyxel China (Beijing)

Tel: +86-010-62602249 Email: sales@zyxel.cn http://www.zyxel.cn

Zvxel China (Tianiin)

Tel: +86-022-87890440 Fax: +86-022-87892304 Email: sales@zyxel.cn http://www.zyxel.cn

Zyxel India

Tel: +91-11-4760-8800 Fax: +91-11-4052-3393 Email: info@zvxel.in http://www.zyxel.in

Zyxel Kazakhstan

Tel: +7-727-2590-699 Fax: +7-727-2590-689 Email: info@zyxel.kz http://www.zyxel.kz

Zyxel Korea Corp.

Tel: +82-2-890-5535 Fax: +82-2-890-5537 Email: sales@zyxel.kr http://www.zyxel.kr

Zyxel Malaysia

Tel: +603 2282 1111 Fax: +603 2287 2611 Email: sales@zyxel.com.my http://www.zyxel.com.my

The Americas

Zyxel USA North America Headquarters

Tel: +1-714-632-0882 Fax: +1-714-632-0858 Email: sales@zyxel.com http://us.zyxel.com

Zyxel Brazil

Tel: +55 (11) 3373-7470 Fax: +55 (11) 3373-7510 Email: comercial@zyxel.com.br http://www.zyxel.com/br/pt/

Email: sales@zyxel.com.ph

http://www.zvxel.com.ph **Zyxel Singapore**

Tel: +65 6339 3218

Zyxel Middle East FZE

Email: sales@zyxel-me.com

http://www.zyxel-me.com

Tel: +971 4 372 4483

Cell: +971 562146416

Zyxel Philippine

Hotline: +65 6339 1663 Fax: +65 6339 3318 Email: sales@zyxel.com.sg http://www.zvxel.com.sa

Zyxel Taiwan (Taipei)

Tel: +886-2-2739-9889 Fax: +886-2-2735-3220 Email: sales_tw@zyxel.com.tw http://www.zyxel.com.tw

Zyxel Thailand

Tel: +66-(0)-2831-5315 Fax: +66-(0)-2831-5395 Email: info@zyxel.co.th http://www.zyxel.co.th

Zyxel Vietnam

Tel: (+848) 35202910 Fax: (+848) 35202800 Email: sales_vn@zyxel.com.tw http://www.zyxel.com/vn/vi/

